		1		767
		1	INDEX	767
		2	<u>Witnesses</u>	<u>Page</u>
		3	Robert Jones	
		"	Direct Examination by Mr. Koenecke	39
	THE PUBLIC UTILITIES COMMISSION	4	Cross-Examination by Mr. Rasmussen	44
		5	Cross-Examination by Ms. Semmler Cross-Examination by Mr. Hohn	64 64
	OF THE STATE OF SOUTH DAKOTA		Cross-Examination by Mr. Moeckly	81
		6	Cross-Examination by Ms. Anderson	87
	IN THE MATTER OF THE APPLICATION OF TRANSCANADA KEYSTONE PIPELINE, LP FOR A HP07-001	7	Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Rasmussen	116 117
	PERMIT UNDER THE SOUTH DAKOTA ENERGY	1 '	Recross-Examination by Mr. Hohn	119
	CONVERSION AND TRANSMISSION FACILITY ACT TO CONSTRUCT THE KEYSTONE PIPELINE PROJECT	8	-	
		9	Michael Koski Direct Examination by Mr. Koenecke	120
	Transcript of Proceedings		Cross-Examination by Mr. Rasmussen	129
	December 6, 2007 Volume IV, Pages 765-1,027	10	Cross-Examination by Mr. Hohn	133
		11	Cross-Examination by Ms. Semmler Recross-Examination by Mr. Rasmussen	139 145
	BEFORE THE PUBLIC UTILITIES COMMISSION, DUSTY JOHNSON, CHAIRMAN		Recross-Examination by Mr. Hohn	145
	GARY HANSON, VICE CHAIRMAN	12	0 11 5111	
	STEVE KOLBECK, COMMISSIONER	13	Scott Ellis Direct Examination by Mr. Koenecke	147
	COMMISSION STAFF John J. Smith, Commission Counsel		Cross-Examination by Mr. Rasmussen	150
	Kara Semmler, Staff Attorney Karen Cremer, Staff Attorney	14	Cross-Examination by Mr. Hohn	163
		15	Cross-Examination by Ms. Anderson Redirect Examination by Mr. Koenecke	172 182
	APPEARANCES Brett M. Koenecke and David A. Gerdes,		Recross-Examination by Mr. Hohn	184
	May, Adam, Gerdes & Thompson, P.O. Box 160,	16	L A "Duster" Croy	
	Pierre, South Dakota 57501, appearing on behalf of the Applicant;	17	L.A. "Buster" Gray Direct Examination by Mr. Koenecke	186
			Cross-Examination by Mr. Rasmussen	195
	James P. White, Sidley Austin, LLP,	18	Cross-Examination by Mr. Hohn	213 245
	1501 K Street Northwest, Washington, D.C. 20005,	19	Cross-Examination by Ms. Semmler Recross-Examination by Ms. Semmler	259
	appearing on behalf of the Applicant;		Recross-Examination by Mr. Hohn	260
	Jennifer Scott,	20	Meera Kothari	
	TransCanada, 450 - 1st Street S.W.,	21	Direct Examination by Mr. White	266
	Calgary, AB, Canada T2P 5H1, appearing on behalf of the Applicant;		Cross-Examination by Mr. Rasmussen	282
	Reported By Cheri McComsey Wittler, RPR, CRR	22	Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller	297 321
	Reported by Cherr McComsey writter, RFR, CRR	23	Cross-Examination by Ms. Semmler	324
			Redirect Examination by Mr. White	350
		24	Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Hohn	356 359
		25	Recrease Examination by Mr. Homi	337
				700
	766	1	Witnesses	768 Page
1	766 APPEARANCES (Continued)			768 <u>Page</u>
	APPEARANCES (Continued)	1 2	Heidi Tillquist	<u>Page</u>
1 2	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin,			
2	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz,	2	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn	Page 361 390 423
	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490,	2	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen	<u>Page</u> 361 390
2	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402,	2	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler	361 390 423 457
2	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490,	2 3 4 5	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas	Page 361 390 423 457 459
2 3 4	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water;	2 3 4 5 6	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen	Page 361 390 423 457 459
2	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn,	2 3 4 5	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn	Page 361 390 423 457 459 491 500 526
2 3 4 5	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water;	2 3 4 5 6	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller	Page 361 390 423 457 459
2 3 4	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se;	2 3 4 5 6 7 8	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Hohn	Page 361 390 423 457 459 491 500 526 559 581 584
2 3 4 5	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn,	2 3 4 5 6 7	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581
2 3 4 5	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams,	2 3 4 5 6 7 8	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589
2 3 4 5	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office,	2 3 4 5 6 7 8 9	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589
2 3 4 5 6	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14,	2 3 4 5 6 7 8 9 10	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589
2 3 4 5 6	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14,	2 3 4 5 6 7 8 9	Heidi Tillquist	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639
2 3 4 5 6 7 8	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501;	2 3 4 5 6 7 8 9 10	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642
2 3 4 5 6 7 8	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr,	2 3 4 5 6 7 8 9 10 11 12 13	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639
2 3 4 5 6 7 8 9	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042,	2 3 4 5 6 7 8 9 10 11	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644
2 3 4 5 6 7 8	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227,	2 3 4 5 6 7 8 9 10 11 12 13	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642
2 3 4 5 6 7 8 9 10	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Recross-Examination by Mr. Koenecke James O. Edwards Direct Examination by Mr. Sahr	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644
2 3 4 5 6 7 8 9	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042,	2 3 4 5 6 7 8 9 10 11 12 13 14	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Mr. Miller Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Further Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Recross-Examination by Mr. Koenecke James O. Edwards Direct Examination by Mr. Sahr Cross-Examination by Mr. Sahr	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652
2 3 4 5 6 7 8 9 10 11	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Soenecke Recross-Examination by Mr. Soenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Richard Hastings Direct Examination	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663
2 3 4 5 6 7 8 9 10 11 12 13	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Soenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Redirect Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663
2 3 4 5 6 7 8 9 10 11 12 13 14	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Soenecke Recross-Examination by Mr. Soenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Richard Hastings Direct Examination	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663
2 3 4 5 6 7 8 9 10 11 12 13 14 15	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Senecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sieh Redirect Examination by Mr. Sahr Cross-Examination by Mr. Sieh Redirect Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Redirect Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Heidi Tillquist Direct Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Senecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sieh Redirect Examination by Mr. Sahr Cross-Examination by Mr. Sieh Redirect Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Mr. Miller Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Further Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663 664 672 673
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Ms. Semmler Brian Thomas Direct Examination by Mr. Roenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663 664 672 673
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Mr. Miller Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Chris Hastings Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn David Wade Direct Examination Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663 664 672 673 683 689 690
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Mr. Semmler Brian Thomas Direct Examination by Mr. Roenecke Cross-Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Soenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Soenecke Redirect Examination Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663 664 672 673 683 689 690
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Mr. Miller Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Chris Hastings Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn David Wade Direct Examination Cross-Examination by Mr. Koenecke	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663 664 672 673 683 689 690
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	APPEARANCES (Continued) Reed A. Rasmussen and Rodrick L. Tobin, Siegel, Barnett & Schutz, P.O. Box 490, Aberdeen, South Dakota 57402, appearing on behalf of WEB Water; Curt Hohn, appearing pro se; Roxanne Giedd, Diane Best, and Richard M. Williams, South Dakota Attorney General's Office, 1301 East Highway 14, Pierre, South Dakota 57501; Robert K. Sahr, East River Electric Power Cooperative, P.O. Box 227, Madison, SD 57042, appearing on behalf of East River. = = = = = = = = = = = = = = = = = = =	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Heidi Tillquist Direct Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Miller Cross-Examination by Mr. Miller Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Hohn Further Redirect Examination by Mr. Koenecke Lillian Anderson Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Koenecke Recross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Cross-Examination by Mr. Sahr Richard Hastings Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Chris Hastings Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn David Wade Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	Page 361 390 423 457 459 491 500 526 559 581 584 589 591 609 620 639 642 644 645 652 663 664 672 673 683 689 690

			-		
1	Witnesses	769 <u>Page</u>	1	Witnesses	771 <u>Page</u>
2	John Sieh		2	Perry Rahn	
	Direct Examination	7 2 7		Direct Examination by Mr. Rasmussen	1076
3	Cross-Examination by Mr. Hohn	7 3 9	3	Cross-Examination by Mr. White Cross-Examination by Ms. Semmler	1080 1083
4	Ben Grote		4	Cross-Examination by Mr. Hohn	1087
5	Direct Examination Cross-Examination by Mr. Hohn	7 4 3 7 5 1	5	Derric Hes	
	•	7 3 1		Direct Examination by Ms. Giedd	1091
6	Gene Cassels Direct Examination	7 5 2	6	Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn	1099 1102
7	Cross-Examination by Mr. Koenecke	7 5 6	7	Cross-Examination by Mr. Koenecke	1106
8	Cross-Examination by Mr. Hohn	7 6 1	8	Cross-Examination by Ms. Semmler	1107
	Brenda Winkler			Bill Markley	
9	Direct Examination by Ms. Semmler Cross-Examination by Mr. Koenecke	780 786	9	Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen	1109 1123
10	Cross-Examination by Mr. Rasmussen	7 9 1	10	Cross-Examination by Mr. Hohn	1125
11	Cross-Examination by Mr. Hohn Redirect Examination by Ms. Semmler	7 9 6 8 1 7	11	Cross-Examination by Mr. Koenecke Redirect Examination by Ms. Giedd	1127 1138
	Recross-Examination by Mr. Koenecke	819		Recross-Examination by Mr. Hohn	1138
12	Recross-Examination by Mr. Hohn	8 2 2	12	Recross-Examination by Mr. Koenecke	1 1 4 0
13	Edward Miller		13	Kim McIntosh	
14	Direct Examination Cross-Examination by Mr. White	8 2 7 8 3 5	14	Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen	1 1 4 2 1 1 5 9
14	Cross-Examination by Mr. White Cross-Examination by Mr. Rasmussen	8 4 7	14	Cross-Examination by Mr. Rasmussen	1163
15	Cross-Examination by Mr. Hohn	856	15	Cross-Examination by Mr. Koenecke	1165
16	Cross-Examination by Ms. Semmler Recross-Examination by Mr. White	8 6 0 8 7 8	16	Recross-Examination by Mr. Koenecke	1169
17	Recross-Examination by Mr. Hohn	8 8 2	17	Scott Anderson Direct Examination	1171
	Tim Hofer			Cross-Examination by Mr. Koenecke	1175
18	Direct Examination	8 8 9 8 9 0	18	Cross-Examination by Mr. Hohn	1178
19	Cross-Examination by Mr. Hohn	070	19	Kelli Buscher	
20	Delwin Hofer Direct Examination	9 0 1	20	Direct Examination by Ms. Gledd	1 1 8 4 1 1 9 1
20	Cross-Examination Cross-Examination by Mr. Hohn	907	20	Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn	1191
21	Pam Hofer		21	Cross-Examination by Mr. Koenecke	1196
22	Direct Examination	912	22	Mark Mayer	
23	Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn	9 1 9 9 2 2	23	Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen	1 1 9 7 1 2 0 1
	CTUSS-EXAMINATION by WIT. HUMI	9 2 2	23	Cross-Examination by Mr. Rashiussen	1201
24			24	Cross-Examination by Mr. Koenecke	1 2 0 8
25			25		
		770			772
1	Witnesses	770 <u>Page</u>	1	Witnesses	772 <u>Page</u>
	George Piper	<u>Page</u>		Brian Walsh	<u>Page</u>
	George Piper Direct Examination			Brian Walsh Direct Examination by Ms. Giedd	<u>Page</u> 1210
2	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn	Page 927 936 938	2	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen	Page 1210 1213 1215
2	George Piper Direct Examination Cross-Examination by Mr. Koenecke	<u>Page</u> 927 936	2	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke	<u>Page</u> 1210 1213
2 3 4	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss	Page 927 936 938 941	2 3 4	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly	Page 1210 1213 1215 1216
2 3 4	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh	Page 927 936 938	2 3 4	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination	Page 1210 1213 1215
2 3 4 5 6	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination	Page 927 936 938 941	2 3 4 5	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly	Page 1210 1213 1215 1216
2 3 4 5 6 7	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke	Page 927 936 938 941	2 3 4 5 6 7	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke	Page 1210 1213 1215 1216
2 3 4 5 6	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination	Page 927 936 938 941 944 971 974	2 3 4 5	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252
2 3 4 5 6 7	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson	Page 927 936 938 941 944 971	2 3 4 5 6 7	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn	Page 1210 1213 1215 1216 1222 1245 1252
2 3 4 5 6 7 8	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke	927 936 938 941 944 971 971 974 980 991	2 3 4 5 6 7 8	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Roenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403
2 3 4 5 6 7 8 9	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination Cross-Examination by Mr. Hohn Direct Examination	Page 927 936 938 941 944 971 971 974 980 991	2 3 4 5 6 7 8 9	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Ms. Semmler Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Roenecke	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370
2 3 4 5 6 7 8	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler	Page 927 936 938 941 944 971 974 980 991 995 998	2 3 4 5 6 7 8	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Koenecke	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406
2 3 4 5 6 7 8 9	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd	927 936 938 941 944 971 971 974 980 991 995 998 1000	2 3 4 5 6 7 8 9	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Ms. Semmler Cross-Examination by Ms. Semmler Cross-Examination by Ms. Semmler	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406
2 3 4 5 6 7 8 9 10	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Ms. Semmler	927 936 938 941 944 971 971 979 980 991 995 998	2 3 4 5 6 7 8 9 10	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Koenecke William Walsh Direct Examination by Ms. Semmler	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406
2 3 4 5 6 7 8 9 10 11 12 13	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen	927 936 938 941 944 971 971 974 980 991 995 998 1000	2 3 4 5 6 7 8 9 10 11 12 13	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Ms. Semmler Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Koenecke William Walsh Direct Examination by Ms. Semmler Cross-Examination by Ms. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439
2 3 4 5 6 7 8 9 10 11 12 13	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. White	927 936 938 941 944 971 971 974 980 991 995 998 1000	2 3 4 5 6 7 8 9 10 11 12 13 14	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Koenecke William Walsh Direct Examination by Ms. Semmler Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. White Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Hohn	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1403 1406
2 3 4 5 6 7 8 9 10 11 12 13	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. White	927 936 938 941 944 971 971 971 974 980 991 995 998 1000	2 3 4 5 6 7 8 9 10 11 12 13	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Koenecke William Walsh Direct Examination by Ms. Semmler Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1440
2 3 4 5 6 7 8 9 10 11 12 13	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. White	927 936 938 941 944 971 971 974 980 991 995 998 1000	2 3 4 5 6 7 8 9 10 11 12 13	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. White Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn David Schramm Direct Examination by Ms. Semmler Cross-Examination by Ms. Semmler	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1440
2 3 4 5 6 7 8 9 10 11 12 13 14 15	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. White John Kirk Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	927 936 938 941 944 971 971 974 980 991 995 998 1000	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Rasmussen Recross-Examination by Mr. Roenecke William Walsh Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Hohn	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1440
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Cross-Examination by Mr. Hohn Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Jim Goodman Direct Examination by Ms. Best	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Koenecke William Walsh Direct Examination by Ms. Semmler Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn David Schramm Direct Examination by Ms. Semmler Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Semmler Cross-Examination by Mr. Semmler	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1445 1451 1454 1464
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Semmler Paige Hoskinson Olson Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. White John Kirk Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Jim Goodman Direct Examination by Ms. Best Direct Examination by Mr. Rasmussen	927 936 938 941 944 971 971 971 974 980 991 995 998 1000 1003 1009 1012 1014	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1445 1451 1454 1464
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Roenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. White John Kirk Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Jim Goodman Direct Examination by Ms. Best Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. White Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1440
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Semmler Paige Hoskinson Olson Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. White John Kirk Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Jim Goodman Direct Examination by Ms. Best Direct Examination by Mr. Rasmussen	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1440
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Rosmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. White John Kirk Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022 1043 1048 1056	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Hohn	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1440 1445 1451 1456 1466 1471 1476
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Direct Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Boenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Jim Goodman Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022 1043 1048 1056	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. White Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. White Recross-Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1403 1406 1410 1421 1424 14437 1439 1440 1445 1451 1454 1466 1466 1466
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination by Mr. Hohn Direct Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White Redirect Examination by Mr. White	927 936 938 941 944 971 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022 1043 1048 1050 1066 1066 1067 1069	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. White Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1445 1445 1451 14464 1465 1466 1471 1476 1479 1481 1490
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Direct Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. White John Kirk Direct Examination by Mr. Hohn Cross-Examination by Mr. Hohn Arden Davis Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022 1043 1048 1050	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Curt Hohn Direct Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Koenecke William Walsh Direct Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. White Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. White Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. White	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1445 1451 1454 1466 1471 1476 1479 1481 1490 1491
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. White Jim Goodman Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White Redirect Examination by Mr. Hohn Recross-Examination by Mr. White Cross-Examination by Mr. White	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022 1043 1048 1050	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Semmler Recross-Examination by Mr. Semmler	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1445 1451 1454 1466 1471 1476 1479 1481 1490 1491
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	George Piper Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Cross-Examination by Mr. Sieh Edward Goss Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Hohn Mike Sibson Direct Examination Cross-Examination by Mr. Hohn Direct Examination Cross-Examination by Mr. Hohn Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Semmler Paige Hoskinson Olson Direct Examination by Ms. Giedd Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White John Kirk Direct Examination by Mr. White Jim Goodman Direct Examination by Mr. Rasmussen Cross-Examination by Mr. White Redirect Examination by Mr. Hohn Recross-Examination by Mr. White Cross-Examination by Mr. White	927 936 938 941 944 971 971 974 980 991 995 998 1000 1003 1009 1012 1014 1016 1019 1022 1043 1048 1050	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Brian Walsh Direct Examination by Ms. Giedd Direct Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Kent Moeckly Direct Examination Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Koenecke Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Hohn Recross-Examination by Mr. Hohn Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Cross-Examination by Mr. Rasmussen Redirect Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Recross-Examination by Mr. Rasmussen Cross-Examination by Mr. Semmler Recross-Examination by Mr. Semmler	Page 1210 1213 1215 1216 1222 1245 1252 1272 1337 1370 1403 1406 1410 1421 1424 1437 1439 1445 1451 1454 1466 1471 1476 1479 1481 1490 1491

4		773				775
1	Witnesses	<u>Page</u>	1	WEB	<u>Exhibits</u>	Received
2	Bryan Murdock		2	12	Newspaper articles	1274
3	Direct Examination by Ms. Semmler	1511	3	13 14	White pipe sample	1289
3	Cross-Examination by Mr. Tobin Cross-Examination by Mr. Hohn	1516 1523	3	14	Black pipe sample PowerPoint presentation	1289 1313
4	Redirect Examination by Ms. Semmler	1538	4	16	Day County geology information	1315
_	Cross-Examination by Mr. White	1540	_	17	Marshall County geology information	1315
5	Recross-Examination by Mr. Tobin	1542	5	18	Clark County geology information	1315
6	Recross-Examination by Mr. Hohn Recross-Examination by Mr. White	1548 1556	6	19 20	Study SD Geological Survey Map	1324 1325
		1000		21	"Scientific Reviews" Article	1325
7	Dan Hannan		7	22	Steel Samples	
8	Direct Examination by Ms. Semmler Cross-Examination by Mr. White	1557 1563	8	Ando	erson Exhibits	
·	Cross-Examination by Mr. Tobin	1566	ľ	Alluc	213011 EXIIIDITS	
9	Cross-Examination by Mr. Hohn	1577	9	1	Photo	618
10	Redirect Examination by Ms. Semmler Recross-Examination by Mr. White	1589 1590	10	1 A 2	Photo Map of Section 14 T125N R59W	618 618
10	Recross-Examination by Mr. Tobin	1591	10	3	Map of 125N 59W1/4	618
11	Recross-Examination by Mr. Hohn	1593	11	4	Map of Section 14 T125N R59W	618
40			40	5	Map of Ray Anderson Farm	618
12	John Muehlhausen Direct Examination by Ms. Semmler	1596	12	6 7	Map of Section 14 T125N R59W Map of Section 14 T125N R59W	618 618
13	Cross-Examination by Mr. Koenecke	1608	13	8	Map of Anderson property	618
	Cross-Examination by Mr. Tobin	1615		9	Map of Anderson property	618
14	Cross-Examination by Mr. Hohn Redirect Examination by Ms. Semmler	1627 1647	14	10 11	Elevation Map Crow Creek Drainage Map	618 618
15	Recross-Examination by Mr. Koenecke	1647	15	12	TransCanada Keystone's Pipeline Project	618
	Recross-Examination by Mr. Tobin	1650	-	13	Approximate location of pipeline	618
16	Recross-Examination by Mr. Hohn	1653	16	13A	Photo	618
17	Tom Janssen		17	13B 13C	Photo Photo	618 618
	Direct Examination by Ms. Semmler	1657		13D	Photo	618
18	Cross-Examination by Mr. Koenecke	1663	18	13E	Ron Schaeffer	618
19	Cross-Examination by Mr. Tobin Cross-Examination by Mr. Hohn	1665 1669	19	13F 13G	Corn Production Guide Soybean Growth & Mngmt. Quick Guide	618 618
	Redirect Examination by Ms. Semmler	1676		1 4	Page 77 - Betty Oliver comments	618
20	Recross-Examination by Mr. Tobin	1677	20	14A	Photo	618
21	Recross-Examination by Mr. Hohn Further Redirect Examination by Ms. Semmler	1678 1680	21	14B 14C	Photo Photo	618 618
21	Recross-Examination by Ms. Semmler	1681	21	14 D	Page 37 - Norbert Townsend comments	618
22	•		22	14E	Article "Jackson Farmer Triggers Gas	618
23	L.A. "Buster" Gray	1687	23	15	Leak"	618
23	Direct Examination by Mr. Koenecke Cross-Examination by Mr. Tobin	1696	23	16	Anderson farm Article "Fargo Intervenes in Pipeline	618
24	Cross-Examination by Mr. Hohn	1697	24		Route"	
25	Cross-Examination by Ms. Semmler	1703	25	16A	Article "Study Engineers Say Keystone Threatens Fargo Water"	618
			20		Threatens range water	
1	Applicant's Exhibits	774 Received	1	Ande	erson Exhibits	776 Received
1	Applicant's Exhibits	Received	1		erson Exhibits	Received
1	TC-1 Application & attached Exh. A-D	Received 36	1 2	<u>Ande</u> 17	Article "Study Finds Carcinogens in	
		Received		17		Received
2	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal	Received 36 39 39 39	2	17 17A	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study"	Received 618 618
	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony	Received. 36 39 39 39 39	2	17	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the	Received 618
2	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony	Received 36 39 39 39	2	17 17A	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of	Received 618 618
2 3 4 5	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony	Received 36 39 39 39 39 39 39 39 39	2 3 4 5	17 17A 17B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13"	Received 618 618 618
2 3 4	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Rebuttal Testimony TC-6D Kothari Direct Testimony	Received 36 39 39 39 39 39 39 39 39 39 39	2 3 4	17 17A 17B 17C 18	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well	Received 618 618 618 618
2 3 4 5	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4B Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6D Kothari Direct Testimony TC-6D1 Kothari Rebuttal Testimony	Received 36 39 39 39 39 39 39 39 39	2 3 4 5	17 17A 17B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments	Received 618 618 618
2 3 4 5 6 7	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7	17 17A 17B 17C 18 19 20	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota"	Received 618 618 618 618 618 618 618
2 3 4 5 6	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5	17 17A 17B 17C 18 19 20 20A	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7	17 17A 17B 17C 18 19 20	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel	Received 618 618 618 618 618 618 618
2 3 4 5 6 7 8	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Rebuttal Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8	17 17A 17B 17C 18 19 20 20A 21A 21B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4B Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8R Thomas Rebuttal Testimony TC-8R Thomas Rebuttal Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8	17 17A 17B 17C 18 19 20 20A 21A	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Rebuttal Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8	17 17A 17B 17C 18 19 20 20A 21A 21B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "BP Fined \$20 Million for Pipeline Corrosion"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8B Thomas Direct Testimony TC-8B Thomas Rebuttal Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10	17 17A 17B 17C 18 19 20 20A 21A 21B 21C	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R3 Tillquist Rebuttal Testimony TC-7R4 Tillquist Rebuttal Testimony TC-8B Thomas Direct Testimony TC-8B Thomas Rebuttal Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8B Thomas Direct Testimony TC-8B Thomas Rebuttal Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10	17 17A 17B 17C 18 19 20 20A 21A 21B 21C	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4B Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-6R1 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8B Thomas Rebuttal Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-8 R Thomas Rebuttal Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4B Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-6R1 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8B Thomas Rebuttal Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "CA Standards Could Crimp Canadian Oil Boom"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4B Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-6R1 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7T Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition)	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B 22C	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Oualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "CA Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4B Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-6R1 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R Tillquist Direct Testimony TC-7R Tillquist Rebuttal Testimony TC-8B Thomas Direct Testimony TC-8B Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B 22C 22D	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-6R1 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8B Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	17 17A 17B 17C 18 19 20 20A 21A 21C 21D 22 22A 22B 22C 22D	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4B Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R Kothari Rebuttal Testimony TC-6R1 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R Tillquist Direct Testimony TC-7R Tillquist Rebuttal Testimony TC-8B Thomas Direct Testimony TC-8B Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B 22C 22D	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "CA Standards Could Crimp Canadian Oil Boom" Article "Cuestions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Pebuttal Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B 22C 22D 22E	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Poirect Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B 22C 22D 22E 23	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "CA Standards Could Crimp Canadian Oil Boom" Article "Cuestions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal"	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3D Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8B Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 SCFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 21D 22 22A 22B 22C 22D 22E	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3R Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Poirect Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8R Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement WEB Exhibits 1 SD Route Variations 4/27/07 - 11/20/07 2 Davis Direct Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 22 D 22 E 23 23A 24 24 A 24 B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "CA Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal" Public Comment from Glenn Gehring Public Comment from George Dylla Public Comment from Pam & Delwin Hofer	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3R Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Poirect Testimony TC-5R Gray Rebuttal Testimony TC-6R1 Kothari Direct Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement WEB Exhibits 1 SD Route Variations 4/27/07 - 11/20/07 2 Davis Direct Testimony 3 Geological map of SD	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 22D 22A 22B 22C 22D 22E 23 23A 24A 24AB 24C	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "CA Standards Could Crimp Canadian Oil Boom" Article "Cuestions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal" Public Comment from Glenn Gehring Public Comment from Pam & Delwin Hofer Public Comment from William J. Klimisch	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3R Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Poirect Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8R Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement WEB Exhibits 1 SD Route Variations 4/27/07 - 11/20/07 2 Davis Direct Testimony	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 22 D 22 E 23 23A 24 24 A 24 B	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "CA Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal" Public Comment from Glenn Gehring Public Comment from George Dylla Public Comment from Pam & Delwin Hofer	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3R Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Direct Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement WEB Exhibits 1 SD Route Variations 4/27/07 - 11/20/07 2 Davis Direct Testimony 3 Geological map of SD 4 Map of Clark County 5 Rahn Direct Testimony 6 Hydrocarbon pipeline spills/releases	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 22 D 22 E 23 23 A 24 A 24 B 24 C 24 D 24 F	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Guestions Emissions Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal" Public Comment from George Dylla Public Comment from George Dylla Public Comment from Pam & Delwin Hofer Public Comment from William J. Klimisch Public Comment from William J. Klimisch Public Comment from William J. Klimisch Public Comment from Richard Voss	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3R Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Direct Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Direct Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement WEB Exhibits 1 SD Route Variations 4/27/07 - 11/20/07 2 Davis Direct Testimony 3 Geological map of SD 4 Map of Clark County 5 Rahn Direct Testimony 6 Hydrocarbon pipeline spills/releases 7 News articles	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 22 A 22B 22C 22D 22E 23 23A 24A 24B 24C 24D 24E 24F 24F 24F 34G	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Guestions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal" Public Comment from Genn Gehring Public Comment from Genn Gehring Public Comment from Pam & Delwin Hofer Public Comment from Pam & Delwin Hofer Public Comment from Pam C. Burger Complaint against TransCanada Public Comment from Richard Voss Page 47-51 - Clayton Halverson Comments	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3R Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5D Gray Direct Testimony TC-5D Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R2 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 CFR Part 195.6 (HCA definition) TC-19 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement WEB Exhibits 1 SD Route Variations 4/27/07 - 11/20/07 2 Davis Direct Testimony 3 Geological map of SD 4 Map of Clark County 5 Rahn Direct Testimony 6 Hydrocarbon pipeline spills/releases	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 22 D 22 E 23 23 A 24 A 24 B 24 C 24 D 24 F	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Questions and Answers About the Alberta Tar Sands" Article "Guestions Emissions Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal" Public Comment from George Dylla Public Comment from George Dylla Public Comment from Pam & Delwin Hofer Public Comment from William J. Klimisch Public Comment from William J. Klimisch Public Comment from William J. Klimisch Public Comment from Richard Voss	Received 618 618 618 618 618 618 618 61
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	TC-1 Application & attached Exh. A-D TC-2D Jones Direct Testimony TC-3R Koski Direct Testimony TC-3R Koski Rebuttal TC-4D Ellis Direct Testimony TC-4R Rebuttal Testimony TC-5D Gray Direct Testimony TC-5R Gray Rebuttal Testimony TC-6R Kothari Direct Testimony TC-6R1 Kothari Rebuttal Testimony TC-6R2 Kothari Rebuttal Testimony TC-7D Tillquist Direct Testimony TC-7D Tillquist Direct Testimony TC-7R1 Tillquist Rebuttal Testimony TC-7R2 Tillquist Rebuttal Testimony TC-8D Thomas Direct Testimony TC-9 Alignment changes/route variation maps TC-10 Additional route variations in SD TC-11 PHMSA Special Permit TC-12 Application update: Acreage disturbances *TC-13 not marked TC-14 Adjustment to SD Ad Valorem Tax Ad TC-15 DEIS TC-16 10 Maps: SD ground water/source water TC-17 CFR Part 195.6 (HCA definition) TC-18 Summary of crude oil contents TC-20 Add'l info: Calculated spill volumes *TC-21 through TC-24 not marked TC-25 Data Sources for Soils & Geology Underlying the Keystone Pipeline in SD TC-26 Position Description TC-27 U.S. Oil Pipeline Safety Performance TC-28 Constr. Restrictions Binding Agreement WEB Exhibits 1 SD Route Variations 4/27/07 - 11/20/07 2 Davis Direct Testimony 3 Geological map of SD 4 Map of Clark County 5 Rahn Direct Testimony 6 Hydrocarbon pipeline spills/releases 7 News articles 8 State Rural Water Board Resolution	Received 36 39 39 39 39 39 39 39 39 39 39 39 39 39	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	17 17A 17B 17C 18 19 20 20A 21A 21B 21C 22 A 22B 22C 22D 22E 23 23A 24A 24B 24C 24D 24E 24F 24F 24F 34G	Article "Study Finds Carcinogens in Water Near Alberta Oil Sands Project" Article "Lack of Alta. 'Sour' Gas Knowledge be Addressed: Study" Article "Acute Health Effects of the Tasman Oil Spill on Residents of Karachi, Pakistan" Article "Workshop #13" Raymond Anderson well Page 74-76 - Frank Olson comments Article "Pipeline Leaks Small Amount of Oil in Northern Minnesota" Explosion along Clearbrook Pipeline Article "City Sues Oil Company Over Fuel Spill Cleanup at Qualcomm Stadium" Article "Montgomery County" Article "BP Fined \$20 Million for Pipeline Corrosion" Executive Summary (DNV Consulting) Edit Increase in Greenhouse Gas Emissions Since 1990 Article "Alberta Sets Greenhouse Gas Emissions Target" Article "Sask, Alberta Worst Greenhouse Gas Offenders: Report" Article "Ca Standards Could Crimp Canadian Oil Boom" Article "Guestions and Answers About the Alberta Tar Sands" Article "Fueling America Oil's Dirty Future" Article "Environment: Burning Energy To Produce It" Article "Environment: Burning Energy To Produce It" Article "Bob White, Emerado, ND Letter: Pipeline, Oil-Sands Oil Not Very Good Deal" Public Comment from Genn Gehring Public Comment from Genn Gehring Public Comment from Pam & Delwin Hofer Public Comment from Pam & Delwin Hofer Public Comment from Pam C. Burger Complaint against TransCanada Public Comment from Richard Voss Page 47-51 - Clayton Halverson Comments	Received 618 618 618 618 618 618 618 61

1	Anderson Exhibits	777 Received	1	Mike Sibson Exhibits_	779 Received
2	*241 not marked				
	24J Page 58 - Tim Hofer Comments	618	2	1 Mike Sibson Direct Testimony2 Burden of Proof No. 2 - Add'l testimony	977 980
3	24K Page 56 - Delwin Hofer Comments 24L Page 65 - Oren Stahl Comments	618 618	3	3 Wetlands - Add'l Testimony4 Additional Testimony of Mike Sibson	980 980
4	24M Mike Sibson Comments 24N Page 58-60 - Lillian Anderson Comments	618 618	4	5 7/30/07 Contact Summary with TC agent	994
5	240 Article "ND Panel Concerned at Pipeline Negotiations"	618	5	6 9/7 11:57 a.m. 7 9/7 Additional testimony	994 994
6 7	24P Article "Pipeline Developer to be Questioned"	618	6	Scott Anderson Exhibits	
8	25 Article "Conoco Has Big Plans for Alberta Oil Sands" 25A Article "TransCanada's Keystone Pipeline	618	7	1 Scott Anderson Direct Testimony	1172
9	Looks to Expand to the Gulf Coast" 26 Article "Exxon Seeks Legal Sympathy	618	8	Kent Moeckly Exhibits	
10	Over Valdez" 26A Article "Exxon Asks High Court to Void	618	9	1 Kent Moeckly Direct Testimony2 Marshall County Resolution	1244 1223
11	Valdez Spill Damages 26B Article "Shocking: 18 Years on and	618	10	3 Argus Leader article of 12/5/07	
12	Exxon Still Won't Pay \$2.5 Billion for Valdez Oil Spill	618	12	Staff Exhibits 1 Brenda Winkler Direct Testimony	786
13	27 General Soil Map East River Exhibits	618	13	Brenda Winkler Direct Testimony Bryan Murdock Direct Testimony Dan Hannan Direct Testimony	1514 1560
14	Jim Edwards Direct Testimony	650	14	Applicant's filings for construction and operation of a crude oil pipeline	1514
15	Richard Hastings Exhibits		15	5 Muehlhausen Direct Testimony 6 Socio-economic Assessment	1600 1600
16	1 Richard Hastings Direct Testimony	671	16	7 Janssen Direct Testimony 8 Schramm Testimony	1661 1451
17	1A Soil Studies	671	17	9 Hudson Testimony 10 Walsh Testimony	1474
18	Chris Hastings Exhibits		18	11 Winkler Surrebuttal Testimony 12 Hannan Surrebuttal Testimony	786 1560
19	1 Chris Hastings Direct Testimony	689	19	13(1) Muehlhausen Surrebuttal Testimony 14(2) Muehlhausen Surrebuttal Testimony	1600
20 21	Wade Exhibits	700	20	15 Janssen Surrebuttal Testimony 16 Schramm Surrebuttal Testimony	1661 1451
22	1 Map of BDM water flow	700	21	17 Hudson Surrebuttal Testimony 18 Walsh Surrebuttal Testimony	1474 1421
23			22	19 Figure 19 (D-D) 20 Schematic Simplified Cross Section	784 784
24			23	21 Response to Staff's First Data Request 22 Response to Staff's Second Data Request	1470
25			24		
1	Sieh Exhibits	778 Received	25		780
2	1 Map of BDM water	739	1	MR. SMITH: The hearing in Docket No. I	HP07-001 and
3	2 John Sieh Direct Testimony	739	2	that is in the matter of Application of TransCanada	Keystone
4	Cassels Exhibits		3	Pipeline, LP for a permit to construct a crude oil pip	peline,
5	1 Gene Cassels Direct Testimony2 Marshall County Resolution	756 756	4	hydrocarbon pipeline, in South Dakota is hereby re	convened.
6	Ed Miller Exhibits		5	It's just barely after 8:30 in the morning	. And at
7	1 Ed Miller Direct Testimony	832	6	this point in time due to a request by staff due to a	ascheduling
8	2 Miller Surrebuttal Testimony 3 PowerPoint presentation	832 832	7	conflict, one of their witnesses, we will look to staf	f then to
9	4 CD with NTSB, PHMSA, etc. studies George Piper Exhibits	832	8	call the witness for which they have requested leav	e to call
10	1 George Piper Direct Testimony	928	9	today.	
11	2 Photo of James River Stream/Flow 3 Photo of James River Stream/Flow	936 936	10	Do you guys want to call her, and she cat the swearing while you're looking around?	ııı go inrough
12	Tim Hofer Exhibits		12	MS. SEMMLER: Sure. I'd now like to cal	I
13	1 Tim Hofer Direct Testimony	890	13	Brenda Winkler to the witness stand.	
14	Delwin Hofer Exhibits		14	(The witness is sworn by the court repor	ter)
15	1 Delwin Hofer Direct Testimony	902	15	DIRECT EXAMINATION	
16 17	 Map of personal property Easement - back page of agreement 	906 906	16	BY MS. SEMMLER:	
18	Pam Hofer Exhibits		17	Q. Good morning, Ms. Winkler.	
19	1 Pam Hofer Direct Testimony 2 Book of structures w/in mile of PS-21	919 919	18	A. Good morning.	
20	Edward Goss Exhibits		19	Q. Could you please state your name, employer,	and employer's
21	1 Ed Goss Direct Testimony	945	20	address for the record.	
22	2 Packet of maps3 Pink handwritten paper, map & drawing	961 961	21	A. My name is Brenda Winkler. My employe	•
23	4 Letter to land agent (redacted) 5 Packet attached to land agent letter	970	22	Incorporated, and my employer's address is 5	Empire Drive,
24	6 Four pictures of land	970	23	St. Paul, Minnesota 55103. Q. Please state your educational background, Ms	Winklos
25	Ben Grote Exhibits	750	25	Q. Please state your educational background, MsA. I have a bachelor of arts degree in geological parts.	
	1 Ben Grote Direct Testimony	750	23	A. I have a bacheror of arts degree in george	gy irom the

		1		
_	781		783	
1	University of Minnesota, and I have 20 or, excuse me, I'm a	1	became aware that the preferred route runs through Marshall	
2	registered professional geologist in the State of Minnesota and	2	County, not Brown County. Therefore, my statements regarding	
3	Wisconsin.	3	the pipeline crossing through Brown County are no longer	
4	Q. And tell us about your work experience.	4	relevant.	
5	A. I have 21 years of experience in the investigation and	5	However, the geologic discussion is still applicable since	
6	remediation of soil sediment, ground water, and surface water	6	similar geologic units are present in Marshall County.	
7	contaminated sites. 10 of those years I worked for the State of	7	Q. Can you summarize your prefiled and your prefiled	
8	Minnesota in the Super Fund Program.	8	surrebuttal direct and surrebuttal testimony along with those	
9	Q. Bay West, your employer, was contracted by the Commission	9	edits for us.	
10	to consult with staff on this case; is that correct?	10	A. Yes.	
11	A. Yes.	11	Q. Do you see two drawings? I'm going to show you these two	
12	Q. And can you tell us in general what you reviewed or	12	drawings that will assist in your summary.	
13	analyzed in order to file your prefiled testimony and to testify	13	Do you see those two drawings now in front of you?	
14	here today?	14	A. Yes.	
15	A. My test was to evaluate hydro geologic and geologic areas	15	Q. Could you please identify the first drawing. They're being	
16	sensitive to a crude oil spill. To complete this task I	16	passed out now as well. Please identify the first.	
17	performed a macro-level review of the hydro geology and geology,	17	A. The first drawing is a cross-section from Bulletin 23 of	
18	which included the review of published statewide geologic maps,	18	Marshall County. This bulletin was discussed in testimony	
19	along with county maps and available hydro geologic studies.	19	yesterday.	
20	I obtained that information from review of the South Dakota	20	MS. SEMMLER: We'll wait until they get passed out	
21	Geological Survey websites, as well as their staff members.	21	and, they can look at them.	
22	Q. Did you request any specific type of information from the	22	I would like to offer that drawing in evidence.	
23	South Dakota Geological Survey?	23	MR. SMITH: Has it have you given it a mark?	
24	A. Yes. We requested updated maps.	24	MS. SEMMLER: According to my list, it will be Staff	
25	Q. And as part of your analysis, Ms. Winkler, did you review	25	Exhibit 19.	
	782		784	
1	the Applicant's burden of proof in SDCL 49-41B-22?	1	MR. SMITH: Okay. And this is the hand drawing you're	
2	A. Yes.	2	talking about?	
3	Q. I'm now going to show you what's been marked as Staff	3	MS. SEMMLER: Nope. This is the cross-section.	
4	Exhibit 1.	4	Q. I'd like you to now identify the second drawing.	
5	Is this your prefiled direct testimony?	5	Mid-drink.	
6	A. Yes.	6	A. The second drawing is a simplified schematic that I drew of	
7	Q. Do you have any additions, deletions, or edits to make?	7	subsurface conditions that are likely to be encountered along	
8	A. No.	8	the majority of the pipeline route.	
9	Q. I'm now going to show you what has been marked for	9	MS. SEMMLER: I would like to offer the simplified	
10	identification purposes as Staff Exhibit 11.	10	schematic as Staff Exhibit 20.	
11	Is this your surrebuttal testimony?	11	MR. SMITH: Mr. Koenecke, are you	
12	A. Yes.	12	MR. KOENECKE: No objection, Mr. Smith.	
13	Q. Do you have any additions, deletions, or edits to make to	13	MR. SMITH: And right now I'm asking with respect to	
14	your surrebuttal prefiled testimony?	14	both exhibits.	
15	A. Yes, I do. On page 1, line 24, delete "Northern Brown	15	MR. RASMUSSEN: No objection.	
16	County" and replace it with Northwestern Marshall County.	16	MR. HOHN: No objection.	
17	On page 1, line 25, delete "There is approximately 6 to 7	17	MR. SMITH: Any other person wish to object? Staff	
18	miles of." Then again on page 3, line 22 and 23, delete	18	Exhibits 19 and 20 are admitted.	
19	"Northern Brown County" and replace it with northwestern	19	Q. Using those drawings to assist you in your summary then,	
20	Marshall County.	20	could you please proceed with a summary of your testimony?	
21	And on page 3, line 23, delete "There is approximately 6 to	21	A. Yes. Based on my review, a majority of the proposed	
22	7 miles of."	22	pipeline route passes through silt and clay soils. Potable	
23	Q. Please explain the reason for the edits.	23	ground water or drinking water is obtained from water-bearing	
24	A. In my surrebuttal testimony I discussed the proposed	24	sand or gravel lenses or buried stream channels within these	
25	pipeline route crossing through Brown County. Since that time I	25	silt and clay soils. This is shown on my simplified schematic,	

1 Exhibit 20.

2

3

4

5

6

7

8

9

10

23

25

1

7

The silts and clays will inhibit the downward migration of contaminants to the underlying water-bearing sand and gravel lenses, thereby providing a layer of protection in the event of a crude oil release. Although the water table may be shallow in some areas along the pipeline route, the water depth is generally measured within the silts and clays, not in what we would consider a potable water-bearing zone.

As shown in Exhibit 19, there are some areas where sand deposits are present at the ground surface in Brown County.

11 Some of these sand deposits are hydraulically connected to the

12 Middle James Aquifer. As I have stated in my testimony, in

13 these areas the Middle James Aquifer could be considered a

14 potential hydro geologic sensitive area. I also stated that

15 Keystone should consider voluntarily identifying the sensitive

area in their integrity management plan in appropriately

17 planning to further protect this resource.

18 MS. SEMMLER: The witness is now available for19 cross-examination.

20 MR. SMITH: At this point did you want to offer -- did

you offer yet her two chunks of testimony?

22 MS. SEMMLER: I don't think I did. I would like to

offer Exhibit 1 and Staff Exhibit 11, Exhibit 1 being direct and

24 11 being surrebuttal.

MR. KOENECKE: I have no objection. Thank you,

Mr. Smith.

2 MR. RASMUSSEN: No objection.

3 MR. HOHN: No objection.

4 MR. SMITH: Anyone else? Staff's Exhibits 1 and 11

5 are admitted.

6 Mr. Koenecke, are you ready to proceed?

MR. KOENECKE: Yes. Thank you.

8 <u>CROSS-EXAMINATION</u>

9 BY MR. KOENECKE:

10 Q. Ms. Winkler, I'm looking at your Exhibit 19.

11 A. Yes.

12 Q. Can you explain further about what this graphic

13 representation is telling me? Are you able to do that?

14 A. Yes.

15 Q. I'm looking at the irregular line that starts on the left

16 and proceeds up and over to the right. Can you tell me what

17 that represents?

18 A. The ground surface line on top? Is that what you're

19 pointing to?

20 Q. This irregular black line.

21 A. Yes. That is the ground surface.

22 Q. And is the graph a representation of Marshall County clear

23 across from one side to the other, from the west to the east?

24 Do you know?

25 A. Yes. It is. And you see the township range numbers?

1 Q. I do.

2 A. That is the route it takes. In the bulletin there is a

3 location map, which I didn't printout. I apologize. That shows

4 the exact location of that cross-section. It is figure 19-1,

5 index of the Marshall County showing traces of Section B to B

6 Prime to F to F Prime.

7 Q. If crude oil were to leak from the Keystone Pipeline and

8 get into the sandy areas with the hydraulic connection, how long

9 would it take before it would reach the James Aquifer, if you

10 know?

11 A. I did not study that. However, it is said that the

12 James Aquifer is at the surface in some areas. So it could be

13 immediate, if it was discharged into a surface water body.

14 Q. Would all areas of the aquifer be immediately affected?

15 A. No, they would not.

16 Q. Can you identify the centerline on the lithologic map?

17 A. The centerline?

18 Q. Yes. Where the centerline is on the lithologic map on the

19 pipeline. Can you identify where the pipeline goes through on

20 Staff 19, the proposed route?

21 A. Yes. I did look at that. The centerline is if you look at

22 your maps, your figures that you handed out yesterday and if I

23 could be provided with one of those, I will help everybody

24 assist or find that location.

25 Thank you.

786

1 In my evaluation it appears that the pipeline crosses just

2 to the east of -- or west of -- I'm sorry -- the intersection of

3 Range 59 West and Range 58 West. So if you were to look at the

788

4 cross-section, it crosses -- look at the number 127 North,

5 59 West. And it says, 3BBBB on the cross-section.

6 Q. I'm looking at that. Thank you.

7 A. The location of the pipeline is just to the west of that.

8 So it would be in a high area at this location.

9 Q. And, if you know, what's the representation of the graph at

10 that point? I see some white space.

11 A. Uh-huh.

12 Q. An irregular -- or two irregular spots of less dense -- it

13 appears less densely denoted material. And then further

14 underneath that, more densely denoted material.

15 Can you explain that for the record, please.

16 A. Yes. The stippled areas, the dotted areas, are the

17 permeable soils, the sands and gravels. The other areas are

18 likely -- I don't have the boring logs with me, but they are

19 likely the clays and silts.

20 Q. So if I understand what you've told me correctly, the

21 pipeline will lay in clay, which overlies the sandy areas?

22 A. At that one point along the pipeline route. That's just

23 one cross-section.

24 Q. And if you know then, how many miles of pipeline route --

25 well, back up. Is what you're telling me that Staff 19 is one

	789		791
1	cross-section of Marshall County?	1	than that.
2	A. It is, yes, one point in time. Or on the map.	2	Q. I see. Do you know what the rate of water movement is
3	Q. And do you traversing through Marshall County a distance	3	within the James Aquifer?
4	of let me ask it this way. Do you know how many miles of the	4	A. No, I don't.
5	proposed route traverse through Marshall County?	5	MR. KOENECKE: I have nothing further at this time.
6	That wasn't fair of me. I didn't know so I asked you.	6	Thank you very much.
7	Let's get a map out and look.	7	THE WITNESS: Thank you.
8	A. I actually do know. I have it.	8	MR. SMITH: Mr. Rasmussen, cross-examination?
9	24 miles, I believe. That's what I counted as	9	MR. RASMUSSEN: Thank you.
10	approximately.	10	CROSS-EXAMINATION
11	Q. And so how much of the route lies is underlined by clay	11	BY MR. RASMUSSEN:
12	through Marshall County, if you know?	12	Q. On this cross-section, Exhibit 19, do you know on that
13	A. I do not know. I did ask, and I was hoping to obtain	13	drawing do you know where the location of the wells are for the
14	information from your staff in their testimony regarding the	14	BDM Rural Water system?
15	miles of sand and how that number was calculated.	15	A. No, I don't.
16	Q. But at least according to Staff 19 seems to indicate	16	MR. SMITH: Read, could I ask you to move the mic just
17	that it's likely a substantial portion of it is underlain by	17	a tad closer, please. Sorry.
18	clays; is that correct?	18	Thank you.
19	A. No. This only indicates one cross-section across that	19	MR. RASMUSSEN: No problem.
20	entire	20	Q. You made a comment about how you and maybe I misheard
21	Q. Do you know where that one cross-section is?	21	you, but you asked TransCanada people for some additional
22	A. Yes.	22	information.
23	Q. Can you tell me that, please.	23	Do you recall making a comment about that in your testimony
24	A. At the point where it intersects, Township 128 and 127. So	24	with Mr. Koenecke?
25	if you look on your map, it would be map 3 I see on map 3 a	25	A. Yes. During the testimony of Heidi Tillquist, Kara had
	790		792
1	Township 128, but I do not see 127.	1	asked for information on the miles of sand crossing and how that
2	Q. Very well. I think we can figure that out.	2	number was calculated.
3	A. Uh-huh.	3	Q. Okay. And did you get that information?
4	Q. Are there other geological I'm sorry.	4	A. No, I have not.
5	A. I was trying to find it. I was on the wrong map. I'm	5	Q. Have you still are you still requesting it, or are they
6	sorry. Map 1.	6	going to get it for you?
7	I am not entirely sure on the map, but I believe it is near	7	A. It was a request at the time of their testimony.
8	mile post 221. Or 220. Yeah. 221.	8	Q. In your direct testimony on page 2, line 17, you talk about
9	Q. Are there other cross-sections of Marshall County which are	9	attempts to contact representatives of the South Dakota Geologic
10	available to you or were available to you, I should say?	10	Survey to discuss conclusions and summaries of hydrogeologic and
11	A. Yes. There are other cross-sections.	11	geologic data, and then you state that they were not available
12	Q. Have you reviewed those?	12	during the time of the review.
13	A. Not in detail.	13	What information were you attempting to obtain from the
14	Q. Why did you choose this particular cross-section?	14	South Dakota Geologic Survey?
15	A. This cross-section was just chosen for to provide an	15	A. We were contacting the Geological Survey to discuss the
16	example to show that the sands in some areas of Brown County are	16	pipeline route, information that they may have pertaining to
17	exposed at the surface and in contact with the Middle James	17	that route, and just it was our initial initial start of the
18	Aquifer.	18	review of the data.
19	MR. RASMUSSEN: Excuse me. She said Brown County. Do	19	Q. Were you ever able to obtain that data?
20	you mean Marshall?	20	A. Yes, we were.
21	THE WITNESS: Marshall. I apologize.	21	Q. So you subsequently after you wrote your direct
22	Q. So if I were to say that the pipeline only crossed 2 miles	22	testimony you obtained the data you wanted?
23	of sandy soil with connection to the Middle James Aquifer, would	23	A. Yes.
24	you be able to disagree or agree with me?	24	Q. Who did you deal with at South Dakota Geologic Survey?
25	A. No, I would not. It would take a bigger a larger study	25	A. Derric Hes responded to my phone calls.
/ OT 1	13 sheets Page 789 to	192 C	f 1027 01/03/2008 04:14:48 PM

25 Q.

Yeah. That was handed out.

25

issues of consequence was somewhat limited by the documents

And 128, 58. Were you here yesterday, late yesterday, when

Mr. David Wade testified, the manager of the BDM Rural Water?

23

24

25

A.

Q.

Uh-huh.

It would appear based on Figure 21 and 19-D and 19-I that

that is where the cross-section you were using in your exhibit

23

24

25

Yes, I was here.

- 1 or your testimony crosses, at that township -- between the two
- 2 townships.
- **3** A. That is what I said, yes.
- 4 Q. Okay. So using what you said -- referring to what you said
- 5 then, this aerial view of the county would appear to represent
- 6 that cross-section, would it not?
- 7 A. Yes.
- 8 Q. Okay. On this map, on Figure 21, there appear to be arrows
- **9** pointing on the map in a direction from west to east; is that
- 10 correct?
- **11 A.** Yes, it is.
- **12 Q.** Is that indicating that that's the flow of the water in the
- 13 aquifer?
- **14** A. The key on that map says that arrow is the direction of
- 15 water movement.
- 16 Q. Okay. Thank you.
- 17 MR. HOHN: I should clarify, Mr. Smith. What I was
- 18 referring to there has also been labeled Wade Exhibit 1,
- 19 David Wade Exhibit 1.
- 20 MR. SMITH: Okay. Thank you.
- 21 Q. Ms. Winkler, on page 3 of your testimony, your direct
- 22 testimony, do you have it there?
- 23 A. Yes, I do.

- **Q.** On line 26 and 27 you made a recommendation that additional
- 25 measurements be performed to assess the thickness of overburden
 - and distribution of bedrock outcroppings in karst areas.
- Well, what are you saying with that statement? What are
- 3 you recommending there? Could you summarize for us?
- 4 A. The Draft Environmental Impact Statement discussed karst
- **5** areas and indicated their presence in some portions of the
- **6** state. Upon talking with the Geological Survey, they indicated
- 7 to me that the karst areas are not present. You'll see that in
- 8 my surrebuttal testimony.
- **9 Q.** So the reference to karst on page 3 from 26 to 34, those
- 10 lines, the karst are shown on maps, but with further detailed
- 11 study they don't exist? Is that what you're saying?
- 12 A. No. What the -- I would refer you to my surrebuttal
- 13 testimony, line 4 of page 4.
- **14 Q.** Okay. And what do you say there in that?
- **15** A. "The South Dakota Geological Survey confirmed that there
- 16 are no karst features or karst areas within the proposed
- 17 pipeline route. The map that was included in the Draft
- 18 Environmental Impact Statement was an older regional geological
- 19 survey map which identified certain rock types at depth."
- **20 Q.** And when you say -- when you're saying in this statement
- 21 the pipeline route, how far either side of the pipe are you
- 22 referring to? Immediate route, or was it some distance from the
- **23** route?
- 24 A. Could you refer me to where you're --
- **25 Q.** The section you just referenced, that it's not along the

- 1 TransCanada Pipeline route, are you referring to the centerline
- **2** of the pipe route or some distance either side?
- **3** A. My reference is to the pipeline route. The reference that
- 4 the Geological Survey was to the state.
- **5 Q.** I see. Okay. In reference to the karst outcropping, could
- 6 you define for us laymen what a karst is in your opinion as a
- **7** professional geologist?
 - MS. SEMMLER: It's just been answered that karsts
- 9 don't exist in South Dakota. It seems irrelevant.
- 10 Q. Is that what you testified to, that they don't exist?
 - MS. SEMMLER: Along the pipeline route you did testify
- 12 to that, yes?

8

11

18

21

802

801

- **13** THE WITNESS: Yes.
- **14** MR. HOHN: The immediate route.
- **15 Q.** Is it possible that --
- MS. SEMMLER: I object. We're studying the pipeline
- 17 route. Irrelevant.
 - MR. SMITH: If they don't exist, it's irrelevant.
- 19 MR. HOHN: Well, I thought what I heard she said was
- **20** along the immediate route.
 - MR. SMITH: Do you want to answer that?
- 22 A. I am not an expert in karst topography.
- 23 Q. Okay. Thank you. On page 4 of your direct testimony, line
- 24 9 through 12, findings associated with this more detailed review
- 25 should be provided to U.S. DOT, South Dakota PUC, and Geological

804

- 1 Survey. Some areas -- would cause some areas to be defined as
 - . Can veg. Come areas mean cause come areas to se acm.
 - **2** geologically sensitive high consequence areas.
 - **3** Do you see that section in your testimony?
 - **4 A.** Could you tell me the page number again, please.
 - **5 Q.** Yes. I'm sorry. It's page 4 of your direct.
 - 6 A. Thank you.
 - **7 Q.** Line 9 through 12. Do you see that there?
 - 8 A. Yes, I see it.
 - **9 Q.** Is that recommending or stating that additional borings
 - 10 might be useful in terms of determining sensitive high
 - 11 consequence areas?
 - 12 A. I believe that this information was discussed in the
 - 13 potential for karst areas, which is no longer relevant.
 - **14 Q.** On the bottom of page 4 of your direct testimony, 30
 - 15 through 32.
 - 16 A. Yes.
 - 17 Q. Do you see that there?
 - 18 A. Uh-huh. Yes, I do.
 - 19 Q. The statement is that, Bay West's opinion, the construction
 - 20 of the proposed Keystone Project represents both significant and
 - 21 insignificant risks to the environment and the inhabitants.
 - In your opinion for your piece of the work, your piece of
 - 23 the study, what are the significant risks?
 - 24 A. I would say in my opinion a significant risk is the
 - 25 potential for a crude oil release.

	805		807
1	Q. And the impact to the geology and the environment and the	1	are any different than any other contaminant? In your study you
2	inhabitants, how does that the release affect the geology and	2	kind of went towards contaminants. Are there different brands,
3	the environment?	3	types? Worse, better?
4	A. If a release were to occur and the emergency response	4	THE WITNESS: I don't know the difference between tar
5	actions did not remove all of the contaminants, were unable to	5	sands and crude oil. I do know that all contaminants have
6	for whatever reason, there could be residual problems that	6	different properties.
7	affect the environment and human health.	7	COMMISSIONER KOLBECK: Okay. So your study would
8	Q. And human health. Would the effect be an immediate effect	8	differ with different contaminants?
9	or would it be over time or could it be both?	9	THE WITNESS: Yes, it would.
10	A. It depends on the extent of the problem.	10	COMMISSIONER KOLBECK: Could you explain to me why the
11	Q. And would it depend on the geology of the location of the	11	one cross-section I just want to know, understand exactly
12	spill?	12	what your task how you achieved your task.
13	A. Yes.	13	THE WITNESS: Why I provided the one cross-section?
14	Q. Okay. Would you hold the document up again, the Geological	14	COMMISSIONER KOLBECK: Yeah. Just one cross-section.
15	Study that you referenced there?	15	THE WITNESS: For today?
16	A. This one?	16	COMMISSIONER KOLBECK: And why Marshall County? Why
17	Q. Yeah.	17	not Day, Yankton?
18	A. Yes.	18	THE WITNESS: I do have cross-sections for all the
19	Q. Could you show us the cover?	19	counties in my little book that I've been carrying around. But
20	A. Would you like a copy?	20	the cross-section I provided today was just for everyone's
21	Q. Yeah. That would be useful. Thank you. Bulletin 23,	21	understanding of the geology. When we look at it it's very
22	Geology and Water Resources of Marshall County, 1975, is this	22	complex. It doesn't lend itself easily to words. A picture is
23	part of what you reviewed for your preparing for the hearing?	23	a very useful tool.
24	A. Yes.	24	COMMISSIONER KOLBECK: Okay. So there are more
25	Q. When did you receive a copy of this document?	25	cross-sections obviously. You've analyzed the whole entire
	806		808
1	A. I worked with a team of staff members that provided me with	1	pipeline from border to border; correct?
3	information to prepare my testimony. So I did not receive an	3	THE WITNESS: We reviewed available cross-sections.
3	entire copy. I received pieces that they felt were pertinent to		COMMISSIONER KOLBECK: Okay. And Mr. Hohn had asked
1	the etudy area		
4	the study area.	4 5	you about significant risks with crude oil. Those risks are all
5	Q. And when did you receive the pieces of the report? Do you	5	associated with a release; correct? The significant risks
5 6	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre	5 6	associated with a release; correct? The significant risks THE WITNESS: Yes.
5 6 7	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently?	5 6 7	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to
5 6 7 8	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of	5 6 7 8	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see
5 6 7 8 9	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony.	5 6 7 8 9	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that?
5 6 7 8 9	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her.	5 6 7 8 9	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but
5 6 7 8 9 10	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how	5 6 7 8 9 10	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not
5 6 7 8 9	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her.	5 6 7 8 9	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant.
5 6 7 8 9 10 11 12	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document.	5 6 7 8 9 10 11	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not
5 6 7 8 9 10 11 12 13	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over	5 6 7 8 9 10 11 12 13	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may
5 6 7 8 9 10 11 12 13 14	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month.	5 6 7 8 9 10 11 12 13	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks
5 6 7 8 9 10 11 12 13 14	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the	5 6 7 8 9 10 11 12 13 14	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct?
5 6 7 8 9 10 11 12 13 14 15 16	Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now?	5 6 7 8 9 10 11 12 13 14 15 16	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct.
5 6 7 8 9 10 11 12 13 14 15 16	 Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now? A. I printed out the entire document yesterday. 	5 6 7 8 9 10 11 12 13 14 15 16	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct. COMMISSIONER KOLBECK: We're just a little out of
5 6 7 8 9 10 11 12 13 14 15 16 17	 Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now? A. I printed out the entire document yesterday. MR. HOHN: Okay. I have no further questions. Thank 	5 6 7 8 9 10 11 12 13 14 15 16 17 18	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct. COMMISSIONER KOLBECK: We're just a little out of order is why your testimony may fit a little better tomorrow.
5 6 7 8 9 10 11 12 13 14 15 16 17 18	 Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now? A. I printed out the entire document yesterday. MR. HOHN: Okay. I have no further questions. Thank you. 	5 6 7 8 9 10 11 12 13 14 15 16 17 18	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct. COMMISSIONER KOLBECK: We're just a little out of order is why your testimony may fit a little better tomorrow. THE WITNESS: Correct.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	 Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now? A. I printed out the entire document yesterday. MR. HOHN: Okay. I have no further questions. Thank you. MR. SMITH: Thank you. Commissioners? Commissioner 	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct. COMMISSIONER KOLBECK: We're just a little out of order is why your testimony may fit a little better tomorrow. THE WITNESS: Correct. COMMISSIONER KOLBECK: Monday and Tuesday. All right.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now? A. I printed out the entire document yesterday. MR. HOHN: Okay. I have no further questions. Thank you. MR. SMITH: Thank you. Commissioners? Commissioner questions? Any other Intervener questions? 	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct. COMMISSIONER KOLBECK: We're just a little out of order is why your testimony may fit a little better tomorrow. THE WITNESS: Correct. COMMISSIONER KOLBECK: Monday and Tuesday. All right. That's all I have right now.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now? A. I printed out the entire document yesterday. MR. HOHN: Okay. I have no further questions. Thank you. MR. SMITH: Thank you. Commissioners? Commissioner questions? Any other Intervener questions? Commissioners, do you have questions of Ms. Winkler? 	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct. COMMISSIONER KOLBECK: We're just a little out of order is why your testimony may fit a little better tomorrow. THE WITNESS: Correct. COMMISSIONER KOLBECK: Monday and Tuesday. All right. That's all I have right now. MR. SMITH: Other Commissioner questions?
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	 Q. And when did you receive the pieces of the report? Do you recall? Was it some time ago or since you arrived in Pierre or recently? MS. SEMMLER: I question the relevance of this line of questioning. The exhibit was referenced in her testimony. MR. SMITH: Overruled. You can ask her. Q. The reason I'm asking the question is I'm wondering how much time you had to review the document. A. I received information, pieces of this information, over the last month. Q. Okay. And when did you receive the full document, the entire document that you have there now? A. I printed out the entire document yesterday. MR. HOHN: Okay. I have no further questions. Thank you. MR. SMITH: Thank you. Commissioners? Commissioner questions? Any other Intervener questions? Commissioners, do you have questions of Ms. Winkler? Commissioner Kolbeck. 	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	associated with a release; correct? The significant risks THE WITNESS: Yes. COMMISSIONER KOLBECK: If the pipeline was not to leak, which but if it was just in the ground, you don't see any risk with that? THE WITNESS: I didn't evaluate risks in that way, but looking at the geology and hydrogeology, no, that's not considered significant. COMMISSIONER KOLBECK: And I understand that we may need to keep in mind that you did task 7. There were many tasks performed by Bay West; correct? THE WITNESS: Correct. COMMISSIONER KOLBECK: We're just a little out of order is why your testimony may fit a little better tomorrow. THE WITNESS: Correct. COMMISSIONER KOLBECK: Monday and Tuesday. All right. That's all I have right now. MR. SMITH: Other Commissioner questions? Commissioner Hanson? COMMISSIONER HANSON: Good morning. THE WITNESS: Good morning.

809 811 1 1 COMMISSIONER HANSON: Can you tell us, please, some of was a 6 to 7 miles of alien sands. Those are the sand dunes 2 the research that you did on arriving at conclusions that you 2 that are shown on the geologic map, the State Geologic Map, the 3 3 presented to us here, some of the documents you researched? Do 2004 map. 4 4 you have that available to you now where you could regurgitate COMMISSIONER HANSON: So the 6 to 7 miles should not 5 5 necessarily obstruct? that to us or not? 6 6 THE WITNESS: It should be removed because that's what THE WITNESS: So the documents, the exact names of the 7 documents I reviewed? 7 I based my research on. The 2004 map does not show those sand 8 COMMISSIONER HANSON: Just a general idea. 8 dunes present across the pipeline route in this area. However, 9 9 there is sand present. THE WITNESS: I reviewed the State Geological Survey 10 10 COMMISSIONER HANSON: Thank you. I was trying to Map dated 2004. It's a statewide map. I also reviewed the 11 11 bedrock map, and I don't know what date that is. There were balance some of the statements such as on page 1. It says that 12 12 seven counties, I believe -- that number might be wrong -- of the alien sands have average thickness -- well, rather than 13 additional information on the county level. 13 reading all of them, as I went back and forth between different 14 14 There was a couple of counties that did not have any paragraphs I was trying to figure out the significance of your 15 15 additional information of the geology or hydrogeology. testimony to those areas. 16 16 COMMISSIONER HANSON: Mr. Hohn referred to a THE WITNESS: Uh-huh. 17 17 COMMISSIONER HANSON: And trying to understand the document -- I'll call it a document -- that you had made a copy 18 of yesterday. Had you read that document to an extent prior to 18 permeability of the sands and the relationship to the aquifers. 19 19 making copies of it? Had you seen it prior to that? And rather than my trying to figure that out, I'd appreciate it 20 20 THE WITNESS: I had the pieces that were pertaining to if you could -- perhaps a multiple choice question. Multiple 21 21 choice where you have the opportunity to come up with your own C the county that I was looking at previously. 22 22 COMMISSIONER HANSON: And you had that how long prior I guess it would be. 23 to yesterday approximately? 23 Would you say that it's -- if a failure of the 24 THE WITNESS: Approximately three weeks. 24 pipeline took place in South Dakota, that there would be a 25 25 COMMISSIONER HANSON: Okay. And do you feel that's likelihood or it would not be likely or search your own, the 812 810 1 1 sufficient time for you to have read and understood that contamination of an aquifer. 2 2 information? THE WITNESS: Repeat that question one more time. 3 3 COMMISSIONER HANSON: You're making it tougher on me THE WITNESS: I -- the pipeline route is a very long 4 route. There are -- there's a lot of information available on 4 than I am on you. 5 5 the entire route. What we did was a macro level. We didn't Would you say that it would be likely or unlikely that 6 dissect it. We in general looked at what types of geology the 6 a failure of the pipeline in South Dakota would cause a 7 7 pipeline would be crossing contamination of an aquifer? 8 8 So reviewing this document in particular when we were THE WITNESS: Based on my review of the available 9 looking at the previous route, which there were a couple of 9 data, a majority of the pipeline route does cross silts and 10 different routes that were identified on some of the maps that I 10 clays. If a crude oil release occurred in those areas, it is 11 had, looking at that I felt that I had adequate information 11 less likely to contaminate an aquifer. 12 12 initially -- adequate amount of time to review the sections I In the sand areas in Northern Marshall County it is 13 13 needed to review. possible. It is more likely to occur. 14 COMMISSIONER HANSON: And this is something you've 14 COMMISSIONER HANSON: Appreciate that. Thank you. 15 15 done before, obviously? Thank you, Mr. Hearing Examiner. 16 THE WITNESS: I'm not sure what you mean by something. 16 MR. SMITH: Commissioner Johnson. 17 17 CHAIRMAN JOHNSON: Hi, Ms. Winkler. COMMISSIONER HANSON: Well, I'll strike the question 18 18 then. Thank you. In your surrebuttal testimony is it -- I was THE WITNESS: Hi. 19 not able to keep up with all the changes as you were giving 19 CHAIRMAN JOHNSON: You do identify in your surrebuttal 20 them. Is it safe to simply cross out Brown, to strike Brown 20 that, you know, Marshall County is an area of maybe greater 21 21 County, and insert Marshall in every instance? There's quite a concern than other areas of the route. 22 22 few --Do you have a high confidence level that your concerns 23 23 with regard to the geologic deposits are limited to Marshall THE WITNESS: Yeah. I guess the easy way to say that 24 24 is that it's northeastern -- or northwestern instead of northern County, or is it possible that these -- or in your estimation is 25 Brown County. It's northwestern Marshall. And the other part 25 it likely that these geologic formations extend to other

	813		815	
1	counties we should also be giving a heightened sensitivity to?	1	that the water quality will be impacted.	
2	THE WITNESS: Based on my review, these types of	2	COMMISSIONER KOLBECK: Okay.	
3	features aren't present in other areas of the pipeline route.	3	THE WITNESS: Okay?	
4	They do talk about potential there was one area where there	4	COMMISSIONER KOLBECK: Okay. Yeah. It's a highly	
5	is stream deposits that consist of sand and gravel. It's	5	sensitive area, the water is, but you're saying if the proper	
6	possible that is present in other areas of the pipeline route.	6	remediation was taken, it's not necessarily imminent that it	
7	I know that there are they call it alluvium, which is the	7	would be damaged?	
8	alluvium deposits as described in many of the reports that I	8	THE WITNESS: Yeah. Both water and soil. I should	
9	reviewed say that they consist of silts and high organic	9	correct that.	
10	material, which would tend to inhibit the flow of a release	10	COMMISSIONER KOLBECK: Thank you.	
11	downward, you know, migration downward, I guess.	11	MR. SMITH: I have just a couple of questions for you.	
12	It's possible that there are sands and gravels in	12	Going back to you were here when Ms. Anderson testified	
13	other places along the pipeline route. And it's something that	13	yesterday?	
14	could be noted during the installation of the pipeline that	14	THE WITNESS: Yes.	
15	these are present, and if we had a problem or if there was a	15	MR. SMITH: Could you take a look then at Staff 19.	
16	crude oil release, you would be able to reference that it's	16	This is pretty close I think to what Mr. Hohn asked you, but I	
17	there, and it's something that they need to evaluate if a	17	just wanted to clarify for me.	
18	release occurred in that area.	18	And I can't remember the exact location of her plot of	
19	CHAIRMAN JOHNSON: On page 3 of your surrebuttal	19	ground. And this might not it's probably not right on the	
20	beginning on line 25 you note you note that Keystone should	20	precise cross-sectional east to or west to east line.	
21	consider voluntarily identifying the sensitive area in their	21	But if the she testified concerning some quite	
22	integrity management plan in appropriately planning to further	22	shallow wells on their property, eight wells that were of a	
23	protect this resource.	23	depth of 20 to 30 feet, in that range.	
24	Did you have anything in mind as far as steps to	24	THE WITNESS: Correct.	
25	protect the resource when you were preparing your testimony?	25	MR. SMITH: Would it be based upon at least this	_
1	THE WITNESS: I believe that other people will have	1	816	
2	recommendations in that area. I didn't.	2	cross-section, it's at least possible, is it not, that that kind of situation might occur within that one of those areas where	
3	CHAIRMAN JOHNSON: Okay. In a general sense, did you	3	we see the dip in the line and where the surficial line	
4	know whether you were speaking about construction or design or,	4	intersects with that shallow aquifer?	
5	you know, emergency response in a general so I know who to ask,	5	THE WITNESS: Yes. That is correct.	
6	which expert to	6	MR. SMITH: And that that then might in turn	
7	THE WITNESS: Definitely in the emergency response	7	interconnect via this interface between the James River and the	
8	area. There are it is my understanding that there are some	8	surficial aquifer?	
9	other construction things that could be put in place.	9	THE WITNESS: That is correct.	
10	CHAIRMAN JOHNSON: Okay. That's all I have,	10	MR. SMITH: That's possible. Okay. Thank you. Did	
11	Mr. Smith. Thanks. Ms. Winkler, thanks.	11	you have a chance in your review did you or I guess you.	
12	MR. SMITH: Thank you. Excuse me, Commissioner	12	Did you have a chance to review the studies done by the	
13	Kolbeck. I thought you were done.	13	South Dakota Geological Survey on the permeability	
14	COMMISSIONER KOLBECK: I just have one more that I	14	characteristics of unoxidized till?	
15	missed here. On page 3 of your direct testimony, line 3,	15	THE WITNESS: I did not.	
16		16	MR. SMITH: You did not. Okay. Is the reason you	
	however, High sensitivity does not indicate that water quality			
17	however, High sensitivity does not indicate that water quality has or will be degraded.	17	selected this particular exhibit, Staff 19, to bring in today	
18	has or will be degraded. Could you explain that to me a little bit more?	18	because that reflects in your mind an area of particular	
18 19	has or will be degraded. Could you explain that to me a little bit more? THE WITNESS: Well, I think what we've talked about is	18 19	because that reflects in your mind an area of particular vulnerability, that it's illustrative	
18 19 20	has or will be degraded. Could you explain that to me a little bit more? THE WITNESS: Well, I think what we've talked about is that a sensitive area such as the sand being present at the	18 19 20	because that reflects in your mind an area of particular vulnerability, that it's illustrative THE WITNESS: I could have drawn this figure. I used	
18 19 20 21	has or will be degraded. Could you explain that to me a little bit more? THE WITNESS: Well, I think what we've talked about is that a sensitive area such as the sand being present at the surface or where the pipeline is buried.	18 19 20 21	because that reflects in your mind an area of particular vulnerability, that it's illustrative THE WITNESS: I could have drawn this figure. I used it because it was a published document in the area of concern	
18 19 20 21 22	has or will be degraded. Could you explain that to me a little bit more? THE WITNESS: Well, I think what we've talked about is that a sensitive area such as the sand being present at the surface or where the pipeline is buried. COMMISSIONER KOLBECK: Uh-huh.	18 19 20 21 22	because that reflects in your mind an area of particular vulnerability, that it's illustrative THE WITNESS: I could have drawn this figure. I used it because it was a published document in the area of concern that shows the interconnection of the two, the surficial sands	
18 19 20 21 22 23	has or will be degraded. Could you explain that to me a little bit more? THE WITNESS: Well, I think what we've talked about is that a sensitive area such as the sand being present at the surface or where the pipeline is buried. COMMISSIONER KOLBECK: Uh-huh. THE WITNESS: If there were a release and the	18 19 20 21 22 23	because that reflects in your mind an area of particular vulnerability, that it's illustrative THE WITNESS: I could have drawn this figure. I used it because it was a published document in the area of concern that shows the interconnection of the two, the surficial sands with the James Aquifer.	
18 19 20 21 22	has or will be degraded. Could you explain that to me a little bit more? THE WITNESS: Well, I think what we've talked about is that a sensitive area such as the sand being present at the surface or where the pipeline is buried. COMMISSIONER KOLBECK: Uh-huh.	18 19 20 21 22	because that reflects in your mind an area of particular vulnerability, that it's illustrative THE WITNESS: I could have drawn this figure. I used it because it was a published document in the area of concern that shows the interconnection of the two, the surficial sands	

		817	819
1	THE WITNESS: I picked this one because yes.	,	1 Mr. Smith.
2	MR. SMITH: And is that because you in your review, at		2 RECROSS-EXAMINATION
3	least, the review that you did, that the areas other than this	;	BY MR. KOENECKE:
4	generally exhibit some form of much less vulnerable profile?		4 Q. If you'd look at Staff 19 with me, please, I understand
5	THE WITNESS: That is correct.		5 there's a representation on this map of very fine sand. Am I
6	MR. SMITH: Thank you.		6 correct?
7	Staff, do you have any redirect?	-	7 A. Yes. Medium sand or coarser and very fine sand.
8	MS. SEMMLER: I do. Thank you.		8 Q. Yeah. I didn't mean to mislead you. There's both on the
9	REDIRECT EXAMINATION		9 map.
10	BY MS. SEMMLER:	10	0 A. Uh-huh.
11	Q. Some of the testimony that was highlighted by Mr. Rasmussen	1	1 Q. Are the very fine sands a good hydraulic conduit to an
12	and Mr. Hohn centered on the DEIS, Draft Environment Impact	1:	2 aquifer?
13	Statement's, suggestion that maybe additional steps should be	1:	3 A. I don't know I'm not exactly sure what your question is.
14	taken, borings, et cetera.	1.	Fine sand is more permeable than say a silt or a clay.
15	But the state that we're in right now, with the planning of	1:	5 Q. Is it less permeable than a till I'm sorry. More
16	this pipeline, TransCanada's at an appropriate stage as far as	1	6 permeable than a till?
17	the testing and the review that's done; is that correct?	1	7 A. Yes, it is.
18	A. Yes. I agree.	1	8 Q. Is it less permeable than a coarser sand or gravel?
19	Q. There was also some testimony pulled out of your direct	1	9 A. Yes, it is.
20	testimony about your correspondence with South Dakota Geological	2	Q. Thank you. Would you be surprised or would you agree with
21	Survey. You experienced cooperation from that agency, and	2	1 me that the movement of water through this aquifer is at 10s of
22	although there was some time constraints regarding the deadline	2:	2 feet per year?
23	for your rebuttal, you got what you needed.	2	A. I would have to look at that at the study to agree with
24	There was complete cooperation with that agency; correct?	2	4 you.
25	A. That is correct.	2	5 Q. Did you hear David Wade's testimony yesterday?
		818	
		010	820
1	Q. Tell us as I understand, you have you do have		1 A. Yes.
1 2			 A. Yes. Q. Do you recall what he said about the movement of water
_	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. 		 1 A. Yes. 2 Q. Do you recall what he said about the movement of water 3 through the aquifer?
2 3 4	Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct?	:	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't
2 3 4 5	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the 		 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember
2 3 4 5 6	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address 	:	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion.
2 3 4 5 6 7	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? 	:	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to
2 3 4 5 6 7 8	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. 		 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you.
2 3 4 5 6 7 8 9	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are 		 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute.
2 3 4 5 6 7 8 9	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? 	; ; ;	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear
2 3 4 5 6 7 8 9 10	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. 	11	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in
2 3 4 5 6 7 8 9 10 11	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak
2 3 4 5 6 7 8 9 10 11 12 13	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through 	1 1 1 1 1	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak was more likely there?
2 3 4 5 6 7 8 9 10 11 12 13 14	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? 	10 11 11 11 11 11	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak was more likely there? A. Absolutely not.
2 3 4 5 6 7 8 9 10 11 12 13 14 15	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous 	10 11 11 11 11 11 11	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak was more likely there? A. Absolutely not. Q. There's no greater likelihood of a leak in Marshall County
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have 	10 11 11 11 11 11 11	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak was more likely there? A. Absolutely not. Q. There's no greater likelihood of a leak in Marshall County than any place else along the line, within your experience?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. 	10 11 11 11 11 11 11 11	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak was more likely there? A. Absolutely not. Q. There's no greater likelihood of a leak in Marshall County than any place else along the line, within your experience? A. In my opinion, no.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. Q. Using those calculations, however, the majority being 	1: 1: 1: 1: 1: 1: 1: 1: 1:	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak was more likely there? A. Absolutely not. Q. There's no greater likelihood of a leak in Marshall County than any place else along the line, within your experience? A. In my opinion, no. Q. Very good.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. Q. Using those calculations, however, the majority being 95 percent of this pipeline goes through that impermeable tilled 	10 11 11 11 11 11 11 11 11 11	 1 A. Yes. 2 Q. Do you recall what he said about the movement of water 3 through the aquifer? 4 A. It was a long day so I don't remember everything. I don't 5 remember the exact numbers, but I remember it was I remember 6 the discussion. 7 Q. In response to one of the Commissioner questions I seem to 7 recall that you said that well, I don't want to mislead you. 9 Let me back up here a minute. 9 My recollection is you made somewhat of an unclear 1 reference to something being more likely in the deposits in 9 Marshall County. You didn't mean that a pipeline spill or leak 1 was more likely there? 4 A. Absolutely not. 5 Q. There's no greater likelihood of a leak in Marshall County 1 than any place else along the line, within your experience? 7 A. In my opinion, no. 8 Q. Very good. 9 A. Based on geology.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. Q. Using those calculations, however, the majority being 95 percent of this pipeline goes through that impermeable tilled layer. 	1: 1: 1: 1: 1: 1: 1: 1: 1: 2:	 1 A. Yes. 2 Q. Do you recall what he said about the movement of water 3 through the aquifer? 4 A. It was a long day so I don't remember everything. I don't 5 remember the exact numbers, but I remember it was I remember 6 the discussion. 7 Q. In response to one of the Commissioner questions I seem to 7 recall that you said that well, I don't want to mislead you. 9 Let me back up here a minute. 1 My recollection is you made somewhat of an unclear 1 reference to something being more likely in the deposits in 2 Marshall County. You didn't mean that a pipeline spill or leak 3 was more likely there? 4 A. Absolutely not. 5 Q. There's no greater likelihood of a leak in Marshall County 5 than any place else along the line, within your experience? 7 A. In my opinion, no. 8 Q. Very good. 9 A. Based on geology. Q. If a leak was to occur in the areas in Marshall County near
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. Q. Using those calculations, however, the majority being 95 percent of this pipeline goes through that impermeable tilled layer. A. That is my understanding, yes. 	1: 1: 1: 1: 1: 1: 1: 1: 2: 2:	 A. Yes. Q. Do you recall what he said about the movement of water through the aquifer? A. It was a long day so I don't remember everything. I don't remember the exact numbers, but I remember it was I remember the discussion. Q. In response to one of the Commissioner questions I seem to recall that you said that well, I don't want to mislead you. Let me back up here a minute. My recollection is you made somewhat of an unclear reference to something being more likely in the deposits in Marshall County. You didn't mean that a pipeline spill or leak was more likely there? A. Absolutely not. Q. There's no greater likelihood of a leak in Marshall County than any place else along the line, within your experience? A. In my opinion, no. Q. Very good. A. Based on geology. Q. If a leak was to occur in the areas in Marshall County near the Middle James Aquifer well, please strike that.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. Q. Using those calculations, however, the majority being 95 percent of this pipeline goes through that impermeable tilled layer. A. That is my understanding, yes. MS. SEMMLER: Thank you. 	1: 1: 1: 1: 1: 1: 1: 1: 2: 2: 2:	1 A. Yes. 2 Q. Do you recall what he said about the movement of water 3 through the aquifer? 4 A. It was a long day so I don't remember everything. I don't 5 remember the exact numbers, but I remember it was I remember 6 the discussion. 7 Q. In response to one of the Commissioner questions I seem to 7 recall that you said that well, I don't want to mislead you. 9 Let me back up here a minute. 9 My recollection is you made somewhat of an unclear 1 reference to something being more likely in the deposits in 2 Marshall County. You didn't mean that a pipeline spill or leak 3 was more likely there? 4 A. Absolutely not. 5 Q. There's no greater likelihood of a leak in Marshall County 6 than any place else along the line, within your experience? 7 A. In my opinion, no. 8 Q. Very good. 9 A. Based on geology. 9 Q. If a leak was to occur in the areas in Marshall County near 1 the Middle James Aquifer well, please strike that. 1 In your experience is the level of contamination in an
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. Q. Using those calculations, however, the majority being 95 percent of this pipeline goes through that impermeable tilled layer. A. That is my understanding, yes. MS. SEMMLER: Thank you. THE WITNESS: You're welcome. 	1: 1: 1: 1: 1: 1: 1: 1: 2: 2: 2:	1 A. Yes. 2 Q. Do you recall what he said about the movement of water 3 through the aquifer? 4 A. It was a long day so I don't remember everything. I don't 5 remember the exact numbers, but I remember it was I remember 6 the discussion. 7 Q. In response to one of the Commissioner questions I seem to 8 recall that you said that well, I don't want to mislead you. 9 Let me back up here a minute. 9 My recollection is you made somewhat of an unclear 9 reference to something being more likely in the deposits in 9 Marshall County. You didn't mean that a pipeline spill or leak 9 was more likely there? 9 A. Absolutely not. 9 Q. There's no greater likelihood of a leak in Marshall County 9 than any place else along the line, within your experience? 9 A. In my opinion, no. 9 Q. Very good. 9 A. Based on geology. 9 Q. If a leak was to occur in the areas in Marshall County near 1 the Middle James Aquifer well, please strike that. 1 In your experience is the level of contamination in an 1 aquifer a function of the level of the emergency response?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 Q. Tell us as I understand, you have you do have extensive experience in spill remediation; correct? A. In releases, yes. Q. And you mentioned some problems in response to a question that could occur as a result of a spill. And those are all the types of problems that an emergency response plan would address and that could be remediated; correct? A. That is correct. Q. We looked at several maps, cross-sections. Those are estimates; correct? A. Yes. Q. And in your macro level study one of those estimates is that nearly 95 percent of this pipeline potentially goes through the till, the more impermeable till layers that you mentioned? A. If you were to use the 11.2 miles as presented in previous testimony, that would be correct. However, I still don't have the information for the calculations of that number. Q. Using those calculations, however, the majority being 95 percent of this pipeline goes through that impermeable tilled layer. A. That is my understanding, yes. MS. SEMMLER: Thank you. 	1: 1: 1: 1: 1: 1: 1: 1: 2: 2: 2:	1 A. Yes. 2 Q. Do you recall what he said about the movement of water 3 through the aquifer? 4 A. It was a long day so I don't remember everything. I don't 5 remember the exact numbers, but I remember it was I remember 6 the discussion. 7 Q. In response to one of the Commissioner questions I seem to 8 recall that you said that well, I don't want to mislead you. 9 Let me back up here a minute. 9 My recollection is you made somewhat of an unclear 9 reference to something being more likely in the deposits in 9 Marshall County. You didn't mean that a pipeline spill or leak 9 was more likely there? 9 A. Absolutely not. 9 Q. There's no greater likelihood of a leak in Marshall County 9 than any place else along the line, within your experience? 9 A. In my opinion, no. 9 Q. Very good. 9 A. Based on geology. 9 Q. If a leak was to occur in the areas in Marshall County near 1 the Middle James Aquifer well, please strike that. 1 In your experience is the level of contamination in an 1 aquifer a function of the level of the emergency response? 1 A. I don't believe the emergency response takes into account

		821	823
1	the emergency.	1	Q. Maybe I misread it, but well, let me ask it another way.
2	Q. And then so then it would be remediation that would lead to	2	Would soil borings along the pipeline route prior to
3	the either lack of or contamination of an aquifer? I guess what	3	construction identify sand veins and potentially potential
4	I'm trying to get at is have you taken into account time and	4	geological areas that should be treated carefully?
5	quality or level of the emergency response or remediation in	5	A. Of course that is something that would provide that
6	your discussion here today?	6	information.
7	A. I think I'd like you to restate that.	7	Q. In your opinion as a geologist would that be a prudent
8	Q. Okay. I'll do that. Is contamination of the aquifer	8	recommendation for prior to construction?
9	likely, given a response from Keystone in the hours and days	9	A. No.
10	which Mr. Thomas discussed and the remediation techniques of	10	Q. It wouldn't be necessary?
11	which you're aware, is contamination of the aquifer likely?	11	A. I would not recommend it because it is a very long
12	A. I can say that contamination of the aquifers of an	12	distance.
13	aquifer can happen in a crude oil release.	13	Q. Go ahead. I'm sorry.
14	Q. And what I'm trying to understand is the time it will take	14	A. I think that documenting that information during the
15	to contaminate the aquifer.	15	installation of the pipeline is a good recommendation.
16	A. It depends on the geology.	16	Q. Oh, I'm sorry. I misunderstood what you said. So what
17	Q. And in the geologic features which we've been discussing,	17	you're saying is when they do build, if they encounter soils of
18	the surficial sands, what kind of time are we looking at?	18	that nature, document them and map them?
19	A. I didn't calculate that.	19	A. Yes.
20	Q. In your experience, however, soil can be remediated?	20	Q. Okay. And then how would that information be useful for
21	A. Soil can be remediated.	21	the emergency response team that would come in if there was an
22	Q. Can ground water be remediated?	22	issue?
23	A. Ground water can be remediated.	23	A. I think that as much information that they have at their
24	Q. Can an effective emergency response reduce the likelihood	24	fingertips is the more the better.
25	of contamination?	25	Q. Would that be something that could be located with GPS,
4	A way	822	824
1	A. Yes, it can.	1	global positioning?
1 2 3	Q. Mr. Smith, I believe, brought up shallow wells in Marshall	1 2	global positioning? A. I'm not sure what you're referring to.
1 2 3	Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely	1 2 3	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred
1 2 3 4	Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources	1 2 3 4	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive
5	Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know?	1 2 3 4 5	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a
5 6	Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again.	1 2 3 4 5 6	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved?
5 6 7	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall 	1 2 3 4 5	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could.
5 6 7 8	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? 	1 2 3 4 5 6 7	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or
5 6 7	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. 	1 2 3 4 5 6 7 8	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response?
5 6 7 8 9	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. 	1 2 3 4 5 6 7 8 9	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or
5 6 7 8 9	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? 	1 2 3 4 5 6 7 8 9	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency
5 6 7 8 9 10	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. 	1 2 3 4 5 6 7 8 9 10	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response.
5 6 7 8 9 10 11	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? 	1 2 3 4 5 6 7 8 9 10 11	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no
5 6 7 8 9 10 11 12 13	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. 	1 2 3 4 5 6 7 8 9 10 11 12 13	 global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a
5 6 7 8 9 10 11 12 13 14	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. 	1 2 3 4 5 6 7 8 9 10 11 12 13	 global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's
5 6 7 8 9 10 11 12 13 14 15	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct?
5 6 7 8 9 10 11 12 13 14 15 16	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the
5 6 7 8 9 10 11 12 13 14 15 16	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. MR. SMITH: Any further recross, Mr. Rasmussen? 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 global positioning? A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the aquifer.
5 6 7 8 9 10 11 12 13 14 15 16 17	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. MR. SMITH: Any further recross, Mr. Rasmussen? MR. RASMUSSEN: I don't. 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	 A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the aquifer. Q. And would it have to move to contaminate an aquifer or a
5 6 7 8 9 10 11 12 13 14 15 16 17 18	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. MR. SMITH: Any further recross, Mr. Rasmussen? MR. RASMUSSEN: I don't. MR. HOHN: I would. 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	 A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the aquifer. Q. And would it have to move to contaminate an aquifer or a portion of an aquifer does it have to move?
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. MR. SMITH: Any further recross, Mr. Rasmussen? MR. RASMUSSEN: I don't. MR. HOHN: I would. RECROSS-EXAMINATION 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the aquifer. Q. And would it have to move to contaminate an aquifer or a portion of an aquifer does it have to move? A. Does the contaminants that are already in the aquifer have
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. MR. SMITH: Any further recross, Mr. Rasmussen? MR. RASMUSSEN: I don't. MR. HOHN: I would. RECROSS-EXAMINATION 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the aquifer. Q. And would it have to move to contaminate an aquifer or a portion of an aquifer does it have to move? A. Does the contaminants that are already in the aquifer have to move or what is
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. MR. SMITH: Any further recross, Mr. Rasmussen? MR. RASMUSSEN: I don't. MR. HOHN: I would. RECROSS-EXAMINATION BY MR. HOHN: Q. Ms. Winkler, your recommendation or one of the comments in 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the aquifer. Q. And would it have to move to contaminate an aquifer or a portion of an aquifer does it have to move? A. Does the contaminants that are already in the aquifer have to move or what is Q. Let me rephrase it. Maybe I'm confusing the question, but
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	 Q. Mr. Smith, I believe, brought up shallow wells in Marshall County. And so directing you to that, if a well was extremely shallow, would the water quality be affected by nonpoint sources like agricultural practices, if you know? A. Please state that again. Q. If you know. If someone has a shallow well in Marshall County? A. Yes. Q. Is that likely to be impacted by agricultural practices? A. Yes, it is. Q. Such as pesticides? A. Fertilizers, pesticides, yes. Q. Okay. MR. KOENECKE: I have nothing further. Thank you. THE WITNESS: Thank you. MR. SMITH: Any further recross, Mr. Rasmussen? MR. RASMUSSEN: I don't. MR. HOHN: I would. RECROSS-EXAMINATION BY MR. HOHN: Q. Ms. Winkler, your recommendation or one of the comments in your direct testimony was a condition or recommendation might be soil borings along the pipeline route; is that correct? A. No. I don't believe so. 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. I'm not sure what you're referring to. Q. Let me rephrase the question. As the construction occurred if these geological areas, sandy soils, potentially sensitive soils were identified, could that location then be mapped on a GIS mapping system for use later by all parties involved? A. Yes, it could. Q. Would that be useful, do you think, in your opinion or your would that be useful for emergency response? A. I am not sure what the best method would be for emergency response. Q. Okay. And then just one last question. There are no well, let me back up. Once an oil leak reaches an aquifer or a sandy soil it's contaminated at that point or it's been it's been impacted; correct? A. It's no. Because it would have to dissolve into the aquifer. Q. And would it have to move to contaminate an aquifer or a portion of an aquifer does it have to move? A. Does the contaminants that are already in the aquifer have to move or what is Q. Let me rephrase it. Maybe I'm confusing the question, but I'll try to I'll restate it. Assuming there's no crude oil in the sands in western Marshall County now

	825		827
1	A. Yeah.	1	(The witness is sworn by the court reporter)
2	Q and the pipeline is built and a leak, unfortunately,	2	MR. SMITH: Mr. Miller, since you don't have an
3	occurs, the minute the leak enters the sand the contamination	3	attorney to sort of prompt you, you'll just have to take off and
4	has begun; is that correct?	4	do it on your own.
5	A. Yes.	5	MR. MILLER: Okay. I guess I'd like to state my name
6	Q. And then it's just a matter of how far it goes when it's	6	for the record. My name is Edward D. Miller. My address is
7	caught and how far it goes; is that right?	7	300 West Vermont in Salem, South Dakota 57058.
8	A. Yes.	8	I guess I'd like to give a little bit of background
9	Q. So depending on when it's noticed or found and TransCanada	9	about myself as it relates to this case. I have a degree in
10	is contacted and a team can come out of specialists to deal with	10	computer science from the University of Minnesota, and I worked
11	the problem, that is going to determine how much the aquifer is	11	several years in a professional capacity as a database
12	contaminated, the time between the leak and finding it; is that	12	administrator and as a data analyst for Exxon Company USA in
13	correct?	13	Houston.
14	A. No.	14	I did submit direct testimony with exhibits in this
15	Q. No?	15	case, and I did submit a surrebuttal as well with an exhibit.
16	A. It depends on the geology.	16	And I do have a couple of minor corrections, very minor
17	Q. And the amount of spill?	17	corrections that I need to make.
18	A. The amount of spill would have play a factor, yes.	18	On my direct testimony on page 5, when people are
19	Q. You were here yesterday when there was discussion, I	19	ready, it's paragraph 8. Like I say, on page 5 toward the
20	believe, regarding the DNV report?	20	bottom. It would be the third sentence in that paragraph where
21	A. Yes, I was.	21 22	it says, "These accidents have resulted in more than
22	Q. And were you present when there was discussion regarding up	23	1.22 trillion dollars." That should be billion dollars with a B.
24	to 90 days before A. Yes.	24	
25	Q. Before small leaks might be detected?	25	Okay. If everybody has that, there's one in my surrebuttal as well. That would be on the second page of my
	826		828
1	A. Yes.	1	surrebuttal, paragraph 5. It has to do with the Enbridge
2	Q. Would a pin would that be a concern geologically if a	2	Pipeline incident last week, and it's about the third sentence
3	leak went on for 90 days before it was found?	3	down. It says, The pipeline involved in this incident, and then
		3	
4	A. I think that any release is a concern.	4	in parenthesis it says, Line 4. That should say line 3. So
5	A. I think that any release is a concern.Q. Okay.		in parenthesis it says, Line 4. That should say line 3. So it's a minor correction there as well.
_	•	4	
5	Q. Okay.	4 5	it's a minor correction there as well.
5 6	Q. Okay. MR. HOHN: Thank you very much.	4 5 6	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked
5 6 7	Q. Okay. MR. HOHN: Thank you very much. THE WITNESS: Uh-huh.	4 5 6 7	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I
5 6 7 8	Q. Okay. MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this	4 5 6 7 8	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been
5 6 7 8 9	Q. Okay. MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness?	4 5 6 7 8 9	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected.
5 6 7 8 9 10 11	Q. Okay. MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you.	4 5 6 7 8 9 10 11	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of
5 6 7 8 9 10 11 12	Q. Okay. MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler.	4 5 6 7 8 9 10 11 12 13	I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to
5 6 7 8 9 10 11 12 13 14	Q. Okay. MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break	4 5 6 7 8 9 10 11 12 13	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a
5 6 7 8 9 10 11 12 13 14	Q. Okay. MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck.	4 5 6 7 8 9 10 11 12 13 14 15	I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established
5 6 7 8 9 10 11 12 13 14 15 16	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken)	4 5 6 7 8 9 10 11 12 13 14 15 16	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here.
5 6 7 8 9 10 11 12 13 14 15 16	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a	4 5 6 7 8 9 10 11 12 13 14 15 16	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an
5 6 7 8 9 10 11 12 13 14 15 16 17	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a short recess we're reconvening the hearing. And at this point	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	It's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an exhibit as well if I could, please.
5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a short recess we're reconvening the hearing. And at this point the scheduled testimony is Intervener Ed Miller. And I owe	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an exhibit as well if I could, please. MR. SMITH: Sure. Why don't we then we'll mark
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a short recess we're reconvening the hearing. And at this point the scheduled testimony is Intervener Ed Miller. And I owe Mr. Miller an apology for not getting him in yesterday as	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	it's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an exhibit as well if I could, please. MR. SMITH: Sure. Why don't we then we'll mark your direct as Miller 1. We'll mark your surrebuttal as
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a short recess we're reconvening the hearing. And at this point the scheduled testimony is Intervener Ed Miller. And I owe Mr. Miller an apology for not getting him in yesterday as promised. And he was here, and I think he knows why that didn't	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	It's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an exhibit as well if I could, please. MR. SMITH: Sure. Why don't we then we'll mark your direct as Miller 1. We'll mark your surrebuttal as Miller 2 and we'll mark your PowerPoint presentation as
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a short recess we're reconvening the hearing. And at this point the scheduled testimony is Intervener Ed Miller. And I owe Mr. Miller an apology for not getting him in yesterday as promised. And he was here, and I think he knows why that didn't happen.	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	It's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an exhibit as well if I could, please. MR. SMITH: Sure. Why don't we then we'll mark your direct as Miller 1. We'll mark your surrebuttal as Miller 2 and we'll mark your PowerPoint presentation as Miller 3.
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a short recess we're reconvening the hearing. And at this point the scheduled testimony is Intervener Ed Miller. And I owe Mr. Miller an apology for not getting him in yesterday as promised. And he was here, and I think he knows why that didn't happen. But, Mr. Miller, if you could, could you please take	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an exhibit as well if I could, please. MR. SMITH: Sure. Why don't we then we'll mark your direct as Miller 1. We'll mark your surrebuttal as Miller 2 and we'll mark your PowerPoint presentation as Miller 3. Is the PowerPoint generally reflective of what you had
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. HOHN: Thank you very much. THE WITNESS: Uh-huh. MR. SMITH: Are there any further questions of this witness? MS. SEMMLER: None. Thank you. MR. SMITH: Thank you. You're excused, Ms. Winkler. Thank you very much. (The witness is excused) We're going to take a short break. 10-minute break says Commissioner Kolbeck. (A short recess is taken) MR. SMITH: Let's go back on the record. After a short recess we're reconvening the hearing. And at this point the scheduled testimony is Intervener Ed Miller. And I owe Mr. Miller an apology for not getting him in yesterday as promised. And he was here, and I think he knows why that didn't happen.	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	It's a minor correction there as well. I guess as far as my testimony goes, if I were asked the same questions today, I would respond in the same way. I guess, in other words, I would support my testimony as it's been submitted and corrected. I also have another exhibit, which is the printout of a PowerPoint presentation. I guess I didn't quite understand how this hearing was going to go. So when I was talking with staff about presenting my direct testimony I thought one way to do that was with a PowerPoint presentation, but I had a misunderstanding there based on the way that you've established the protocol here. So I would like to distribute that and mark it as an exhibit as well if I could, please. MR. SMITH: Sure. Why don't we then we'll mark your direct as Miller 1. We'll mark your surrebuttal as Miller 2 and we'll mark your PowerPoint presentation as Miller 3.

	829	1	831
1	THE WITNESS: Yes. I would say that the PowerPoint, a	1	the CD as one single exhibit.
2	fairly significant degree, does go through my direct testimony.	2	MR. SMITH: Okay. Thanks. We'll call that then
3	So I'm not going to present it directly. I just brought it for	3	Miller 4. And I don't know whether you want to do any
4	a reference so if there are questions or whatever, I might refer	4	foundational testimony first, or do you just want to make an
5	to it.	5	offer of all four exhibits and
6	MR. SMITH: Okay. That sounds good. With that then,	6	MR. MILLER: I guess I would go ahead and make an
7	why don't you proceed.	7	offer of all four exhibits.
8	MR. MILLER: If I could, there's one other question I	8	MR. SMITH: And, I don't know, Mr. White, you probably
9	had too. There's an awful lot of supporting documents I had	9	haven't seen the PowerPoint much yet, but other than that,
10	like NTSB studies and that kind of thing. And I submitted that	10	you've reviewed the other three.
11	on a CD. What do I need to do?	11	MR. WHITE: Right. We would have no objection as to
12	MR. SMITH: Well, you might want to is that CD	12	the exhibits that we've seen, and I think we'd like to reserve
13	do we have it?	13	the right to object to the PowerPoint until we have seen it.
14	THE WITNESS: Yes. I mailed it in. And I mailed it	14	MR. SMITH: Okay. We'll go through that then. And
15	to Mr. Koenecke as well.	15	maybe just remind me at the end of that then. You can offer it
16	MR. SMITH: Have you reviewed it, Mr. Koenecke?	16	at that point in time once it's been looked at so we know what
17	MR. KOENECKE: Apologize. Having a discussion in the	17	it is.
18	back. The CD that was mailed earlier this fall or just	18	Is that fair?
19	recently?	19	THE WITNESS: Okay. Yeah. I'll make a note.
20	MR. SMITH: I'm not sure. I think it was recently,	20	MR. SMITH: Unless there's an objection, I'm going to
21	right.	21	admit Miller 1, 2, and 4.
22	THE WITNESS: Yes. This would be the CD that I just	22	MR. RASMUSSEN: We have no objection to any of the
23	mailed to you last week.	23	exhibits.
24	MR. KOENECKE: We've got that.	24	MR. HOHN: No objection.
25	MR. SMITH: You've had a chance to look at it as to	25	MR. SMITH: Staff? Okay. Miller Exhibits 1, 2, and 4
		1	
	830		0.3/
1	what's on there?	1	are admitted.
1 2	what's on there?	1 2	are admitted.
1 2 3	what's on there? MR. KOENECKE: I'd prefer that you address the	1 2 3	are admitted. Please proceed.
2	what's on there?	2	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little
2 3 4	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether	2 3 4	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I
2	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting	2	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through
2 3 4 5	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation?	2 3 4 5	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I
2 3 4 5 6	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting	2 3 4 5 6	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason
2 3 4 5 6 7	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my	2 3 4 5 6 7	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I
2 3 4 5 6 7 8	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the	2 3 4 5 6 7 8	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason
2 3 4 5 6 7 8 9	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint.	2 3 4 5 6 7 8 9	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And
2 3 4 5 6 7 8 9	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood.	2 3 4 5 6 7 8 9	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision
2 3 4 5 6 7 8 9 10	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you	2 3 4 5 6 7 8 9 10	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that
2 3 4 5 6 7 8 9 10 11	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents?	2 3 4 5 6 7 8 9 10 11	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing.
2 3 4 5 6 7 8 9 10 11 12 13	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of	2 3 4 5 6 7 8 9 10 11 12 13	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions
2 3 4 5 6 7 8 9 10 11 12 13	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout	2 3 4 5 6 7 8 9 10 11 12 13	are admitted. Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to
2 3 4 5 6 7 8 9 10 11 12 13 14	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the	2 3 4 5 6 7 8 9 10 11 12 13 14 15	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more of a computer file than it is say something you would print out	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well. The information that I have is largely dealing with
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more of a computer file than it is say something you would print out as a document.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well. The information that I have is largely dealing with oil spills, basically from the perspective of what kind of risk
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more of a computer file than it is say something you would print out as a document. MR. SMITH: Okay. My reason for asking is just	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well. The information that I have is largely dealing with oil spills, basically from the perspective of what kind of risk do I face as a landowner. And I guess having said that, overall
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more of a computer file than it is say something you would print out as a document. MR. SMITH: Okay. My reason for asking is just whether we can mark the entire PowerPoint as your Exhibit 4	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well. The information that I have is largely dealing with oil spills, basically from the perspective of what kind of risk do I face as a landowner. And I guess having said that, overall being here today I'm kind of frustrated. I'm frustrated because
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more of a computer file than it is say something you would print out as a document. MR. SMITH: Okay. My reason for asking is just whether we can mark the entire PowerPoint as your Exhibit 4 not PowerPoint, the CD, or whether we've got to go through and	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well. The information that I have is largely dealing with oil spills, basically from the perspective of what kind of risk do I face as a landowner. And I guess having said that, overall being here today I'm kind of frustrated. I'm frustrated because of what I would call credibility issues, meaning believability
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more of a computer file than it is say something you would print out as a document. MR. SMITH: Okay. My reason for asking is just whether we can mark the entire PowerPoint as your Exhibit 4 not PowerPoint, the CD, or whether we've got to go through and cut it, break it up into pieces.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well. The information that I have is largely dealing with oil spills, basically from the perspective of what kind of risk do I face as a landowner. And I guess having said that, overall being here today I'm kind of frustrated. I'm frustrated because of what I would call credibility issues, meaning believability type issues regarding some of the information that we've gotten
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	what's on there? MR. KOENECKE: I'd prefer that you address the questions to Mr. White. MR. WHITE: I guess I just want clarification whether anything on the CD differs from what's in your supporting material to the PowerPoint presentation? THE WITNESS: It's supporting material to my testimony, the direct testimony, the surrebuttal and the PowerPoint. MR. WHITE: Understood. MR. SMITH: Basically it's the document that you referenced in terms of various statistical documents? MR. MILLER: Right. And it does include a couple of computer-type files as well that are not really printout documents. For instance, a lot of my analysis goes over the PHMSA database where the accidents are listed. So that's more of a computer file than it is say something you would print out as a document. MR. SMITH: Okay. My reason for asking is just whether we can mark the entire PowerPoint as your Exhibit 4 not PowerPoint, the CD, or whether we've got to go through and cut it, break it up into pieces. I don't know, Mr. White. I don't know whether you're	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Please proceed. MR. MILLER: Okay. I guess I'll just give a little bit of a summary or a background, and then we can just I think the best way to approach this is just to go through questions and so forth. I guess the thing that I'd like to say is the reason that I'm here it's kind of involuntary in a way. You know, I didn't choose to be here. It was just my land was chosen. And I'm confronted with a situation where I need to make a decision about how to proceed with that regarding an easement and that kind of thing. In order to be able to make those kind of decisions I've gathered a lot of information that I think is relevant to me to help me make that kind of a decision, and I think it's relevant to this case as well. The information that I have is largely dealing with oil spills, basically from the perspective of what kind of risk do I face as a landowner. And I guess having said that, overall being here today I'm kind of frustrated. I'm frustrated because of what I would call credibility issues, meaning believability type issues regarding some of the information that we've gotten from the Applicant regarding historical spills, for example.

- **1 A.** Yes. I would say that's -- that's fair to say, yes.
- **2 Q.** And so that a misunderstanding with respect to a database
- 3 might result in a conclusion that might not be accurate?
- **4 A.** I would say that that could be a fair statement.
- **5 Q.** And I assume that in preparing this voluminous presentation
- 6 that you offered to the Commission you conducted a fair amount
- **7** of research; is that right?
- 8 A. Yes. I'd say so.
- **9 Q.** And in that research did you have occasion to look into
- 10 trends in the industry with respect to pipeline safety?
- 11 A. Yeah. There's information that goes back 20 or 30 years.
- 12 And in looking at that you can see that there are some trends
- 13 that are evident.
- 14 Q. And what trends did you identify with specific regard to
- 15 crude oil pipeline safety?
- **16** A. Specifically regarding crude oil, I don't think I looked
- 17 specifically at crude oil. I would look at hazardous liquids
- 18 which would include refined products as well.
- 19 Q. Okay.
- 20 A. And I would say that there is a trend there where there is
- 21 improving performance in terms of spills.
- **22 Q.** And how would you characterize that improving performance?
- 23 Would it be significantly improved? For example, the experience
- 24 of the industry in the '50s, '60s and '70s, would there be
- 25 significant improvement in the '90s and most recently
- 1 constructed pipelines?
- **2 A.** I didn't go back to the '50s and '60s, but, I mean, it's
- **3** fairly evident even going back to the 1970s that there has been
- 4 a significant improvement in that the total volume of spills
- 5 today is lower than it was back in those decades.
- **6 Q.** And would you consider yourself to be an expert in pipeline
- **7** safety?
- **8 A.** No, sir.
- **9 Q.** And would be considered -- would you consider yourself
- 10 to be an expert with respect to pipeline risk and spill
- 11 analyses?
- **12 A.** No, sir.
- 13 Q. Okay. Now you indicated that you're a landowner on the
- 14 pipeline route?
- **15** A. That's correct.
- **16 Q.** And have you been approached by Keystone with respect to
- 17 efforts to acquire an easement across your property?
- 18 A. Yes, I have.
- 19 Q. And when did that occur?
- 20 A. Let me think back. I think that the first contact I had
- 21 was perhaps in the early summer. I don't really recall
- 22 specifically when it was. It was this year.
- 23 Q. Summer of 2007?
- 24 A. Yes. It was this year.
- 25 Q. Okay. And when did you prepare your testimony in this

- 1 case?
- **2** A. I've been doing this -- doing the research that went into
- 3 here for much of the year. I would say starting back at about
- 4 that time in the middle of the year.
- **5** Q. Okay. I think you mentioned in your overview presentation
- 6 the Brookdale incident. And I understand that you were
- 7 concerned that that incident was not reported on TransCanada's
- **8** social responsibility website.
- **9** Is that accurate?
- 10 A. I think if I remember correctly, according to the testimony
- 11 of Ms. Kothari, I do think that she said it is included, but
- 12 it's included under the area of greenhouse gas releases if I
- 13 remember correctly.
- 14 What I meant by that, that it was not necessarily listed as
- 15 a critical incident or a critical spill, for example.
- **16 Q.** And do you recall Ms. Kothari's testimony that it was
- 17 posted as a critical incident on other posting sites?
- **18** A. She did testify that it was part of a different -- separate
- 19 incident management system. But I'm not aware that she
- 20 testified that it was available to the public, so to speak.
- 21 Q. And if that were, would that relieve your concern that it
- 22 wasn't posted on the social responsibility website?
- 23 A. I guess I don't know. I looked on there, and I haven't
- 24 seen it or been able to find it.
- 25 Q. Okay. But, as I understand your concern, it was because
- 1 that incident was not posted on the specific site that you
- 2 looked at: is that correct?
- **3** A. I guess my concern was that in reviewing the Corporate
- 4 Social Responsibility Report I didn't find any information about
- **5** it.

- **6 Q.** On that specific report.
- **7** A. I would say on that report, yeah.
- 8 Q. Okay. I'd like to ask you to take a look at your direct
- 9 testimony. It's been marked as Miller 1. And specifically
- 10 what's been marked as Exhibit H to Miller 1.
- **11 A.** Yes
- 12 Q. Do you have that?
- **13 A.** Yes, sir
- **14 Q.** And could you briefly describe what that exhibit is
- 15 intended to show?
- **16** A. My Exhibit H, it's a comparison chart of the spill
- 17 frequency rate for hazardous liquid pipelines in North America.
- 18 Basically what the chart shows is the annual number of oil
- 19 spills for a given length of pipe. And in this particular
- 20 instance the segment of pipe that I had selected was 1,845 miles
- 21 because that was the length of the Keystone Pipeline. So I used
- 22 that for comparison purposes.
- **23 Q.** And what conclusion did you draw from this chart?
- **24** A. I would say the conclusion that I would draw by looking at
- 25 this chart is that the projected spill frequency rate for the

840

- 1 Keystone Pipeline is significantly lower than the actual
- 2 historical track record of the information that I got from these
- 3 three separate sources, which would be an independent study
- 4 conducted by the California State Fire Marshall, the actual
- 5 track record of Canadian pipeline company called Enbridge, and
- 6 the actual track record from the United States industry averages
- 7 documented by the Office of Pipeline Safety.
- 8 Q. Okay. Let me ask you about the California State Fire
- 9 Marshall Study, which, as I understand it, is the bar on the far
- 10 left side of the chart?
- 11 A. That's correct.
- 12 Q. Are you familiar with that study?
- 13 A. Somewhat. I read through the study and basically looked
- 14 for what their conclusions were.
- **15 Q.** Well, did you happen to look at the vintage of pipelines
- 16 that were reported in that study? In other words, when the
- **17** pipelines were constructed that were reflected in that study?
- **18** A. I didn't go back and look specifically, but the study was
- 19 published in 1993, for example, and it covered a 10- or 12-year
- 20 period prior to that. So it would include pipelines that were
- 21 installed -- would have been installed by that time before the
- 22 1980s or early 1980s, I would expect.
- 23 Q. Okay. So you don't know whether this California Fire
- 24 Marshall Study includes pipelines that may have been constructed
- 25 in the 1940s, '50s, and '60s?

842

- **1** A. It may. It may.
- **2 Q.** It may well. Do you think that's likely?
- **3** A. I would say that would be my expectation.
- 4 Q. Okay. Then let's look at the second set of bars, which is
- **5** denoted Enbridge Liquid Pipeline Spill Frequency Rate.
- **6** Where did you obtain that data?
- **7 A.** I got that directly from Enbridge from their Corporate
- $oldsymbol{8}$ Social Responsibility Reports and their Employee Health and
- 9 Safety Reports.
- 10 Q. And do you know what the vintage of the pipelines would be
- 11 that are reflected in the data shown in that part of your chart?
- 12 A. Again, I don't know. It would include their entire
- 13 installed infrastructure.
- 14 Q. And do you know when Enbridge began constructing pipelines?
- 15 A. No, sir. I don't.
- **16 Q.** I noticed that the heading of that chart indicates actual
- 17 reported spills per 1,845 miles of right of way; is that
- 18 correct?
- 19 A. Yes. In the case of Enbridge I used miles of right of way
- 20 because in their -- in their documentation they expressed their
- 21 mileage in terms of right of way instead of miles of pipeline.
- 22 And I think they do that because they have some pipelines where
- 23 there is collocated pipe.
- **24 Q.** So did you investigate how many pipelines were included in
- **25** each of those miles of right of way that are reflected in this

- 1 portion of the chart?
- 2 A. No, sir. I did not.
- **3 Q.** And I think you had some surrebuttal testimony that
- 4 referenced the Clearbrook incident where the incident was
- 5 alleged to have occurred on Enbridge line 3?
- 6 A. Yes.
- **7 Q.** So that would indicate that at least in certain locations
- 8 of the Enbridge system it may have as many as three or possibly
- **9** four pipelines in each mile of right of way?
- **10 A.** I would say that's correct.
- 11 Q. And are there perhaps instances where there may be as many
- 12 as seven or eight Enbridge lines in a mile of right of way?
- **13** A. Not that I know of.
- **14 Q.** If you included miles of spill -- sorry. If you included
- 15 spills per mile of right of way, and if that right of way
- 16 included three or four individual pipelines, would that not tend
- 17 to have overstated the mile of spills on a per pipeline basis?
- 18 A. In the case of Enbridge, that would be the case. I think
- 19 there were some -- some instances when they would publish the
- 20 total miles of pipeline that they would have. And I think that
- 21 it -- if memory serves me correctly, it was somewhere around
- 22 25 to 30 percent, I think, that this would be understated, their
- 23 mileage would be understated when using the terms of right of
- 24 way instead of mileage.
- **25 Q.** So for 70 percent of their system then this chart would be
- - 1 overstated; is that right?
 - 2 A. I'm not sure I would state it quite that way.
 - **3 Q.** How would you state it?
 - 4 A. I guess I would state it that from my perspective looking
 - 5 at these numbers here they might be overstated by, say, 25 or
 - **6** 30 percent in terms of the number of spills that are listed on
 - 7 here, if it was actually expressed in terms of miles instead of
 - 8 in terms of right of way.
 - **9** So, for instance, if you look at, say, 2003, '04, and '05,
 - 10 excuse me, where these numbers are actually showing up in, say,
 - 11 the higher teens, I would expect that if this were expressed in
 - 12 terms of mileage, those would be closer to the lower teens than
 - 13 they would be the upper teens.
 - 14 Q. Well, if there were four pipelines in a mile of right of
 - 15 way, would there not be the potential at least that there could
- 16 be four times the likelihood of spill as opposed to a single
- 17 pipeline in that right of way?
- **18** A. I would say that that -- I would agree with that.
- **19 Q.** So in that instance the numbers reflected in this chart
- **20** would be overstated, would they not?
- 21 A. Yes. For the system over all, I would say that these
- 22 numbers for Enbridge are overstated to the extent that I
- 23 explained. I would expect that these numbers instead of being
- 24 in the high teens like that over the system overall, they would
- 25 be closer to the lower teens.

	845		847
1	Q. Well, you expressed some concerns about the credibility and	1	A. Well, that's why you use a spill frequency rate where it's
2	believability of the Applicant's numbers.	2	done in miles. Each one of these different sources of
3	Can I ask you why you didn't correct this chart to reflect	3	information are all expressed in terms of the number of spills
4	the fact that there are multiple pipelines and miles of right of	4	per a given length of segment.
5	way on the Enbridge system?	5	For instance, in general a lot of times when you would see
6	A. The thing I wanted to do with this chart is express it	6	this you would see it expressed in terms of thousands, for
7	exactly the way that Enbridge did in their Corporate Social	7	instance, the number of spills per thousand miles of pipe. The
8	Responsibility Reports. And since they used miles of right of	8	reason that I didn't use a thousand is because Keystone's
9	way instead of miles of pipeline, I didn't want to change those	9	projection as listed in the frequency volume analysis was
10	numbers because I would probably have to estimate how many miles	10	expressed in terms of 1,845 miles of pipe. So that's why I used
11	there were instead of how many miles excuse me, how many	11	that segment of pipe.
12	miles of pipeline there were as opposed to how many miles of	12	But in terms of expressing this, that's why I used a
13	right of way. So I kept the numbers exactly the way they had	13	statistic like a spill frequency rate in that you can compare
14	expressed them.	14	one system to another system or one company to another company
15	Q. And did you clarify in your direct testimony with respect	15	or one study to another study.
16	to this chart that the numbers as you've discussed here today	16	MR. WHITE: That's all the questions we have,
17	could well be overstated?	17	Mr. Smith.
18	A. I don't know if I did that. That's why I put it here that	18	MR. SMITH: Thank you. Mr. Rasmussen.
19	that was in miles of right of way. I don't know if I explained	19	CROSS-EXAMINATION
20	to the same degree here that some of these were higher than they	20	BY MR. RASMUSSEN:
21	would have been if they were expressed in terms of miles of	21	Q. Mr. Miller, I just want to look at a few of the pages of
22	pipeline.	22	your PowerPoint and ask you about them. The first one would be
23	Q. Okay. Let's look at the next set of bars, which is denoted	23	page 15.
24	U.S. Industry Average Spill Frequency Rate Per 1,845 Miles of	24	A. All right.
25	Pipe.	25	Q. What does that what does that chart show to us?
	846		848
1	What's the source of that data?	1	A. This is what I would call an accident rate comparison
2	A. That's from the PHMSA database from the Office of Pipeline	2	chart. In the PHMSA databases they keep track of all of the
3	Safety.	3	incidents or accidents on each of the three separate types of
4	Q. And what is the vintage of pipelines that's included in the	4	energy pipelines. There are gas distribution pipelines, there
5	PHMSA database?	5	are gas transmission pipelines, and there are hazardous liquid
6	A. That would include the entire installed infrastructure so	6	pipelines.
7	there would be the full range. Anywhere from pines that are	7	And what you do is you take the mileage as listed in that

7 there would be the full range. Anywhere from pipes that are

8 several decades old to pipes that are new.

9 I think you mentioned that you based your analysis on 1,845

10 miles of pipe because that was the length of the Keystone

11 system; is that correct?

12 I got that number from the DNV frequency volume analysis.

13 Okay. Do you know the length of the Keystone system in the

14 United States?

15 Not right off I don't know, no.

16 Q. Okay. Would you agree with me that it might be 1,372

17 miles?

18 I guess I don't know what -- how much it is.

19 Q. So you don't know whether it's 1,845 or 1,372? You simply

20 don't know what the length of the Keystone system is?

21 Not in the United States. Not right off. I'm sure it's

22 stated in the Application, but I don't know.

23 So if you were comparing spill incidents on a pipeline

24 system that was 1,845 miles with spill incidents on a pipeline

25 that was 1,372 miles, would that be a fair comparison? 7 And what you do is you take the mileage as listed in that

database and then the accidents for each of those types of

9 pipeline, and then for each year you can post out what the

10 accident rates are per a given length of pipe. And in here the

11 segment I chose was per 10,000 miles of pipeline.

12 And the Keystone Pipeline would be classified as what?

13 As a hazardous liquid pipeline. And you can see the

14 relationship there that in terms of accident rates, gas

15 distribution pipelines have the lowest incident rates. Gas

16 transmission pipelines are kind of in the middle. And the

17 riskiest type of pipeline in terms of accidents reported would

18 be hazardous liquid pipelines.

19 Q. Page 16, is that just another graph that essentially shows

20 the same thing, just in another way of --

21 Right. I guess this is similar to the chart that I just

22 showed you. Except in this case this is from a general

23 accounting office report on pipeline safety. And the difference

24 here is that they've expressed this in terms of the number of

25 major accidents. And I don't recall what they used to describe

1 or classify a major accident as opposed to any other one that 2 would be in the database.

But you can see from this particular exhibit that the relationship between the pipelines holds true in that the incident rates are lowest on the natural gas distribution pipelines, and they're highest on the hazardous liquid pipelines.

8 Q. Turn to page 26. What does that chart purport to show?

9 On page 26 this is the -- in the background there is the

10 Accident Summary Statistics Report from PHMSA for hazardous

11 liquid pipelines for the period going all the way back to 1986.

12 And what it shows here is the amount of oil that has been

13 spilled over that time frame.

14 You can see there at the bottom there's been a total of 15 3.4 million barrels of oil spilled, which is 143 million 16 gallons. And as you can see there in the comment box in the 17 middle is that hazardous liquid pipelines have spilled more than 18 13 times as much oil as Exxon Valdez did in Alaska in 1989 when 19 I was working for the company.

20 Q. And that was between January 1 of '86 and 9-30-07?

21 Α. That's correct.

22 Q. Look at the photograph you have on page 36. What is that a

23

1

3

4

5

6

7

24 Α. I included this -- this was kind of a case study of an

25 incident that happened on the TransAlaska Pipeline in the year

2001, I believe. And you can see the caption there on that

2 photograph is that this pipeline was .46 inches thick and it had 3 been shot by a hunter as kind of an act of vandalism.

4 And you can see that in the photograph -- or in the comment

5 there you can see that the pipeline was leaking through a single

6 gunshot at about 132 gallons per minute, close to 8,000 gallons

7 an hour

8 Q. How does the thickness of that pipeline compare to the one

9 Keystone proposes to build?

10 This would be a thicker pipeline. This is .46 inches. And

11 the Keystone Pipeline I guess I don't recall. It depends based

12 on what design factor they use. But this pipeline is a little

13 bit thicker.

14 Q. Look at page 38. That's the same pipeline from a different

15 angle; is that right?

16 Α. Right. This is a photograph from the same incident from a

17 different angle, like you said. And it just -- it gives you an

18 indication of what a pipeline leak would be at 500 pounds of

19 pressure, which is what it was estimated to be at the point of

20 this incident. That's what a leak could look like through a

21 gunshot hole.

24

22 The thing is, you know, in the land that I own in -- excuse 23 me, in Miner County I'm just downstream from the pump station a

mile or two. And there, you know, the Keystone Pipeline would

25 be operating at close to its highest pressure in terms of psi. 1 So it could be almost three times as high as what this leak

2 would look like in this photograph.

3 Q. Turn to page 41. What does that picture show?

4 This one is a photograph of what the crews actually did to

5 stop the pipeline from leaking. There was a special made clamp

6 that was built for this pipeline when the pipeline itself was

7 built.

12

13

14

15

16

17

18

1

2

8 And basically as you can see from the caption there, it

9 took about 36 hours before the crews were finally able to clamp

10 this pipeline. And basically 285,000 gallons of oil had leaked

11 in that amount of time.

> The thing is it took approximately 36 hours, even though they knew immediately where the spill was because it was spotted by an aerial surveillance aircraft. And, basically, you know, they didn't have any trouble in accessing the site. You can see from the photographs that there was no snow or no mud. And the weather is fairly good. And they didn't -- they did not have to excavate the pipeline, for example.

19 So even with all of that, the leak being on top of the 20 ground, it still took 36 hours before they were able to stop the

21 flow.

22 Q. Look at the chart on page 53. What does that show?

23 Okay. This is from my Exhibit D. And what I tried to do

24 there is to go find a sampling of regional crude oil spills.

25 You know, we don't have any crude oil spills in South Dakota

850

because we don't have a crude oil pipeline. So I tried to find some spills that were in our region to try to find out what the 3 experience has been in other states in our area.

4 And on that Exhibit D I have several different categories.

5 For instance, I can show that there were pipeline spills that

6 involved ground water contamination. There were spills that

7 involved surface water contamination. There were spills that

8 involved HCAs. And I can show you spills where there were

9 multimillion-gallon spills and multimillion-dollar cleanups.

10

And on this particular slide on page 53 it is, I've got the 11 category that is circled there is a sampling of spills, recent 12 spills. You can see they're all here in the last few years, in

13 nearby states where surface water contamination was listed as

14 part of the record at the Office of Pipeline Safety.

15 Turn to page 59. What does that -- where did that diagram

16 come from, and what does it show?

17 A. Okay. This -- this is a diagram from a crude oil --

18 I don't think you're on the right page, are you?

19 Α. I'm looking on the prior one to get the statistics for that

20 diagram.

21 Q. I'm sorry.

22 A. This is a regional crude oil pipeline spill that was

23 discovered in July of 2002 near Cass Lake, Minnesota where

24 ground water contamination was indicated as part of the

25 record -- or, excuse me. That one is not listed -- that is not

	853		85	55
1	listed with the Office of Pipeline Safety, that particular	1	they're of. They're simply photos in a binder.	
2	incident.	2	MR. SMITH: Do you understand his objection,	
3	The source where I got this information is from Enbridge	3	Mr. Miller?	
4	itself, which is the company that was involved. Basically what	4	THE WITNESS: Yes.	
5	they had is a slow leak from the pipeline that's depicted in	5	MR. SMITH: Maybe, Mr. Rasmussen, do you want to	
6	this diagram on page 59. And as you can see, the oil leaked	6	undertake doing that?	
7	from the bottom of the pipeline and migrated downward. And	7	Q. Mr. Miller, where did you obtain the photographs that would	
8	this the oil is now floating on the ground water there.	8	appear on pages 149 through 154 of your PowerPoint?	
9	You can see in the diagram in red there are some monitoring	9	A. I got these photographs they were available over the	
10	wells and it shows where the plume from the oil spill is and it	10	internet. I got them they're listed by a man by the name of	
11	shows the ground water flow direction and that kind of thing.	11	Don Gromlin (phonetic) from Fort St. John, British Columbia.	
12	Q. Where did the diagram itself come from?	12	He's the person who took those paragraphs.	
13	A. It came directly from the website that's listed there at	13	And if you go look at the photograph on page 150, for	
14	the top of the page. It comes from www.enbridgecasslake.com.	14	example, that's a photograph of the right of way. It's the	
15	So it comes directly from the company itself.	15	first photograph that he took in this series. And you can see	
16	Q. Let's flip to page 134 then. And I think there was a	16	that the pipeline right of way is identified by a TransCanada	
17	question asked by one of the Commissioners yesterday referencing	17	Pipeline sign.	
18	your statement that's referred to on this slide about SCADA	18	Q. Okay. I think that's 149 actually has the sign, doesn't	
19	systems contributing to the severity of hazardous liquid	19	it, not 150?	
20	pipeline spills.	20	A. Okay. I guess I may be on the wrong page.	
21	A. Okay.	21	Q. But that's a TransCanada sign we see in that photograph?	
22	Q. Can you explain that?	22	A. That's correct.	
23	A. 134 is the report that the National Transportation	23	MR. RASMUSSEN: That's all the questions I have.	
24	Safety Report study concerning SCADA and liquid pipelines and	24	MR. SMITH: Thank you. Mr. Hohn.	
25	I think in my recollection of that report is that the NTSB had	25		
	854		85	56
1	done investigations into 13 separate pipeline, hazardous liquid	1	CROSS-EXAMINATION	56
2	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding	2	CROSS-EXAMINATION BY MR. HOHN:	56
2	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems.	3	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in	56
2 3 4	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go	2 3 4	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety	56
2 3 4 5	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was	2 3 4 5	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board.	56
2 3 4 5 6	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the	2 3 4 5 6	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National	56
2 3 4 5 6 7	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the	2 3 4 5 6 7	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function?	56
2 3 4 5 6 7 8	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill.	2 3 4 5 6 7 8	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is	56
2 3 4 5 6 7 8 9	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute?	2 3 4 5 6 7 8 9	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation	56
2 3 4 5 6 7 8 9	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized	2 3 4 5 6 7 8 9	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures.	56
2 3 4 5 6 7 8 9 10	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those	2 3 4 5 6 7 8 9 10	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare	56
2 3 4 5 6 7 8 9 10 11	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are	2 3 4 5 6 7 8 9 10 11	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports?	56
2 3 4 5 6 7 8 9 10 11 12 13	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on	2 3 4 5 6 7 8 9 10 11 12 13	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true.	56
2 3 4 5 6 7 8 9 10 11 12 13 14	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized	2 3 4 5 6 7 8 9 10 11 12 13 14	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the	56
2 3 4 5 6 7 8 9 10 11 12 13 14 15	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise.	2 3 4 5 6 7 8 9 10 11 12 13 14	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say?	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right?	2 3 4 5 6 7 8 9 10 11 12 13 14	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say? A. Yes. I did use some of these NTSB reports to get some of	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say?	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right? A. That's correct. This particular incident there's several	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say? A. Yes. I did use some of these NTSB reports to get some of the information that I have included here.	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right? A. That's correct. This particular incident there's several photographs of this. This one happened in western Alberta in	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say? A. Yes. I did use some of these NTSB reports to get some of the information that I have included here. Q. And those are official government documents, aren't they?	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right? A. That's correct. This particular incident there's several photographs of this. This one happened in western Alberta in December, early December of 2003. Actually there were two	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say? A. Yes. I did use some of these NTSB reports to get some of the information that I have included here. Q. And those are official government documents, aren't they? A. I would expect that they are.	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right? A. That's correct. This particular incident there's several photographs of this. This one happened in western Alberta in December, early December of 2003. Actually there were two separate incidents within a 24-hour period where there was some	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say? A. Yes. I did use some of these NTSB reports to get some of the information that I have included here. Q. And those are official government documents, aren't they? A. I would expect that they are. Q. You were employed with Exxon during the Exxon Valdez	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right? A. That's correct. This particular incident there's several photographs of this. This one happened in western Alberta in December, early December of 2003. Actually there were two separate incidents within a 24-hour period where there was some explosions like this. And as you can see	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say? A. Yes. I did use some of these NTSB reports to get some of the information that I have included here. Q. And those are official government documents, aren't they? A. I would expect that they are. Q. You were employed with Exxon during the Exxon Valdez accident and spill?	566
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	done investigations into 13 separate pipeline, hazardous liquid pipeline incidents, and they noticed there was a trend regarding the SCADA systems. And basically the result of the study which was to go review all of those incidents, the conclusion of the study was that in 10 out of 13 of those cases the conclusion was that the SCADA system itself in one way or another contributed to the severity of the spill. Q. And how would it contribute? A. In ways where, you know, a SCADA system is a computerized system which has a human machine interface. And a lot of those are not standard from one company to another. So there are situations where the operator doesn't realize what's going on with the application, for example, and a spill is not recognized or is not stopped as soon as it could have been otherwise. Q. 153 is one of a series of photographs regarding a rupture of a TransCanada natural gas pipeline; is that right? A. That's correct. This particular incident there's several photographs of this. This one happened in western Alberta in December, early December of 2003. Actually there were two separate incidents within a 24-hour period where there was some explosions like this. And as you can see MR. WHITE: Mr. Smith, I know there's been a wide	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	CROSS-EXAMINATION BY MR. HOHN: Q. On page 4 of your direct testimony and various times in your testimony you refer to the National Transportation Safety Board. What is your understanding of what the National Transportation Safety Board is? What's its function? A. I guess from my perspective one of the things they do is investigate significant incidents involving transportation systems, significant accidents or failures. Q. And once they complete the investigation do they prepare reports? A. Yes. I would say that's true. Q. And some of the information you've presented or part of the information you've presented has came from some of those reports. Is that fair to say? A. Yes. I did use some of these NTSB reports to get some of the information that I have included here. Q. And those are official government documents, aren't they? A. I would expect that they are. Q. You were employed with Exxon during the Exxon Valdez accident and spill? A. That's correct.	566

	857		859
1	not?	1	A. No, I do not.
2	A. Yes. Yes, I did.	2	Q. In any of your research did you find evidence of the
3	Q. I may have missed or not understood exactly what you were	3	approximate distance a dissolved plume from crude oil releases
4	saying there. But could you reference that again? What was the	4	would travel in sand or clay soils?
5	comparison? How many gallons of oil in the Exxon spill versus	5	A. No, I did not. I did not look into that. I was looking
6	pipeline spills?	6	more in terms of the number of spills and the volume of spills.
7	A. I got I used the summary report that was in my	7	I didn't look into the effects so much, so to speak.
8	Exhibit B, which is the report that's directly calculated from	8	Q. I'm looking now at page 16 of your direct testimony. Do
9	the Office of Pipeline Safety. And if you look on the totals	9	you still stand by the statement that since the proposed
10	line there, I think there were something like 3.4 million	10	Keystone Pipeline is a hazardous liquid pipeline, gas
11	barrels, which would be equivalent to 143 million gallons.	11	transmission pipelines are largely irrelevant?
12	In terms of reference, the Exxon Valdez spill was about	12	I'm relating that to the pictures you showed of some gas
13	10 and a half million gallons. So, in essence, hazardous liquid	13	transmission line explosions.
14	pipelines during the time frame listed on that report had	14	A. In terms of accident rates, that's why I was saying that
15	spilled something like 13 times as much oil as the Exxon Valdez	15	gas transmission pipelines and gas distribution pipelines were
16	did.	16	irrelevant in terms of trying to determine or ascertain what the
17	Q. Okay. The Exxon Valdez spill occurred what year?	17	track record would be.
18	A. 1989.	18	The reason that I included those pictures from the gas
19	Q. To your knowledge has that site been completely cleaned up,	19	pipelines that were in the PowerPoint was because prior to
20	remediated?	20	coming to this hearing I was not able to find any evidence of
21	A. I think that they've the company has completed its	21	that spill in TransCanada's Corporate Social Responsibility
22	cleanup activities, I would say.	22	Report.
23	Q. Did Exxon remove all the oil that spilled from the shore	23	Q. And we cleared that up prior to today?
24	and the impact area?	24	A. Yes.
25	A. Actually since that spill was in water, I think a	25	MS. SEMMLER: Okay. Thank you. Staff is complete.
1	858 significant amount of the oil was lost.	1	860 MR. SMITH: Okay. I'm sorry. I was writing myself.
2	Q. Never recovered?	2	Commissioner Kolbeck, do you have questions?
3	A. Never recovered.	3	COMMISSIONER KOLBECK: Yeah. Mr. Miller, have you
4	MR. HOHN: I have no further questions. Thank you.	4	ever testified before on a crude oil pipeline?
5	MR. SMITH: Thank you. Staff, questions of	5	THE WITNESS: No, sir.
6	Mr. Miller?	6	COMMISSIONER KOLBECK: Okay. Your statement about
7	MS. SEMMLER: I do have a few questions, Mr. Miller.	7	believability, does that go for the Applicant and the
8	<u>CROSS-EXAMINATION</u>	8	Interveners or strictly for the Applicant?
9	BY MS. SEMMLER:	9	THE WITNESS: I would say that's fair.
10	Q. On page 15 of your PowerPoint there's a chart. Do the blue	10	COMMISSIONER KOLBECK: Two-way street?
11	colored hazardous liquid pipeline statistics there, does that	11	THE WITNESS: Fair play. Two-way street.
12	include crude oil among other types of hazardous liquids?	12	COMMISSIONER KOLBECK: And your reference to the
13	A. Yes. In terms of hazardous liquids, that would include	13	1,800 miles, the 1,800-mile study to the 1,300-mile study as
14	crude oil and refined products.	14	Mr. White was insinuating, it's my understanding that your
15	Q. Do you know what portion of that would be restricted to	15	numbers really wouldn't change that much. Am I thinking that
16	crude oil?	16	correctly?
17	A. No, I do not.	17	Because the other part of your data would still remain
18	Q. On page 26 of your PowerPoint, just want to be sure I	18	constant? Am I understanding that?
19	understand you are comparing in that chart 10 years of data	19	When you took apart the total miles of the route,
20	versus a one-time spill; is that correct?	20	1,845 miles, even if you were to change it to 13, your data
21	A. Actually that would be more than 20 years of data.	21	wouldn't change that much; correct?
22	Q. Versus a one-time	22	THE WITNESS: I would say that's correct. That's why
23	A. Versus a one-time incident.	23	I used a spill frequency rate because in some respect it's
24	Q. Then going to 59, please. The Cass Lake program. Do you	24	portable, allows you to look at, say, different lengths of
25	know how far the dissolved plume traveled? 8/2008 04:14:48 PM Page 857 to	25	pipeline or from a different company and so forth. 1027 24 of 113 sheet:

corrosion and, second, third-party damage.

25

providing a forecast.

865 867 1 1 Is that your understanding as well? indicates older pipelines have a higher rate of incident than 2 2 THE WITNESS: I would say those could be two of the newer pipelines? 3 3 top causes. THE WITNESS: I don't know if I've come across 4 CHAIRMAN JOHNSON: You've presented some information, 4 anything specific regarding those. But I think in general terms 5 5 some data, that hazardous material pipelines have a higher that would be my expectation. 6 6 accident rate than say natural gas pipelines. I'm trying to CHAIRMAN JOHNSON: Is that a function of -- is it 7 7 understand why that is, if the two largest causes of failures possible that's a function of two things, first of age of the 8 would be external corrosion and third-party damage. 8 pipeline and then, secondly, the design procedures and practices 9 Do you have any insight that might help me understand 9 that were used at the era that that pipeline was installed? 10 10 the differences? THE WITNESS: I would say it's probably a combination 11 11 THE WITNESS: To tell you the truth, I don't think of factors. In many respects I would think that we have better 12 12 that I do. I got the statistics from PHMSA, and they pretty materials today than ever. We have better installation 13 much report them exactly the way they are without going into 13 practices, perhaps, than ever. There are better standards 14 14 what specific causes were for each one of those. It's in terms today. 15 15 of miles of pipeline so they're all expressed in terms of miles CHAIRMAN JOHNSON: Is it difficult to analyze the --16 of pipeline. 16 is it difficult to analyze the safety of newer pipelines because 17 17 CHAIRMAN JOHNSON: And this is more an editorial we don't have as much track record because they haven't 18 comment, not necessarily a question. I mean, to me I'm hoping 18 essentially had an opportunity to age yet? 19 19 at some point over the course of the next week or so I can THE WITNESS: I would say, yeah, that is -- it's 20 20 understand why there's such a difference in these numbers. obviously difficult to find a lot of incidents regarding newer 21 21 Because I think understanding is important. You've pipelines if for no other reason than, for example, they haven't 22 22 got to have understanding to make use of data. At least on a had the time it might take to corrode, for example. 23 forecast and forward-looking perspective I'm struggling with 23 CHAIRMAN JOHNSON: In your data analysis, did you do 24 that 24 any comparison between the incident rate of old pipelines in 25 25 You note on your surrebuttal testimony, the final the, say, first decade they were in the ground compared to the 868 866 1 page, that based on information in a report that you reviewed, 1 incident rate of newer pipelines in the first decade they were 2 2 incident rates on C-O-N-C-A-W-E pipelines, which I believe are in the ground? 3 3 in Europe, are much lower than those in the U.S. I'm attempting to in my own mind control for the age 4 Am I stating that right? 4 factor. 5 5 THE WITNESS: Yes. THE WITNESS: Uh-huh. There was some of that in one 6 CHAIRMAN JOHNSON: Did your research uncover any 6 of my exhibits. It does kind of give an indication of some of 7 7 reason why European pipelines have a lower incident of failure the effects that it took in terms of the amount of time. Let me 8 8 than pipelines in North America? see if I can find the right exhibit. 9 THE WITNESS: There are a couple of potential 9 Yeah. If you go to my Exhibit M that accompanied my 10 indications included in that report. One of them is that they 10 direct testimony, for example. 11 11 employ these intelligent pigs. They do a lot of inspections. I CHAIRMAN JOHNSON: Okay. Exhibit M. I'm there. 12 12 think they do up to something like I think the report says close THE WITNESS: Okay. If you're there, this is a list 13 13 to 25 percent of their installed mileage has been pigged each of of pipeline ruptures that happened in Canada. And one of the 14 the last few years. 14 attributes in here was that the year that the pipe was installed 15 15 So I guess if you go forward from that, you can kind was in there so you can calculate the age of the pipe at the 16 16 time of the failure. of get the impression that the entire infrastructure would be 17 17 pigged about every four to five years. If you look down there at the bottom, there's a list 18 CHAIRMAN JOHNSON: Do you know if the Keystone 18 of 26 pipeline ruptures over this period. And you can see that 19 19 Pipeline plans to make use of intelligent pigs? I've broken it down in terms of the number of years that had 20 20 THE WITNESS: I think they've stated that they do. elapsed prior to the ruptures. 21 21 And I think that's a requirement now going forward. For instance, you can see that in the first 10 years, 22 CHAIRMAN JOHNSON: The difficulty in doing historical 22 0 to 10 years, there were no ruptures at all. 23 23 analysis, and no doubt you know better than I do, I think data CHAIRMAN JOHNSON: Given the relatively small sample 24 indicates -- that's testimony. 24 size here, would you characterize this data as more anecdotal 25 In your research you come across information that 25 than system-wide analysis?

	869		871
1	THE WITNESS: Yeah. Yes. Like I say, there is a	1	my questions paralleled those that were already asked by my
2	limited sample here, no doubt.	2	fellow Commissioners. But I would like to turn to Exhibit M
3	. CHAIRMAN JOHNSON: On page 36 of your PowerPoint I	3	again.
4	think you you discuss the thickness of the is this the	4	I had done some of those calculations that you just
5	Alaskan pipeline?	5	referred to and found it rather interesting. But I need to know
6	THE WITNESS: Yes. That's the TransAlaskan Pipeline.	6	on the very first column, the TSB number, would I be correct in
7	CHAIRMAN JOHNSON: And you note the thickness of this	7	assuming that if that number is different, that the pipeline is
8	pipe. In your research did you come across any indication of	8	not the same pipeline, or could some of these be the very same
9	how of the strength or any other design characteristics of	9	pipeline? The incidences at the top. Let's take the top nine
10	this pipe?	10	or eight that are the Enbridge failures.
11	THE WITNESS: Not any other design characteristics	11	THE WITNESS: Uh-huh.
12	other than that there were statements that they had suspected	12	COMMISSIONER HANSON: On the far left it shows a TSB
13	there might be foul play like this. So there were some	13	number.
14	precautions taken in order to prevent something like this.	14	THE WITNESS: Right.
15	And, in fact, there have been over the years a number	15	COMMISSIONER HANSON: What does that stand for?
16	of gunshots fired at the pipeline and had not pierced it in the	16	THE WITNESS: That's the Transportation Safety Board
17	past.	17	report number.
18	CHAIRMAN JOHNSON: To your knowledge does the	18	COMMISSIONER HANSON: Okay. So some of these could be
19	integrity of a pipeline do a number of factors play into	19	on the very same pipe.
20	that, a number of design factors?	20	THE WITNESS: Yes. That is true.
21	THE WITNESS: I would say that's probably not my area	21	COMMISSIONER HANSON: Okay.
22	of expertise, but I would expect that.	22	THE WITNESS: It could be on the same pipeline.
23	CHAIRMAN JOHNSON: Okay. If that's the case, would it	23	COMMISSIONER HANSON: All right. I needed to know
24	be difficult to ascertain the strength of the pipeline if you	24	that because as I went through and calculated I noticed that the
25	only had one variable, one piece of information?	25	age of the pipe, for instance, starting from the top it was '68,
١.	870		872
1	THE WITNESS: Right. That's true.	1	'72, '68, '68, '68, '65, '68, and '63. And, of course, that's
		_	
2	CHAIRMAN JOHNSON: On slide 58 of your presentation	2	1968. 19s.
3	you note that the Enbridge Cass Lake incident, that there was no	3	So in view of the discussion that you had previously
3 4	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report	3 4	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure
3 4 5	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed?	3 4 5	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here
3 4 5 6	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it	3 4 5 6	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill
3 4 5 6 7	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find	3 4 5 6 7	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some
3 4 5 6	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response	3 4 5 6	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure.
3 4 5 6 7 8	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find	3 4 5 6 7 8	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some
3 4 5 6 7 8 9	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back.	3 4 5 6 7 8 9	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the
3 4 5 6 7 8 9	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could	3 4 5 6 7 8 9	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and
3 4 5 6 7 8 9 10	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular	3 4 5 6 7 8 9 10	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part
3 4 5 6 7 8 9 10 11 12	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps	3 4 5 6 7 8 9 10 11 12	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's
3 4 5 6 7 8 9 10 11 12 13	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation	3 4 5 6 7 8 9 10 11 12 13	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction.
3 4 5 6 7 8 9 10 11 12 13	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority.	3 4 5 6 7 8 9 10 11 12 13 14	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in
3 4 5 6 7 8 9 10 11 12 13 14 15	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have	3 4 5 6 7 8 9 10 11 12 13 14 15	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much
3 4 5 6 7 8 9 10 11 12 13 14 15 16	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have anything right now, Mr. Smith, anything else.	3 4 5 6 7 8 9 10 11 12 13 14 15 16	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much better today than they were back then.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have anything right now, Mr. Smith, anything else. MR. SMITH: Commissioner Hanson.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much better today than they were back then. COMMISSIONER HANSON: As you testified earlier. But
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have anything right now, Mr. Smith, anything else. MR. SMITH: Commissioner Hanson. COMMISSIONER HANSON: Thank you, Mr. Smith.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much better today than they were back then. COMMISSIONER HANSON: As you testified earlier. But you're not intimately familiar with the best practices that were
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have anything right now, Mr. Smith, anything else. MR. SMITH: Commissioner Hanson. COMMISSIONER HANSON: Thank you, Mr. Smith. Good morning, Mr. Miller.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much better today than they were back then. COMMISSIONER HANSON: As you testified earlier. But you're not intimately familiar with the best practices that were done in '68 and/or the best practices that are done today?
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have anything right now, Mr. Smith, anything else. MR. SMITH: Commissioner Hanson. COMMISSIONER HANSON: Thank you, Mr. Smith. Good morning, Mr. Miller. THE WITNESS: Good morning.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much better today than they were back then. COMMISSIONER HANSON: As you testified earlier. But you're not intimately familiar with the best practices that were done in '68 and/or the best practices that are done today? THE WITNESS: No.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have anything right now, Mr. Smith, anything else. MR. SMITH: Commissioner Hanson. COMMISSIONER HANSON: Thank you, Mr. Smith. Good morning, Mr. Miller. THE WITNESS: Good morning. COMMISSIONER HANSON: Appreciate all of the trouble	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much better today than they were back then. COMMISSIONER HANSON: As you testified earlier. But you're not intimately familiar with the best practices that were done in '68 and/or the best practices that are done today? THE WITNESS: No. COMMISSIONER HANSON: Okay. I think you've been here
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	you note that the Enbridge Cass Lake incident, that there was no OPS report for that. Do you just happen to know why no report was required to be filed or was filed? THE WITNESS: I don't know. In terms of size, it would meet the requirements. I've sent e-mails to try to find out why not why it has not. I've never gotten a response back. I think it one potential thing is that it could have to do with jurisdictions. For instance, in this particular case this is on the Leech Lake Indian Reservation and perhaps I'm just guessing here that the Department of Transportation may not have jurisdiction over some local authority. CHAIRMAN JOHNSON: Thanks very much. I don't have anything right now, Mr. Smith, anything else. MR. SMITH: Commissioner Hanson. COMMISSIONER HANSON: Thank you, Mr. Smith. Good morning, Mr. Miller. THE WITNESS: Good morning. COMMISSIONER HANSON: Appreciate all of the trouble that you went through and the information that you've provided	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	So in view of the discussion that you had previously with Mr. Johnson as I was looking at those trying to figure out of course, all of the comparisons that you're doing here with data, trying to figure out the likelihood of a spill because we're all very interested in the potential for some failure. Are you familiar with the quality of construction, the practices, best practices, that were completed in the '60s and the '70s on pipes as comparison and this is the second part of the question, as comparison of those pipelines with today's pipelines construction. THE WITNESS: I guess I'm not really that familiar in depth, although my expectation would be that things are much better today than they were back then. COMMISSIONER HANSON: As you testified earlier. But you're not intimately familiar with the best practices that were done in '68 and/or the best practices that are done today? THE WITNESS: No. COMMISSIONER HANSON: Okay. I think you've been here for every minute of the session so far starting on Monday. And

	873		875
1	You were here, weren't you?	1	from the Office of Pipeline Safety, which would include the
2	THE WITNESS: Yes.	2	entire infrastructure for hazardous liquid pipelines in the
3	COMMISSIONER HANSON: Okay. In light of the well,	3	United States. So that those would be very broad areas.
4	let me ask first, are you aware of whether there were any check	4	COMMISSIONER HANSON: On page 3 of your surrebuttal
5	valves on the pipeline that was ruptured by the bullet that	5	you point to the Burnaby spills, and you have the statement
6	you've shown on numerous exhibits in your PowerPoint, which we	6	that, Third-party activities, including excavation, remain a
7	refer to as page 59?	7	risk regarding pipelines. I certainly can understand that with
8	THE WITNESS: I'm not aware of where any of the valves	8	the older pipelines.
9	would be on that pipeline, no.	9	Did you compile any data, or did you attempt to
10	COMMISSIONER HANSON: Okay.	10	analyze the proposed Keystone Pipeline with, for instance, the
11	THE WITNESS: Not right off the top of my head.	11	Burnaby Pipeline or the older ones, the integrity of those
12	COMMISSIONER HANSON: It would seem that if there were	12	pipelines, the likelihood of damage from third parties?
13	one closer to the rupture and they had obviously	13	THE WITNESS: No, I did not.
14	automatically shut it down so we are assuming that the pressure	14	COMMISSIONER HANSON: You were here for the
15	of 500 pounds per square inch continued the flow, outflow.	15	testimony I think it's Ms. Kothari it could have been
16	If there had been a check flow further down in that	16	Mr. Gray referring to the 51 tons of pressure that was
17	pipe, I guess we can also assume that that would have closed and	17	necessary in order to pierce the pipeline?
18	stopped some of the flow.	18	THE WITNESS: Yes.
19	Given the light of the testimony that was given	19	COMMISSIONER HANSON: Were you aware of that prior to
20	previously regarding check valves, would you surmise that a leak	20	your contention that third-party activities could create
21	of this nature, a rupture of this nature, would be lessened?	21	challenges?
22	THE WITNESS: Do you mean for the Keystone	22	THE WITNESS: I guess I don't know what the exact
23	COMMISSIONER HANSON: Correct.	23	number would have been. I guess I don't recall.
24	THE WITNESS: pipeline? Yeah. There are numerous	24	COMMISSIONER HANSON: Are you as concerned now knowing
25	differences between this particular pipeline in Alaska relative	25	that, that the structure of that pipeline and the strength of it
	874	١,	876
1	to the Keystone Pipeline. And one of a couple of the very	1	in comparison to, for instance, these older ones?
3	obvious ones would be the Keystone Pipeline would be	3	THE WITNESS: I would say that based on Ms. Kothari's
4	underground. COMMISSIONER HANSON: Correct.	4	testimony, I would expect that the Keystone Pipeline would not be as susceptible to excavation risks as perhaps a significant
5	THE WITNESS: And not be quite so susceptible to	5	number of other pipelines would be.
6	vandalism. The other one would be that excuse me. I guess	6	COMMISSIONER HANSON: Have I asked any questions or
7	my expectation of being a landowner in rural South Dakota and	7	made anything to you that would cause you that you need to
8	lived out here, I would say that the you know, the terrain of	8	respond right now from my earlier questions with other people
9	the country would be much, much flatter so that a pipeline would	9	that have testified?
10	not in my expectation stay pressurized like that. You wouldn't	10	THE WITNESS: I'm sorry. I guess I don't understand
11	have as much drain down, especially over that long of a period.	11	your question.
12	COMMISSIONER HANSON: At least in most areas.	12	COMMISSIONER HANSON: I'm just giving you an
13	THE WITNESS: That would be my expectation.	13	opportunity to answer any questions or share with me any
14	COMMISSIONER HANSON: Did you conduct any data	14	concerns that may have been brought up from questions that I
15	analysis for spill volume rates for exclusively for	15	asked other Interveners.
16	TransCanada Pipeline spills, failures?	16	Obviously you don't have.
17	THE WITNESS: No, I did not.	17	THE WITNESS: Yeah. Apparently not.
18	COMMISSIONER HANSON: So your I guess we refer to	18	COMMISSIONER HANSON: Okay. Thank you. Thank you,
19	them as SVRs, your spill volume rates, are for are analysis	19	Mr. Smith. That's all the questions I have.
20	of all of the transporters' pipelines.	20	MR. SMITH: Thanks. Other Commissioner questions?
21	THE WITNESS: Right. On the spill volume rates there	21	Anything else popped into your mind? I have just a couple of
22	were a couple of different sources of information there. I	22	quick things, Mr. Miller, if I might.
23	did one of them was on Enbridge again and that spill volume	23	On that diagram on page 59 of the South Cass Lake
24	rate would include their entire installed infrastructure of	24	situation, this is something you probably don't know about, but
25	crude oil pipelines. And another source of that information was	25	there seems to be something missing there. And I you

	881		883	
1	people out there who would shoot at pump stations, for example.	1	recognized as an industry leader?	
2	But as far as the pipeline itself, which as you mentioned is	2	MR. WHITE: Objection.	
3	buried, I would I guess I can't imagine how somebody or	3	MR. SMITH: Sustained.	
4	how it would be pierced by a gunshot.	4	MR. HOHN: That's all the questions. Thank you.	
5	Q. So this event that's represented on page 36 of your	5	MR. SMITH: Staff.	
6	PowerPoint is unlikely to be replicated on the Keystone	6	MS. SEMMLER: None. Thank you.	
7	Pipeline, is it not?	7	MR. SMITH: Any last Commissioner questions?	
8	A. I would agree with that.	8	Commissioner Kolbeck.	
9	Q. And were you here for the testimony of Ms. Kothari where	9	COMMISSIONER KOLBECK: I'm quickly looking on this	
10	she discussed the above ground piping at the pump stations?	10	Cass Lake website. Do you know if they're still drinking out of	
11	A. I've been here, but I don't know	11	that aquifer?	
12	Q. If you don't recall, that's fine.	12	THE WITNESS: I don't know. I'd have to refer to the	
13	A. Okay. Yeah. I do believe that I was here.	13	site myself.	
14	Q. So if I asked you whether you recall that testimony, what	14	COMMISSIONER KOLBECK: Thank you.	
15	would your answer be?	15	MR. SMITH: You may step down. Thank you very much.	
16	A. I guess at this point I'd probably have to say no.	16	Do you have any last any last what I'd call redirect since we	
17	Q. We'll let it stand where it is.	17	don't have a lawyer for you?	
18	MR. WHITE: That's all the recross, Mr. Smith.	18	THE WITNESS: Not really, other than I'd like to say	
19	MR. SMITH: Thank you. Any additional questions from	19	thank you to you gentlemen for tolerating me doing this, I	
20	Mr. Rasmussen?	20	guess. Going through this has given me an insight into the jobs	
21	MR. RASMUSSEN: No, Mr. Smith.	21	that you have to do, and I appreciate the work that you do on	
22	MR. SMITH: Mr. Hohn?	22	behalf of the people of South Dakota.	
23	MR. HOHN: I have a couple questions, Mr. Miller.	23	MR. SMITH: Thank you.	
24		24	CHAIRMAN JOHNSON: Mr. Smith, I just might add	
25		25	something. You know, it's interesting, normally the witnesses	
	882		884	
	002		004	
1	RECROSS-EXAMINATION	1	you can tell what their ax to grind is or what their bias is.	
2		1 2		
_	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier	_	you can tell what their ax to grind is or what their bias is.	
2 3 4	RECROSS-EXAMINATION BY MR. HOHN:	2 3 4	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses	
2 3 4 5	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you	2 3 4 5	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that.	
2 3 4 5 6	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember.	2 3 4 5 6	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If	
2 3 4 5 6 7	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall.	2 3 4 5 6 7	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys	
2 3 4 5 6 7 8	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page	2 3 4 5 6 7 8	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure	
2 3 4 5 6 7 8 9	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet.	2 3 4 5 6 7 8 9	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really	
2 3 4 5 6 7 8 9	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show	2 3 4 5 6 7 8 9	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to	
2 3 4 5 6 7 8 9 10	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what?	2 3 4 5 6 7 8 9 10	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give.	
2 3 4 5 6 7 8 9 10 11	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per	2 3 4 5 6 7 8 9 10 11	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that.	
2 3 4 5 6 7 8 9 10 11 12 13	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it	2 3 4 5 6 7 8 9 10 11 12 13	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out,	
2 3 4 5 6 7 8 9 10 11 12 13 14	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of	2 3 4 5 6 7 8 9 10 11 12 13 14	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered.	
2 3 4 5 6 7 8 9 10 11 12 13 14 15	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline.	2 3 4 5 6 7 8 9 10 11 12 13 14 15	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that.	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection?	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct? A. That's correct.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection? MR. WHITE: No objection, Mr. Smith, except with	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct? A. That's correct. Q. And on the far right shows the projected anticipation	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection? MR. WHITE: No objection, Mr. Smith, except with regard to the photos of the gas pipeline explosion both on lack	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct? A. That's correct. Q. And on the far right shows the projected anticipation experience by TransCanada; is that correct?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection? MR. WHITE: No objection, Mr. Smith, except with regard to the photos of the gas pipeline explosion both on lack of foundation except for the one that had the TransCanada sign	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct? A. That's correct. Q. And on the far right shows the projected anticipation experience by TransCanada; is that correct?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection? MR. WHITE: No objection, Mr. Smith, except with regard to the photos of the gas pipeline explosion both on lack of foundation except for the one that had the TransCanada sign and also on relevance.	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct? A. That's correct. Q. And on the far right shows the projected anticipation experience by TransCanada; is that correct? A. That's correct.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection? MR. WHITE: No objection, Mr. Smith, except with regard to the photos of the gas pipeline explosion both on lack of foundation except for the one that had the TransCanada sign	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct? A. That's correct. Q. And on the far right shows the projected anticipation experience by TransCanada; is that correct? A. That's correct. Q. My question, based on your analysis and your statistical experience, would you expect that a company that has no	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection? MR. WHITE: No objection, Mr. Smith, except with regard to the photos of the gas pipeline explosion both on lack of foundation except for the one that had the TransCanada sign and also on relevance. MR. SMITH: I think I'm going to admit the document. We've clarified I think with the questions and also his	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	RECROSS-EXAMINATION BY MR. HOHN: Q. Are you familiar with or did you hear the testimony earlier by TransCanada of witnesses regarding pig launchers where the pig would be launched and how the pig would be launched. If you remember. A. I guess I don't recall. Q. I'd like to go to your Exhibit I. I'm not sure what page that is. It's page 80 in the booklet. And refresh my memory again. This exhibit intends to show a comparison of what? A. This exhibit shows the amount of oil that is spilled per million barrel miles of product transport. In other words, it shows the number of gallons spilled based on a certain amount of transport that goes through a pipeline. Q. And on the left, the red bars show the experience of Enbridge from '96 to '05; is that correct? A. That's correct. Q. And on the far right shows the projected anticipation experience by TransCanada; is that correct? A. That's correct. Q. My question, based on your analysis and your statistical	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	you can tell what their ax to grind is or what their bias is. And we don't normally see that with staff-called witnesses because they're supposed to play it down the middle to the extent the facts dictate they should. But normally with the Interveners we don't see that. Mr. Miller, you were the most peculiar witness. If someone were to listen to the questions the different attorneys were asking you, if they didn't know any better, I'm not sure they would know where your personal views lied. You really appeared to search your mind not for what answer you wanted to give but what the facts indicated you should give. Thank you for doing that. MR. MILLER: Thank you. It was pointed out, Mr. Smith, there was one of my exhibits that need to be entered. I don't know where we stood on that. MR. SMITH: Thank you for reminding me. Is there an objection? MR. WHITE: No objection, Mr. Smith, except with regard to the photos of the gas pipeline explosion both on lack of foundation except for the one that had the TransCanada sign and also on relevance. MR. SMITH: I think I'm going to admit the document.	

	885		887
1	(The witness is excused)	1	we just heard about?
2	MR. SMITH: It's a quarter to noon. Is this a break	2	CHAIRMAN JOHNSON: Is your intention, Mr. Smith, to
3	time before we start another witness? It's hard to see that	3	take all individual Interveners, all of them prior to taking any
4	clock because it's got a glare on it. That would give us an	4	State witnesses?
5	hour and 15 minutes until the crack of 1.	5	MR. SMITH: Yeah. Unless there are it's up to you,
6	And would you rather would you rather take another	6	Mr. Chairman, if you want to. My assumption I guess is that the
7	witness now or break and we'll just start with the individual	7	individual Interveners won't be terribly lengthy in terms of the
8	Interveners at 1?	8	amount of time. We conclude them and move on to the State
9	CHAIRMAN JOHNSON: 1 o'clock would be fine with me,	9	people.
10	Mr. Smith.	10	If any of the individual Interveners are going to be
11	MR. SMITH: We're in recess until 1 o'clock. Thank	11	lengthy, then we might want to rethink that just out of courtesy
12	you all.	12	to the other witnesses who came here at an appointed time.
13	(A lunch recess is taken)	13	CHAIRMAN JOHNSON: My only thought was the Order
14	MR. SMITH: Thank you. The hearing in HP07-001, in	14	certainly doesn't matter for me, and if it is easier for
15	the matter of TransCanada Keystone Pipeline, LP for a permit to	15	individuals, we certainly want to take them at a time that's
16	construct a crude oil pipeline in South Dakota is reconvened	16	convenient for them. I'm glad you're doing it this way.
17	after our noon recess. It's 1 o'clock or maybe a minute after.	17	If you felt like any of the testimony was going to be
18	Right off the bat what I'd like to do is take a few	18	lengthy, I thought we might want to give some of the subpoenaed
19	minutes and discuss the schedule of witnesses this afternoon.	19	witnesses an opportunity to get back to work for four or five
20	I'll just let you know I've been informed by a few people that	20	hours. You're making it sound like you don't necessarily expect
21	they have time commitments that need to be that they need to	21	these witnesses to take very long.
22	meet. These are individual Interveners who have to get out of	22	MR. SMITH: I don't know. I never really know. But I
23	here and get home.	23	think my guesstimate would be you know, just based upon the
24	And my suggestion would be if it's okay with the	24	prefiled, it wasn't terribly lengthy.
25	parties that we put off the initial State witnesses for a little	25	CHAIRMAN JOHNSON: It's probably worth noting again.
	886		888
1	bit. They live here. They're working across the street and	1	Again, every day we get new witnesses and Interveners that show
2	around the complex, and let the individuals who have driven a	2	up. The purpose of them coming here today isn't to reiterate
3	long ways go first right here after noon. That is actually when	3	their direct testimony, the prefiled testimony that's been
4	their scheduled times were. And then we turn to the subpoenaed	4	filed, but it's mostly to make any additions or corrections and
5	State employees after that.	5	submit themselves for cross-examination.
6	Is that acceptable with you, Mr. Rasmussen? They're	6	Is that an appropriate description?
7		7	
	your witnesses?		MR. SMITH: It is. Most of the people here this
8	your witnesses? MR. RASMUSSEN: Yes. That's fine.	8	MR. SMITH: It is. Most of the people here this morning has been brief. So a summary wouldn't be the
9	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have	9	· ·
9	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that?	9 10	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we
9 10 11	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith.	9 10 11	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few
9 10 11 12	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed	9 10 11 12	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I
9 10 11 12 13	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move	9 10 11 12 13	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me.
9 10 11 12 13 14	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson	9 10 11 12 13 14	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree.
9 10 11 12 13 14 15	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson.	9 10 11 12 13 14 15	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the
9 10 11 12 13 14 15 16	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement?	9 10 11 12 13 14 15 16	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments.
9 10 11 12 13 14 15 16	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen.	9 10 11 12 13 14 15 16 17	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks.
9 10 11 12 13 14 15 16 17	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen. MR. SMITH: He can't get here.	9 10 11 12 13 14 15 16 17 18	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks. (Discussion off the record)
9 10 11 12 13 14 15 16 17 18	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen. MR. SMITH: He can't get here. MS. ANDERSON: He'll try tomorrow.	9 10 11 12 13 14 15 16 17 18	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks. (Discussion off the record) MR. SMITH: Thank you. Mrs. Hofer, are you ready to
9 10 11 12 13 14 15 16 17 18 19 20	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen. MR. SMITH: He can't get here. MS. ANDERSON: He'll try tomorrow. MR. SMITH: So for now we're really talking taking the	9 10 11 12 13 14 15 16 17 18 19 20	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks. (Discussion off the record) MR. SMITH: Thank you. Mrs. Hofer, are you ready to proceed then? Or however you guys want to do it. Just come on
9 10 11 12 13 14 15 16 17 18 19 20 21	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen. MR. SMITH: He can't get here. MS. ANDERSON: He'll try tomorrow. MR. SMITH: So for now we're really talking taking the Hofers first and then, George, do you want to go thereafter?	9 10 11 12 13 14 15 16 17 18 19 20 21	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks. (Discussion off the record) MR. SMITH: Thank you. Mrs. Hofer, are you ready to proceed then? Or however you guys want to do it. Just come on up and take a seat. And I'll remind all of you that oh,
9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen. MR. SMITH: He can't get here. MS. ANDERSON: He'll try tomorrow. MR. SMITH: So for now we're really talking taking the Hofers first and then, George, do you want to go thereafter? And then who else do we have? We have George Piper, who was	9 10 11 12 13 14 15 16 17 18 19 20 21 22	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks. (Discussion off the record) MR. SMITH: Thank you. Mrs. Hofer, are you ready to proceed then? Or however you guys want to do it. Just come on up and take a seat. And I'll remind all of you that oh, thank you. We took a short break here to discuss a couple of
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen. MR. SMITH: He can't get here. MS. ANDERSON: He'll try tomorrow. MR. SMITH: So for now we're really talking taking the Hofers first and then, George, do you want to go thereafter? And then who else do we have? We have George Piper, who was gracious enough to let me move him back from his 9 o'clock	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks. (Discussion off the record) MR. SMITH: Thank you. Mrs. Hofer, are you ready to proceed then? Or however you guys want to do it. Just come on up and take a seat. And I'll remind all of you that oh, thank you. We took a short break here to discuss a couple of things.
9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. RASMUSSEN: Yes. That's fine. MR. SMITH: Okay. And do counsel for the State have any issues with that? MS. GIEDD: No. That's fine, Mr. Smith. MR. SMITH: Okay. And the people who have expressed to me the most urgency in terms of having to testify and move along are the members of the Hofer family. And Mrs. Anderson and your son I can't remember right off Scott Anderson. Is that a fair statement? MS. ANDERSON: He can't get a plane out of Aberdeen. MR. SMITH: He can't get here. MS. ANDERSON: He'll try tomorrow. MR. SMITH: So for now we're really talking taking the Hofers first and then, George, do you want to go thereafter? And then who else do we have? We have George Piper, who was	9 10 11 12 13 14 15 16 17 18 19 20 21 22	morning has been brief. So a summary wouldn't be the entirety wouldn't be a whole lot longer than what they fired. With that, do we CHAIRMAN JOHNSON: We need to handle a few administrative items on our end before we get ready to go. So I think the schedule you laid out sounds perfectly fine by me. COMMISSIONER KOLBECK: I agree. CHAIRMAN JOHNSON: With that, we'll go off the Internet for just a few moments. MR. SMITH: Okay. Thanks. (Discussion off the record) MR. SMITH: Thank you. Mrs. Hofer, are you ready to proceed then? Or however you guys want to do it. Just come on up and take a seat. And I'll remind all of you that oh, thank you. We took a short break here to discuss a couple of

	8	389	891
1	the internet and so on can hear. Also our reporter needs it to	1	attending a meeting in Clark hosted by the U.S. State
2	hear. Step one is you need to turn to the court reporter who	2	2 Department. And you state that you felt the Government had
3	will swear you in.	3	3 already made up their mind.
4	(The witness is sworn by the court reporter)	4	Why would you say that?
5	MR. SMITH: Then would you please introduce yourself		A. Because that's just exactly what they said. That meeting
6	and tell us where you're from, and then you can proceed to give	6	to me was the biggest joke. I wish that the PUC would have had
7	us your testimony.	7	a representative there. Okay.
8	MR. TIM HOFER: My name's Tim Hofer. My address is	8	3 Q. The other comment in that same paragraph, you refer to an
9	40918 192nd Street, Carpenter, South Dakota 57322.	9	environmental consultant who was hired by the State Department
10	And I just wanted to make sure that my testimony got	10	not being attentive at the meeting?
11	handed in. I don't see any reason to read it as you guys can,	11	A. Oh, yeah. That lady that had trouble staying awake. They
12	and if you've got something to ask me, you can. Otherwise, I'm	12	just should have supplied a cot for her is all. Well, you know,
13	ready to go home.	13	it was disgusting because a bunch of us some of us talked,
14	MR. SMITH: Okay.	14	and we couldn't ask them any questions. If we had a question
15	MR. KOENECKE: I'm wondering if I couldn't go with	15	about something, they just said we couldn't do it. So I thought
16	him.	16	it was a waste of time because they didn't care about what we
17	MR. SMITH: What I'm understanding your right now	17	said anyway.
18	then if you were to testify as to all of those matters here	18	Q. Okay. The bottom of that same page you make a reference to
19	today, would your testimony be the same?	19	one of the things that concerned you was change of thickness.
20	THE WITNESS: Yeah. I don't know that I would change	20	Would you care to elaborate on that?
21	anything.	21	A. You know, my family is just as important to me it just
22	MR. SMITH: Okay. Then would you like to offer your	22	seems like they're putting less importance on us in the country,
23	testimony right now into evidence, Tim?	23	you know. That's how we make our living. That's how I paid for
24	THE WITNESS: Please.	24	this trip out here today.
25	MR. SMITH: We'll just call that Tim Hofer 1. Is	25	I think they should spend the money for a pipeline that's
	\$	390	892
		,50	092
1	there any objection?	1	going to be there as good as forever in my lifetime, be there as
2	there any objection? MR. KOENECKE: No objection.	1	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as
2	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties?	1 2 3	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something.
2 3 4	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection.	1 2 3	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you
2 3 4 5	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection.	1 2 3 4 4 5	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run
2 3 4 5 6	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection.	3 4 4	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land.
2 3 4 5 6 7	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point	3 4 5 6 7	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means?
2 3 4 5 6 7 8	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for	1 1 2 2 3 2 4 5 5 6 6 7 8 8	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to
2 3 4 5 6 7 8 9	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties	1 1 2 2 3 3 4 4 5 5 6 6 6 5 7 6 5 6 5 6 6 5 6 6 6 6 6 6	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call
2 3 4 5 6 7 8 9	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions.	1 2 3 4 4 6 7 8 8 9	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into
2 3 4 5 6 7 8 9 10	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay?	1 2 3 4 5 6 7 8 9 10	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land.
2 3 4 5 6 7 8 9 10 11	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure.	1 1 2 3 3 4 4 5 5 6 6 7 7 8 8 5 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're
2 3 4 5 6 7 8 9 10 11 12 13	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer.	1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would
2 3 4 5 6 7 8 9 10 11 12 13	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you.	1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're
2 3 4 5 6 7 8 9 10 11 12 13 14	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you.	1 1 2 2 3 3 4 4 5 5 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions	1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer?	1 1 2 2 3 3 4 4 5 5 6 6 6 7 7 8 6 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer? MR. RASMUSSEN: I do not.	1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of beans every time we turn around next to that trench or whatever
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer? MR. RASMUSSEN: I do not. MR. SMITH: Mr. Hohn.	1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9 10 11 11 11 11 11 11 11 11 11 11 11 11	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of beans every time we turn around next to that trench or whatever you call it because we can't go all the way through the field.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer? MR. RASMUSSEN: I do not. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION	10 10 11 12 13 14 15 16 17 18	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of beans every time we turn around next to that trench or whatever you call it because we can't go all the way through the field. That's going to be at our cost. It's just a mess, you know.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer? MR. RASMUSSEN: I do not. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION BY MR. HOHN:	10 12 13 14 15 16 17 18 19 20 21	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of beans every time we turn around next to that trench or whatever you call it because we can't go all the way through the field. That's going to be at our cost. It's just a mess, you know. Q. Mr. Hofer, along that same line, that will be the case
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer? MR. RASMUSSEN: I do not. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION. BY MR. HOHN: Q. I have a couple of questions, Mr. Hofer. Looking at your	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of beans every time we turn around next to that trench or whatever you call it because we can't go all the way through the field. That's going to be at our cost. It's just a mess, you know. Q. Mr. Hofer, along that same line, that will be the case during the year of construction. There may possibly be some
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	there any objection? MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer? MR. RASMUSSEN: I do not. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION BY MR. HOHN: Q. I have a couple of questions, Mr. Hofer. Looking at your testimony, I'm not going to try to reiterate it, but I'd like	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of beans every time we turn around next to that trench or whatever you call it because we can't go all the way through the field. That's going to be at our cost. It's just a mess, you know. Q. Mr. Hofer, along that same line, that will be the case during the year of construction. There may possibly be some disruption during the second year. But after those first years,
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. KOENECKE: No objection. MR. SMITH: Objection of any other parties? MR. RASMUSSEN: No objection. MR. HOHN: No objection. MS. SEMMLER: No objection. MR. SMITH: Tim Hofer 1 is admitted, and at this point I'm going to do what's called tendering you for cross-examination, which means questions by any other parties who may wish to ask you questions. Is that okay? THE WITNESS: Sure. MR. KOENECKE: Thank you for coming today, Mr. Hofer. I have no questions of you. THE WITNESS: Thank you. MR. SMITH: Mr. Rasmussen, do you have any questions of Mr. Hofer? MR. RASMUSSEN: I do not. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION. BY MR. HOHN: Q. I have a couple of questions, Mr. Hofer. Looking at your	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	going to be there as good as forever in my lifetime, be there as long as I'm alive. I'd just as soon that they did it as good as they could the first time. Maybe it would prevent something. Q. The second page of your testimony, the third paragraph, you made a reference to TransCanada Keystone Pipeline is set to run kitty corner through your best piece of land. Could you define what kitty corner means? A. Rather than running straight through it so we only have to put up with it through a round, it's just going to go they call it diagonally basically. There's only one way we can get into that piece of land. You know, if they're working on it during when we're planting or harvesting or spraying, I have no idea how we would do it if we can't get across it. And when we spray say we're going to plant soybeans there next year. When we spray we drive in our road tracks. We don't run over the beans. So here we're going to have to run over a whole bunch of beans every time we turn around next to that trench or whatever you call it because we can't go all the way through the field. That's going to be at our cost. It's just a mess, you know. Q. Mr. Hofer, along that same line, that will be the case during the year of construction. There may possibly be some disruption during the second year. But after those first years, though, wouldn't that problem go away?

	893		895
1	Because even if they pack their ground, we're still going to	1	things changed all the time. You did give us at least my
2	have a higher risk of getting stuck there.	2	family, myself, you gave us time to say what we wanted to say.
3	Q. Okay. Near the bottom of that page, the second to the last	3	Kind of like this right now. I'm not a fast thinker.
4	paragraph, you refer to the temperature of the oil or the	4	I'm not used to this. So on the way home I'll think of
5	temperature of the product in the pipe.	5	something else I should have said that would have been better,
6	When you plant winter wheat, which is an important cash	6	but this is the best I can do for right now.
7	crop for us, it will never be as good over the pipe. And you	7	CHAIRMAN JOHNSON: Well, you and I have something in
8	refer to the heat. How does the temperature of the product	8	common at least.
9	going through or how would the pipe, oil going through the	9	THE WITNESS: You do pretty well up there.
10	pipe, affect a crop in your opinion?	10	CHAIRMAN JOHNSON: Do you know of anybody that wanted
11	A. Well, it's going to affect all the crops, but winter wheat	11	to ask a question publicly at that Clark hearing but didn't get
12	has to go dormant in the winter. And I don't know if it	12	an opportunity to?
13	does, it wouldn't be for very long. And it's going to thaw out	13	THE WITNESS: No. I can't say that I do right now.
14	there first in the springtime. Whatever we plant there, corn,	14	CHAIRMAN JOHNSON: Okay.
15	spring wheat, that's going to be the first place it's going to	15	CHAIRMAN JOHNSON: I think that's all I've got right
16	dry out.	16	now, Mr. Smith.
17	Q. Well, back to your comment about the grain itself, winter	17	Thank you, Mr. Hofer.
18	wheat is planted in the fall and harvested in the spring. Are	18	MR. SMITH: Other Commissioner questions?
19	you saying it's going to come up too quick? What are you saying	19	Commissioner Kolbeck.
20	there? Because of the temperature of the soil.	20	COMMISSIONER KOLBECK: Hi, Tim.
21	A. I would imagine it will green up sooner than the rest of	21	THE WITNESS: Hey.
22	it, sooner than it should, which is going to, you know it's	22	COMMISSIONER KOLBECK: Your testimony points out a
23	going to probably get froze off then I would imagine before it	23	a lot of things that you're concerned about, and I very much
24	has a chance to dry out.	24	understand that. Have you been following along with the
25	Q. Okay. I understand then what you're saying there.	25	hearings on the internet or
	894		896
	MR. HOHN: Thank you.	1	THE WITNESS: Right now?
1			
1 2	THE WITNESS: Sure.	2	COMMISSIONER KOLBECK: Like in the past, Monday,
	-		·
2	THE WITNESS: Sure.	2	COMMISSIONER KOLBECK: Like in the past, Monday,
2	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer?	3	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday?
2 3 4	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you.	2 3 4	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I
2 3 4 5	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions	2 3 4 5	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you
2 3 4 5 6	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer?	2 3 4 5 6	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I
2 3 4 5 6 7	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer.	2 3 4 5 6 7	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit.
2 3 4 5 6 7 8	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi.	2 3 4 5 6 7 8	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker
2 3 4 5 6 7 8 9	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when	2 3 4 5 6 7 8 9	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been
2 3 4 5 6 7 8 9	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your	2 3 4 5 6 7 8 9	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that
2 3 4 5 6 7 8 9 10	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S.	2 3 4 5 6 7 8 9 10	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns?
2 3 4 5 6 7 8 9 10 11	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were	2 3 4 5 6 7 8 9 10 11	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all
2 3 4 5 6 7 8 9 10 11 12 13	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind.	2 3 4 5 6 7 8 9 10 11 12 13	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it
2 3 4 5 6 7 8 9 10 11 12 13	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there;	2 3 4 5 6 7 8 9 10 11 12 13	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not
2 3 4 5 6 7 8 9 10 11 12 13 14 15	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right?	2 3 4 5 6 7 8 9 10 11 12 13 14 15	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right? THE WITNESS: Yes. That's right.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof. COMMISSIONER KOLBECK: Sure. And just as kind of
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right? THE WITNESS: Yes. That's right. CHAIRMAN JOHNSON: In your third paragraph you note	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof. COMMISSIONER KOLBECK: Sure. And just as kind of we're not done yet. Obviously, we'll be going into tonight and
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right? THE WITNESS: Yes. That's right. CHAIRMAN JOHNSON: In your third paragraph you note that at the PUC-held meeting in Clark there was very little time	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof. COMMISSIONER KOLBECK: Sure. And just as kind of we're not done yet. Obviously, we'll be going into tonight and tomorrow and next week. And all of this will be on a
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right? THE WITNESS: Yes. That's right. CHAIRMAN JOHNSON: In your third paragraph you note that at the PUC-held meeting in Clark there was very little time set aside for landowners and concerned citizens.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof. COMMISSIONER KOLBECK: Sure. And just as kind of we're not done yet. Obviously, we'll be going into tonight and tomorrow and next week. And all of this will be on a transcript.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right? THE WITNESS: Yes. That's right. CHAIRMAN JOHNSON: In your third paragraph you note that at the PUC-held meeting in Clark there was very little time set aside for landowners and concerned citizens. Can you help me understand what you mean by that?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof. COMMISSIONER KOLBECK: Sure. And just as kind of we're not done yet. Obviously, we'll be going into tonight and tomorrow and next week. And all of this will be on a transcript. I guess my biggest concern is your concerns here and
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right? THE WITNESS: Yes. That's right. CHAIRMAN JOHNSON: In your third paragraph you note that at the PUC-held meeting in Clark there was very little time set aside for landowners and concerned citizens. Can you help me understand what you mean by that? THE WITNESS: I guess what I meant by saying	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof. COMMISSIONER KOLBECK: Sure. And just as kind of we're not done yet. Obviously, we'll be going into tonight and tomorrow and next week. And all of this will be on a transcript. I guess my biggest concern is your concerns here and if any of that had been answered. So that's all I have.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	THE WITNESS: Sure. MR. SMITH: Staff, do you have questions of Mr. Hofer? MS. SEMMLER: None. Thank you. MR. SMITH: Commissioners, do you have any questions of Mr. Tim Hofer? CHAIRMAN JOHNSON: Yeah. Hi, Mr. Hofer. THE WITNESS: Hi. CHAIRMAN JOHNSON: I just want to make sure when Mr. Hohn directed you over to the second paragraph of your direct testimony and you noted how and this was at the U.S. State Department meeting about how the Government you were convinced that they had already made up their mind. You were talking about the Federal Government there; is that right? THE WITNESS: Yes. That's right. CHAIRMAN JOHNSON: In your third paragraph you note that at the PUC-held meeting in Clark there was very little time set aside for landowners and concerned citizens. Can you help me understand what you mean by that? THE WITNESS: I guess what I meant by saying TransCanada took up a lot of time in the beginning to tell us	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	COMMISSIONER KOLBECK: Like in the past, Monday, Tuesday, or Wednesday? THE WITNESS: When I could, I have. You know, I listened a little bit yesterday and here and there, but you can't get it in the shop. You've got to be in the house so I didn't hear a whole lot of it. A little bit. COMMISSIONER KOLBECK: Some of the things, the thicker pipe and the fires, trenches, and stuff like that have been talked about. I was wondering if any of these hearings that you've heard have maybe eased some of your concerns? THE WITNESS: No. I did hear a little bit about all of those and caught Ben on the news too on his reports. So it all makes me real nervous. Because, you know, there's just not that much proof. COMMISSIONER KOLBECK: Sure. And just as kind of we're not done yet. Obviously, we'll be going into tonight and tomorrow and next week. And all of this will be on a transcript. I guess my biggest concern is your concerns here and if any of that had been answered. So that's all I have. MR. SMITH: Commissioner Hanson, do you have a

	897		899
1	THE WITNESS: Hey.	1	THE WITNESS: I was talking about the big guys.
2	COMMISSIONER HANSON: How's it going?	2	COMMISSIONER HANSON: Okay. Are we the medium-sized?
3	THE WITNESS: It will be going better in a few minutes	3	THE WITNESS: I meant the two senators,
4	here. About 9 o'clock tonight it will be going pretty good.	4	representative.
5	COMMISSIONER HANSON: Well, we're enjoying your	5	COMMISSIONER HANSON: All right. You're talking about
6	testimony. I don't want to sound defensive up here, but your	6	federally elected officials.
7	testimony, your prefiled testimony was provocative. I'll put it	7	THE WITNESS: Yeah.
8	that way.	8	COMMISSIONER HANSON: All right. Well, then I'm going
9	And Commissioner Johnson asked some questions that I	9	to assume that the rest of your paragraph there would all be
10	think were pertinent from the standpoint from our standpoint.	10	associated with the
11	We want to make sure that we're doing our job properly as	11	THE WITNESS: Which paragraph are we on now?
12	Public Utilities Commissioners. And we recognize that we have	12	COMMISSIONER HANSON: The same paragraph, second page,
13	some very knowledgeable and capable landowners who are affected	13	second paragraph. Right after that you had made a few other
14	by this pipeline, and we want to make certain that we're doing	14	comments about so does all of that pertain then to the
15	what's right by them certainly.	15	Federal Government that you're referring to?
16	You made one statement at the beginning of your	16	THE WITNESS: No. Some of it pertains to you guys
17	testimony or in response to a question, I believe it was, by	17	too.
18	Mr. Hohn when you stated that you had wished that a Public	18	COMMISSIONER HANSON: Which portion just so I know
19	Utilities Commission representative had been at the meeting when	19	where are we failing?
20	the Federal Government was their agency was present.	20	THE WITNESS: I'm not saying that you're failing, but
21	I believe there was some exchange of discussion. I	21	I'll find out. I'll just say I'll find out how important we
22	don't know if that was on the record or not, but Kara Semmler in	22	really are. You know, if we're really important, you guys are
23	case you missed it, an attorney who is employed through the PUC,	23	going to put stipulations if this thing has to go through,
24	but in this docketed hearing she does, in fact, represent the	24	you're going to help us out with the easements so it's more fair
25	better interests of the citizens of South Dakota. And the way	25	and protect us. And I can't think of anything else, but I know
	898		900
1	it and she was present at that meeting, I believe; is that	1	there's a lot of them I'll think of in a little bit.
2	correct?	2	COMMISSIONER HANSON: All right. It just appeared
3	MS. SEMMLER: (Nods head).	3	that we had not accomplished something we were supposed to
4	COMMISSIONER HANSON: And she's nodding correct. The	4	accomplish up to this juncture.
5	way just so that you understand, the way that we are and	5	THE WITNESS: When I went to the first meeting in
6	this is just a not in any way to give a great deal of	6	Clark I heard of you. I know a lot of stories about him because
7	explanation, but there's a lot of folks out there who don't	7	we've got some mutual friends.
8	quite understand the way the Public Utilities Commission	8	COMMISSIONER KOLBECK: We'll keep that between us.
9	functions from that point. We are represented up here	9	THE WITNESS: For a while anyway.
10	individually, but we work with a Hearing Officer.	10	CHAIRMAN JOHNSON: Object on relevance.
11	Ms. Semmler and Karen Cremer are attorneys who we	11	COMMISSIONER HANSON: All right. Well, Mr. Hofer, I
12	don't really associate with and discuss the items of this with.	12	appreciate the information and the discussion and the fact that
13		13	you did take the time to come here.
	And I don't mean to be testifying, but I want you and the other		,
14	folks to understand that. They are representing basically the	14	THE WITNESS: You guys too. I didn't know what to
14 15	folks to understand that. They are representing basically the citizens in this.	14 15	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a
14 15 16	folks to understand that. They are representing basically the	14 15 16	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get
14 15 16 17	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same	14 15 16 17	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it
14 15 16 17 18	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same table.	14 15 16 17 18	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it is.
14 15 16 17 18 19	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same table. You had made a statement in your prefiled testimony	14 15 16 17 18 19	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it is. COMMISSIONER HANSON: Thank you, Mr. Hofer.
14 15 16 17 18 19 20	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same table. You had made a statement in your prefiled testimony it was on the second page, second paragraph, and you stated that	14 15 16 17 18 19 20	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it is. COMMISSIONER HANSON: Thank you, Mr. Hofer. THE WITNESS: So I'm depending on you guys to take
14 15 16 17 18 19 20 21	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same table. You had made a statement in your prefiled testimony it was on the second page, second paragraph, and you stated that the land that we thought we owned until this private oil company	14 15 16 17 18 19 20 21	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it is. COMMISSIONER HANSON: Thank you, Mr. Hofer. THE WITNESS: So I'm depending on you guys to take care of me.
14 15 16 17 18 19 20 21 22	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same table. You had made a statement in your prefiled testimony it was on the second page, second paragraph, and you stated that the land that we thought we owned until this private oil company from a foreign company came along and said it was theirs to use	14 15 16 17 18 19 20 21 22	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it is. COMMISSIONER HANSON: Thank you, Mr. Hofer. THE WITNESS: So I'm depending on you guys to take care of me. COMMISSIONER HANSON: All right. That's all I have,
14 15 16 17 18 19 20 21 22 23	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same table. You had made a statement in your prefiled testimony it was on the second page, second paragraph, and you stated that the land that we thought we owned until this private oil company from a foreign company came along and said it was theirs to use however they wanted and no elected official in South Dakota	14 15 16 17 18 19 20 21 22 23	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it is. COMMISSIONER HANSON: Thank you, Mr. Hofer. THE WITNESS: So I'm depending on you guys to take care of me. COMMISSIONER HANSON: All right. That's all I have, Mr. Smith.
14 15 16 17 18 19 20 21 22	folks to understand that. They are representing basically the citizens in this. So we've got different groups here representing different entities, even though we're seated around the same table. You had made a statement in your prefiled testimony it was on the second page, second paragraph, and you stated that the land that we thought we owned until this private oil company from a foreign company came along and said it was theirs to use	14 15 16 17 18 19 20 21 22	THE WITNESS: You guys too. I didn't know what to expect when I went to the first meeting, but you guys asked a lot of questions and you are asking a lot of questions and I get the feeling that you care and I hope that's true. I think it is. COMMISSIONER HANSON: Thank you, Mr. Hofer. THE WITNESS: So I'm depending on you guys to take care of me. COMMISSIONER HANSON: All right. That's all I have,

	901		903
1	THE WITNESS: I'll accept that. Thank you.	1	it back to TransCanada and told them that I could not sign this
2	(The witness is excused)	2	easement.
3	MR. SMITH: Thank you. We appreciate you coming.	3	And I asked them then if they get all of their permits
4	Now is it going to be Delwin or Pam Hofer next?	4	if they would meet me in my lawyer's office and draw up a new
5	Thank you, sir.	5	easement agreement, and they agreed that they would.
6	(The witness is sworn by the court reporter)	6	But since then I had two calls from one of their land
7	MR. SMITH: If you would, please, state your name and	7	agents to sign the easement again. And I thought I had this all
8	give us where you live and then	8	taken care of where I wouldn't have to talk to a land agent
9	MR. DELWIN HOFER: I'm Delwin Hofer. I live at	9	again until we meet in my lawyer's office.
10	40916 192nd Street, Carpenter, South Dakota.	10	But about three weeks later I got another easement
11	MR. SMITH: Thank you. And you did submit prefiled	11	agreement in the mail. And that easement agreement kind of
12	testimony in this; right?	12	upset me a little. At the place where I was to sign the
13	THE WITNESS: Yes, I did.	13	easement it has written and I have a copy of it right here
14	MR. SMITH: Is that what you have in front of you	14	that I'd like to give you. It says, Delwin Hofer, husband,
15	there?	15	Pam R. Hofer, husband.
16	THE WITNESS: Yes, I do.	16	If TransCanada makes a simple mistake like this, can
17	MR. SMITH: If you were to testify live today, would	17	they really take care of a pipeline, an oil high pressure
18	your testimony be the same as what's in there?	18	pipeline?
19	THE WITNESS: I guess I'd like to comment on a few	19	I would think they should have been able to catch
20	things, if I could.	20	this.
21	MR. SMITH: Oh, you may. I'm just asking you are	21	The route of this proposed line runs through my land
22	there any changes in the testimony that you'd want to make	22	at an angle. Could make it impossible to farm. This quarter I
23	because what I want to do is then have you offer it into	23	own is a good productive piece of land. There is only one way
24	evidence.	24	to farm it, to get to it.
25	THE WITNESS: No. I guess probably not.	25	Will I be able to during the construction time will
	902		904
1	MR. SMITH: Okay. At this point in time would you	1	I be able to get to the west side of my field? And I have
2	like to offer your prefiled testimony into evidence?	2	another question. I plan on planting this field to beans. And
3	THE WITNESS: Yes.	3	beans sometimes get bugs. Will TransCanada shut down their
4	MR. SMITH: At this time he's offered it. It will be	4	if they say they are going through the land and digging and
5	Delwin Hofer Exhibit 1.	5	will they shut down for three, four days to give me time to
6	Is there an objection to his prefiled testimony?	6	spray my beans?
7	MR. KOENECKE: No objection.	7	The chemical used to kill bugs, I think you could have
8	MR. RASMUSSEN: No objection.	8	a two or a three-day waiting period on it. And if they don't,
9	MR. HOHN: No objection.	9	why, I'd have to stay back a long ways, and I would lose quite a
10		10	hit of production on my boons because of it
	MS. SEMMLER: No objection.		bit of production on my beans because of it.
11	MR. SMITH: Okay. Your prefiled testimony is	11	And then at a hearing in Clark Buster Gray said that
12	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the	11 12	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a
12 13	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear.	11 12 13	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I
12 13 14	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through	11 12 13 14	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of
12 13 14 15	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land	11 12 13 14 15	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe
12 13 14 15 16	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet	11 12 13 14 15 16	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and
12 13 14 15 16	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across	11 12 13 14 15 16 17	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will.
12 13 14 15 16 17	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across my land. He told me that my neighbors had all signed it and	11 12 13 14 15 16 17	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will. Another thing I'd like to add: I'm wondering if a
12 13 14 15 16 17 18 19	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across my land. He told me that my neighbors had all signed it and that I should I could just as well have the money.	11 12 13 14 15 16 17 18 19	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will. Another thing I'd like to add: I'm wondering if a rodent or badger could could a badger or rodent dig down and
12 13 14 15 16 17 18 19 20	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across my land. He told me that my neighbors had all signed it and that I should I could just as well have the money. And I asked him if TransCanada had all the permits to	11 12 13 14 15 16 17 18 19 20	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will. Another thing I'd like to add: I'm wondering if a rodent or badger could could a badger or rodent dig down and ruin the outside of the pipe, take the protective coating off
12 13 14 15 16 17 18 19 20 21	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across my land. He told me that my neighbors had all signed it and that I should I could just as well have the money. And I asked him if TransCanada had all the permits to build it, and he said they did. I knew that they didn't. I	11 12 13 14 15 16 17 18 19 20 21	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will. Another thing I'd like to add: I'm wondering if a rodent or badger could could a badger or rodent dig down and ruin the outside of the pipe, take the protective coating off the pipe? Is it possible? I guess I really don't know.
12 13 14 15 16 17 18 19 20 21 22	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across my land. He told me that my neighbors had all signed it and that I should I could just as well have the money. And I asked him if TransCanada had all the permits to build it, and he said they did. I knew that they didn't. I talked to him just a little bit longer on the phone, and I hung	11 12 13 14 15 16 17 18 19 20 21 22	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will. Another thing I'd like to add: I'm wondering if a rodent or badger could could a badger or rodent dig down and ruin the outside of the pipe, take the protective coating off the pipe? Is it possible? I guess I really don't know. And the soil in our area is the bottom of it is
12 13 14 15 16 17 18 19 20 21 22 23	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across my land. He told me that my neighbors had all signed it and that I should I could just as well have the money. And I asked him if TransCanada had all the permits to build it, and he said they did. I knew that they didn't. I talked to him just a little bit longer on the phone, and I hung up.	11 12 13 14 15 16 17 18 19 20 21 22 23	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will. Another thing I'd like to add: I'm wondering if a rodent or badger could could a badger or rodent dig down and ruin the outside of the pipe, take the protective coating off the pipe? Is it possible? I guess I really don't know. And the soil in our area is the bottom of it is very heavy and stays wet, very corrosive. And beings that my
12 13 14 15 16 17 18 19 20 21 22	MR. SMITH: Okay. Your prefiled testimony is admitted. Now please proceed, and you can tell the Commissioners what you want them to hear. THE WITNESS: I would just like to have you go through some of it. About the middle of May a TransCanada agent, land agent, called me on the phone and told me that he wanted to meet with me and have me sign a permit, easement permit to go across my land. He told me that my neighbors had all signed it and that I should I could just as well have the money. And I asked him if TransCanada had all the permits to build it, and he said they did. I knew that they didn't. I talked to him just a little bit longer on the phone, and I hung	11 12 13 14 15 16 17 18 19 20 21 22	And then at a hearing in Clark Buster Gray said that the pipe would be bent hydraulically to fit the land. I'm a farmer. I work with iron. A little bit anyway. And whenever I have stretched a piece of pipe or wherever I bent a piece of pipe it has to stretch. Will this bending this pipe hydraulically to fit the land, will that stretch the pipe and ruin the pipe or weaken the pipe? I believe that it will. Another thing I'd like to add: I'm wondering if a rodent or badger could could a badger or rodent dig down and ruin the outside of the pipe, take the protective coating off the pipe? Is it possible? I guess I really don't know. And the soil in our area is the bottom of it is

		905	907
1	and contamination of the soil.	1	son then, we're going to tender you for questions,
2	My land drains toward a creek that serves as a water	2	cross-examination from the other parties here.
3	supply for our cattle. This creek flows to Chute Creek and on	3	Is that okay?
4	to the James River. A leak at the location on my land could	4	THE WITNESS: I guess so. I'll do the best I can. I
5	contaminate the water supply for our cattle and pollute the	5	might need a little help from the PUC, but I'll try and do the
6	creek and the river.	6	best I can.
7	I'm a conservationist. I've been on the conservation	7	MR. SMITH: That's all you can do in this life. Fire
8	board in Beadle County for several years. I've encouraged no	8	away, Mr. Koenecke.
9	till farming to save our soils. I can't as a farmer I cannot	9	MR. KOENECKE: Mr. Hofer, thank you for coming today.
10	destroy or drain wetland or take trees out of wetlands. Yet the	10	You'll need no help on my account. I have no questions for you.
11	TransCanada plan for the pipeline seems to go against these	11	THE WITNESS: Thank you.
12	conservation practices and rules that we have worked with for	12	MR. RASMUSSEN: I have none.
13	many years.	13	MR. SMITH: Mr. Hohn.
14	According to TransCanada, the information that I have,	14	MR. HOHN: Mr. Hofer, I have a couple questions for
15	TransCanada can go through wetlands, through aquifers, take	15	you.
16	trees out of wetlands, destroy native grasslands. Don't trees,	16	CROSS-EXAMINATION
17	aquifers, and wetlands have any value at all?	17	BY MR. HOHN:
18	And then on the map filed with TransCanada Application	18	Q. How long have you farmed at this site near Carpenter?
19	to the PUC entitled Land Use Type, Map 20-46, our land is marked	19	A. I bought the land in 1971.
20	as pasture land. And it's not.	20	
21	Does that mean that TransCanada will go through and	21	3
22	plant a strip of grass where they tear up my land?	22	
23	I guess I've attended about seven meetings. This is	23	
24	the eighth meeting that I've attended with TransCanada. And I'm	24	1 4 5 5 5
25	getting real tired of it. The pressure on me has been real	25	, , , , , , , , , , , , , , , , , , ,
4	rough. The head become weaklesses in the week and business and I	906	908 electric?
1 2	rough. I've had heart problems in the past and bypass, and I quess I think that TransCanada is no has no respect at all	2	
3	for property owners, people, land, water, and wildlife.	3	
4	My land is right now, I feel, in your hands of the	4	
5	Public Utilities Commission. I ask you to deny TransCanada from	5	the proposed promise to going through
6	pushing this project on us. Take care of us.	6	3 3
7	I guess that's about all I got to say.	7	
8	I would like to submit these too. This is a map here	8	
9	on that I referred to. 20-46, that shows that my land here	9	Q. Okay. Mr. Hofer, what is your source of drinking water at
10	is classified as pasture land. It's been farm ground for a lot	10	your farm or livestock water at your property?
11	of years. I guess that's probably all I have. I can't think of	11	A. At the farm we use an artesian well. And some of it one
12	anything else.	12	of our pastures we use rural water. We have the rural water
13	MR. SMITH: Thank you, Mr. Hofer. Maybe I don't	13	hookup there at our farm, but we're not using it. It so
14	know if you have copies of those, but what I'm going to have you	14	happened that the year before we got rural water we had to spend
15	probably do is hand them over to the court reporter so she can	15	\$15,000 for a new well, and as long as that well works, we're
16	mark them as exhibits.	16	going to use it. We've got good water there and a lot of it.
17	MR. SMITH: Okay. At this time would you want to	17	Q. I understand it. And just for the record, your rural water
18	offer those two exhibits into evidence?	18	provider is who?
19	THE WITNESS: Yes.	19	A. Mid-Dakota.
20	MR. SMITH: Is there an objection?	20	Q. Mid-Dakota. In your testimony was reference to the
21	MR. KOENECKE: No objection.	21	
22	MR. RASMUSSEN: No objection.	22	badger digging down and damaging the coating on the pipe.
İ			
23	MR. HOHN: No objection.	23	Can you elaborate on that? How would an animal do that, in
23 24 25	MR. HOHN: No objection. MR. SMITH: Okay. Your Delwin Hofer Exhibits 2 and 3 are received into evidence. At this time then just as with your		Can you elaborate on that? How would an animal do that, in your opinion?

	909		911
1	just a little further east of where this proposed pipeline's	1	Mr. Hofer?
2	going through on this piece of land. And it seems like we can	2	COMMISSIONER KOLBECK: I just I'll ask you the same
3	cover up them badger holes and it don't take very long and	3	thing I asked Tim, Delwin. Have you listened? Has anything
4	they're right back there again.	4	that's come out yet this week put anything on your mind at ease?
5	I was wondering. You know, I got to thinking about it.	5	THE WITNESS: You know, I didn't really listen. I
6	Badgers do a tremendous amount of damage digging all over. I	6	just got a little information that Tim give me. And I would say
7	don't know why they wouldn't like to lay right beside that hot	7	no. I think maybe if I'd go over it, maybe I'd learn a few
8	line and do some digging.	8	things that I didn't know. I guess I've learned something at
9	Q. Okay. One of the the burden of proof for the Applicant	9	about every meeting that I went to. A lot of it I didn't want
10	in this case is under South Dakota Law 49-41B-22. And there are	10	to learn.
11	four questions essentially the statute asks. The first deals	11	COMMISSIONER KOLBECK: Well, it's just one thing that
12	with whether they comply with the laws. And I'm not going to	12	kind of sticks out in my mind is the pipe can withstand 51 tons
13	ask you that because that would be a legal question for an	13	of pressure. That would be an awful big badger. That might put
14	attorney.	14	your mind at ease knowing how much pressure it can withstand?
15	But the other three items I would like to ask you. In your	15	Maybe.
16	opinion based on what you know about this oil pipeline, does it	16	THE WITNESS: I guess you maybe misunderstood it. I
17	pose a threat of serious injury to the environment or to the	17	didn't mean the badger would dig a hole in that line. I mean
18	social and economic condition of the inhabitants?	18	the badger could take the protective coating off, and it would
19	A. I would say that it definitely does. You know, with the	19	corrode that line in a hurry is what I meant. No badger's going
20	leak they had in Minnesota just lately makes me wonder will I	20	to dig through that line. If it does, it's going to leak long
21	really feel safe driving a tractor or a combine over this line?	21	before.
22	And if this line would run at a straight line through my land, I	22	COMMISSIONER KOLBECK: Some of the stuff that come out
23	probably wouldn't ever even think about farming that, farming	23	I was just wondering if it helped at all. That's all. Thanks.
24	over that land. I would just leave it. Because I think the	24	MR. SMITH: I think you're excused then, Mr. Hofer.
25	risk is too great. It looks like it don't take much to get it	25	THE WITNESS: Okay. Thank you.
	910		912
1	started once there's a leak. And, I don't know, you know, I	1	(The witness is excused)
2	would I think it would definitely devaluate my property	2	MR. SMITH: Thank you, sir. Mrs. Hofer.
3	there.	3	(The witness is sworn by the court reporter)
4		l l	
5	Q. And item 3 the burden of proof is, Do you believe the	4	MS. HOFER: My name is Pam Hofer. 40916 192nd Street,
3	Q. And item 3 the burden of proof is, Do you believe the pipeline would substantially impair the health, safety, and	4 5	MS. HOFER: My name is Pam Hofer. 40916 192nd Street, Carpenter, South Dakota.
6		_	
	pipeline would substantially impair the health, safety, and	5	Carpenter, South Dakota.
6	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare?	5	Carpenter, South Dakota. Okay. I just have a couple of things I just want to
6 7	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks,	5 6 7	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have
6 7 8 9 10	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not	5 6 7 8 9	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My
6 7 8 9 10	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping	5 6 7 8 9 10	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker
6 7 8 9 10 11	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be	5 6 7 8 9 10 11	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas
6 7 8 9 10 11 12 13	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud.	5 6 7 8 9 10 11 12 13	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the
6 7 8 9 10 11 12 13 14	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know.	5 6 7 8 9 10 11 12 13	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too
6 7 8 9 10 11 12 13 14 15	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under	5 6 7 8 9 10 11 12 13 14 15	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this.
6 7 8 9 10 11 12 13 14 15 16	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with	5 6 7 8 9 10 11 12 13 14 15 16	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are
6 7 8 9 10 11 12 13 14 15 16 17	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property?	5 6 7 8 9 10 11 12 13 14 15 16	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line,
6 7 8 9 10 11 12 13 14 15 16 17	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property? A. I would say it would because you're going to have to be	5 6 7 8 9 10 11 12 13 14 15 16 17 18	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line, I don't feel that's enough. In here you'll see where I've
6 7 8 9 10 11 12 13 14 15 16 17 18	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property? A. I would say it would because you're going to have to be real careful where you put a fence post in on top of it. As far	5 6 7 8 9 10 11 12 13 14 15 16 17 18	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line, I don't feel that's enough. In here you'll see where I've broken it down to how many people I'm not going to read it.
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property? A. I would say it would because you're going to have to be real careful where you put a fence post in on top of it. As far as being able to irrigate this land, I would say that it would	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line, I don't feel that's enough. In here you'll see where I've broken it down to how many people I'm not going to read it. How many people that would put between different miles.
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property? A. I would say it would because you're going to have to be real careful where you put a fence post in on top of it. As far as being able to irrigate this land, I would say that it would probably not work at all.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line, I don't feel that's enough. In here you'll see where I've broken it down to how many people I'm not going to read it. How many people that would put between different miles. I feel that with our pumping stations we should have
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property? A. I would say it would because you're going to have to be real careful where you put a fence post in on top of it. As far as being able to irrigate this land, I would say that it would probably not work at all. MR. HOHN: Thank you.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line, I don't feel that's enough. In here you'll see where I've broken it down to how many people I'm not going to read it. How many people that would put between different miles. I feel that with our pumping stations we should have someone stationed year round all the time so that if there is a
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property? A. I would say it would because you're going to have to be real careful where you put a fence post in on top of it. As far as being able to irrigate this land, I would say that it would probably not work at all. MR. HOHN: Thank you. MR. SMITH: Staff? Questions.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line, I don't feel that's enough. In here you'll see where I've broken it down to how many people I'm not going to read it. How many people that would put between different miles. I feel that with our pumping stations we should have someone stationed year round all the time so that if there is a problem, it can be shut down. I know they say it will be shut
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	pipeline would substantially impair the health, safety, and welfare of the inhabitants, health, safety, and welfare? A. Oh, I would say so. The health part of it. If it leaks, starts a fire, why, it's going to endanger people. And I'm not very far. My land is not very far away from that pumping station. And I understand that pumping station is going to be pretty loud. And I hear some talk about burying two lines. Will that increase the noise from the pumping station double what they say it is going to be now? I don't know. Q. The last question I have for you is the fourth item under the burden of proof. In your opinion would it interfere with the orderly development of the region or your personal property? A. I would say it would because you're going to have to be real careful where you put a fence post in on top of it. As far as being able to irrigate this land, I would say that it would probably not work at all. MR. HOHN: Thank you.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Carpenter, South Dakota. Okay. I just have a couple of things I just want to kind of say about the testimony that you have. And then I have a few things to give you to add to it that I brought today. My big concern is the safety as they said with having the thicker pipe. Because I feel we're just as important in the rural areas as the city people are. And we work hard to make food for the nation, the world. We like it. We want to continue doing it. And we hope that you can help us do that. I'd like to see the 100-year perpetual agreement too if we have to go through with this. One of my big concerns is with these people that are going to be working on this 1,077 miles or watching it of line, I don't feel that's enough. In here you'll see where I've broken it down to how many people I'm not going to read it. How many people that would put between different miles. I feel that with our pumping stations we should have someone stationed year round all the time so that if there is a

would be what, four, five hours to get up from Omaha, six to get to it. That's too long.

Another thing I'm wondering with these pumping stations, is there going to be somebody there like if there's a leak or something where are they going to get snow removal people to help with that? I was wondering about that.

That's pretty much with my testimony.

Now I have some things that I would like to add to my testimony today. PS 21, the Carpenter area is stated in the -- oh, let's see. That's in here too, isn't it? Oh, no. It's right here. Where is my sheet about this? Okay. Here.

Okay. Table 3, 12, 2-1, page 3, 12 through 16

TransCanada states there are six structures within one mile of the Carpenter pumping station. There is in the Environmental Impact Statement. I took it out of there.

I don't know where they got these numbers from because if somebody came to count them, they can't count. I have gone down to tell you here how many structures there are within a mile of PS 21. And where we did -- from where we saw the people scouting and measuring that's where we started measuring.

So I have the place where it starts. And here is
across the road a ways there's a garage which is a structure.
Madsen's cattle corrals where they sort their cattle and stuff
is a structure. The ball field. There's a well house, an
outhouse, and our lunch stand where we serve lunch when we have

our tournaments. There's Wheat Growers in town. There's Wheat Growers buildings. I took pictures of every building in town.

There's some more Wheat Growers buildings, their tanks,fertilizer tanks, storage tanks, seed buildings.

There's a Carpenter Country Store, which is a gas station and a garage. There's their supply shed. There's the post office. There's the old cafe and the old post office. There are still structures there. There's the new cafe and community center.

And then I went into the houses. There's the Aaron Wicks home. There's the Decker house. There's the mobile home. There's a Dick Brede house and garage. And then here's the pictures from the back with all the little houses they have in the back for storing tools and things. There's Mary Opsahl's home. And I didn't get the building in back of that. She has a little storage shed.

There's Pearl Wicks' house or garage. There's ma and pa's house. There's Goldie Wicks' house and garage. And this house, there's a big family and whenever they come home they get to stay there. And there is somebody renting it now, and I don't know how many people are there or -- I didn't check that, how long they're there.

There's the Tubby Opsahl house. I guess I don't know
what this one's called, but then there's a house with two
buildings out behind. There's the Christensen home and the shed

behind. There's the Maxine Iverson house. There's Harold Laabs and Selma's home. There's a machine shop in their garage. He used to have a business here in town. There's another house and a garage there. There's a car there. There's somebody living there. There's our church.

And if you go -- which I think these are in, but
Ronnie Opsahl, he's north of town just a little ways, two
buildings. And then there's our grandparents' farm, which
there's about 22 to 24 buildings. And I know some of them are
going to be in it. I'm not sure. I think they'll all hit, but
I'm not sure on that. And then some more pictures of our
grandparents' farm.

So I have this broke down too. There's 11 houses. There's four businesses. One church. There's nine people that live there full time that I know. Plus those others. I'm not sure how many are there now. There's 12 people that work at the business in town. There's one pastor, and there's three lay pastors that help him out. And then the ball field and the garage.

And I -- the measure is around 3,300 feet from the proposed site to the first edge of Carpenter where it would start and then kitty corner across town would be probably what, a block kitty corner, a little further. So I didn't measure it way to the end, but we got it that far.

And they have only recognized six structures in that

Environmental Impact Statement. So I wanted to get that
 corrected. So I do want to enter this today for you to keep,
 this book with all of my pictures in it.

Okay. My husband covered that.

I am worried about the depth of the pipe too. In this right here, in our first easement that we got it says at the bottom here, Except where the above-ground piping facility such as main line black valves, pumping stations, and except as otherwise stated in the agreement, each pipeline shall be installed at a depth conforming with industry standards and the requirements of applicable laws.

Well, I'm not good -- I'm not a lawyer. I don't know much about some of this stuff, but I'm worried because in some of the things that we got from TransCanada they said and at some of their meetings they said they only have to be 2 feet deep but they're going to go 4 foot deep.

So I want to know how are we going to be sure that they are going to be 4 foot deep? Is there somebody going to be there watching them, or do we just have to believe it's going to be? There's one place I saw 3 and a half feet. Well, 6 inches to me in a pipe like that is a big difference. I would like to see the pipe even deeper so we can feel safer when we're around there working. That's that one.

My husband took care of me being a husband. Having that kind of marriage, which I was very, very, very upset with.

		917	919
1	One thing my husband didn't cover, and I will. This	1	structures within 1 mile of the pumping station will be Pam
2	is the angling through our field. We can't get across to farm	2	Hofer Exhibit 2.
3	it. If they put this in I heard this man in North Dakota	3	MR. SMITH: Those are the two exhibits you want to
4	talking. He said it's been nine years since a pipeline was put	4	enter; is that correct?
5	in his field. And he cannot cross it with his equipment today	5	THE WITNESS: Yes.
6	yet because like this last year we had 10 inches of rain in four	6	MR. SMITH: At this time would you want to offer those
7	days. Three weeks later we had 6 more inches.	7	into evidence?
8	That would totally have saturated that place. Well,	8	THE WITNESS: Yes, I do.
9	we would never get across. If we can't farm this west half of	9	MR. SMITH: Is there any objection from TransCanada?
10	our section, which is bigger than what they're leaving us to the	10	MR. KOENECKE: Mr. Smith, I'm anxious to look at the
11	east, are they going to pay me for the crop? If this made like	11	photo album. I must say, Mrs. Hofer, that may be the most
12	we did this year, 135 bushel corn, and I can't plant this over	12	complete foundation for an exhibit I've encountered in my 12
13	here, can I get a payment of 135 bushels an acre out of them for	13	years as a lawyer. It was nicely done.
14	that?	14	MR. RASMUSSEN: No objection.
15	I can't get there. There's no other road from the	15	MR. HOHN: No objection.
16	west that we can get in there. That's the only way in. So if	16	MS. SEMMLER: No objection.
17	we have to if they could burrow under or something if we have to	17	MR. SMITH: Okay. Pam Hofer Exhibits 1 and 2 are
18	go through with it but with our equipment we will never get	18	received into evidence. At this point in time then I'm going to
19	across there to farm it. And if we get stuck and have to rip	19	tender you for questions from the other parties.
20	something up, that is going to be very, very costly.	20	Mr. Koenecke.
21	Otherwise, I think that's going to so I just want	21	MR. KOENECKE: I do have a couple.
22	to kind of close with this. Please look into your hearts and	22	CROSS-EXAMINATION
23	study all the laws and the information and see if you could	23	BY MR. KOENECKE:
24	please place conditions on any permit you decide to grant to	24	Q. Mrs. Hofer, have you reviewed any amendments to the
25	TransCanada that would at least provide more protection for	25	Keystone Application on file with the South Dakota Public
		918	920
1	public safety, ground water, the farmer, the landowner, and the	1	Utilities Commission?
1 2	public safety, ground water, the farmer, the landowner, and the environment.	1 2	Utilities Commission? A. Is that in here, or I don't know what you mean.
2	environment.	2	A. Is that in here, or I don't know what you mean.
2	environment. We have a great place to live here in South Dakota,	3	A. Is that in here, or I don't know what you mean.Q. I presume have you reviewed the Application as it was
2 3 4	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a	2 3 4	A. Is that in here, or I don't know what you mean.Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC?
2 3 4 5	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this.	2 3 4 5	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you
2 3 4 5 6 7 8	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have	2 3 4 5 6 7 8	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August?
2 3 4 5 6 7 8 9	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now.	2 3 4 5 6 7 8 9	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know.
2 3 4 5 6 7 8 9	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today.	2 3 4 5 6 7 8 9	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an
2 3 4 5 6 7 8 9 10	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll	2 3 4 5 6 7 8 9 10	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show
2 3 4 5 6 7 8 9 10 11 12	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In	2 3 4 5 6 7 8 9 10 11 12	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry,
2 3 4 5 6 7 8 9 10 11 12 13	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you	2 3 4 5 6 7 8 9 10 11 12	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station?
2 3 4 5 6 7 8 9 10 11 12 13 14	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if	2 3 4 5 6 7 8 9 10 11 12 13	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our
2 3 4 5 6 7 8 9 10 11 12 13 14 15	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony	2 3 4 5 6 7 8 9 10 11 12 13 14	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would. MR. SMITH: So why don't we mark her prefiled as	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your A. 48.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would. MR. SMITH: So why don't we mark her prefiled as Pam Hofer 1. And then you wanted to introduce as well the book	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your A. 48. Q. And we've got 57?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would. MR. SMITH: So why don't we mark her prefiled as Pam Hofer 1. And then you wanted to introduce as well the book full of photos.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your A. 48. Q. And we've got 57? A. Okay. 48 and if you take my grandparents' farm, there
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would. MR. SMITH: So why don't we mark her prefiled as Pam Hofer 1. And then you wanted to introduce as well the book full of photos. Now I want to ask you, are those photos that are	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your A. 48. Q. And we've got 57? A. Okay. 48 and if you take my grandparents' farm, there would be 24 and there will be 26 more. I didn't put them all
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would. MR. SMITH: So why don't we mark her prefiled as Pam Hofer 1. And then you wanted to introduce as well the book full of photos. Now I want to ask you, are those photos that are duplicates that we can keep?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your A. 48. Q. And we've got 57? A. Okay. 48 and if you take my grandparents' farm, there would be 24 and there will be 26 more. I didn't put them all in, just in case I wasn't quite right.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would. MR. SMITH: So why don't we mark her prefiled as Pam Hofer 1. And then you wanted to introduce as well the book full of photos. Now I want to ask you, are those photos that are duplicates that we can keep? THE WITNESS: You keep these. This is for you. No.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your A. 48. Q. And we've got 57? A. Okay. 48 and if you take my grandparents' farm, there would be 24 and there will be 26 more. I didn't put them all in, just in case I wasn't quite right. Q. I'll show it to you, and you can have that.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	environment. We have a great place to live here in South Dakota, and we should be eager for we shouldn't be eager for just a few tax dollars to put up with a crude oil pipeline like this. Let's keep South Dakota, our place to live, as good as we have it now. So I think that's kind of what I wanted to say. And I really hope that the project does get denied. That is what I have to say today. MR. SMITH: Thank you, Mrs. Hofer. At this time I'll ask you the questions I asked your son and your husband. In terms of your prefiled testimony, here under oath today do you certify that everything in there is true under oath and that if you testified as to those exact things today, your testimony would be essentially the same? THE WITNESS: It would. MR. SMITH: So why don't we mark her prefiled as Pam Hofer 1. And then you wanted to introduce as well the book full of photos. Now I want to ask you, are those photos that are duplicates that we can keep?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 A. Is that in here, or I don't know what you mean. Q. I presume have you reviewed the Application as it was filed in April with the South Dakota PUC? A. I'm sure I did. I read so much stuff I don't know what you mean. Q. I can empathize with that. I guess do you know whether you've reviewed amendments since August? A. I don't know. Q. So would it surprise you for me to say that I've got an amendment right here, and I'll show it to you, that we show 15 structures within 1 mile of the Beadle 57, I'm sorry, structures within 1 mile of the Beadle County pump station? Would that surprise you to learn that we've amended our Application to say that? A. Yeah. Q. How many structures did you count on your A. 48. Q. And we've got 57? A. Okay. 48 and if you take my grandparents' farm, there would be 24 and there will be 26 more. I didn't put them all in, just in case I wasn't quite right.

924

- 1 A. Okay. When did the Environmental Impact Statement get
- 2 printed? I've read that sucker.
- **3 Q.** It's up there on the corner of the table. I think the
- 4 answer to your question is August. I'm the one asking the
- **5** questions
- **6** A. Well, you gave me this with August. I mean, I'm just
- 7 wondering because I got my book after that so that's why I'm
- **8** wondering why wasn't it in here then? I'm sorry.
- **9 Q.** I've just got a couple more questions.
- 10 A. Okay.
- 11 Q. Did you go to the State Department scoping meeting in
- 12 Clark?

1

- 13 A. I've been at all meetings but the last one -- which is the
- 14 scoping? What one was the -- was the scoping the first one with
- 15 the four stations?
- **16 Q.** Yes, it was?
- 17 A. Oh, that was a joke. You know, we asked the same question
- 18 to all four stations, and we got a different answer at every
- 19 station. We went home so hurt --
- 20 In fact, I guess I forgot to tell you. My disease went out
- 21 of remission, and it's because of this darn project. Since I
- 22 have gone to that and gone to these meetings I have been so
- 23 under stress, my doctor told me you've got to get out of it.
- 24 And I said, I'm trying as hard as I can.
- 25 I had my chemo treatment this morning before we came here.
 - 922
 - And it's all because of this because I was in remission and
- 2 doing real good. And, yes, I've attended all of those meetings,
- 3 but the last one you had in Clark I did not. I had a treatment.
- **4 Q.** I apologize sorely. I had no idea of your health problems.
- 5 And I would like to share my concerns in that regard.
- 6 Have you shared with the State Department your concern
- 7 about the number of buildings in Carpenter? I just want to know
- 8 that. I hope you have.
- **9** A. I'm not sure who all I sent it to. I think I sent it to
- 10 our representatives, our senators, a few people in Washington,
- 11 D.C. Because I just thought that we should be told fair things
- 12 in the Environmental Impact Statement. But I don't remember who
- 13 I sent it out to.
- **14 Q.** Very good. Thank you for coming this afternoon,
- 15 Mrs. Hofer.
- 16 MR. SMITH: Mr. Rasmussen, do you have questions of
- **17** Ms. Hofer?
- 18 MR. RASMUSSEN: No. I do not.
- 19 MR. SMITH: Mr. Hohn.
- 20 MR. HOHN: I just have a couple questions, Mrs. Hofer.
- 21 <u>CROSS-EXAMINATION</u>
- **22** BY MR. HOHN:
- ${\bf 23} \quad {\bf Q.} \quad \hbox{Could you tell us and the Commission and everyone here how}$
- **24** far is your home and where your son lives from this -- the pump
- 25 station?

- **4 Q.** Both your son and your husband --
- **5** A. We live on the same farm, different houses, yes.
- **6 Q.** And is that pump station location -- as you know it, is
- 7 that near the Madsen farm, the Madsen property?
- **8** A. It's on the Madsen -- yeah. No. Southwest of Carpenter,

a mile, and we live 8 miles from there -- or 4. About 6 miles

Where we live now, our home -- where we farm this land it's

9 yeah. The property.

from that land

1

2

3

- **10 Q.** Is that the Kim Madsen property?
- 11 A. Yes. Kim Madsen's.
- 12 Q. Have you -- I don't know if you're aware. Are you aware of
- 13 whether TransCanada may have relocated that pump station?
- **14 A.** If they relocated it, they've added 10 more structures, but
- 15 they did lose our grandparents' farm then. Because into
- 16 Carpenter it's -- to the far edge of Carpenter it's 5,550 feet.
- 17 And if I remember from school right, 5,280 foot's a mile so part
- 18 of Carpenter would still be in pumping station. So we're
- 19 staying with at least the same amount of buildings or a few more
- 20 if they do relocate.
- 21 Q. I would assume you probably discuss this project from day
- 22 to day, from time to time with your neighbors; is that correct?
- What's your understanding of why a pump station may have
- 24 moved from the Madsen property to some other property, if you
- **25** know?
- 1 MR. KOENECKE: He's asking the witness to speculate.
 - 2 I don't think that's proper. I object.
 - **3** MR. SMITH: Do you know as a matter of fact the answer
 - 4 to that question?
 - 5 THE WITNESS: Yes. Kim Madsen doesn't want it on his
 - 6 land.
 - 7 MR. SMITH: Okay. Thank you.
 - **8** MR. HOHN: I have no more questions. Thank you.
 - **9** MR. SMITH: I guess it's obvious then the objection
 - **10** was overruled.
 - MR. KOENECKE: Thanks. I picked up on that.
 - **12** MR. SMITH: Does staff have any questions of
 - 13 Ms. Hofer?

14

- MS. SEMMLER: None. Thank you.
- MR. SMITH: Commissioner Kolbeck.
- 16 COMMISSIONER KOLBECK: Yeah. Hi.
- 17 THE WITNESS: Hello.
- 18 COMMISSIONER KOLBECK: That map that you held up and
- 19 how you get your equipment across, is that east or west? The
- 20 land that wouldn't be --
- 21 THE WITNESS: It would be the west side. It's closer
- to the east side of the border, the pipeline.
 - COMMISSIONER KOLBECK: You'd be heading west across
- 24 the pipeline?
- THE WITNESS: Yeah. Yeah.

	925		927
1	COMMISSIONER KOLBECK: Okay. And then oh, I think	1	George, and then we'll go through the same drill and get your
2	your husband gave us this map.	2	testimony qualified here and then
3	THE WITNESS: Yes.	3	MR. PIPER: My name is George Piper. I reside at
4	COMMISSIONER KOLBECK: What mile post are you closest	4	818 Ninth Street Southwest, Huron, South Dakota. And I am a
5	to? Do you know? There's actually a like 308 do you know	5	member of the board of directors of the South Dakota Resources
6	your township range and section? If not, I'll find out.	6	Coalition. And it's on behalf of the Board that they asked me
7	THE WITNESS: Delwin can inform you. I can't. He can	7	to take part for them in this proceeding.
8	tell you what it is.	8	MR. SMITH: Okay. And as an Intervener in the case
9	COMMISSIONER KOLBECK: I can get that from Tim or	9	then, did you submit prefiled testimony on behalf of yourself
10	Delwin sometime. I'm trying to keep track of everybody on the	10	and on behalf of the organization?
11	route. That's it. Thanks, Pam.	11	THE WITNESS: I did.
12	MR. SMITH: Do other Commissioners have any questions	12	MR. SMITH: And if you were to if you were to
13	of Ms. Hofer?	13	testify as to all of those things contained in there today,
14	COMMISSIONER HANSON: I had the same question that	14	would your testimony be substantially the same now that you've
15	Commissioner Kolbeck had in regard to the location. And I was	15	been sworn and under oath?
16	trying to ascertain it a little bit more accurately. Obviously	16	THE WITNESS: It would be the same.
17	you have a number of pieces of property. But if we look at the	17	MR. SMITH: At this point in time, would you like to
18	town of Carpenter, is your property does your property abut	18	offer your prefiled testimony then into evidence?
19	the west side of the town of Carpenter?	19	THE WITNESS: Yes.
20	THE WITNESS: From the town of Carpenter itself it's	20	MR. SMITH: I think we'll mark his prefiled then,
21	about a few blocks south to highway 28 and ours starts a mile	21	reporter, as Piper 1.
22	south of 28 is where ours starts. We are the east section	22	Is there an objection? It's been offered.
23	half section then. The north half section.	23	MR. KOENECKE: No objection.
24	COMMISSIONER HANSON: You're	24	MR. RASMUSSEN: No objection.
25	THE WITNESS: Go a mile south of Highway 28. From	25	MR. HOHN: No objection.
	926		928
1	where the pumping station is proposed, we are 1 mile south. 1	1	MS. SEMMLER: No objection.
3	mile south.	2	MR. SMITH: Piper 1 is admitted into evidence. And
4	COMMISSIONER HANSON: That's where your land THE WITNESS: Yes. That's our land right there, yes.	3	then would you care to summarize your testimony, George, and offer any additional comment you may have?
5	COMMISSIONER HANSON: begins.	5	THE WITNESS: Yeah. I have some additional comments
6	THE WITNESS: Yes. It's that quarter.	6	to make in addition to my prefiled testimony. And I'm kind of
7	COMMISSIONER HANSON: So that would be the northeast	7	unfamiliar with your procedure here, but will there be a chance
8	corner of your property?	8	for asking some questions or directing questions to other
9	THE WITNESS: Right. Right.	9	parties?
10	COMMISSIONER HANSON: All right. Got you. Thank you	10	MR. SMITH: We don't do that right now. We do that
11	very, very much, and we all hope that this process doesn't	11	you would have the opportunity as an Intervener to do that at
12	exacerbate your challenges.	12	the point when they're testifying.
13	THE WITNESS: Thank you.	13	THE WITNESS: I understand.
14	MR. SMITH: Other Commissioner questions?	14	MR. SMITH: You see what I mean? It's sort of like
15	CHAIRMAN JOHNSON: Thanks for coming, Ms. Hofer.	15	with you, you take the stand, and that's the point when you do
16	THE WITNESS: Thank you very much.	16	that. So at this point in time this is your direct testimony.
17	MR. SMITH: You're excused.	17	So right now the answer is no.
18	(The witness is excused)	18	THE WITNESS: Okay. Thank you.
19	MR. SMITH: George, do you want to go now? Pardon me?	19	MR. SMITH: You can raise questions, though, if you
20	MR. PIPER: If you're ready.	20	want to. If you want to put forth questions that you would like
21	MR. SMITH: I think we are. Actually you've been very	21	the Commissioners or staff or myself to pose to someone on down
22	patient because you were scheduled at 9 this morning, and thank	22	the road if you're not going to be here the whole time, please
23	you for being accommodating.	23	feel free to do that.
-			
24 25	(The witness is sworn by the court reporter)	24 25	THE WITNESS: Okay. I guess first the South Dakota

organized about 35 years ago. And we're an all-volunteer group. We have no vested interests in the -- in any property that's affected by the TransCanada Pipeline. Nor do we have any interests in the TransCanada company.

We advocate kind of in the public interest on environmental and resource issues. We're here to give you maybe our opinion and our analysis of some of the information as we've perceived it and its impacts on the environment. We're not experts.

I guess our principal concern regarding environmental impacts is the potential damage, that things might occur to the James River water streams, the environmental -- the wetlands.

The proposed route of the Keystone line through the state follows along the western slope of the James River water drainage throughout the state. And it crosses many tributary streams and all drainage from this area where the pipeline is laid. Surface drainage goes to the James River ultimately.

The region is also -- has an abundance of very important wetland resources in the region. Anyone who may have gone through the area or anyone that's familiar with the area knows the abundance of these wetland resources, which are an important environmental resource in the state.

Now, as I understand the pipeline anyway, this is information -- they've worked with some of the resource agencies to route the line to avoid a lot of impacts on the wetlands.

However, I think there's still a very important concern that, yes, maybe the pipeline won't exactly touch a wetland or -- anyway I think that's what they consider as far as an impact, but considering the potential for spills and what would be the

impact on the wetlands let's say a mile within the route.

Certainly some of the spills that have occurred in crude oil pipelines, one would not think that it would all be contained within the right of way or where the pipe might be laid.

We really questioned whether a firm evaluation has been made of the potential impacts on the whole wetland environment in the area of the proposed pipeline.

Now the pipeline crosses several streams along the route. And from time to time there are -- there's high precipitation experienced in certain areas that can create quite high water flow and rapid water flow in some of these stream tributaries.

For example, this past season the weather reporting station at Carpenter reported 13.5 inches of rain in the month of May and then another 3.5 inches in early June. And this raised the -- I have a few pictures to show the flow of one of the streams that was -- that absorbed a lot of this runoff from the Carpenter area.

24 It's the Foster Creek, which as I understand the25 Keystone pipe is proposed to cross this drainage -- I'm not

exactly sure of the exact location, but it's somewheres northwest of Carpenter along the Clark and Spink County line.

Anyway I would like to -- I have some pictures here which show the magnitude -- and these were taken about, oh, seven or eight crow miles I call them downstream from the proposed location of the pipeline, as I understand the vicinity of it

I did not measure this distance, but, you know, when you're familiar with the area and you know where you're at and you know where the head waters is, you know it's off that way someplace.

The number of stream miles is probably greater because the -- the stream winds around a lot. And now I think there would be a high potential that if there was a spill in that area that it certainly could be carried within a long distance down this stream flow during times of high water.

Now the -- we heard extensive testimony this morning about the -- about the spill frequency volume study and detailed analysis. We're not capable of going into any extensive -- we don't have the expertise to do that.

But we hear the report of the -- or the information from the spill frequency volume study that maybe a spill of 50 to 1,000 barrels at some point in 12 years. Well, how do we react to that? Well, maybe that's not too bad. And then we hear another prediction of maybe, well, 1,000 to 10,000 barrels

in 39 years. Well, you know, that's some period of time when something like this might happen.

There was even one prediction that, well, maybe -- a leak really won't appear along maybe this 10-section mile of pipe within 900 years. The matter of the fact is that the timing or the location or the quantity of spill cannot be really -- cannot be predicted. There's many reports of pipeline spills just this past summer.

On January 1, a crude oil pipeline in Wisconsin ruptured and spilled an estimated 500 barrels. And that was a Canadian crude oil.

And then again on the 2nd of February in Wisconsin there was another spill. The two combined spills was around 176,000 gallons. That would be approximately 4,200 barrels.

And then on July 3 there was a 42,000-gallon spill.

And this was something critical to us. The question is how are
we going to evaluate the impacts of such an occurrence for us as
lay citizens?

The one at Kansas occurred during a flood there, a high rainfall. The oil was washed into a river there into some of the drainages, and it was quite a significant impact.

And then just recently on November 28 a crude oil rupture and explosion at Clearbrook, Minnesota.

The point I'm making is that what does the spill frequency volume study -- I don't criticize the methodology of

		933	935
1	arriving at this because I'm sure they've used the you know,	1	THE WITNESS: No, they weren't. No. I would like
2	very good data. And they have certain methodology. But how are	2	to they're pretty much the same. I'll just ask that about
3	we to really react to making a judgment as to, you know, what	3	two of them be offered because they're about the same. But it
4	really the risk is of a spill of a small magnitude or a big	4	shows the high flow of the stream, and actually, you know, it's
5	spill and its potential impacts on the environment?	5	used as recreation mostly.
6	Also the timing or the response to a spill or the	6	MR. SMITH: Why don't we mark those as Piper 2 and 3.
7	remediation of the resources that are affected by a spill. Now	7	THE WITNESS: I'll withdraw my comment until
8	we are told that, you know, there will be immediate response and	8	MR. SMITH: Go ahead then, George.
9	things will be taken care of. But that's to just, you know,	9	THE WITNESS: I'll stand for questioning.
10	take care of the accident. But how about the long-term effects	10	MR. SMITH: Okay. Well, with that, did you want to
11	of crude oil on the on soil and water?	11	offer your Exhibits 2 and 3 at this time?
12	I would like to just read one comment from the	12	THE WITNESS: Yes.
13	again, this comes from the Pipeline Risk Assessment	13	MR. SMITH: And my recollection is his direct has
14	Environmental Consequences Analysis. If remediation activities	14	already been received. I forgot to mark that down. Is that
15	were not undertaken, natural biodegradation and attenuation	15	correct? Is that your recollection?
16	would ultimately allow a return to baseline conditions in both	16	MR. KOENECKE: That his direct's already been
17	soil and ground water. This would likely require a time frame	17	received?
18	on the order of tens of years.	18	MR. SMITH: I think it was. If it isn't, we'll
19	So the thing is that I think there should be a concern	19	reoffer it now. Is there any objection to the photos of
20	as to long-term effects of spills, as well as, you know, the	20	Foster Creek?
21	frequency or the the remediation of spills. They could be	21	MR. KOENECKE: No objection.
22	long lasting.	22	MR. RASMUSSEN: No objection.
23	Since I won't be asking I mean, other people won't	23	MR. HOHN: No objection.
24	be testifying to this, but from the information that I've seen,	24	MS. SEMMLER: No objection.
25	it's been pretty sparse according to the as I said earlier,	25	MR. SMITH: Okay. Your Exhibits 1 through 3 are
		934	936
1	the evaluation and the potential risk to spills on wetlands in	1	received into evidence then. Okay. Then at this point in time
2	the area.	2	we'll tender you for cross-examination.
3	Now, as I understand, the evaluation has been done of	3	THE WITNESS: Yes.
4	the prevalence of wetlands from the mapping system of the	4	MR. SMITH: Mr. Koenecke.
5	national wetlands inventory. And I think that the that	5	MR. KOENECKE: Thank you, Mr. Smith.
6	should be re-looked at and a consideration be made of not just	6	<u>CROSS-EXAMINATION</u>
7	the wetlands along the right in the route of the pipeline but	7	BY MR. KOENECKE:
8	the wetlands, you know, adjacent to it that could also be at	8	Q. Good afternoon, Mr. Piper. Have you reviewed the entire
9	risk through some of the through any kind of a leak or	9	submission by TransCanada to the PUC?
10	failure that might occur.	10	A. I have reviewed the risk the construction and mitigation
11	We have just one recommendation too. We feel that	11	plan. That was one of the documents. And the risk assessment
12	there should be a requirement that TransCanada post a bond or	12	environmental consequences document principally.
13	make cash payment with the State of South Dakota to cover the	13	Q. Have you reviewed any of the biological resources
14	cost of clean up of any crude oil spilled during the lifetime of	14	submissions which we've submitted to the Commission?
15	the project.	15	A. If there have been any recently, I have not.
16	Now these types of requirements are no more stringent	16	Q. How far back would you have done so? We submitted in
17	than what are already applied to other industries that impact	17	April.
18	the environment, like mining. And we feel if such responsible	18	A. Additional documents?
19	agreements, arrangements, can't be reached, that the permit	19	Q. We submitted the Application with the exhibits in April.
20	should really be denied at this time.	20	A. I believe I've seen those. I believe I have seen those.
21	Mr. Chairman, I believe that's all the additional	21	Q. And it's your testimony that they were not satisfactory?
22	comments that I want to make right now.	22	A. The part the biological data?
23	MR. SMITH: Thank you. And you had those photos, and		
24 25	I can't recall, George, if those were earlier introduced as an	24	A. Yeah. Well, to my to us I think it was quite sparse
	exhibit to something?	25	and, you know, you know, the evaluation of the wetland

- 1 inventory, you know, within the region. And, you know, it's the
- 2 risk to that.
- **3 Q.** When you say region what are you identifying?
- **4 A.** Well, the wetland region along the proposed route. It's in
- 5 that area -- in the area where there's a lot of wetlands. I
- 6 mean, it's mostly -- it's probably more in the northern half of
- 7 the route that --
- **8 Q.** Are you able to identify anything for me that you think was
- **9** skipped or missed?
- **10 A.** Well, as I said, the -- my question was is that what was
- 11 the breadth and the extent of the evaluation of the wetland
- 12 inventory as shown on the national wetland inventory mapping
- 13 system.
- **14 Q.** And you simply think it was sparse?
- 15 A. I think it was, yes.
- **16 Q.** Is that your testimony? And are you an expert in mapping?
- 17 A. No, I'm not. I -- no. I'm not an expert in mapping.
- 18 Q. Okay. Are you an expert in wetland inventories or
- 19 wetlands?
- 20 A. I'm not an expert in that area. I'm representing the
- 21 concerns of our organization. As I said, we're not experts. We
- 22 are -- you know, we're volunteer people.
- 23 Q. Very well then.
- 24 A. Did you have further question?
- 25 Q. I don't think I do. Thank you.

- 938
- 1 MR. SMITH: Mr. Rasmussen, do you have questions?
- 2 MR. RASMUSSEN: No.
- 3 MR. SMITH: Mr. Hohn.
- 4 <u>CROSS-EXAMINATION</u>
- 5 BY MR. HOHN:
- **6** Q. Mr. Piper, I have a couple of questions. The pictures of
- 7 the creek that you were showing was Foster Creek?
- 8 A. Foster Creek, yes.
- **9 Q.** Where does the waters of Foster Creek terminate? Do you
- 10 know? Is there a reservoir downstream?
- 11 A. It flows into Lake Byron. In the end it's been diverted
- 12 into Lake Byron and it overflows into the James River.
- 13 Eventually the waters flow into the James River.
- Now with the high water level that's shown during these
- 15 pictures and during that time, sometimes towards the termination
- 16 of the stream the bottom land becomes flooded, and that will
- 17 flow directly into the James River bypassing Lake Byron.
- **18 Q.** And you're familiar with the Lake Byron area because how?
- 19 What's your familiarity with that area?
- 20 A. Well, I grew up in the area.
- 21 Q. You grew up on a farm in the area?
- **22** A. Yes.
- 23 Q. Okay. Just so you can get us all acclimated on a map,
- 24 could you tell us where Lake Byron and Foster might be? What
- 25 landmarks might be nearby or towns? Would this be near

- 1 Carpenter?
- 2 A. It's southeast of Carpenter. And the creek -- the head
- 3 drainage is in the Carpenter area north of Carpenter up in that

- 4 eastern Spink County and western Clark County areas.
- **5 Q.** And were you here when Delwin and Pam Hofer submitted their
- 6 testimony?
- **7 A.** Yes.
- **8 Q.** And Mrs. Hofer and Mr. Hofer testified, and they submitted
- 9 a map, exhibit -- it's D. Hofer 2, referencing a pump station at
- **10** MP 310, mile post 310, half a mile south of Carpenter. The pump
- 11 station -- that would be right along that highway. So where
- 12 would -- from Carpenter then where would the creek and
- 13 Lake Byron be?
- **14 A.** Well, the head waters of the creek would be kind of north
- 15 of Carpenter. That would be the start of the drainage area.
- 16 And then it would -- well, it meanders south and west from that
- 17 area I would say 15 miles maybe to Lake Byron, and then
- 18 Lake Byron is just about a mile from the James River.
- **19 Q.** Mr. Piper, did you review the EIS, Environmental Impact
- 20 Statement, on this project?
- 21 A. Briefly.
- **22 Q.** And did you submit testimony on the EIS?
- 23 A. I submitted -- yes. I submitted some brief comments.
- **24 Q.** The pipeline route, TransCanada Pipeline route as shown on
- 25 Exhibit Hofer Exhibit No. 2, shows it going south of Carpenter.
- - 1 And you're saying -- I guess are you saying that this stretch of
 - 2 pipeline then crosses Foster Creek once, twice?
 - **3** A. Well, as I understand it, it crosses it once, the drainage
 - 4 area of the creek, yes.
 - **5 Q.** Okay. Lake Byron, what are the uses of the Lake Byron
 - 6 Reservoir? What is it used for?
 - 7 A. Well, it's a recreation area. There are many private
 - 8 summer cabins as well as some permanent homes around the lake.
 - **9** And there are public use areas managed by the State.
 - 10 Q. Is it a fishery?
 - 11 A. Yeah. It's fishing. Fishing and recreation and a lot of
 - **12** water fowl hunting in the fall.
 - 13 Q. You're a member of an organization, South Dakota Resources
 - 14 Coalition. What's their main mission or objective if you were
 - **15** going to summarize it?
 - **16** A. To preserve the natural resources, to -- and the
 - 17 protection, protection of the environment. They've taken --
 - 18 over the years they've taken up many issues. One of the main
 - 19 issues is wetlands and water resources. But they've studied and
 - **20** advocated on other issues of the environment.
 - **21 Q.** And in your opinion as someone who's active in that
 - 22 voluntary organization and obviously active enough to come here
 - 23 on their behalf and testify, in your opinion how -- what would a
 - 24 crude oil spill on Foster Creek do to wildlife in that area?
 - 25 A. Well, it would have significant damage and impacts, I

	941			943
1	believe. You know, if it occurred in the creek drainage and it	1	that probably no compensation would	
2	flowed down the creek, it would it would have significant	2	A. Probably. I mean, a crude oil spill with the toxicity	
3	damage on the creek.	3	that you know, if it eventually got into an aquifer or	
4	Q. Okay.	4	probably would be more than 10s of years in its remediation.	It
5	A. And the associated wildlife and biotic community of the	5	would probably last for a long time.	
6	stream.	6	MR. SIEH: Thank you. I have no more questions.	
7	Q. Mr. Piper, one last question. What is or what has been	7	MR. SMITH: Staff, do you have questions?	
8	your area of academic study?	8	MS. SEMMLER: None. Thank you.	
9	A. I received a B.S. in agriculture from the South Dakota	9	MR. SMITH: Commissioners, questions of Mr. Piper?	
10	State University. And then I completed a Ph.D. in zoology at	10	Mr. Piper, you're excused. Thank you.	
11	the University of Missouri.	11	THE WITNESS: Thank you, Mr. Chairman. Thanks for	
12	MR. HOHN: Thank you. No more questions.	12	holding this hearing.	
13	MR. SIEH: I have a couple of questions.	13	(The witness is excused)	
14	MR. SMITH: Mr. Sieh. Just a minute, John. You've	14	MR. SMITH: Thank you. I think, Mr. Goss, are you in	
15	got to be at a mic.	15	the room? I think we're about at your time, aren't we	
16	MR. SIEH: Sorry.	16	Are you okay with a break there, Mr. Goss?	
17	MR. SMITH: Go ahead. Remember to pull the mic up to	17	MR. GOSS: You bet. Let me get ready.	
18	your mouth there, John. Thank you.	18	MR. SMITH: That's good. I think that suits	
19	MR. SIEH: Thank you, Mr. Smith.	19	everybody. How long would you like to take? 10 minutes? About	
20	CROSS-EXAMINATION	20	8 minutes to we'll reconvene then. Thanks.	
21	BY MR. SIEH:	21	(A short recess is taken)	
22	Q. Mr. Piper, your organization in general is a coalition that	22	MR. SMITH: We're now back in session following a	
23	looks after as you say environmental issues or concerns about	23	recess we had here. We ended up with a little longer recess	
24	natural resources in South Dakota.	24	than we planned. It's about 5 after 3.	
25	In your opinion and that of your organization do you feel	25	And at this point in time Ed Goss who's an individual	
	942			944
	012			944
1	that the route through the Dakotas route through South Dakota	1	Intervener in the case is scheduled to testify. And, Mr. Goss,	944
2	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard	2	we're ready to have you be sworn in.	944
3	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected?	2	we're ready to have you be sworn in. (The witness is sworn by the court reporter)	944
2 3 4	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could	2 3 4	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well,	344
2 3 4 5	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you	2 3 4 5	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years.	944
2 3 4 5 6	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources	2 3 4 5 6	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in	944
2 3 4 5 6 7	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts	2 3 4 5 6 7	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself	944
2 3 4 5 6 7 8	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill.	2 3 4 5 6 7 8	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that.	944
2 3 4 5 6 7 8 9	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have	2 3 4 5 6 7 8 9	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As	944
2 3 4 5 6 7 8 9	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead.	2 3 4 5 6 7 8 9	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My	944
2 3 4 5 6 7 8 9 10	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an	2 3 4 5 6 7 8 9 10	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche	944
2 3 4 5 6 7 8 9 10 11	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain	2 3 4 5 6 7 8 9 10 11	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road,	944
2 3 4 5 6 7 8 9 10 11 12 13	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more	2 3 4 5 6 7 8 9 10 11 12 13	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota.	944
2 3 4 5 6 7 8 9 10 11 12 13 14	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or	2 3 4 5 6 7 8 9 10 11 12 13	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because	2 3 4 5 6 7 8 9 10 11 12 13 14 15	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case?	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted?	2 3 4 5 6 7 8 9 10 11 12 13 14 15	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it.	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted? A. Unless the only I gave conditions that the permit	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it. MR. SMITH: As an exhibit? Sure. And if you testify	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it.	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted? A. Unless the only I gave conditions that the permit I mean, there must be very firm commitment by the operator that,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it. MR. SMITH: As an exhibit? Sure. And if you testify here today as to the matters that are contained in the prefiled	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted? A. Unless the only I gave conditions that the permit I mean, there must be very firm commitment by the operator that, you know, things would be that everything would be taken care	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it. MR. SMITH: As an exhibit? Sure. And if you testify here today as to the matters that are contained in the prefiled testimony, would your testimony be essentially the same?	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted? A. Unless the only I gave conditions that the permit I mean, there must be very firm commitment by the operator that, you know, things would be that everything would be taken care of both costwise and if those things got to be, then I would	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it. MR. SMITH: As an exhibit? Sure. And if you testify here today as to the matters that are contained in the prefiled testimony, would your testimony be essentially the same? THE WITNESS: Yes, sir. It would.	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted? A. Unless the only I gave conditions that the permit I mean, there must be very firm commitment by the operator that, you know, things would be that everything would be taken care of both costwise and if those things got to be, then I would say yes, the permit should be denied.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it. MR. SMITH: As an exhibit? Sure. And if you testify here today as to the matters that are contained in the prefiled testimony, would your testimony be essentially the same? THE WITNESS: Yes, sir. It would. MR. SMITH: Thank you. I'm going to have that labeled	944
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	that the route through the Dakotas route through South Dakota was carefully selected? This was some of the testimony we heard yesterday. Was it carefully selected? A. Through the area that they went I don't know if you could carefully put any kind of a route that would totally avoid, you know, potential risks to, you know, the soil and water resources of the area, particularly in the line of, you know, the impacts of a crude oil spill. Q. Do you think there's any location that they could have selected to generally get to where they want to go? Go ahead. A. Well, there have been suggestions that there would be an alternative route along I-29. Now there might be certain considerations that that might be a better route, more accessible or anything. But we haven't taken a position or we're not interested in a position of putting it there because that's just putting it on to somebody else. Q. So your position is that the permit shouldn't be granted? A. Unless the only I gave conditions that the permit I mean, there must be very firm commitment by the operator that, you know, things would be that everything would be taken care of both costwise and if those things got to be, then I would say yes, the permit should be denied. Q. I have just one last question. The issue of compensation	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	we're ready to have you be sworn in. (The witness is sworn by the court reporter) MR. GOSS: And help me, Dee. That's my wife. Well, 50 years. MR. SMITH: Mr. Goss, you filed prefiled testimony in the case. Maybe I'll start out having you introduce yourself and say where you're from and all of that. MR. GOSS: My name is Ed Goss, Edward officially. As I said, my home is where the pipeline goes through. My residence for the past several years is between Belle Fourche and Spearfish. My official address is 10997 Minnesila Road, Belle Fourche, South Dakota. MR. SMITH: Thank you. And did you prefile testimony in the case? THE WITNESS: Yes. And I'd like to enter that as whatever you call it. MR. SMITH: As an exhibit? Sure. And if you testify here today as to the matters that are contained in the prefiled testimony, would your testimony be essentially the same? THE WITNESS: Yes, sir. It would. MR. SMITH: Thank you. I'm going to have that labeled Goss 1. And at this point would you like to offer your exhibit?	944

have found that their research -- they have indicated that the

So in my opinion that's where I'd look first. I go

949 951 1 1 thawing, had it been in the ground -- I don't recall now whether And, of course, I think there was 12 questions. I 2 it says in the ground or on the ground. Thawing would be down 2 have those if somebody wants them. I think it was number 10 3 3 in the permafrost approximately 50 or 51 feet. They estimate came back with two different answers. But having dealt with a 4 that it would be the same above. 4 multibillion dollar electric line in the Nebraska public power 5 5 district, I've not dealt with a multibillion foreign outfit So that pretty well tells me -- and I'm sorry. I 6 6 don't know whether that 70 to 80 degrees that I've read is before, I didn't expect the answers to come back any different 7 Celsius or Fahrenheit, but it's going to change the temperature. 7 than they did. 8 Now I have not in South Dakota found that there was any time 8 One of my sections sits against the Miner, Kingsbury 9 that heat was added to any product that I'm familiar with when 9 County line, Section 34. And if you put an imaginary line or a 10 10 you add heat to something with moisture in it, seems to me it hairline down the middle of that road, this Jerry, the land 11 11 dries out faster. agent that I spoke with, indicated to me that if my land was on 12 12 And if you live in western Kingsbury County where this the south side of the road, it would be worth 3 to \$500 more per 13 proposed pipeline goes, you don't want it drying out any faster. 13 acre. And I said who in the blankety-blank ever figured out 14 14 Esmond Township did not have any one bale of hay produced in that the exact same type of ground 66 feet away is worth 3 to 15 15 \$500 more? 1976, by the way, just to give you an idea of how dry we were. 16 16 It's interesting to me that somebody has stated that Well, that's what we do. Well, I don't think that 17 17 they were not contacted until they were sent condemnation. I makes too much sense. I believe Jerry told me that they paid 3 18 was contacted -- or I had a lot of telephone calls back and 18 to 500 more in Miner County than they do in Kingsbury County. 19 19 forth, but nobody, not one person, not one land agent ever made He could tell you the exact difference. 20 20 an effort to say could I come and meet with you. Okay. Let's talk about my land. And I guess for 21 21 I don't like to deal -- a guy from North Dakota, 701 easier descriptions, I would pass out the maps and maybe the 22 22 area code -- I think his first name was Jack -- called me, and I photos. Nobody's got their maps. I'm dealing with the maps, I 23 didn't even have the foggiest idea what he was talking about. 23 think, that TransCanada put out. I'm looking for help, lady. 24 He wanted to buy some land. I didn't have any land for sale. 24 Come on. 25 25 Well, then I got to finding out and -- I visited with this (Discussion off the record) 952 950

7

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Buster Gray here and I had good interesting -- he has a lot to do with these land agents. And the folks that I've had to deal with there's been one in a car accident. I think there was one pregnancy. I had a Tim, a Tom, a Willard, and finally I've got to this Jerry fellow that we're now negotiating. So it was clear into October before I began to get anywhere.

I did not know that this pipeline was going to cross my land on Section 22 until May 2 of 2007 when I stopped at the PUC office. And I don't recall whether I talked to Kara Semmler or Mr. Smith or just who it was. But anyway they said, well, now you know. Because he handed me a map that had it across my Section 22.

If you want to back up to a Regan maybe, he had me on Section 27. I don't own a piece of ground on that. We went round and round. He didn't -- I won't tell you how they spelled my wife's name. At least it was a woman. It wasn't a husband. But anyway -- this kind of upsets you when you get something that they misspell -- all of us don't like to have our names misspelled.

But here is field survey authorization, which they're asking me to give them permission for a field survey on the southwest of 27, 109, 58. I don't believe the pipeline crosses that. But that's the kind of stuff when I begin to get -- after not getting answers from my November '05 until I triggered that with several e-mails to TransCanada to get answers to those.

1 THE WITNESS: You guys got good help. 2 COMMISSIONER HANSON: That's what she keeps telling 3 us. 4

THE WITNESS: Okay. On Section 22 the line crosses --5 and I think that will be the front one. It's mile -- whatever 6 MP means, mile point 339, the southeast of 22, 109, 58. That just barely crosses the corner of that quarter section. 8

The easement shows that the centerline is 170 feet from the section line. By the way, that's a vacated -- the word is vacated section line. That is not for transportation. It has been officially vacated by Esmond Township. But anyway it's --

So that leaves me somewheres between 85 and 95 feet to turn equipment around in, in that southwest corner. The high ground on the entire section -- by the way, grandpa bought this in 1910, the south half of 22. If you look -- the farm buildings are over in the lower right-hand corner. That's where I spent over half of my life.

I don't believe there's any -- that's native grass over on the right-hand side. That's native grass up in the northwest corner. But the pipeline does not cross either of those.

But just to give you a background, grandpa and dad and I have made a concerted effort to save native grassland. Way back when Grandpa Aunba (phonetic) was plowing land for

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

Grandpa Goss with a steamer, Grandpa Goss said to my father who was a young 20 years of age about, you know, the old Indian was right, wrong side up. So from that point on we had made a concerted effort to save native grass.

There's poor cell phone reception in that area.

Talked to a PUC employee, Steve Wegman, that morning, and he's aware of that. And the ideal spot would be right approximately where the pipeline comes on that high ground west of mine.

We're stopped from making any development once that proposed pipeline if that's where it goes -- it shouldn't go. It should go east.

Anyway, I'd like to have a tower there so you can use a cell phone, which you can't. You can't build feedlots there.

The overall distance that that crosses that property, I believe the easement shows 660 feet. I think they could holler from one side to the other. But, remember, I said vacated section line.

I said 95 to 85 feet from that vacated section line before you hit the easement property.

I can guarantee you because of the approaches in there and because of the county road some guy's going to go in there and walk that 95 feet across the property that he's got no right to be on.

They sent -- so my proposal, and I talked to Mr. Gray and he has some recognition of what I'm talking about -- if this line on this section was moved 245 feet to the west, it would be

off Section 22, my high ground and just plumb away.

We've had some discussion on that. I know two of the landowners -- I know the landowner on 23 is acceptable. I couldn't tell you on 28. Or 21 and 28. 21, that individual's agreed to have this pipeline moved. And I can't tell you about the other. And I think I know, but I'm not going to -- I have not asked them personally.

No easement should ever be perpetual. I've read where their supply will be somewheres around 18 to maybe 50 years of oil. I can't believe that steel of any sort would last forever.

I would like to -- if I'm required by the courts to allow this to cross my property, I would propose easements with some different changes in, quite a few different changes. I'm not prepared to say all of those from the standpoint of I have an attorney hired, and we've got some proposals that we think would make some sense.

So when you're done pumping oil through a line why in the world -- why in the world leave it there? I think Commissioner Hanson is aware of what's happening with the missile site out in western South Dakota. Those boys are pulling thousands and thousands and thousands of dollars of copper out of the ground. Well, they were fortunate. They get to sell the copper. The easement's gone. The Federal Government gave it back to them. That was an end use deal.

I'll say that the Federal Government did the right thing.

The offer of money I've been offered -- and this will relate back -- I think I listened to some of Mrs. Anderson's testimony about \$36 an acre, and I think she figured for the number of acres she had.

And in my case I was offered \$2,520 an acre. Grandpa bought that in 1910, 97 years ago. This figures out to rent of \$25.97. One of the Commissioners asked Ms. Anderson about the investment on that. I need to take you back 97 years to invest that money, not today's money with my figures. Grandpa probably paid 10 bucks an acre for it. But if he paid 50, the current return to me to investment would be \$25 an acre.

That land in and around my property on Section 22 and Section 34 currently rents -- and I'll tell you it's from 60 to 80 bucks, and that's on the high side. I'm going to modify it down to maybe 55, 60 bucks an acre. So if I make my investment, I'm going to be looking at less than half. These things need to be negotiated over a period of years as times and money changes. And let me tell you, folks, I can't -- my proposal, my efforts, my time to go around and see how much money I have spent attending meetings because of the crude oil pipeline -- and I think I upset their attorney one day when I asked him about them paying my bill.

And anyway they're for profit. This is costing the farmers to try to protect their property. That's really kind of not the way we like to do business.

Some of the land up in the Groton area I was told in the last month sold for 3,900 to \$4,000 an acre. I can't document that. I don't know. Got an e-mail on that.

I don't want anybody to get shook up. We take cash rent on our Kingsbury County land, but in Marshall County -- you've heard a lot of testimony on Marshall County. We are on a share basis up there so -- and that pipeline doesn't affect our property in Marshall County. So I just wanted to tell you that the way we receive -- in 2007 I will say.

What 2008 will do on the Kingsbury County land, I know I'm not going to charge him for something he can't use. And I think TransCanada needs to be paying me rather than not having it being used.

Okay. Let's get down to Section 34. That one leaves me 25 feet between the corner post and the easement. Well, I got a trailer that I couldn't park in there length ways, you know. And the gentleman whose house shows up in the lower left-hand corner has accepted payment for his going across the southwest of Section 34.

That L-shaped land on there is all native grass against that fence. And there's a water dugout right under the word "four," and that drains out into the county ditch and goes west and under the road.

On native grass you heard blowouts. There's blowouts on some of our native grass, but it wasn't due to light sands,

	957		959
1	and it wasn't done at the turn of the century. The geologists	1	particular knowing that that easement if anybody wants
2	estimate that the blowouts on some of our native land probably	2	to anymore clarification well, I can do it do I have
3	happened in the 1500s to the 1600s, and that was due to an	3	the opportunity to present additional items in the questioning
4	extremely severe drought they think and it's a whole different	4	session of Mr. Smith, why don't you turn me over to
5	ball game.	5	MR. SMITH: You may.
6	There weren't a heck of a lot of trees that grew, but	6	THE WITNESS: I can present things at that time?
7	there was a heck of a lot of buffalos running around in the	7	MR. SMITH: Depending, I guess. Are you
8	country about that time. And they didn't have any place to	8	THE WITNESS: I will be offering these maps. And
9	scratch except if there was a rock sticking out in the ground.	9	then
10	Can you see the light spot at the top that's one of the	10	MR. SMITH: You have two sheets of paper here.
11	biggest buffalo wallows well, yeah. We got another one	11	THE WITNESS: Yeah. Here's the other one.
12	that's about that size. But that one happens to be farmed	12	MR. SMITH: With handwriting on it.
13	around.	13	THE WITNESS: This one, uh-huh. And this shows the
14	Grandpas got pretty wild with the plow back in 1926.	14	county road, the distance of travel and so on, and I would like
15	But that is evidence of a buffalo wallow on that native grass.	15	to present those at this time if I could.
16	And we've got, gosh, I don't know, six or seven of them on our	16	MR. SMITH: To mark that and also this packet of
17	property. And I could give you directions to see one if you	17	papers that we have here.
18	travel between Manchester and Carthage within 10 rods of that	18	THE WITNESS: Yes.
19	highway.	19	MR. SMITH: Maybe what we should do is I don't
20	That's what things that I think need to be	20	know, Cheri. Have you been given copies of those things?
21	preserved in the environment. And when we reseed I'm talking	21	THE COURT REPORTER: No.
22	about the grandpas because we've owned that since 1910. We've	22	THE WITNESS: There's that one. Mark that one. I'm
23	had some land that just didn't work worth a hoot. The Indian	23	short one map on my other one. I'd give it to her.
24	was right. It was wrong side up. That was plowed up. And part	24	CHAIRMAN JOHNSON: Am I to understand the two white
25	of that is fenced in with not this particular piece but on	25	pages you handed out are simply each side of the pink?
	958		960
1	Section 23 it's fenced in with native grass. It's never had a	1	THE WITNESS: Yes, sir.
2	plow in it. I can show you those blowouts and additional	2	CHAIRMAN JOHNSON: That white one doesn't need to
3	buffalo wallows.	3	have so Exhibit 3 is the front and the back of the page we
4	And you know what? Dad doesn't call that native	4	handed out.
5	grass. That grass to all of us on all of our pastures that have	5	THE WITNESS: Thanks, Dusty.
6	had a plow in it to us that is go back. And let me tell you,	6	CHAIRMAN JOHNSON: Exhibit 4 no longer exists. Is
7	it ain't the same grass that's next to it. It's not. And it's	7	that okay, Cheri?
8	never been touched since probably before the '30s. So that's	8	THE COURT REPORTER: Yes.
9	what, 70, 80 years?	9	MR. SMITH: At this time then I'm assuming you want to
10	And that grass I can take it and show it to you on	10	offer other Exhibits 2 and 3 then?
11	Section 23, the southwest quarter. It's go back ground. It's	11	THE WITNESS: That's correct.
12 13	not native. You better get that through your head. It's not	12 13	MR. SMITH: Any objection?
14	the same. And I think maybe that's why the Federal Government	14	MR. KOENECKE: I actually have just a question, I think, before we go forward.
15	Now I probably messed up some time ago when I took a	15	Mr. Goss, on Section 22, your map see the one I'm
16	water fowl easement on that at the time that I was I still	16	holding up? Isn't that the southwest quarter of 22?
17	had a debt on it so I had to get the permission of the people I	17	THE WITNESS: Southwest? What does it say on the map?
18	was paying for that land. And I didn't know that they had	18	Does it say southeast? Yeah. That is southwest.
19	native grass the Federal Government had native grass	19	MR. KOENECKE: Okay. So you've written southeast on
20	easements.	20	there so you'd want that changed to say southwest corner,
21	So, therefore, I took a wetland easement on this	21	Section 22?
22	particular quarter. And the reason was was to save that buffalo	22	THE WITNESS: Yeah.
23	wallow in that native grass because I figured nobody could drain	23	MR. SMITH: I don't know what it says anymore because
24	it. And that's what that easement does.	24	I don't okay.
25	But that was my error for not finding that	25	MR. KOENECKE: He's written right in the middle

	961		963
1	that's your handwriting; right?	1	THE WITNESS: No. I'm sorry. I missed the very front
2	THE WITNESS: No. It's not.	2	end.
3	MR. KOENECKE: Someone wrote "southeast quarter?"	3	MR. SMITH: That's when this happened. We went
4	THE WITNESS: No. This is not my handwriting. The	4	through a motion regarding evaluation issues. Because those are
5	other ones up here that you can't read, that's mine.	5	something that we don't have any authority over. That's a court
6	MR. KOENECKE: Very well. I think the map with mile	6	issue. And with respect to certain elements of it with respect
7	post 339 in it is actually referring to the southwest quarter of	7	to landowner relations and fairness and that, we ruled that that
8	22.	8	evidence is properly that we can hear that because that
9	THE WITNESS: You're absolutely right.	9	relates to social and economic welfare, et cetera. With respect
10	MR. SMITH: With that clarification, no objection.	10	to specific valuation but I don't know what's in those so I
11	I'm assuming you don't have any objection.	11	don't know
12	THE WITNESS: I'm going to find out who in the devil	12	THE WITNESS: Can I present them to you?
13	wrote that because I didn't.	13	MR. SMITH: Well, then they would be evidence, and so
14	MR. SMITH: Goss Exhibits 2 and 3 are received in	14	the answer is probably no in terms of evidence anyway in the
15	evidence.	15	case. I think if you want to just go through and make your
16	THE WITNESS: Thank you, Mr. Koenecke.	16	and tell us what they are and what you think they are, that's
17	MR. SMITH: At this point then, Mr. Goss, I'm going to	17	fine with me. But in terms of receipt into evidence, if they
18	tender you for questions from the other parties, if that's okay.	18	deal with valuation issues, that's something the Commission has
19	Are you ready for that?	19	no power over at all.
20	THE WITNESS: Hold on. No, I'm not. I'm not.	20	THE WITNESS: What this is is where we are on
21	I have what I think is probably where we are with my	21	negotiations on moving our easements, on moving this. It's a
22	negotiations that I spoke with Mr. Gray this morning. And I'd	22	correspondence between the land agent and my attorney. Is that
23	like to have those as you call these things issues, evidence?	23	correct, Mr Brett?
24	What am I presenting?	24	MR. KOENECKE: It is. And you'd agree with me that it
25	MR. RASMUSSEN: Exhibits.	25	contains financial figures, IRS forms and letters back and
	962		964
1	THE WITNESS: Exhibits. Thank you.	1	forth, and we think this is clearly what was intended to be kept
2	MR. SMITH: Exhibits, yes.	2	out by the Motion in Limine. This isn't relevant to the
3	THE WITNESS: This packet I'd like to have entered. I	3	discussion here today. So we would object to the admission of
4	think it's important for everybody to see these.	4	these as evidence.
5	MR. KOENECKE: I'll have to come up and see what it	5	MR. SMITH: Okay. I'm a little less sure on questions
6	is.	6	regarding moving. That to me is a different thing than
7	MR. SMITH: Yeah. We don't know what those are.	7	valuation, which is what the Court does. And I I don't think
8	Sorry.	8	the Motion in Limine I don't know that that's a
9	THE WITNESS: Hand it to him. Am I supposed to put	9	THE WITNESS: Let's pull what he's objecting to and
10			
	out some testimony as to what I'm going to present first? Is	10	use the balance.
11	that the deal? Makes it easier? Just tell me.	11	MR. SMITH: Do you want a few minutes, Mr. Koenecke,
12	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have	11 12	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then?
12 13	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to	11 12 13	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are
12 13 14	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences.	11 12 13 14	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things
12 13 14 15	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is.	11 12 13 14 15	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of
12 13 14 15 16	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of	11 12 13 14 15 16	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked
12 13 14 15 16 17	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that	11 12 13 14 15 16	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about
12 13 14 15 16 17 18	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that might relate to the Motion in Limine. It might take a few	11 12 13 14 15 16 17 18	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about MR. SMITH: I think those are fair exhibits.
12 13 14 15 16 17 18 19	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that might relate to the Motion in Limine. It might take a few minutes.	11 12 13 14 15 16 17 18	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about MR. SMITH: I think those are fair exhibits. THE WITNESS: Let's
12 13 14 15 16 17 18 19 20	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that might relate to the Motion in Limine. It might take a few minutes. THE WITNESS: Mr. Koenecke, is it okay if I was to	11 12 13 14 15 16 17 18 19 20	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about MR. SMITH: I think those are fair exhibits. THE WITNESS: Let's MR. SMITH: You might want to describe what those are.
12 13 14 15 16 17 18 19 20 21	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that might relate to the Motion in Limine. It might take a few minutes. THE WITNESS: Mr. Koenecke, is it okay if I was to testify on these and then you turn them down or accept them?	11 12 13 14 15 16 17 18 19 20 21	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about MR. SMITH: I think those are fair exhibits. THE WITNESS: Let's MR. SMITH: You might want to describe what those are. THE WITNESS: Okay.
12 13 14 15 16 17 18 19 20 21 22	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that might relate to the Motion in Limine. It might take a few minutes. THE WITNESS: Mr. Koenecke, is it okay if I was to testify on these and then you turn them down or accept them? MR. KOENECKE: In my opinion, no.	11 12 13 14 15 16 17 18 19 20 21 22	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about MR. SMITH: I think those are fair exhibits. THE WITNESS: Let's MR. SMITH: You might want to describe what those are. THE WITNESS: Okay. MR. SMITH: Why don't you do that while they're
12 13 14 15 16 17 18 19 20 21 22 23	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that might relate to the Motion in Limine. It might take a few minutes. THE WITNESS: Mr. Koenecke, is it okay if I was to testify on these and then you turn them down or accept them? MR. KOENECKE: In my opinion, no. THE WITNESS: How about you, Mr. Smith?	11 12 13 14 15 16 17 18 19 20 21 22 23	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about MR. SMITH: I think those are fair exhibits. THE WITNESS: Let's MR. SMITH: You might want to describe what those are. THE WITNESS: Okay. MR. SMITH: Why don't you do that while they're looking at that stuff.
12 13 14 15 16 17 18 19 20 21 22	that the deal? Makes it easier? Just tell me. MR. SMITH: If you want to. We'll just have to have descriptions. If you've got a number of exhibits, we'll need to know what those are. It looks like a series of correspondences. THE WITNESS: Yes, it is. MR. KOENECKE: This is going to take us a couple of minutes to figure out. It's extensive and contains things that might relate to the Motion in Limine. It might take a few minutes. THE WITNESS: Mr. Koenecke, is it okay if I was to testify on these and then you turn them down or accept them? MR. KOENECKE: In my opinion, no.	11 12 13 14 15 16 17 18 19 20 21 22	MR. SMITH: Do you want a few minutes, Mr. Koenecke, to review those then? And then other than these correspondence sets, are there other things THE WITNESS: If they want pictures of the location of my house and the low ground and all of this stuff I talked about MR. SMITH: I think those are fair exhibits. THE WITNESS: Let's MR. SMITH: You might want to describe what those are. THE WITNESS: Okay. MR. SMITH: Why don't you do that while they're

	(65	967
1	Anyway this one shows the low ground of Section 22. And that	1	MR. SMITH: Yes. They have a right to look at it and
2	there's a culvert goes right through there where they're coming	2	weigh in.
3	with the proposed pipeline. And Mr. Gray was pleased to have	3	CHAIRMAN JOHNSON: Mr. Goss, I still need to clarify
4	that pointed out to him because he felt the surveyors didn't	4	where we're at here. Everything except the front page like
5	this one just identifies that we're right at the corner where	5	everybody's fine being entered in evidence.
6	the evidence shows that we're 170 feet from that vacated section	6	At one time you said if he objects to it, let's pull
7	line. This one simply shows my home from where it is to prove I	7	the objectionable piece out and that front page, do you want
8	guess I lived there once.	8	Mr. Smith to issue a ruling
9	And this one shows the low ground on the other side of	9	THE WITNESS: Yes. That front page certainly needs a
10	the road opposite of where the culvert drains. And this one	10	ruling.
11	shows the native grass on Section 34.	11	MR. RASMUSSEN: I'd suggest that there's one reference
12	MR. SMITH: 34?	12	to price. Couldn't we just black that out and admit the rest of
13	THE WITNESS: Yeah. And I'd like to present those.	13	the exhibit?
14	And if these folks want I've got four copies of each so if	14	MS. SEMMLER: Staff hasn't seen it yet and would like
15	they want copies of the photos, they're sure welcome to them.	15	to weigh in as well.
16	MR. SMITH: We'll give those to the reporter, and she	16	MR. SMITH: I tell you what, Mr. Goss. I'm going to
17	can mark those while we're hearing from Mr. Koenecke here.	17	sustain the objection based upon valuation to the exhibit on the
18	MR. KOENECKE: My objection is limited to the front	18	basis that it talks about valuation in there. But perhaps what
19	page.	19	you might want to do is take some time and you're welcome to
20	THE WITNESS: I figured so.	20	reoffer that page if you want to after deleting any references
21	MR. KOENECKE: And the rest is to put in. I have no	21	to land valuations.
22	objections to the remainder of these pages. The front page, the	22	CHAIRMAN JOHNSON: That could probably be accomplished
23	letter dated November 23, 2007, we maintain our objection as to	23	with a pen.
24	that in evidence in the hearing.	24	THE WITNESS: I don't even see it.
25	MR. SMITH: Okay. Again, I'm a little hampered	25	MR. SMITH: It's in one of the lowest down at the
	Ç	166	968
1			
1	because I can't see it.	1	bottom.
2	because I can't see it. THE WITNESS: This is a letter to my attorney from	1 2	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah.
3	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what	1 2 3	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document)
2 3 4	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in	1 2 3 4	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for
2 3 4 5	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke?	1 2 3 4 5	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had
2 3 4 5 6	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you	1 2 3 4	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when
2 3 4 5	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this	1 2 3 4 5	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and
2 3 4 5 6 7 8	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you	1 2 3 4 5 6	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's
2 3 4 5 6 7	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed?	1 2 3 4 5 6 7 8	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning.
2 3 4 5 6 7 8 9	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if	1 2 3 4 5 6 7 8 9	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's
2 3 4 5 6 7 8 9	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll	1 2 3 4 5 6 7 8 9	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that
2 3 4 5 6 7 8 9 10	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so	1 2 3 4 5 6 7 8 9 10	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the
2 3 4 5 6 7 8 9 10 11	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss	1 2 3 4 5 6 7 8 9 10 11	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted?
2 3 4 5 6 7 8 9 10 11 12 13	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion	1 2 3 4 5 6 7 8 9 10 11 12 13	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah.
2 3 4 5 6 7 8 9 10 11 12 13 14	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I	1 2 3 4 5 6 7 8 9 10 11 12 13	bottom. THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask
2 3 4 5 6 7 8 9 10 11 12 13 14 15	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss?	1 2 3 4 5 6 7 8 9 10 11 12 13 14	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss? THE WITNESS: No. The critical thing is what he threw	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection? MR. KOENECKE: I know better than that, Mr. Smith.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss? THE WITNESS: No. The critical thing is what he threw out, really. I mean, he practically killed my summary. He's	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection? MR. KOENECKE: I know better than that, Mr. Smith. MR. SMITH: You might have an objection. I might
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss? THE WITNESS: No. The critical thing is what he threw out, really. I mean, he practically killed my summary. He's the attorney. You can see that. I should have testified to	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection? MR. KOENECKE: I know better than that, Mr. Smith. MR. SMITH: You might have an objection. I might overrule you, but you can have it.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss? THE WITNESS: No. The critical thing is what he threw out, really. I mean, he practically killed my summary. He's the attorney. You can see that. I should have testified to this and then let you object.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection? MR. KOENECKE: I know better than that, Mr. Smith. MR. SMITH: You might have an objection. I might overrule you, but you can have it. MR. KOENECKE: I'll let it go this time.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss? THE WITNESS: No. The critical thing is what he threw out, really. I mean, he practically killed my summary. He's the attorney. You can see that. I should have testified to this and then let you object. MR. SMITH: Mr. Koenecke, do you have something to	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection? MR. KOENECKE: I know better than that, Mr. Smith. MR. SMITH: You might have an objection. I might overrule you, but you can have it. MR. KOENECKE: I'll let it go this time. MR. RASMUSSEN: No objection.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss? THE WITNESS: No. The critical thing is what he threw out, really. I mean, he practically killed my summary. He's the attorney. You can see that. I should have testified to this and then let you object. MR. SMITH: Mr. Koenecke, do you have something to say?	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection? MR. KOENECKE: I know better than that, Mr. Smith. MR. SMITH: You might have an objection. I might overrule you, but you can have it. MR. KOENECKE: I'll let it go this time. MR. RASMUSSEN: No objection. MR. SMITH: We'll receive the letter. We'll have to
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	because I can't see it. THE WITNESS: This is a letter to my attorney from their land agent. It refers to asking about the moving and what he had told me on the telephone conversation. Am I getting in too deep here, Mr. Koenecke? MR. KOENECKE: Well, I'm just kind of what do you want to do, Mr. Smith? Are we letting in the rest of this exhibit, or where are we headed? MR. SMITH: The rest of the exhibit? I think if that's admissible, unless another party has an objection, we'll admit that. It doesn't have a number yet so CHAIRMAN JOHNSON: Mr. Smith, I heard Mr. Goss indicate that he was fine having all of it except that portion Mr. Koenecke objected to entered into the record. Am I misstating that, Mr. Goss? THE WITNESS: No. The critical thing is what he threw out, really. I mean, he practically killed my summary. He's the attorney. You can see that. I should have testified to this and then let you object. MR. SMITH: Mr. Koenecke, do you have something to say? MR. KOENECKE: No. I'm maintaining my objection and	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	THE WITNESS: Oh, here it is. Oh, okay. Oh, yeah. (Witness marks on document) THE WITNESS: Yeah. Okay. I want to apologize for using an amount previously in the testimony. I'm sorry. I had not I'm sorry. I had not heard it was not able to be in when you began the hearing on this. I knew that's when the rules and regs were going to be put out, and I happened to have a doctor's appointment that morning. MR. SMITH: And, Mr. Goss, you're then reoffering that letter as a separate exhibit with that valuation portion of the document redacted? THE WITNESS: Yeah. MR. SMITH: Okay. I'm and then I'm going to ask again is there does Mr. Koenecke still have an objection? MR. KOENECKE: I know better than that, Mr. Smith. MR. SMITH: You might have an objection. I might overrule you, but you can have it. MR. KOENECKE: I'll let it go this time. MR. RASMUSSEN: No objection. MR. SMITH: We'll receive the letter. We'll have to do some marking and so forth, but we'll receive the letter with

	969		971
1	CHAIRMAN JOHNSON: Mr. Smith, I don't have a hardcopy	1	you for cross-examination then.
2	of that one so I need to make sure I get one later. Can	2	<u>CROSS-EXAMINATION</u>
3	somebody tell me the exhibit number?	3	BY MR. KOENECKE:
4	MR. SMITH: Do you want to take a minute?	4	Q. Good afternoon, Mr. Goss. I just have one question. Is
5	(Discussion off the record)	5	your concern about the operating temperature of the pipeline
6	MR. SMITH: Okay. And the pictures, do you want to	6	based on your understanding that it will operate at 167 degrees
7	just staple those together into one exhibit.	7	Fahrenheit?
8	MS. AXTHELM: With 4? 4 is the letter that when	8	A. That was not my understanding. My statement was, as I
9	you looked at this I'm not for sure if this because when it	9	recall, was that the operation, if it's from 70 to 80 degrees
10	was handed it was just this with these three pages. This here	10	Celsius and operated at 75 degrees, that would be 167 degrees
11	was not on I don't think that you did you see this part was	11	Fahrenheit.
12	on there?	12	Q. So if the operating temperature was less than that, are you
13	Okay. So this is all one then. And I can attach the	13	still concerned?
14	pictures to this all for Exhibit 4?	14	A. I have no idea what it is. Yeah. I'm concerned once
15	(Discussion off the record)	15	you start warming the ground up it's going to dry it out and
16	MR. SMITH: I'm not sure I've seen all of that stuff.	16	change the vegetation that grows over it. Yes.
17	I don't know what was in the original packet there.	17	MR. KOENECKE: No further questions. Thank you.
18	Brett, you're the only person that's seen it. Do you	18	MR. RASMUSSEN: No questions.
19	want to look at it?	19	MR. SMITH: Mr. Hohn.
20	THE WITNESS: Going to have fun sorting this stuff out	20	CROSS-EXAMINATION
21	when I get home.	21	BY MR. HOHN:
22	MR. KOENECKE: Mr. Smith, is it your understanding	22	Q. Mr. Goss, you mentioned in section along Section 34
23	that the letter which has been redacted is and should be its own	23	there's an abandoned section line on the west side; is that
24	separate exhibit?	24	correct?
25	MR. SMITH: Yes. I think it should.	25	A. Section 22 is a vacated section line.
	970		972
1	MR. KOENECKE: That which is attached to it.	1	Q. Okay. I misheard. I'm sorry. Section 22
2	MR. SMITH: Would be a separate exhibit, and I believe	2	A. That's vacated. Not abandoned. Vacated.
3	we've already agreed that that's admissible. That can be	3	Q. Vacated. I'm sorry. Was there ever a discussion between
4	received. But I don't know what number it is, how it's been	4	you and TransCanada about possibly using that vacated section
5	marked.	5	line for the pipe?
6	And the pictures, do you want to staple those together	6	A. Nope.
7	and call them 6.	7	Q. You've had quite a bit of contact with TransCanada, numbers
8	Is that it as far as the exhibits that you	8	of people, agents talking to you about this. What was how
9	THE WITNESS: I think so. I think so. There may	9	would you classify I realize it's a number of people, but how
10	possibly be need for one other.	10	would you classify the landowner relations over all?
11	MR. SMITH: Okay. Well, I tell you what I'd like to	11	A. Well, I guess I was extremely disappointed that nobody ever
12	do is we've got to get moving here.	12	wanted to talk to me. I guess I live too far away from a
13	THE WITNESS: Yes. I'm going to try and sum it up as	13	pipeline, but it was a half a mile from where I spent over half
14	quickly as I can, Mr. Smith.	14	my life.
15	MR. SMITH: Okay. Let's move along and do that.	15	I will say that I'm pleased with my contacts today with the
16	THE WITNESS: Really and what these last letters that	16	recognition from TransCanada as to what the situation is with
17	have taken a lot of time indicate was correspondence in moving	17	those being so cornered and so close you can't turn a tractor
18	off of Section 34 to get off of the native grass.	18	around on what's left or you can't park a pickup.
19	After a period of correspondence back and forth that	19	Q. And then one last question, regarding the buffalo wallow,
20	was approved under one condition: That I sign an easement on	20	that looks like a very large area. Approximately how many acres
22	22. I then looked up a word in the dictionary that reads to	22	does the wallow take up?
23	coerce into something as by threat, and that word is blackmail. Lidight feel that was a very proper operation in good faith	23	A. In that picture?Q. Section 34.
24	I didn't feel that was a very proper operation in good faith. That pretty well concludes what I have to say.	24	A. Half an acre or less.
25	MR. SMITH: Thank you, sir. And then we'll now tender	25	Q. And is that where the grasslands are?
	1/2008 04:14:48 PM Page 969 to		

	973		975
1	A. That L shape is the grassland on that particular quarter or	1	THE WITNESS: Right. Yep.
2	section.	2	MR. SMITH: And you're now under oath, and do you
3	Q. Is there much native grassland left in that county?	3	basically certify here today that the statements you made in
4	A. No. I felt that with the exception of one other landowner	4	your prefiled testimony are true?
5	in western Kingsbury outside western Kingsbury County, our	5	THE WITNESS: Yes.
6	operation contained a far higher percentage well, on a	6	MR. SMITH: And that if you were to go over the same
7	percentage basis we were number one in native grasses.	7	exact thing today, you'd testify similarly?
8	Not in acreages but in percentage of our operation. We had	8	THE WITNESS: Yes.
9	more native grass, I would estimate, than anybody else in the	9	MR. SMITH: Thank you. And then could you please
10	western three townships that this pipeline goes through.	10	briefly if you could. You know, I know brief is a relative
11	Q. And then I have one last question, Mr. Goss. In addition	11	term, but summarize your testimony if you could for the
12	to the sort of historic nature of native grass, original grass,	12	Commissioners.
13	are there practical issues related to native grass in terms of	13	THE WITNESS: I could just go into additional, or do
14	raising cattle in dry conditions?	14	you want me to review any of the I don't really need to go
15	A. Oh, absolutely. After having moved from Kingsbury County	15	back into the
16	to Butte County, native grasses, that's a short grass country.	16	MR. SMITH: Into what you filed?
17	Let me tell you, we've got anything from tall blue stand to	17	THE WITNESS: What I filed. I could just go on to
18	buffalo grass, western wheat grass in those native grasses. And	18	MR. SMITH: Sure. If you have other things to say.
19	when she dries out they call that buffalo grass because there's	19	THE WITNESS: I do.
20	something there with nutrition that keeps them sheep and cows	20	MR. SMITH: Okay. Please proceed.
21 22	alive.	21 22	CHAIRMAN JOHNSON: Thank you for your consideration on
23	MR. HOHN: Thank you. MR. SMITH: Staff? Questions?	23	that front, Mr. Sibson.
24	MS. SEMMLER: None. Thank you.	24	THE WITNESS: You've got it and you can review it and I've done it before.
25	MR. SMITH: Commissioners, questions of Mr. Goss?	25	This is additional testimony, burden of proof 2 for
	974		976
1	Okay. Thank you, and I think you're excused,	1	social and economic and I've got 10 copies here for you guys to
1 2	Okay. Thank you, and I think you're excused, Mr. Goss. And you can step down.	1 2	
_			social and economic and I've got 10 copies here for you guys to
2	Mr. Goss. And you can step down.	2	social and economic and I've got 10 copies here for you guys to have each have one.
3	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you.	3	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all
2 3 4	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around	2 3 4	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3.
2 3 4 5	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit.	2 3 4 5	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all
2 3 4 5 6	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes	2 3 4 5 6	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along.
2 3 4 5 6 7	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this.	2 3 4 5 6 7	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your
2 3 4 5 6 7 8 9	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I	2 3 4 5 6 7 8 9	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to
2 3 4 5 6 7 8 9 10	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you.	2 3 4 5 6 7 8 9 10	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then?
2 3 4 5 6 7 8 9 10 11	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused)	2 3 4 5 6 7 8 9 10 11	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes.
2 3 4 5 6 7 8 9 10 11 12 13	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been	2 3 4 5 6 7 8 9 10 11 12 13	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the
2 3 4 5 6 7 8 9 10 11 12 13	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead?	2 3 4 5 6 7 8 9 10 11 12 13	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously.
2 3 4 5 6 7 8 9 10 11 12 13 14	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons	2 3 4 5 6 7 8 9 10 11 12 13 14 15	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It doesn't matter to me.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes. MR. SMITH: With that specific valuation information
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It doesn't matter to me. (The witness is sworn by the court reporter)	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes. MR. SMITH: With that specific valuation information redacted, does your objection go away?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It doesn't matter to me. (The witness is sworn by the court reporter) MR. SMITH: Do you want to start out by introducing	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes. MR. SMITH: With that specific valuation information redacted, does your objection go away? MR. KOENECKE: Yes.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It doesn't matter to me. (The witness is sworn by the court reporter)	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes. MR. SMITH: With that specific valuation information redacted, does your objection go away? MR. KOENECKE: Yes. MR. SMITH: Mr. Sibson, I think we're going to do
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It doesn't matter to me. (The witness is sworn by the court reporter) MR. SMITH: Do you want to start out by introducing yourself, please.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes. MR. SMITH: With that specific valuation information redacted, does your objection go away? MR. KOENECKE: Yes.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It doesn't matter to me. (The witness is sworn by the court reporter) MR. SMITH: Do you want to start out by introducing yourself, please. MR. SIBSON: Yeah. I'm Mike Sibson. I'm from Howard,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes. MR. SMITH: With that specific valuation information redacted, does your objection go away? MR. KOENECKE: Yes. MR. SMITH: Mr. Sibson, I think we're going to do that. Is that fine with you?
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Mr. Goss. And you can step down. THE WITNESS: You're doing fine, all three of you. Thank you very much for this opportunity to horse you around this afternoon a little bit. MR. SMITH: Well, and I apologize for the sometimes cumbersomeness of dealing with some of this. THE WITNESS: I recognize this is all on record, but I wanted to get it right. Thank you. COMMISSIONER KOLBECK: You did a great job, Mr. Goss. THE WITNESS: Who said that? (The witness is excused) MR. SMITH: I'm trying to remember how long we've been at it here. Should we forge ahead? I think next on the list would be one of the Sibsons who I believe I recognize oh, no. That's not true. It doesn't matter to me. (The witness is sworn by the court reporter) MR. SMITH: Do you want to start out by introducing yourself, please. MR. SIBSON: Yeah. I'm Mike Sibson. I'm from Howard, South Dakota. I've got two quarters and an 80 affected by this	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	social and economic and I've got 10 copies here for you guys to have each have one. I got three different ones. Do you want me to do all three at once or I got them numbered, 1, 2, 3. MR. SMITH: Why don't we do that. That way we can all have them, and we'll speed things along. I'm going to ask you now with respect to just your prefiled, we'll have that labeled Sibson 1. Do you wish to offer that into evidence at this time then? THE WITNESS: Yes. MR. SMITH: Objection anyone? MR. KOENECKE: We'd ask that the first page be redacted. It contains financial information pursuant to the Motion in Limine conversation previously. MR. SMITH: Is that the prefiled? MR. KOENECKE: Yes. MR. SMITH: With that specific valuation information redacted, does your objection go away? MR. KOENECKE: Yes. MR. SMITH: Mr. Sibson, I think we're going to do that. Is that fine with you? THE WITNESS: Yeah. If that's what you got to do.

2

3

4

7

8

11

16

17

18

19

20

21

22

23

24

25

1

2

3

4

5

8

9

980

Thank you. Any other -- any objections to number 1? Okay. Your Exhibit 1, your prefiled, is admitted. And then why don't you get started and you can explain what your other things are and we'll take it from there.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

THE WITNESS: Okay. My first one's on the social and economic. We gave the attached map to -- we gave the attached map to at the time our land agent, Pam Bruce, on 6-26-07. The map shows the future expansion plans we have been working on. Pam told us that TransCanada had to reroute because they could not limit our future expansion. TransCanada never contacted us about the plans.

When our second land agent visited us on 7-30-07 the map we had given Pam was not in the file. Clark told us that he was our new agent and that Pam was moved to Nebraska.

We are wondering why this foreign company was not willing to work with us about our plans, and what happened to the map that we gave to Pam Bruce.

And on the wetlands, additional testimony on wetlands, the attached map is from Miner County Conservation Office. The map showed our home section and all the wetlands. The black line shows how the proposed pipeline route goes through our land. All the darker or the black areas are wetlands. And the blue circles mark the dugouts.

All the water that flows to the land on that section exits the same area that the proposed pipeline exits.

As a landowner and farmers we love our land. We do not farm fence row to fence row. We have protected the many wetlands on our land. We have close to 200 acres of native grass. We do not want it damaged. We are stewards of the land, and we will do what we can to protect the native grasses.

And then the last additional testimony is I am giving additional testimony to burden of proof 2, social and economic. The proposed pipeline cuts diagonal through our home section. We background feeder cattle being the main source of income. The cattle graze on native grass through the summer and are sold as yearlings in the fall.

We figure construction across our property could be from 8 to 12 weeks without weather delays. The proposed pipeline will devastate our grass rotation plan we have used for years. We feel that TransCanada should pay us for loss of income as we will not be able to graze the cattle as we usually have done for years. We told this concern to the land agent, Clark Cooney (phonetic). His response was they probably will not pay that.

We listened to Buster Gray's testimony by internet. His response to fences and livestocks are confusing during the construction period. We feel cattle, and fencing issues need to be addressed. We'll be willing to talk to Buster Gray and get more details.

In my prefiled testimony we have already mentioned how

important water and dugouts are to my cattle operation. We told my banker about the proposed pipeline. His response was we would be better off to sell and move on if the proposed pipeline came through our property.

5 Why should we do that when we have been on this 6 section for 30 years? We do not want this pipeline to cross our land. If we are forced to accept this pipeline, we have some conditions that we would like the PUC to consider.

9 Number one, one pipe only. The pipe should be buried 10 deeper and built heavier. 2, a 10-foot easement area instead of 50 feet. Number 3, the easement area should not be perpetual. 12 4, we feel that landowners should get a yearly fee. 5, the 13 landowners are only protecting their land. We feel TransCanada 14 should pay all attorney fees. We feel TransCanada needs to put 15 an end game plan in place now before the permit can be approved.

In closing, after listening to other affected landowners, we all have the same concerns and issues about this pipeline. As we see it, we are all in this together. We have everything to lose and nothing to gain. Before this TransCanada nightmare we were living the American dream. We had life, liberty, and the pursuit of happiness. Now this proposed pipeline we feel these rights have been taken away. And that concludes my thing.

MR. SMITH: First of all, the Exhibits 2, 3, and 4, is there an objection from anyone?

978

MR. KOENECKE: No objection.

MR. SMITH: Hearing none, your exhibits are admitted into evidence. And at this point I'm going to turn you over for cross-examination -- questions from the parties, if that's okay.

THE WITNESS: That's fine.

6 MR. KOENECKE: Mr. Sibson, thank you for coming today.

7 I have no questions for you.

MR. RASMUSSEN: No questions.

CROSS-EXAMINATION

10 BY MR. HOHN:

11 Q. Mr. Sibson, I have a couple questions for you. On page 3,

12 the last page of your testimony where your signature is, top of

13 the page, if I could summarize, it says the agent told you it's

14 a done deal and all land easements will be done by October,

15 November.

16 So why are we all here testifying when it's a done deal?

17 What do you mean by that statement?

18 **A.** Well, that's what -- she stated that we -- anything that

19 I've asked she was saying -- like I wanted a yearly fee. And

20 she says you won't get it. The answer will be no. And I said,

21 well, why are they saying no, and she said they don't have to

22 give you a reason. And she said this is a done deal already so

23 you just as well sign the easement.

24 Q. In terms of the done deal, done deal meaning what? The

25 hearings hadn't been held. What was done about it?

	981	1	983
1	A. That it's going to be approved, and it's going to come	1	THE WITNESS: That was done prior to this, and we
2	through my property. No use fighting it. It's a done deal.	2	figured we'd go in on what we knew we could.
3	Q. On the second page of your testimony, fifth paragraph down,	3	CHAIRMAN JOHNSON: Well, even in your oral testimony
4	you're referring to fuel storage; correct? Where it starts out	4	you've expressed some frustration and I certainly understand why
5	my local fuel dealer. Maybe I'm on the wrong page.	5	you'd have that frustration and you'll have presumably a
6	A. No. You might not be. Is it the second or third one?	6	THE WITNESS: Day in court.
7	Q. It's the one, two, three, four I'm counting five. It's	7	CHAIRMAN JOHNSON: Additional recourse for that.
8	the second page and then the fifth paragraph down.	8	That's all I have.
9	A. Oh, okay. I've got it.	9	MR. SMITH: Commissioner Kolbeck.
10	Q. Do you see that there?	10	COMMISSIONER KOLBECK: Mr. Sibson, could you just tell
11	A. Yeah.	11	me where from I'm trying to keep track of everyone on this
12	Q. What's the question there regarding secondary containment?	12	exhibit.
13	Are you talking about secondary containment around the pipe?	13	THE WITNESS: It's 360 on that map, I believe. The
14	A. In the event of a leak. And I would just as soon that's	14	number 360.
15	probably where I thought my wetlands should be protected by	15	COMMISSIONER KOLBECK: Okay. Mile post 360?
16	federal law but yet I think they're going to be used for the	16	THE WITNESS: Right.
17	secondary containment in the case of an oil leak is the way I	17	COMMISSIONER KOLBECK: Okay. And that's your
18	look at it.	18	THE WITNESS: Right. There's 80 acres to the north,
19	Q. By secondary containment and your local fuel dealer, you're	19	and then two quarters in Section 33 is the two quarters.
20	referring to the requirement	20	COMMISSIONER KOLBECK: Okay.
21	A. That he has to abide by it and have that secondary	21	THE WITNESS: But I do have that map shows the
22	containment in place.	22	water, how it tracks. I own that whole section plus the 80.
23	Q. In case the fuel	23	But anywhere in that where the oil line crosses, if it should
24	A. The fuel tank would leak there's another containment area	24	leak anywhere, even the high ground or wherever, it can get in
25	so it doesn't	25	and move through all of that wetland.
	982		984
1	Q. I understand now. Thank you. I don't know if you're at	1	And all of that water goes in to the south part where
2	liberty to say, but could you give us the name of the banker	2	the line exits. And there's one single culvert there. So that
3	that expressed concern?	3	kind of restricts water, but it lets it go at a slow pace. So
4	A. Fred Smith, Fulton State Bank. I just thought I'd run that	4	basically that all stays flooded. And in time it eventually
5	through him, and he just thought rather than put up with what I	5	leaks out. But in case of a leak, that oil's going to all be
6	would have to deal with and living that close to the pipeline,	6	channeling to that one spot. And it would exit on to the
7	he thought it would be in my best interest just to move.	7	neighbor's property to the south.
8	And that wasn't kind of the advice I was wanting to hear.	8	But it's pretty much a waterway tracks all through
9	How can a foreign country I've been living there 30 years.	9	that. And it basically goes south. Wherever it flows, it will
10	How can a foreign country tell me out of the way, we're coming	10	eventually head out and exit that to the south.
11	through? I was there first.	11	COMMISSIONER KOLBECK: And are those production areas,
12	Q. In the contact you've had with land agents, have you ever	12	are they is that through the State? Is that like an open
13	had a reason or have you contacted the Public Utilities	13	hunting?
14	Commission regarding a landowner or land agent's activity and	14	THE WITNESS: The ones that are close to me up to the
15	complained or filed a complaint?	15	north?
16	A. Yes, we have, but my wife Sue will follow up on that.	16	COMMISSIONER KOLBECK: There's one north and one
17	MR. HOHN: Okay. I have no further questions.	17	south.
18	MR. SMITH: Staff questions?	18	THE WITNESS: Yeah. It's kind of funny how the line
19	MS. SEMMLER: None. Thanks.	19	manages to miss that, but it nails me. They don't want it on
20	MR. SMITH: Commissioners, do you have questions of	20	their State game refuge, but yet they can make me take the line.
21	Mr. Sibson?	21	And I've got a lot more wildlife, and I do a lot of stuff for
22	CHAIRMAN JOHNSON: Thanks for being here, Mr. Sibson.	22	wildlife. I've got probably more pheasants than that federal
23	You've mentioned I think a number of concerns about eminent	23	one does.
24	domain, and I just want to make sure you know that's not a	24	I've even had three nests of tame geese nested on my
25	subject to this Commission.	25	dugouts with cattle in them. The cattle don't affect the nest.
	113 sheets Page 981 to		

	205	1	007
_	985		987
1	The mothers keep the cattle away from the nest, but yet the	1	MR. KOENECKE: I don't have prefiled testimony for
2	cattle are there to keep the predators away from the nest. And	2	Mrs. Sibson. Am I missing
3	I think the geese figured that one out.	3	MR. SMITH: I think it was filed by both of them.
4	COMMISSIONER KOLBECK: How far is your home from the	4	MRS. SIBSON: Mike just had his name on the bottom, I
5	line?	5	think. I did all the work, sir. Believe me.
6	THE WITNESS: It says farm I'm just estimating it's	6	COMMISSIONER KOLBECK: So what's new? Is that what
7	a quarter mile or less. Or an eighth to a quarter mile would be	7	you're saying?
8	my estimation.	8	MRS. SIBSON: No. No.
9	COMMISSIONER KOLBECK: To the west or the east?	9	If you don't want to mix up the testimony for me, my
10	THE WITNESS: From the the line will be east of the	10	husband can come up here and give it. If that's what you want
11	farmstead.	11	to do, that's fine.
12	COMMISSIONER KOLBECK: Oh, okay. Okay. That's what I	12	CHAIRMAN JOHNSON: I don't think anybody's said that.
13	needed. Thank you.	13	Nobody's normally objected. They might not. If they were
14	MR. SMITH: Other Commissioner questions? I just have	14	missing testimony, they wanted to make sure they had it handy.
15	one really quick question. And I think it's Exhibit No. 4.	15	MRS. SIBSON: When I sent the prefiled testimony in, I
16	It's the this one here, the one that's got more	16	did not add my name to the bottom of it, which I should have.
17	THE WITNESS: Got my name on the top.	17	MR. SMITH: Did TransCanada have an objection to
18	MR. SMITH: Yeah. And on number 6 you feel	18	her I know the testimony original said Mike Sibson. We've
19	TransCanada needs to put an end game in place now. And I was	19	had a lot of contact with Mrs. Sibson. So I guess in my mind I
20	just wondering what you mean by that phrase, "an end game."	20	understood the testimony to be on behalf of you both.
21	THE WITNESS: Well, the way I understand the end game	21	MRS. SIBSON: Excuse me, Mr. Smith. But I think when
22	would be when the line is no longer in use and will be abandoned	22	I sent in I can't remember what paper it was. Both of our
23	what's going to happen to it? Who's going to be responsible to	23	names were on there. Not just in the I can't remember what
24	remove the pipe? Is it just going to be left and when it's left	24	you called
25	the pipe will eventually collapse and there will be holes.	25	MR. SMITH: The Application for party status?
	986		988
1	I'm just wondering. They need to have an end game.	1	MRS. SIBSON: There you go. Uh-huh.
2	And who's going to pay the price to remove the line off the	2	CHAIRMAN JOHNSON: For those on the internet, you're
3	property once the line's no longer used?	3	still on line. We're just pausing for a moment while the
4	MR. SMITH: That's what I thought you meant, but I	4	parties review the testimony that was not prefiled by
5	just wanted to clarify and make sure that's what you were	5	Ms. Sibson, and people are reviewing to see if they have any
6	talking about there. I believe you're done and can be excused	6	objections.
7	then.	7	MR. KOENECKE: Mr. Smith, we object to Mrs. Sibson in
8	THE WITNESS: Thank you.	8	this portion of the hearing. Her name isn't anywhere on the
9	MR. SMITH: Thank you very much for coming today.	9	prefiled documents that she says she drafted. We've had no
10		10	notice of this, and I guess we're not willing to open the door
44	(The witness is excused)	11	to people testifying in the evidentiary portion of the hearing
11	MR. SMITH: Mrs. Sibson, are you ready to go at this	42	
12	MR. SMITH: Mrs. Sibson, are you ready to go at this point?	12	without people having prefiled testimony. We're simply not
12 13	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter)	13	without people having prefiled testimony. We're simply not willing to do that.
12 13 14	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how	13 14	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that,
12 13 14 15	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to	13 14 15	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson?
12 13 14 15 16	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when	13 14 15 16	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name
12 13 14 15 16	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you.	13 14 15 16 17	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike
12 13 14 15 16 17	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you. MRS. SIBSON: I'm Susan Sibson. I'm from Howard,	13 14 15 16 17 18	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike come up here and read this then.
12 13 14 15 16 17 18 19	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you. MRS. SIBSON: I'm Susan Sibson. I'm from Howard, South Dakota. I'm married to Mike. We live in Miner County	13 14 15 16 17 18 19	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike come up here and read this then. MR. SMITH: Commissioners, do you have a I mean,
12 13 14 15 16 17 18 19 20	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you. MRS. SIBSON: I'm Susan Sibson. I'm from Howard, South Dakota. I'm married to Mike. We live in Miner County Roswell Township. The proposed pipeline will track through an	13 14 15 16 17 18 19 20	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike come up here and read this then. MR. SMITH: Commissioners, do you have a I mean, technically speaking, we did require. I guess you know that.
12 13 14 15 16 17 18 19 20 21	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you. MRS. SIBSON: I'm Susan Sibson. I'm from Howard, South Dakota. I'm married to Mike. We live in Miner County Roswell Township. The proposed pipeline will track through an 80 and two quarters of our land.	13 14 15 16 17 18 19 20 21	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike come up here and read this then. MR. SMITH: Commissioners, do you have a I mean, technically speaking, we did require. I guess you know that. MRS. SIBSON: Yes, I do.
12 13 14 15 16 17 18 19 20 21 22	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you. MRS. SIBSON: I'm Susan Sibson. I'm from Howard, South Dakota. I'm married to Mike. We live in Miner County Roswell Township. The proposed pipeline will track through an 80 and two quarters of our land. What I have done today is similar to Mike's testimony	13 14 15 16 17 18 19 20 21 22	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike come up here and read this then. MR. SMITH: Commissioners, do you have a I mean, technically speaking, we did require. I guess you know that. MRS. SIBSON: Yes, I do. MR. SMITH: Because we've had enough contact over the
12 13 14 15 16 17 18 19 20 21 22 23	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you. MRS. SIBSON: I'm Susan Sibson. I'm from Howard, South Dakota. I'm married to Mike. We live in Miner County Roswell Township. The proposed pipeline will track through an 80 and two quarters of our land. What I have done today is similar to Mike's testimony that we have additional testimony. And I have 10 copies of	13 14 15 16 17 18 19 20 21 22 23	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike come up here and read this then. MR. SMITH: Commissioners, do you have a I mean, technically speaking, we did require. I guess you know that. MRS. SIBSON: Yes, I do. MR. SMITH: Because we've had enough contact over the last few months, I guess I know you guys intended for that to be
12 13 14 15 16 17 18 19 20 21 22	MR. SMITH: Mrs. Sibson, are you ready to go at this point? (The witness is sworn by the court reporter) MRS. SIBSON: Good afternoon. Basically how MR. SMITH: Before you get going, please, you need to identify yourself so we have you so we know who you are when we read the transcript. Thank you. MRS. SIBSON: I'm Susan Sibson. I'm from Howard, South Dakota. I'm married to Mike. We live in Miner County Roswell Township. The proposed pipeline will track through an 80 and two quarters of our land. What I have done today is similar to Mike's testimony	13 14 15 16 17 18 19 20 21 22	without people having prefiled testimony. We're simply not willing to do that. MR. SMITH: Do you have a position on that, Mrs. Sibson? MRS. SIBSON: I would say that I failed to put my name on the prefiled testimony. And all we need to do is have Mike come up here and read this then. MR. SMITH: Commissioners, do you have a I mean, technically speaking, we did require. I guess you know that. MRS. SIBSON: Yes, I do. MR. SMITH: Because we've had enough contact over the

	989		991
1	MRS. SIBSON: Actually I just noticed that this	1	MRS. SIBSON: That's fine. That's fine.
2	morning when I was putting everything together in the file to	2	MR. SMITH: And I apologize for that.
3	come out.	3	MRS. SIBSON: No. Don't need to.
4	MR. KOENECKE: Well, Mr. Smith, it says, Testimony by	4	MR. SMITH: I'm going to sustain the objection. And
5	Mike Sibson at the top, and at the bottom it's signed by	5	as Commissioner Johnson said, because you won't be able to
6	Mike Sibson. I'm not willing to open that door. You'll have to	6	testify here, if you want to offer your thoughts in the public
7	do that over my objections.	7	comment period tonight, you're free to do that.
8	I'm sorry, Mrs. Sibson.	8	MRS. SIBSON: Sure. That's fine.
9	MRS. SIBSON: That's fine, sir. That's fine. So then	9	MR. SMITH: And, again, I know it's kind of
10	can Mike come up here and testify to this then? To me it didn't	10	hypertechnical.
11	matter. I guess we've done everything together. We've been	11	MRS. SIBSON: That's fine.
12	married 30 years, that I just thought we were splitting it up to	12	MR. SMITH: Thanks. Mr. Sibson, then you're still
13	help each other out so	13	under oath.
14	CHAIRMAN JOHNSON: Mr. Smith, I don't want to bump in.	14	THE WITNESS: I need my eyes.
15	You haven't made a ruling yet. And I certainly don't intend to	15	Okay. The first one is an attached contact summary
16	overrule something that hasn't been ruled on yet.	16	with TransCanada land agent. We did not agree with what the
17	To me I just want to make it clear, I think you've got	17	report said, which is attached. This was July 30, 2007. Clark
18	potentially three options. One option may be Mr. Smith may	18	did not give his last name. Nor did he have a business card.
19	overrule the objection. He may allow you to give the testimony	19	We asked many times for a card. Finally he agreed to e-mail or
20	on your own behalf. I don't know what he's going to do.	20	stop one off.
21	Second, even if he abstains the objection, yeah, you could have	21	He said he was he said he was here to discuss
22	Tim (sic) come read it.	22	issues. When we asked him what the issues he had little to say.
23	MRS. SIBSON: Mike.	23	We felt he did not know much. Buster Gray is the head engineer,
24	CHAIRMAN JOHNSON: Mike. Sorry. That's right. Even	24	and he said he had no idea who Buster was. We did not indicate
25	if you didn't want to do that, at 7 o'clock tonight you could	25	that he was lying but he was misinformed.
	990		992
1	have an opportunity to provide your thoughts at the public	1	The policy maybe is in place, but employees are not
3	comment hearing tonight. I believe we're having that transcribed, and I believe we are taking information from	3	following policy. We asked about having our attorney fees paid for by TransCanada. Clark did not mention this in his summary.
4	people.	4	In addition, he failed to mention he agreed to us and would
5	Now you wouldn't have the glorious luxury of being	5	fight this project if it were on his land. However, we were not
6	cross-examined. And you wouldn't be under oath. But I just	6	to say he said that as he could lose his job.
7	want you to think before Mr. Smith does his ruling that you have	7	We have not been in contact with Canadian landowners.
8	some other options.	8	We have checked websites from Canada. Clark failed to show us
9	MRS. SIBSON: Could I have a minute to speak to my	9	where in the easement that we would be held harmless. We never
10	husband about this? Thank you.	10	even looked at the easement he had in his file on this day.
11	(Pause)	11	Clark needs to use a dictionary to find the correct spelling of
12	MRS. SIBSON: My husband, Mike, said that he will do	12	eminent domain. Sorry. Had to use that again.
13	this testimony then.	13	Number 2, on September 7, '07, 11:57 a.m.
14	CHAIRMAN JOHNSON: Well, let's see what Mr. Smith's	14	Clark Cooney, land agent for TransCanada, was on our farm near
15	ruling is before we	15	Howard. We asked him how many landowners sign their easements
16	MRS. SIBSON: Sure. I'm sorry.	16	in Miner County. Clark did tell us some names. I asked Clark
17	COMMISSIONER KOLBECK: It would be I guess if you	17	if Dorothy Schroeder signed her easement. He said, No. He
18	want my opinion, Mr. Smith, I think that she's on the verge of	18	said, She has two tenants. One signed, and the other one must
19	making the correct choice.	19	have threatened her not to sign.
20	MRS. SIBSON: I was thinking that all day today, he	20	I then called Dick Burhardt (phonetic), tenant, on my
21	should be doing all of this.	21	cell phone and told him what Clark said. He wanted to talk to
22	MR. SMITH: I guess I you know, I'm kind of torn on	22	Clark. Dick told Clark he had never threatened Dorothy.
23	it because I know you've been involved. I know that because of	23	2:51 p.m., I called Timothy Slorby, Clark's
24 25	the various contacts that have been. But I guess to technically	24 25	supervisor. He was rude and very loud. He was not a
23	keep it within our order and the rules	23	professional at all. I told him Clark could lose his job for

	993	_	995
1	saying what he did about Dick Burhardt. Mr. Slorby went off on	1	questions if the parties here have questions of you.
2	a big speech about Lillian saying things about the land agents	2	Mr. Koenecke.
3	and America's need for oil. Mr sorry if I keep pronouncing	3	<u>CROSS-EXAMINATION</u>
4	his name wrong Slorby gave me Don Ellis's phone number and	4	BY MR. KOENECKE:
5	wanted me to call him. I did. He was on conference call	5	Q. Good afternoon, Mr. Sibson, Mrs. Sibson. Thank you for
6	according to Beth Lee. He said he would call me back. He did	6	coming. I'm looking at the second page of what's been marked as
7	not return my call. Denny Needlham (sic) called instead. I	7	Exhibit 5, Keystone Pipeline Project page 1 it says at the top.
8	asked to know what happened with Clark, and his reply was it was	8	Have you got that there?
9	up to state law and it was confidential. He said that Clark	9	A. Yes.
10	made a mistake. He also indicated we would be getting a new	10	Q. I'm trying to remember. It seems to me that your testimony
11	land agent.	11	was there were some things that were wrong in this document. Am
12	September 11, 2007, I called Denny Needlham to ask for	12	I right?
13	an update about the land agent. He returned my call. He said	13	A. I believe it was things that he failed to put in this
14	they did an investigation and took no action. Clark will not be	14	document.
15	our agent.	15	Q. But is what's in here then is right?
16	And the other additional testimony is September 7,	16	A. Oh, this was our take on what happened that day. This is
17	2007. Our appointment was at 10 o'clock with Clark Cooney. I	17	what he put happened that day.
18	was already talking with him when Sue joined the conversation.	18	Q. Very good. So are you telling me that the second sentence
19	I said to her that Clark told him that the PUC had given verbal	19	after it says, Contact Summary, that didn't happen?
20	approval to the pipeline. She asked Clark to state that to her.	20	A. On what?
21	He did.	21	Q. Do you see where it says, I was told that TransCanada
22	Once again, I asked she asked him to repeat the	22	Keystone could "go to hell" and that "we will fight this
23	statement, and he did. Clark had the easement in one hand as he	23	pipeline to the death?" The reasons are as follows?
24	made the statement to put the easement on the trunk of the	24	Is that wrong or
25	car he put it on the trunk of the car. I felt that he was	25	A. No. I did tell him to go to hell, and I said we'll fight
	994		996
1	really pushing us to sign. I went in the house and called the	1	this to the death. I did say that.
2	PUC office. Bob Knadle sorry about that.	2	Q. Very good. I just wanted to know if that was right. So do
3	MR. GERDES: Nobody can pronounce it.	3	you remember your previous testimony before you came back up to
4	THE WITNESS: That's good to know. Was the person I	4	the stand?
5	spoke to. The attached e-mail explains that Mr. Knadle said to	5	A. Pardon?
6	the land agent. Later I asked Clark who he had gotten his	6	Q. Do you remember your previous testimony before you came
7	information from. He said Tom Slorby. I asked him, Whom did	7	back to the stand?
8	Mr. Slorby get his information from? He said, Don Ellis.	8	A. Yeah.
9	That concludes my our testimony.	9	Q. You testified, didn't you, that there were six conditions
10	(Discussion off the record)	10	that you wanted the Commission to put
11	MR. SMITH: Okay. At this time, Mr. Sibson, would you	11	A. Oh, yes. Yes.
12	want to offer your Exhibit 5, 6, 7?	12	Q. So I guess I'm left wondering which is it? Can TransCanada
13	THE WITNESS: Yes.	13	just go to hell and you'll fight to the death, or with these
14	MR. SMITH: Is there an objection?	14	conditions is it then acceptable?
15	MR. KOENECKE: No objection.	15	I'm just wondering which it is.
16	MR. RASMUSSEN: No objection.	16	A. That is what happened then. This is now.
17	MR. HOHN: No objection.	17	Q. What's now? What's happened since then, I guess is what
18	MR. SMITH: We'll receive those into evidence then. I	18	I'm asking.
19	don't know if you had any additional comments. Otherwise, we'll	19	A. I don't understand where you're getting at.
20	tender you for questions regarding these matters. I think we	20	Q. How come you felt TransCanada could go to hell and fight
21	can pretty much get the drift from	21	the pipeline to the death in September
22	THE WITNESS: How we've been treated not fairly.	22	A. That's because I was on to my land agent's con game. And I
23	That's our main point. We just ask that we be treated fairly	23	told Clark right off the start that he's got a job to do and
24	for once. That's all we ask.	24	I've got land to protect and anything I say to him is nothing
25	MR. SMITH: Okay. I'm going to allow you to answer	25	personal. And he understood that. And we talked quite fine
01/03	3/2008 04: 14: 48 PM Page 993 to	996 0	of 1027 58 of 113 sheet

			997	999	
1	abou	ut this.	1	verbal approval that we know of and that he shouldn't be saying	
2	Q.	Who's we?	2	that. Because I know you're trying to I told him he was	
3	A.	Me and him.	3	really good at his job and that he's trying to B.S. us into	
4	Q.	Clark?	4	signing this easement. And he's very, very good at it. But I'm	
5	A.	Right.	5	a master at reading B.S. is what I told him back. And he knew	
6	Q.	But now you've got a new land agent; right?	6	we were onto him.	
7	A.	I guess.	7	Q. And so while you and Mr. Cooney were continuing to talk	
8	Q.	When is the last time	8	your wife went in the house and called the PUC?	
9	A.	We've never talked to him. He's never contacted us.	9	A. Yes. Yeah. And then she brought the phone out and told	
10	Q.	What's the last contact you've had with TransCanada?	10	him, Would you repeat this to the PUC? And he said, Sure. And	
11	A.	September 7. And Clark was no longer our agent up to that	11	he sounded awful convincing that he believed what he was saying.	
12	day	after that day.	12	I mean, it was very believable.	
13	Q.	So have you been notified that you have a new agent?	13	But I don't know myself who's telling the truth and who	
14	A.	Only by Denny Needham.	14	isn't. I'm confused myself on that.	
15	Q.	And you have not heard from whoever that person is?	15	Q. Looking to the second page of that testimony, this	
16	A.	No.	16	apparently happened sometime in the morning at 10. And then	
17	Q.	Okay. Very good. I just want to correct the record. I'm	17	looking at the second page	
18	lookir	ng at Sibson 6 I have marked. You had did you see where	18	MR. SMITH: Curt, are we doing anything here besides	
19	it say	s September 11, about the middle of the page?	19	just regurgitating what's on the paper	
20	A.	Yes.	20	MR. HOHN: No. I have a question. Second page.	
21	Q.	If I remember correctly, you recited that he said they did	21	Q. So according to this e-mail response, you called in this	
22	an in	vestigation and took no action. And is this correct as	22	gentleman who's an agent of TransCanada, talked to the PUC and	
23	it's in	writing here, that action was taken, that Clark would	23	according to that e-mail your call came in at 10:10 and he sent	
24	not b	e your land agent? It's correct as it is on the sheet and	24	this e-mail back at 10:39; is that correct?	
25	it's n	ot correct as you recited it, if you recited it according	25	A. Yes. Yes.	
			998	1000	
)
1		y recollection.	1	Q. I can see that the e-mail was copied to others at the PUC.)
2	to my	Correct.	1 2	Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you)
3	Α.	Correct. MR. KOENECKE: I've got nothing further. Thank you	1 2 3	Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know?)
2 3 4	Α.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today.	1 2 3 4	Q. I can see that the e-mail was copied to others at the PUC.Was this ever conveyed in writing to TransCanada as far as you know?A. I have no idea.	
2 3 4 5	Α.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen.	1 2 3 4 5	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? 	
2 3 4 5 6	Α.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions.	1 2 3 4 5 6	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. 	
2 3 4 5 6 7	Α.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn.	1 2 3 4 5 6 7	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. 	
2 3 4 5 6 7 8	A.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION	1 2 3 4 5 6 7 8	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? 	
2 3 4 5 6 7 8 9	for co	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN:	1 2 3 4 5 6 7 8	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. 	
2 3 4 5 6 7 8 9	A. for co	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7.	1 2 3 4 5 6 7 8 9	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION 	
2 3 4 5 6 7 8 9 10	A. for co	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes.	1 2 3 4 5 6 7 8 9 10	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION 	
2 3 4 5 6 7 8 9 10 11	BY M Q. A. Q.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In	1 2 3 4 5 6 7 8 9 10 11	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence 	
2 3 4 5 6 7 8 9 10 11 12 13	BY M Q. A. Q. readi	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ng this it appears that your land agent, Mr. Cooney, had	1 2 3 4 5 6 7 8 9 10 11 12 13	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your 	
2 3 4 5 6 7 8 9 10 11	BY MQ. A. Q. readi	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ng this it appears that your land agent, Mr. Cooney, had d the PUC had already given verbal approval to the	1 2 3 4 5 6 7 8 9 10 11	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? 	
2 3 4 5 6 7 8 9 10 11 12 13 14	BY MQ. A. Q. readi	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ng this it appears that your land agent, Mr. Cooney, had d the PUC had already given verbal approval to the	1 2 3 4 5 6 7 8 9 10 11 12 13	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15	BY MQ. A. Q. readi	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ng this it appears that your land agent, Mr. Cooney, had d the PUC had already given verbal approval to the ine? Yes.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	BY M Q. A. Q. readi state pipeli A. Q.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ning this it appears that your land agent, Mr. Cooney, had in the PUC had already given verbal approval to the line?	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	BY M Q. A. Q. readi state pipeli A. Q.	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ng this it appears that your land agent, Mr. Cooney, had d the PUC had already given verbal approval to the ine? Yes. And was he doing this at a time when you felt he was trying	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of the conversations that staff had with TransCanada. 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	BY M Q. A. Q. readi state pipeli A. Q. to ne	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ang this it appears that your land agent, Mr. Cooney, had did the PUC had already given verbal approval to the sine? Yes. And was he doing this at a time when you felt he was trying agotiate with you?	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of the conversations that staff had with TransCanada. A. It's the letter back from TransCanada from October 11, 2007 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	BY M Q. A. Q. readi state pipeli A. Q. to ne A. with	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ng this it appears that your land agent, Mr. Cooney, had d the PUC had already given verbal approval to the ine? Yes. And was he doing this at a time when you felt he was trying agotiate with you? Yeah. He said it right away as he got out of his pickup	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of the conversations that staff had with TransCanada. A. It's the letter back from TransCanada from October 11, 2007 to the PUC. 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. for co	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In any this it appears that your land agent, Mr. Cooney, had define? Yes. And was he doing this at a time when you felt he was trying agotiate with you? Yeah. He said it right away as he got out of his pickup the easement in his hand figuring that maybe would be what	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of the conversations that staff had with TransCanada. A. It's the letter back from TransCanada from October 11, 2007 to the PUC. Q. So it sounds as if you got you received confirmation 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	BY M Q. A. Q. readi state pipeli A. Q. to ne A. with it wo	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In nighth it appears that your land agent, Mr. Cooney, had did the PUC had already given verbal approval to the sine? Yes. And was he doing this at a time when you felt he was trying agotiate with you? Yeah. He said it right away as he got out of his pickup the easement in his hand figuring that maybe would be what build take to get us to sign.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of the conversations that staff had with TransCanada. A. It's the letter back from TransCanada from October 11, 2007 to the PUC. Q. So it sounds as if you got you received confirmation from TransCanada that staff did communicate regarding your 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	BY M Q. A. Q. readi state pipeli A. Q. to ne A. with it wo	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ng this it appears that your land agent, Mr. Cooney, had d the PUC had already given verbal approval to the ine? Yes. And was he doing this at a time when you felt he was trying agotiate with you? Yeah. He said it right away as he got out of his pickup the easement in his hand figuring that maybe would be what build take to get us to sign. And in the exchange I realize this is a short summary of	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of the conversations that staff had with TransCanada. A. It's the letter back from TransCanada from October 11, 2007 to the PUC. Q. So it sounds as if you got you received confirmation from TransCanada that staff did communicate regarding your concern? 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	BY MQ. A. Q. readi state pipeli A. Q. to ne A. with it wo	Correct. MR. KOENECKE: I've got nothing further. Thank you oming today. MR. SMITH: Mr. Rasmussen. MR. RASMUSSEN: No questions. MR. SMITH: Mr. Hohn. CROSS-EXAMINATION R. HOHN: Mr. Sibson, I'm looking at Exhibit 7. Yes. And this relates to the issue of September 7; correct? In ang this it appears that your land agent, Mr. Cooney, had define? Yes. And was he doing this at a time when you felt he was trying agotiate with you? Yeah. He said it right away as he got out of his pickup the easement in his hand figuring that maybe would be what bould take to get us to sign. And in the exchange I realize this is a short summary of at in the exchange did you challenge him on that? Did you	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	 Q. I can see that the e-mail was copied to others at the PUC. Was this ever conveyed in writing to TransCanada as far as you know? A. I have no idea. Q. Did you send this written information to TransCanada? A. No. MR. HOHN: Okay. Thank you. MR. SMITH: Other questions? Staff? MS. SEMMLER: I have a question. CROSS-EXAMINATION BY MS. SEMMLER: Q. Do you have any personal knowledge of the correspondence that staff had with those at TransCanada regarding your correspondence, among other concerns, regarding land agents? A. Yes. Q. Please describe those, that personal knowledge you have of the conversations that staff had with TransCanada. A. It's the letter back from TransCanada from October 11, 2007 to the PUC. Q. So it sounds as if you got you received confirmation from TransCanada that staff did communicate regarding your concern? A. No. Not ours personally. 	

		1001		1	1003
1	A. Yes.		1	MR. SMITH: It's gone both ways. I've seen things get	
2	MR. SMITH: No further questions? Are there		2	over way before we thought, and sometimes they don't go that	
3	Commissioner questions of Mr. Sibson about this?		3	way.	
4	MR. SMITH: I don't have any, and so I think you guys		4	(The witness is sworn by the court reporter)	
5	are excused. And thanks a lot. And, again, I apologize for the		5	DIRECT EXAMINATION	
6	confusion.		6	BY MS. GIEDD:	
7	THE WITNESS: Not a problem. That's okay. Thank you		7	Q. Paige, would you state your name for the record, please.	
8	very much.		8	A. Paige Hoskinson Olson.	
9	(The witness is excused)		9	Q. Who do you work for?	
10	MR. SMITH: What's the pleasure of the Commission now?		10	A. I work for the South Dakota State Historical Society.	
11	It's 5 o'clock. We still have the two gentlemen from the State		11	Q. Have you ever testified before?	
12	back there.		12	A. No.	
13	Do you want to proceed with them?		13	Q. Are you nervous?	
14	CHAIRMAN JOHNSON: I think to be fair to everyone, we		14	A. I am.	
15	wouldn't want to start a dinner break much later than 5:30. We		15	Q. Well, if I ask you something you don't understand, just ask	
16	need to be back and ready to go at 7.		16	me to rephrase it, and I certainly will.	
17	So that being said, I don't have a clue what the		17	What do you do for the Division of History?	
18	attorneys and pro se Interveners have planned for questions. If		18	A. I am the review and compliance coordinator for the SHPO	
19	we feel like we could move expeditiously through, we should get		19	office, which is the State Historic Preservation Office.	
20	them started, or maybe we just get them started and break at		20	Q. Now in the course of your duties as the SHPO officer, have	
21	5:30.		21	you come to be aware of TransCanada's PUC Application?	
22	MR. SMITH: And start in the morning?		22	A. Yes.	
23	CHAIRMAN JOHNSON: Sure would be nice.		23	Q. And why is that?	
24	(Discussion off the record)		24	A. Because there is a number of federal agencies that are	
25	CHAIRMAN JOHNSON: Mr. Smith, we're so far behind		25	involved in the project. The Department of State is issuing a	
		1002		1	1004
_			1	presidential permit, which is because it's a permit, then the	
1	schedule. I don't know how we don't take a half an hour when we		•	presidential permit, which is because it's a permit, then the	
1 2	schedule. I don't know how we don't take a half an hour when we get it.		2	National Historic Preservation Act comes into play.	
			_		
2	get it.		2	National Historic Preservation Act comes into play.	
2	get it. MR. RASMUSSEN: Let's go ahead and see where we get.		2	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal	
2 3 4	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want		2 3 4	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act?	
2 3 4 5	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to		2 3 4 5	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is.	
2 3 4 5 6	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be		2 3 4 5 6	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South	
2 3 4 5 6 7	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about		2 3 4 5 6 7	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota?	
2 3 4 5 6 7 8	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go		2 3 4 5 6 7 8	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office?	
2 3 4 5 6 7 8 9	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on		2 3 4 5 6 7 8 9 10	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh.	
2 3 4 5 6 7 8 9 10 11	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that.		2 3 4 5 6 7 8 9	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal	
2 3 4 5 6 7 8 9 10	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat		2 3 4 5 6 7 8 9 10	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is	
2 3 4 5 6 7 8 9 10 11 12 13 14	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd?		2 3 4 5 6 7 8 9 10 11 12 13	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration	
2 3 4 5 6 7 8 9 10 11 12 13 14 15	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy		2 3 4 5 6 7 8 9 10 11 12 13 14	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the		2 3 4 5 6 7 8 9 10 11 12 13 14 15	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project?	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and Roxanne?		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project? A. Yes.	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and Roxanne? CHAIRMAN JOHNSON: Hoskinson.		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project? A. Yes. Q. Could you just very generally give the Commissioners an	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and Roxanne? CHAIRMAN JOHNSON: Hoskinson. THE WITNESS: Olson.		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project? A. Yes. Q. Could you just very generally give the Commissioners an explanation of the process that you have to go through under the	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and Roxanne? CHAIRMAN JOHNSON: Hoskinson. THE WITNESS: Olson. MR. SMITH: Okay. I'm confused. At any rate,		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project? A. Yes. Q. Could you just very generally give the Commissioners an explanation of the process that you have to go through under the National Historic Preservation Act?	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and Roxanne? CHAIRMAN JOHNSON: Hoskinson. THE WITNESS: Olson. MR. SMITH: Okay. I'm confused. At any rate, unfortunately we just aren't able to completely predict how		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project? A. Yes. Q. Could you just very generally give the Commissioners an explanation of the process that you have to go through under the National Historic Preservation Act? A. Yes. The process itself is there's the National Historic 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and Roxanne? CHAIRMAN JOHNSON: Hoskinson. THE WITNESS: Olson. MR. SMITH: Okay. I'm confused. At any rate, unfortunately we just aren't able to completely predict how rapidly things will go, and I apologize for that.		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	 National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project? A. Yes. Q. Could you just very generally give the Commissioners an explanation of the process that you have to go through under the National Historic Preservation Act? A. Yes. The process itself is there's the National Historic Preservation Act, and then there's Section 106 of that Act. And 	
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	get it. MR. RASMUSSEN: Let's go ahead and see where we get. MR. SMITH: Okay. Then Mr. Rasmussen, do you want to MR. RASMUSSEN: The first witness will be Paige Hoskinson Olson. What I have talked to Ms. Giedd about doing, she's familiar with these people. She's going to go ahead and examine them to get a background, and depending on what we've got after that. But she'll start on that. MR. SMITH: Mr. Hohn, are you going to yield your seat for a while to Ms. Giedd? MS. GIEDD: Thank you. For the record, I'm Deputy Attorney General Roxanne Giedd. I am appearing on behalf of the subpoenaed witnesses, all of whom were here at 9 a.m., and we will be here again tomorrow for you. MR. SMITH: We apologize. Is it Ms. Paige and Roxanne? CHAIRMAN JOHNSON: Hoskinson. THE WITNESS: Olson. MR. SMITH: Okay. I'm confused. At any rate, unfortunately we just aren't able to completely predict how		2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 National Historic Preservation Act comes into play. Q. And the National Historic Preservation Act is a federal act? A. It is. Q. And what obligations does it impose on the State of South Dakota? A. On my office? Q. Uh-huh. A. Our office is responsible for reviewing all federal undertakings. And a federal undertaking is anything that is licensed, permitted, or funded by a federal agency or technical advice is given by a federal agency. It's our responsibility to ensure that historic properties are taken into consideration through that process. Q. Okay. And so the only thing that you're looking at is historic properties associated with the proposed project? A. Yes. Q. Could you just very generally give the Commissioners an explanation of the process that you have to go through under the National Historic Preservation Act? A. Yes. The process itself is there's the National Historic 	

	1005			1007
1	agency's responsibility to establish whether or not they have an	1	of State.	
2	undertaking and if that undertaking has a potential to affect	2	Q. And were there other federal agencies that are also	
3	historic properties.	3	involved in the Section 106 process with regard to TransCanada's	
4	If it is an undertaking without the potential to affect	4	Application?	
5	historic properties, then the federal agency is done.	5	A. Yes. There's a number of them.	
6	The next step is to identify if it is a valid	6	Q. And what agencies are those?	
7	undertaking, then the next step is to determine whether or not	7	A. I probably can't name all of them, but U.S. Fish &	
8	there are historic properties within the project area. If there	8	Wildlife, the Corps of Engineers, I believe Farm Service Agency,	
9	aren't, then the federal agency is done. If historic properties	9	Natural Resource Conservation Service. Those are all the ones I	
0	are identified, then they need to evaluate them for listing on	10	can recall, but I'm sure there's more.	
11	the National Register. And that's kind of the threshold for a	11	Q. Okay. And when you said that the Department of State is	
2	historic property.	12	the lead agency, what does lead agency mean?	
3	So if it is determined that historic properties are, in	13	A. That means that they have taken over the responsibility for	
4	fact, within the project area, then the federal agency needs to	14	compliance with the National Historic Preservation Act on behalf	
5	determine what effects the project will have to those	15	of the other agencies.	
6	properties. If it's determined that the project or the	16	Q. Okay. And they're the ones responsible for following this	
7	undertaking will not have an adverse effect, then the federal	17	act?	
8	agency is done with the process.	18	A. Yes, they are.	
9	If it's determined that the undertaking will have a	19	Q. Okay. And you as the SHPO I think is the term you used	
20	negative impact on those properties, then it's an adverse	20	what does that stand for?	
21	effect, and the federal agency continues consultation with our	21	A. The State Historic Preservation Office.	
22	office to mitigate those adverse effects through a Memorandum of	22	Q. Okay. As the SHPO you're involved in the process in what	
23	Agreement.	23	manner?	
24	Q. Okay. Now I'm kind of a bottom line person. Tell me	24	A. And actually Jay Vogt is the SHPO, and I'm representing	
25	what do you issue a permit? Do you issue approval? What is	25	him. I'm sorry.	
	1006		•	1008
1	it that you actually do when you do a Section 106 review?	1	Q. How are you and Vogt what does the SHPO do in terms of	.000
2	A. We concur or not concur with the agency's determination of	2	the whole process for this Application?	
3	effect.	3	A. We review all of the information that's submitted to us in	
4	Q. You don't issue a permit?	4	terms of the identification of historic properties.	
5	A. No.	5	Q. Now are paleontological resources like a Tyrannous Rex	
6	Q. You don't issue an approval?	6	considered historic properties?	
7	A. No.	7	A. No.	
8	Q. When you say you concur or not, what happens if you don't	8	Q. Are they protected at all?	
9	concur?	9	A. Not under the National Historic Preservation Act.	
0	A. Well, if we don't concur, then the federal agency has the	10	Q. Are they protected otherwise under state laws?	
1	option to continue consultation with our office to come to a	11	A. I don't know.	
2	resolution. If in the end, though, we still don't agree, then	12	Q. Okay. What kind of historic can you describe some of	
3	they have the option to consult directly with the Advisory	13	these historic properties that are protected under the National	
4	Council On Historic Preservation, which is a federal agency that	14	Historic Preservation Act?	
5	has oversight over the National Historic Preservation Act. And	15	A. Yes. Any type of property that is eligible for listing on	
6	then they would continue consulting with the Advisory Council.	16	the National Register that is actually listed. And so that	
17	Q. And it sounds like is there any entity that makes a	17	could be a building or a structure or an archeology site. It	
8	final determination?	18	could be a building or a structure or an archeology site. It could be a traditional cultural property such for example as	
9		19		
20	•	20	Bear Butte. It could be an object. Anything that would have a	
20 21		21	significant value.	
22	A. I'm sorry. It would be the federal agency that is	22	Q. And at the conclusion of your review what do you do? What	
22	responsible for the project or the undertaking.	23	do you do in terms of did you send something to the	
23 24	Q. So in the case of TransCanada's Application, what federal	23	Department of State? What do you physically do?	
	agency is that?	25	A. What we would do is we would issue correspondence	
25	A. The lead federal agency for this project is the Department	1 23	concurring with their determination of effect.	

			1009	1011
1	Q.	Okay. And at this point in the Section 106 process with	1	A. I believe there's confusion in terminology with the
2	regai	rd to TransCanada's Application where are you in the	2	consultant doing the work. Which is fine. Which is fine.
3	proce	ess?	3	Q. What do you mean there's a confusion?
4	A.	As far as I'm concerned, we are still in the identification	4	A. They're referring to a 100 percent survey as a Level 2.
5	proc	ess. So it would be the second step of the process.	5	And the and a windshield survey is a reconnaissance. But we
6	Q.	And the process is currently ongoing?	6	don't really have a specific term for a windshield survey.
7	A.	Yes.	7	Q. Should a complete 100 percent survey be done in this
8	Q.	Okay.	8	particular instance?
9		MS. GIEDD: I would have no more foundational	9	A. That's not really my call.
10	ques	tions.	10	Q. Okay. But if a Level 3 which is usually done is done,
11		MR. RASMUSSEN: Thank you. You did a lot better job	11	that's what would happen?
12	on th	nat than I would have.	12	A. That's what would be yeah. If I saw something that said
13		And you're doing a very nice job for your first time.	13	it was done to a Level 3, I would assume the whole project area
14		DIRECT EXAMINATION	14	had been done.
15	BY M	IR. RASMUSSEN:	15	Q. Whose call is it as to whether they do a 100 percent survey
16	Q.	Tell me again, you said you're in the identification	16	or a sample survey?
17	proce	ess, which is the second step?	17	A. It's the federal agency's determination to determine how
18	A.	Uh-huh.	18	best to identify historic properties. And when I say federal
19	Q.	What was the first step?	19	agency, I mean the Department of State.
20	A.	To determine whether or not the project is a federal	20	Q. Does the State of South Dakota have any input into that
21	unde	ertaking. And if it is, if it has the potential to affect	21	decision?
22	histo	pric properties.	22	A. If they ask us to make recommendations, we certainly can,
23	Q.	So the answer to that question was yes?	23	but, no, we don't. Not officially, no.
24	A.	Yes.	24	Q. What if the State of South Dakota was calling the shots
25	Q.	And so you move into identification?	25	here? It would be a Level 3 survey?
	_		1010	1012
1	Α.	Uh-huh.	1	A. Sure. More is always better.
2	Q.	So what is done then to identify potential historical	2	MR. RASMUSSEN: Thank you. That's all I have.
3	sites'		3	CROSS-EXAMINATION
4	Α.	So far there has been some on the ground survey and some	4	BY MR. HOHN:
5 6	_	nnaissance survey of the project area. And who does that?	5	Q. Thank you for coming today, and sorry for the long wait.
7	Q. ^		7	Your agency is involved in cultural resource reviews for rural
8	A. Q.	That would be a third-party contractor in this case.	8	water pipeline systems; is that correct? A. Yes. We're historic properties instead of cultural
9	Q. A.	Okay. Hired by TransCanada? I believe so.	9	resources historic properties.
10	Q.	All right. And how is that survey typically done?	10	Q. Okay. I'm sorry. I got the terminology wrong. If a rural
11	Α.	The on-the-ground survey, which is typically a Level 3 but	11	water system is receiving federal funding or is being reviewed
12		nk in this case they're calling it a Level 2, it's they	12	by a federal agency, they are required to do the survey; is that
13		the project area in transects looking for artifacts on the	13	right?
14		ace of the ground.	14	A. They're not required to do anything. They're just required
15	_	You said it's typically a Level 3 but in this case it's a	15	to identify historic properties.
16	Leve	12?	16	Q. Okay. How many years have you been with this agency?
17	A.	Yeah.	17	A. Almost seven.
18	Q.	Tell me, what's a Level 3?	18	Q. Okay. And while you've been at SHPO the SHPO office
19	A.	In our state it's broken up into a Level 1, Level 2, and	19	have you been involved or familiar with surveys that were done
20	Leve	el 3. And a Level 1 is considered a literature search or a	20	on rural water pipeline systems?
21	reco	rds search. A Level 2 would be sort of a sample survey.	21	A. Yes.
22		then a Level 3 would be a 100 percent survey of the project	22	Q. And were those surveys done at a Level 3?
	And			
23	And area		23	A. It depends on the length. But typically no.
	area		23 24	A. It depends on the length. But typically no.Q. Have you done any surveys of the WEB project? Have you
23	area Q.			3 31 3

	1	1013	101:
1	A. You know, I don't know. We review at least 2,000 projects	1	Q. And with respect to the survey design and the level of
2	a year so I cannot call I cannot recall specifically.	1	2 survey that's done for cultural resources, is it also the
3	Q. Okay. That's fine. Just one last question. You had	3	3 Department of State which makes the ultimate determination as to
4	mentioned that there's consultation.	4	whether or not that survey design and that research work is
5	Is there consultation on cultural resources with the		adequate?
6	tribes?	- 6	6 A. Yes.
7	A. There is.	7	7 MR. WHITE: Thank you.
8	Q. And do you have any involvement in that if it deals with a		MR. SMITH: Staff, now I'm properly over to you. Do
9	project in South Dakota? Or do you attend meetings?	و	
0	A. I attend meetings if I'm invited.	10	. J
1	Q. Okay. Did you attend a meeting recently in the last two	11	3.1
2	months in Ft. Yates?	12	. 3
3	A. Yes, I did.	13	
4		14	
5	Q. And was that a meeting regarding consultation with the tribes?		
	_	15	•
6	A. I believe it was a consultation meeting, yes.	16	
7	Q. And representatives from the U.S. State Department were	17	
8	present; is that right?	18	_
9	A. Yes.	19	• • • • • • • • • • • • • • • • • • •
20	Q. At that meeting, as far as you know, was a consensus	20	
21	reached with the tribe and the State Department?	21	
22	A. I do not believe so. I was only there for one day, but I	22	· · · · · · · · · · · · · · · · · · ·
23	don't believe so.	23	MR. SMITH: Do you want to proceed with one more
24	MR. HOHN: Okay. Thank you.	24	person, Mr. Rasmussen?
25	MR. SMITH: Staff, do you have questions of this	25	MR. RASMUSSEN: Yeah. That would be if everybody
	1	1014	101
1	witness?	1	else is okay with that, let's do it.
2	MS. SEMMLER: No. Thank you.	1	2 Call John Kirk.
3	MR. SMITH: And I don't know, Rox, what status to give	3	(The witness is sworn by the court reporter)
4	you. Do you have any well, maybe we'll go to Commissioners	4	<u>DIRECT EXAMINATION</u>
5	and then oh, wait a minute. Pardon me. The Applicant.	į	BY MS. GIEDD:
6	Goodness. Yeah. My head was turned this way, and I just		Q. Mr. Kirk, would you state your name for the record, please.
7	couldn't get it back over.	7	
8	Mr. White, are you handling this one?	8	
9	MR. WHITE: It appears that way.	9	
10	MR. SMITH: I apologize for	10	
11	MR. WHITE: That's okay. We're responsible for any	11	
12		12	•
13	confusion. Just a couple of questions, Ms. Olson.	13	
13 14	CROSS-EXAMINATION		
14	BY MR. WHITE:	14	•
		15	•
15	Q. With respect to consultation with the tribes, is it again		project. We have a Water Rights Division. We follow the gold
15 16	the case that the Department of State is the lead federal agency	16	_
5 6 7	the case that the Department of State is the lead federal agency in that regard?	17	7 mines from exploration to final reclamation. We deal with all
5 6 7 8	the case that the Department of State is the lead federal agency	17 18	7 mines from exploration to final reclamation. We deal with all the water outlets in the lakes. We deal with DENR on ordinary
5 6 7 8	the case that the Department of State is the lead federal agency in that regard?	17 18 19	mines from exploration to final reclamation. We deal with all the water outlets in the lakes. We deal with DENR on ordinary high water marks. We handle the rare and threatened endanger
15 16 17 18	the case that the Department of State is the lead federal agency in that regard? A. Yes.	17 18 19 20	mines from exploration to final reclamation. We deal with all the water outlets in the lakes. We deal with DENR on ordinary high water marks. We handle the rare and threatened endanger species operations. We handle invasive species, aquatic evasive
15 16 17 18 19	the case that the Department of State is the lead federal agency in that regard? A. Yes. Q. And do they engage in what's known as	17 18 19	mines from exploration to final reclamation. We deal with all the water outlets in the lakes. We deal with DENR on ordinary high water marks. We handle the rare and threatened endanger species operations. We handle invasive species, aquatic evasive
15 16 17 18 19 20 21	the case that the Department of State is the lead federal agency in that regard? A. Yes. Q. And do they engage in what's known as Government-to-Government consultation?	17 18 19 20	mines from exploration to final reclamation. We deal with all the water outlets in the lakes. We deal with DENR on ordinary high water marks. We handle the rare and threatened endanger species operations. We handle invasive species, aquatic evasive species in our (I naudible)
15 16 17 18 19 20 21	the case that the Department of State is the lead federal agency in that regard? A. Yes. Q. And do they engage in what's known as Government-to-Government consultation? A. Yes.	17 18 19 20 21	mines from exploration to final reclamation. We deal with all the water outlets in the lakes. We deal with DENR on ordinary high water marks. We handle the rare and threatened endanger species operations. We handle invasive species, aquatic evasive species in our (I naudible) MR. SMITH: John, can you pull the mic a little closer
115 115 116 117 118 119 220 221 222 223 224	the case that the Department of State is the lead federal agency in that regard? A. Yes. Q. And do they engage in what's known as Government-to-Government consultation? A. Yes. Q. And is it the Department of State which makes the ultimate	17 18 19 20 21 22	mines from exploration to final reclamation. We deal with all the water outlets in the lakes. We deal with DENR on ordinary high water marks. We handle the rare and threatened endanger species operations. We handle invasive species, aquatic evasive species in our (I naudible) MR. SMITH: John, can you pull the mic a little closer to your mouth. Thank you, sir.

		1017		1019
1	project that comes about, no matter what it is. We don't	1	A. They're on the pipeline route. Or right adjacent to,	
2	support a project. We don't oppose a project. Our job is to	2	depending.	
3	make that project as acceptable as possible from an	3	DI RECT EXAMINATION	
4	environmental point of view.	4	BY MR. RASMUSSEN:	
5	Q. And when you refer to environmental, are you referring to	5	Q. What has been your involvement then with this particular	
6	wildlife resources?	6	project?	
7	A. Wildlife resources, fish, wildlife, recreational resources	7	A. Well, our involvement with this project started rather	
8	as well.	8	early on. We attended meetings with the Department of State,	
9	Q. Okay. Do you also have what's called a National Heritage	9	Corps of Engineers, Fish & Wildlife Service, and NRCS has been	
10	Database?	10	involved. The state agencies have been involved, et cetera.	
11	A. Yes, we do. We maintain that. It's a wonderful it's	11	We've had probably I believe it would be no less than nine,	
12	wonderful for development agencies. It lists all the	12	maybe 10 or 11 meetings in regard to this project.	
13	threatened, rare, endangered species, unique habitats, all of	13	And our purpose of this project has been so far is to	
14	this type of things that go back we've got records that go	14	provide information, which we have done through numerous	
15	back into the 1800s. And it came into play on this project.	15	conversations and numerous meetings, numerous telephone calls	
16	Q. Okay. And you've already indicated you're familiar and	16	providing data from the National Heritage Database.	
17	involved with TransCanada Application for Game, Fish & Parks;	17	Q. Have you made any suggestions with regard to the	
18	correct?	18	construction of the pipeline or the route to TransCanada?	
19	A. Correct.	19	A. The route, yeah. We've provided I think and I can't	
20	Q. And would you explain what your involvement was in	20	swear to this, but one of the unique areas that is listed in our	
21	particular on this Application?	21	National Heritage Database is the Hecla Sand Hills. And that	
22	A. Well, we started like in I believe it was two or three	22	project's been moved so that it did not affect those sand hills.	
23	years ago, the initial '05, the initial meeting. And at that	23	Those sand hills are very productive biologically. They're	
24	time we were asked to provide information in whatever which	24	an area of a lot of natural grasslands, kind of a rolling hill,	
25	we have to do anyway to any type of project that comes about.	25	a lot of wetlands, very productive from the wildlife standpoint.	
		1018		1020
1	And after that time we've met with the federal agencies.	1	Nove what that moont whather that had any effect on where	
2	Ç		, , , , , , , , , , , , , , , , , , ,	
2	We've met with the state agencies. We've met with the	2	TransCanada moved that pipeline, that would be best that they	
3	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the	3	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the	
3 4	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot	3	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested.	
3 4 5	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project.	2 3 4 5	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area?	
3 4 5 6	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions	2 3 4 5	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes.	
3 4 5 6 7	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you	2 3 4 5 6	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going	
3 4 5 6 7 8	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one	2 3 4 5 6 7 8	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas?	
3 4 5 6 7 8 9	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the	2 3 4 5 6 7 8	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National	
3 4 5 6 7 8 9	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline?	2 3 4 5 6 7 8 9	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very	
3 4 5 6 7 8 9 10	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas.	2 3 4 5 6 7 8 9 10	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish &	
3 4 5 6 7 8 9 10 11 12	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property?	2 3 4 5 6 7 8 9 10 11	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands I nventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading	
3 4 5 6 7 8 9 10 11 12 13	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by	2 3 4 5 6 7 8 9 10 11 12	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental I mpact Statement the amount of things that	
3 4 5 6 7 8 9 10 11 12 13 14	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across.	2 3 4 5 6 7 8 9 10 11 12 13	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands I nventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental I mpact Statement the amount of things that have been listed in there that, you know, precautions and stuff	
3 4 5 6 7 8 9 10 11 12 13	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the	2 3 4 5 6 7 8 9 10 11 12	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental Impact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can	
3 4 5 6 7 8 9 10 11 12 13 14 15 16	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of	2 3 4 5 6 7 8 9 10 11 12 13 14 15	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental Impact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well.	
3 4 5 6 7 8 9 10 11 12 13 14	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of easements that way that we provide.	2 3 4 5 6 7 8 9 10 11 12 13 14	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands I nventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental I mpact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a	
3 4 5 6 7 8 9 10 11 12 13 14 15 16	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental Impact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a project like this?	
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of easements that way that we provide. Right now the Lewis & Clark water pipeline. In fact, some	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental Impact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a project like this? A. No. We work with the company, with their representatives,	
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of easements that way that we provide. Right now the Lewis & Clark water pipeline. In fact, some of their intakes are on our land, and we really had to work	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands I nventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental I mpact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a project like this? A. No. We work with the company, with their representatives, et cetera. On a lot of federal projects involving federal money	
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of easements that way that we provide. Right now the Lewis & Clark water pipeline. In fact, some of their intakes are on our land, and we really had to work around some things with that project.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands Inventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental Impact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a project like this? A. No. We work with the company, with their representatives, et cetera. On a lot of federal projects involving federal money there has to be mitigation plans and stuff. The U.S. Fish &	
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of easements that way that we provide. Right now the Lewis & Clark water pipeline. In fact, some of their intakes are on our land, and we really had to work around some things with that project. Q. And I and I apologize because I have forgotten. Do the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands I nventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental I mpact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a project like this? A. No. We work with the company, with their representatives, et cetera. On a lot of federal projects involving federal money there has to be mitigation plans and stuff. The U.S. Fish & Wildlife Service comes up with a plan. And then we have to	
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of easements that way that we provide. Right now the Lewis & Clark water pipeline. In fact, some of their intakes are on our land, and we really had to work around some things with that project. Q. And I and I apologize because I have forgotten. Do the properties, the three properties you mentioned that were I	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands I nventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental I mpact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a project like this? A. No. We work with the company, with their representatives, et cetera. On a lot of federal projects involving federal money there has to be mitigation plans and stuff. The U.S. Fish & Wildlife Service comes up with a plan. And then we have to concur with that plan. And if we don't concur with that plan,	
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	We've met with the state agencies. We've met with the consultant groups, you know, that they're hired by the TransCanada people. ENSR especially because they handle a lot of the environmental work with the project. Q. Before I turn you over to Mr. Rasmussen for more questions about the Application process itself, I neglected to ask you does Game, Fish & Parks actually own some property that at one time may have been affected by the proposed routing of the pipeline? A. Three different portions. Three different areas. Q. You own three different areas of property? A. Yes. We've we've had our properties affected by numerous things. The Northern Border Gas Pipeline went across. We've had easements on that. We have electrical from the utilities companies and stuff like that. We have a lot of easements that way that we provide. Right now the Lewis & Clark water pipeline. In fact, some of their intakes are on our land, and we really had to work around some things with that project. Q. And I and I apologize because I have forgotten. Do the properties, the three properties you mentioned that were I don't know whether they're on the pipeline route or they're near	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	TransCanada moved that pipeline, that would be best that they answered that. I don't know that it did. But that's one of the things we suggested. Q. You expressed some concerns about that area? A. Yes. Q. Have you expressed concerns about the pipeline going through any other areas? A. No. Not really. They've designed it around the National Wetlands I nventory Maps, information we provided, and it's very obvious to me that they've been in contact with the U.S. Fish & Wildlife Service, EPA, et cetera. Because I can tell by reading the Environmental I mpact Statement the amount of things that have been listed in there that, you know, precautions and stuff to take when in and around wetlands and stuff like that. I can tell that they've been influenced by them as well. Q. Does your agency prepare any sort of report regarding a project like this? A. No. We work with the company, with their representatives, et cetera. On a lot of federal projects involving federal money there has to be mitigation plans and stuff. The U.S. Fish & Wildlife Service comes up with a plan. And then we have to concur with that plan. And if we don't concur with that plan, then it throws up red flags on that project. And this is	

		1021		1023
1	in this situation.	1	elaborate on that? Are you saying that 10 acres of land will	
2	Q. Have you been asked to concur in this particular instance?	2	have to be secured by that project to mitigate something	
3	A. No. We envision this project at this time is a work in	3	damaged?	
4	progress. Just the other day I got handed about five different	4	MR. KOENECKE: I'm objecting to that. That's not	
5	studies that have been done by or by ENSR. And they're on	5	relevant.	
6	various endangered species and things like issues like that.	6	THE WITNESS: Well, it's a different project entirely.	
7	I think there was one on an orchid and stuff. I haven't	7	MR. SMITH: Yeah. I don't think that's relevant.	
8	had time to even look at them. Would have had a lot of time if	8	MR. HOHN: Okay.	
9	I had been on at 9 o'clock this morning. I wasted a whole day.	9	Q. Let me ask a different direction then, I guess. What	
10	Q. But you could have brought them with you. You sat here.	10	you're saying I guess, are you saying that the at this point	
11	A. Yeah. But then you get interested in what's being said	11	there have been there's been no mitigation plan implemented?	
12	too. So, no, we haven't done anything like that.	12	MR. KOENECKE: That's what he said. Asked and	
13	Q. I mean, it sounds like you're still your work is not	13	answered.	
14	done?	14	A. Right.	
15	A. That's right. It's a work in progress. And I don't know	15	MS. GIEDD: Wait until he's done with the question	
16	what changes will occur along the way, what decisions you people	16	before you answer. The court reporter will kill you from	
17	will make that may influence that or whatever, but we'll	17	behind.	
18	we'll just work with them.	18	Q. Mr. Kirk, my last question is are you familiar with the	
19	MR. RASMUSSEN: All right. I have no further	19	with Marshall County?	
20	questions.	20	A. Yes. Somewhat. Yes.	
21	MR. SMITH: I'm not quite sure what the actual order	21	Q. Are there wildlife resources in Marshall County?	
22	ought to be. Should you guys have a preference, or should we go	22	A. Sure there is.	
23	in the same order we've been going all day which is	23	Q. Are you familiar with the Crow Creek Drain?	
24	MR. KOENECKE: Yeah. We can keep going in the same	24	A. Yes, I am.	
25	order.	25	Q. How does the Crow Creek Drain from a wildlife standpoint	
		1022		1024
1	MR. SMITH: So Mr. Hohn next?	1	fit in with wildlife, the Crow Creek Drainage District and where	1024
2	MR. KOENECKE: Sure.	1 2	it drains?	1024
3	MR. KOENECKE: Sure. <u>CROSS-EXAMINATION</u>	1 2 3	it drains? A. It depends upon how many trees are on it and what kind of	1024
2 3 4	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN:	1 2 3 4	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all	1024
2 3 4 5	MR. KOENECKE: Sure. <u>CROSS-EXAMINATION</u> BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this	1 2 3 4 5	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it,	1024
2 3 4 5 6	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there	1 2 3 4 5 6	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for	1024
2 3 4 5 6 7	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be	1 2 3 4 5 6 7	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another.	1024
2 3 4 5 6 7 8	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated?	1 2 3 4 5 6 7 8	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of	1024
2 3 4 5 6 7 8 9	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any	1 2 3 4 5 6 7 8 9	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed	1024
2 3 4 5 6 7 8 9	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any	1 2 3 4 5 6 7 8 9	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River?	1024
2 3 4 5 6 7 8 9 10	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end.	1 2 3 4 5 6 7 8 9 10	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district.	1024
2 3 4 5 6 7 8 9 10 11	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity	1 2 3 4 5 6 7 8 9 10 11 12	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their	1024
2 3 4 5 6 7 8 9 10 11 12 13	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly,	1 2 3 4 5 6 7 8 9 10 11 12 13	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River?	1024
2 3 4 5 6 7 8 9 10 11 12 13	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan.	1 2 3 4 5 6 7 8 9 10 11 12 13	it drains? A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district.	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	 It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and 	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right?	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very effective in reducing the amount of impacts.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right? MR. KOENECKE: I object on relevance. I don't	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very effective in reducing the amount of impacts. Now whether this they've agreed to all kinds of	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right? MR. KOENECKE: I object on relevance. I don't understand this line of questioning at all.	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very effective in reducing the amount of impacts. Now whether this they've agreed to all kinds of mitigated measures on wetland and every other way on our lands,	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right? MR. KOENECKE: I object on relevance. I don't understand this line of questioning at all. MR. SMITH: Overruled.	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very effective in reducing the amount of impacts. Now whether this they've agreed to all kinds of mitigated measures on wetland and every other way on our lands, reducing the size of easements, contouring bottoms of things,	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right? MR. KOENECKE: I object on relevance. I don't understand this line of questioning at all. MR. SMITH: Overruled. Q. Let me just restate the question. When you go to get a	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very effective in reducing the amount of impacts. Now whether this they've agreed to all kinds of mitigated measures on wetland and every other way on our lands, reducing the size of easements, contouring bottoms of things, and all of that. So far we're very comfortable with what's been	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right? MR. KOENECKE: I object on relevance. I don't understand this line of questioning at all. MR. SMITH: Overruled. Q. Let me just restate the question. When you go to get a fishing license you get a little handbook that the agency	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very effective in reducing the amount of impacts. Now whether this they've agreed to all kinds of mitigated measures on wetland and every other way on our lands, reducing the size of easements, contouring bottoms of things, and all of that. So far we're very comfortable with what's been done. But in the end that doesn't mean that there might not be	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right? MR. KOENECKE: I object on relevance. I don't understand this line of questioning at all. MR. SMITH: Overruled. Q. Let me just restate the question. When you go to get a fishing license you get a little handbook that the agency publishes?	1024
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. KOENECKE: Sure. CROSS-EXAMINATION BY MR. HOHN: Q. Mr. Kirk, you said a second ago, a moment ago, at this point it's still an ongoing process. At this point has there been identified wetlands or resources that might need to be mitigated? A. Well, number one, every time that we start off with any project our objective is to minimize the losses or avoid any types of impacts so there's a zero mitigation plan at the end. In lieu of that, you try and reduce the amount of activity that would disturb or cause mitigation to occur. And, lastly, the last thing you want to do is draw up a mitigation plan. On some projects like we're doing a lot of work with Lewis & Clark. We're going to end up with right now it looks like something like a 10-acre mitigation plan. We've been very effective in reducing the amount of impacts. Now whether this they've agreed to all kinds of mitigated measures on wetland and every other way on our lands, reducing the size of easements, contouring bottoms of things, and all of that. So far we're very comfortable with what's been	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. It depends upon how many trees are on it and what kind of vegetation you have alongside of it and the length of it and all of that. I'm familiar enough to know that, yes, birds use it, whatever. What's good for one thing maybe good or different for another. Q. From a wildlife standpoint and from your years of experience, do the waters in Marshall County, are they conveyed by the Crow Creek Drain to the James River? A. Well, it's a major drainage district. Q. And so waters in Marshall County will eventually find their way to the James River? A. Right. It's within that drainage district. Q. Your agency publishes a Fisherman's Handbook, and it lists what fish what fish shouldn't be eaten because of mercury and other factors; is that right? MR. KOENECKE: I object on relevance. I don't understand this line of questioning at all. MR. SMITH: Overruled. Q. Let me just restate the question. When you go to get a fishing license you get a little handbook that the agency	1024

	1025		1027
1	including some places where if you take fish, you need to know	1	STATE OF SOUTH DAKOTA)
2	there may be some cautions about mercury-contaminated fish.	2	:SS CERTIFICATE
3	Am I correct?	3	COUNTY OF HUGHES)
4	A. Yeah. That's correct.	4	
5	Q. To your knowledge is there any such listing in that	5	I, CHERI MCCOMSEY WITTLER, a Registered Professional
6	handbook that's issued to fisherman then on benzene, toluene?	6	Reporter, Certified Realtime Reporter, and Notary Public in and for the State of South Dakota:
7	A. Not that I'm aware of.	8	DO HEREBY CERTIFY that as the duly-appointed shorthand
8	MR. HOHN: Okay. Thank you.	9	reporter, I took in shorthand the proceedings had in the
9	MR. SMITH: Is it you this time, Brett or	10	above-entitled matter on the 6th day of December 2007, and that
10	Mr. Koenecke?	11	the attached is a true and correct transcription of the
11	MR. KOENECKE: I think it is me this time. I have no	12	proceedings so taken.
12	questions for this witness, Mr. Smith.	13	Dated at Pierre, South Dakota this 2nd day of January
13	MR. SMITH: Ms. Semmler, does staff have any	14	2008.
14		15	
15	questions?	16	
_	MS. SEMMLER: No questions. Thank you.	17	
16	MR. SMITH: Commissioners, do you have any questions	18	OL IM O. MEU
17	of Mr. Kirk?	18	Cheri McComsey Wittler,
18	COMMISSIONER HANSON: Not relevant to this, no.	19	Notary Public Registered Professional Reporter
19	MR. RASMUSSEN: Go ahead. You've got him under oath.	13	Certified Realtime Reporter
20	MR. SMITH: I believe you're excused.	20	contined realtime reporter
21	COMMISSIONER KOLBECK: Can I ask you about my elk tag?	21	
22	CHAIRMAN JOHNSON: Mr. Kirk, we would like to	22	
23	apologize again for the long delay in getting you on the stand.	23	
24	THE WITNESS: Okay. Well, that's fine because I would	24	
25	have been down at a Commission meeting otherwise. So one or the	25	
	1026		

2 CHAIRMAN JOHNSON: Don't tattle on us to Vonk. 3 (The witness is excused) 4 MS. GIEDD: Mr. Smith, Kim McIntosh is here, but I 5 would suggest to you that her testimony would be a bit longer, 6 if not quite a bit longer than the witnesses you've heard so 7 far. So before you decide what you're doing, I wanted to alert 8 you to that. 9 MR. SMITH: Well, I guess my own vote would be that we 10 call it a day. But I don't get to vote. I just get to suggest. 11 You know, we've got another event here at 7 o'clock. 12 I've had a long day. I'm going to recommend that we recess so 13 that we can kind of freshen up for this evening. 14 MR. RASMUSSEN: I agree. 15 MR. SMITH: Any objection? 16 MR. KOENECKE: No objection. Realistically, we've got 17 less than an hour to get back here as it is. 18 MR. SMITH: Commissioners, can we recess? 19 COMMISSIONER HANSON: We certainly can. 20 (The proceedings are in recess at 5:40 p.m.) 21 22

1

232425

other.

t we

779:12, 782:4, 100-year [1] - 912:14 **116** [1] - 767:6 849:18, 854:1, 1 # 782:15, 782:17, **1000** [1] - 770:10 **1163** [1] - 771:14 854:6, 857:15, 785:23, 786:4, 1003 [1] - 770:12 **1165** [1] - 771:15 860:20, 863:3 **#13**[1] - 776:5 790:6, 801:18, **13(1**[1] - 779:18 **1009** [1] - 770:12 **1169** [1] - 771:15 801:19. 811:11. **13.5** [1] - 930:19 **1012** [1] - 770:13 **117** [1] - 767:7 828:20, 831:21, **1301** [1] - 766:7 **1014** [1] - 770:13 **1171** [1] - 771:17 \$ 831:25, 840:9, **1313** [1] - 775:3 **1016** [1] - 770:15 **1172** [1] - 779:7 840:10, 849:20, **1315** [3] - 775:4, **1019** [1] - 770:15 **1175** [1] - 771:17 879:13, 885:5, 775:4, 775:5 **1022** [1] - 770:16 **1178** [1] - 771:18 **\$15,000** [1] - 908:15 885:8, 885:9, **1043** [1] - 770:17 **1184** [1] - 771:19 **132** [1] - 850:6 **\$2,520** [1] - 955:5 885:11, 885:17, **1324** [1] - 775:5 **1048** [1] - 770:18 **119** [1] - 767:7 \$20 [1] - 776:10 889:25, 890:7, **1325** [2] - 775:6, 775:6 **1050** [1] - 770:18 **1191** [1] - 771:20 **\$25** [1] - 955:11 890:25, 902:5, **1327** [1] - 774:25 **1051** [1] - 770:20 **1192** [1] - 771:20 **\$25.97** [1] - 955:7 918:19, 919:1, 1052 [1] - 774:21 1196 [1] - 771:21 **133** [1] - 767:10 **\$36** [1] - 955:3 919:17, 920:12, 1337 [1] - 772:8 1055 [2] - 774:21, 1197 [1] - 771:22 **\$4,000** [1] - 956:2 920:13, 926:1, 134 [2] - 853:16, 774:22 11:57 [2] - 779:4, **\$500** [2] - 951:12, 927:21, 928:2, 853:23 **1056** [1] - 770:20 992:13 951:15 932:9, 935:25, **135** [2] - 917:12, 106 [5] - 1004:23, **12** [13] - 775:2, 775:15, 944:23, 945:3, 917:13 1004:24, 1006:1, 779:18, 803:24, 976:4, 976:8, 977:1, 1370 [1] - 772:9 1007:3, 1009:1 804:7, 833:2, 977:2, 995:7, 139 [1] - 767:10 913:12, 915:16, 1066 [1] - 770:21 1010:19, 1010:20 '04 [1] - 844:9 **1067** [1] - 770:21 919:12. 931:23. 13A [1] - 775:16 1,000 [2] - 931:23, **'05** [4] - 844:9, 882:17, 13B [1] - 775:16 951:1, 978:13 **1069** [1] - 770:22 931:25 950:24, 1017:23 12-year [1] - 841:19 13C [1] - 775:17 **1071** [1] - 770:22 **1,077** [1] - 912:17 '07 [2] - 920:25. 13D [1] - 775:17 12/5/07 [1] - 779:10 **1075** [1] - 770:23 1,300-mile [1] - 860:13 992:13 **120** [1] - 767:9 **13E**[1] - 775:18 **1076** [1] - 771:2 **1,372** [4] - 846:16, '30s [1] - 958:8 **13F** [1] - 775:18 **1201** [1] - 771:23 **1077** [1] - 774:22 846:19, 846:25, '50s [3] - 837:24, 1202 [1] - 771:23 13G [1] - 775:19 **1080** [1] - 771:3 8:088 838:2, 841:25 **1208** [1] - 771:24 **14** [8] - 766:7, 775:3, **1083** [1] - 771:3 **1,800** [1] - 860:13 '60s [4] - 837:24, **1210** [1] - 772:2 775:10, 775:11, **1087** [1] - 771:4 **1,800-mile** [1] - 860:13 838:2, 841:25, **1213** [1] - 772:3 775:12, 775:12, **109** [2] - 950:22, 952:6 **1,845** [10] - 840:20, 872:10 **1215** [1] - 772:3 775:19, 946:11 **1091** [1] - 771:5 842:17, 845:24, '63 [1] - 872:1 **14(2**[1] - 779:19 **1099** [1] - 771:6 **1216** [1] - 772:4 846:9, 846:19, '65 [1] - 872:1 **1403** [1] - 772:9 **122** [1] - 774:10 10997 [1] - 944:12 846:24, 847:10, **'68** [6] - 871:25, 872:1, 1406 [1] - 772:10 **1222** [1] - 772:5 **10:10** [1] - 999:23 860:20, 880:8, 872:19 **1410** [1] - 772:11 **1223** [1] - 779:9 **10:39** [1] - 999:24 880:10 '70s [2] - 837:24, **1421** [3] - 772:12, **10s** [2] - 819:21, 943:4 **124** [1] - 774:10 1.22 [1] - 827:22 872:11 **1244** [1] - 779:9 779:17, 779:21 **11** [12] - 774:25, **10** [25] - 774:14, '72 [1] - 872:1 **1424** [1] - 772:12 **1245** [1] - 772:6 775:14, 779:17, 774:25, 775:14, **'86** [1] - 849:20 **143** [2] - 849:15, **1252** [1] - 772:6 782:10, 785:23, 779:17, 781:7, '90s [1] - 837:25 **125N** [1] - 775:10 857:11 785:24, 786:4, 841:19, 854:6, '96 [1] - 882:17 915:13, 993:12, **127** [8] - 788:4, **1437** [1] - 772:13 857:13, 858:19, **'Sour'** [1] - 776:3 1439 [1] - 772:13 997:19, 1000:18, 789:24, 790:1, 863:5, 868:21, **1440** [1] - 772:14 1019:12 796:18, 798:16, 868:22, 917:6, 0 798:19, 798:21, **1445** [1] - 772:15 **11.2** [1] - 818:15 923:14, 943:19, **11/20/07** [1] - 774:20 800:22 **145** [2] - 767:11, 951:2, 955:10, **1272** [1] - 772:8 767:11 **1102** [1] - 771:6 957:18, 976:1, 0 [1] - 868:22 **1451** [3] - 772:16, **1106** [1] - 771:7 **1274** [2] - 774:23, **0.15** [1] - 880:7 986:23, 993:17, 779:16, 779:20 775:2 **1107** [1] - 771:7 999:16, 1019:12, **128** [8] - 774:13, **1454** [1] - 772:16 **1109** [1] - 771:9 1022:25, 1023:1 1 **1123** [1] - 771:9 789:24, 790:1, **1464** [1] - 772:17 **10,000** [3] - 848:11, 796:18, 798:23, 1465_[1] - 772:17 **1125** [1] - 771:10 931:25, 946:23 1 [65] - 774:20, 775:9, 799:2, 799:15, 1466 [2] - 772:18, **1127** [1] - 771:10 **10-acre** [1] - 1022:17 772:18 777:14, 777:16, 800:21 1138 [2] - 771:11, **10-foot** [1] - 979:10 777:19, 777:21, 1283 [2] - 774:24, **147** [1] - 767:13 771:11 **10-minute** [1] - 826:14 778:2, 778:4, 778:7, 774:24 **1470** [2] - 779:22, **1140** [1] - 771:12 10-section [1] - 932:4 778:10, 778:13, **1289** [2] - 775:2, 775:3 779:23 100 [4] - 1010:22, **1142** [1] - 771:13 778:15, 778:18, **129** [1] - 767:9 **1471** [1] - 772:20 **1158** [1] - 774:23 1011:4, 1011:7, 778:21, 778:25, **13** [8] - 775:2, 775:15, **1474** [2] - 779:16, **1159** [1] - 771:14 1011:15 779:2, 779:7, 779:9,

779:20 **1648** [1] - 773:15 192nd [3] - 889:9, **20005** [1] - 765:20 953:25 2 **1476** [1] - 772:20 **1650** [1] - 773:15 901:10, 912:4 2001 [2] - 850:1, 24A [1] - 776:20 1479 [1] - 772:21 **1653** [1] - 773:16 1940s [1] - 841:25 863:20 24B [1] - 776:21 1481 [1] - 772:21 **1657** [1] - 773:17 195 [1] - 767:17 2002 [1] - 852:23 24C [1] - 776:21 149 [3] - 774:12, 1661 [2] - 779:15, **195.6** [2] - 774:14, 2003 [2] - 844:9, 24D [1] - 776:22 855:8, 855:18 779:19 774:15 854:20 24E [1] - 776:22 **1490** [1] - 772:22 **1962** [1] - 907:22 2004 [3] - 809:10, 24F [1] - 776:23 1663 [1] - 773:18 811:3, 811:7 1491 [2] - 772:22, 1665 [1] - 773:18 **1968** [1] - 872:2 24G [1] - 776:23 772:23 1970s [1] - 838:3 2005 [1] - 946:11 **1669** [1] - 773:19 24H [1] - 776:24 14A[1] - 775:20 2007 [11] - 765:8, **167** [3] - 948:20, **1971** [2] - 907:19, **241** [1] - 777:2 14B [1] - 775:20 971:6, 971:10 907:24 766:15, 838:23, 24J [1] - 777:2 950:8, 956:9, 14C [1] - 775:21 **1676** [1] - 773:19 **1975** [1] - 805:22 24K [1] - 777:3 14D[1] - 775:21 **1976** [1] - 949:15 965:23, 991:17, **1677** [1] - 773:20 24L [1] - 777:3 **24M** [1] - 777:4 14E [1] - 775:22 1678 [1] - 773:20 1980s [2] - 841:22 993:12, 993:17, 1984 [1] - 835:18 1000:18, 1027:10 **15** [8] - 775:3, 775:23, **1680** [1] - 773:21 24N [1] - 777:4 2008 [2] - 956:10, 779:19, 847:23, 1986 [1] - 849:11 **1681** [1] - 773:21 **240** [1] - 777:5 1027:14 858:10, 885:5, 1989 [2] - 849:18. **1687** [3] - 773:23, **24P**[1] - 777:6 20A [1] - 776:8 920:12. 939:17 857:18 774:17, 774:18 **25** [7] - 777:7, 782:17, **150** [3] - 767:13, **1990** [1] - 776:12 21 [12] - 775:6, 779:22, **1691** [1] - 774:19 813:20, 843:22, 855:13, 855:19 781:5. 800:7. 1696 [1] - 773:23 **1992** [1] - 835:18 844:5, 866:13, 800:19, 800:24, 1500s [1] - 957:3 **1993** [1] - 841:19 1697 [1] - 773:24 956:15 801:8, 904:24, **1501** [1] - 765:19 16A [1] - 775:24 19s [1] - 872:2 259 [1] - 767:19 913:9, 913:19, 954:4 **1511** [1] - 773:2 **17** [5] - 775:4, 776:2, **1A**[2] - 775:9, 777:17 25A [1] - 777:8 21,000 [1] - 878:10 **1514** [2] - 779:12, 779:20, 792:8, 1st [1] - 765:22 26 [10] - 777:9, 794:11, 213 [1] - 767:18 779:13 794:24 794:15, 801:24, 21A [1] - 776:8 **1516** [1] - 773:3 170 [2] - 952:8, 965:6 2 802:9, 849:8, 849:9, 21B [1] - 776:9 **1523** [1] - 773:3 1703 [1] - 773:24 858:18. 868:18. 21C [1] - 776:10 153_[1] - 854:16 172 [1] - 767:14 920:21 **2** [41] - 774:21, 775:10, 21D [1] - 776:11 1538 [1] - 773:4 **260** [1] - 767:19 **175** [2] - 948:20, 778:2, 778:5, 778:7, **22** [20] - 775:7, 776:11, **154** [1] - 855:8 948:24 266 [1] - 767:21 778:11, 778:16, 779:23, 782:18, **1540** [1] - 773:4 26A [1] - 777:10 **176,000** [1] - 932:14 778:19, 778:21, 915:9, 950:8, **1542** [1] - 773:5 17A [1] - 776:3 26B [1] - 777:11 779:2, 779:9, 950:12, 952:4, **27** [4] - 777:12, **1548** [1] - 773:5 17B [1] - 776:4 779:12, 790:22, 952:6, 952:16, 801:24, 950:14, **1556** [1] - 773:6 17C [1] - 776:5 792:8, 828:21, 954:1, 955:12, **1557** [1] - 773:7 950:22 18 [5] - 775:5, 776:6, 831:21, 831:25, 960:15, 960:16, 274 [1] - 774:11 **1560** [2] - 779:13, 777:11, 779:21, 906:24, 916:15, 960:21, 961:8, 954:9 28 [9] - 794:8, 794:12, 779:18 919:2, 919:17, 965:1, 970:21, **1563** [1] - 773:8 1800s [1] - 1017:15 925:21, 925:22, 935:6, 935:11, 971:25, 972:1 **1566** [1] - 773:8 **182** [1] - 767:15 925:25, 932:22, 939:9, 939:25, **220** [1] - 790:8 954:4, 974:23 **1577** [1] - 773:9 184 [1] - 767:15 950:8, 960:10, **221** [2] - 790:8 282 [1] - 767:21 **1589** [1] - 773:9 186 [1] - 767:17 961:14, 975:25, 227 [2] - 766:10, 285,000 [1] - 851:10 **1590** [1] - 773:10 **19** [26] - 775:5, 776:6, 976:4, 978:7, 774:20 **1591** [1] - 773:10 779:21, 783:25, **297** [1] - 767:22 979:10, 979:24, 22A [1] - 776:12 2:51 [1] - 992:23 784:18, 785:9, 1593 [1] - 773:11 992:13, 1010:12, 22B [1] - 776:13 2nd [2] - 932:12, **1596** [1] - 773:12 786:10, 787:20, 1010:16, 1010:19, 22C [1] - 776:14 788:25, 789:16, 1027:13 **16** [7] - 775:4, 775:23, 1010:21, 1010:25, 22D [1] - 776:15 791:12, 796:12, 779:20, 794:23, 1011:4 22E [1] - 776:16 3 796:13, 796:19, 848:19, 859:8, **2,000** [1] - 1013:1 23 [9] - 776:17, 797:16, 797:17, 913:12 2-1 [1] - 913:12 782:18, 782:21, 797:24, 798:2, 160_[1] - 765:16 **2.5** [1] - 777:11 **3** [54] - 774:21, 775:10, 783:17, 805:21, 798:6, 799:3, **1600** [4] - 779:14, **20** [11] - 775:6, 776:7, 778:8, 778:11, 954:3, 958:1, 815:15, 816:17, 779:15, 779:18, 779:22, 781:1, 778:16, 778:22, 958:11, 965:23 819:4 779:19 784:10, 784:18, 779:3, 779:10, **23A** [1] - 776:18 19-D [1] - 800:24 1600s [1] - 957:3 785:1, 815:23, 779:13, 782:18, **24** [5] - 776:20, **19-I** [5] - 787:4, **1608** [1] - 773:13 837:11, 858:21, 782:21, 789:25, 782:15, 789:9. 796:23, 797:20, **1615** [1] - 773:13 953:2 793:9, 801:21, 915:9, 920:21 797:21, 800:24 **1627** [1] - 773:14 20-46 [2] - 905:19, 802:9, 813:19, 24-hour [3] - 854:21, **1910** [3] - 952:16, **163** [1] - 767:14 906:9 814:15, 828:4, 947:23, 1002:24 955:6, 957:22 **1647** [1] - 773:14 200 [1] - 978:3 828:22, 843:5, **245** [2] - 767:18, **1926** [1] - 957:14

875:4, 906:24, **39** [16] - 767:3, 774:2, **5,280** [1] - 923:17 618 [72] - 775:9, 775:9, 3 775:10, 775:10, 910:4, 913:12, 774:3, 774:3, 774:4, **5,550** [1] - 923:16 916:20, 932:15, 774:4, 774:5, 774:5, **50** [6] - 931:22, 944:5, 775:11, 775:11, 7 [18] - 774:23, 775:12, 935:6, 935:11, 774:6, 774:6, 774:7, 775:12, 775:12, 949:3, 954:9, 779:5, 779:15, 935:25. 943:24. 774:7, 774:8, 774:9, 775:13, 775:13, 955:10, 979:11 782:17. 782:22. 951:12, 951:14, 774:9, 932:1 **500** [5] - 768:6, 775:14, 775:14, 808:14, 811:1, 951:17, 960:3, **390** [1] - 768:3 775:15, 775:15, 850:18, 873:15, 811:4, 989:25, 960:10, 961:14, 3BBBB [1] - 788:5 775:16, 775:16, 932:10, 951:18 992:13, 993:16, 976:4, 979:11, 775:17, 775:17, **51** [3] - 875:16, 994:12, 997:11, 979:24, 980:11, 775:18, 775:18, 4 911:12, 949:3 998:10, 998:12, 1010:11, 1010:15, 775:19, 775:19, **526** [1] - 768:7 1001:16, 1026:11 1010:18, 1010:20, 775:20, 775:20, **53** [2] - 851:22, 852:10 **4** [29] - 774:22, 775:11, 7-30-07 [1] - 977:12 1010:22, 1010:24, 775:21, 775:21, **55** [1] - 955:15 778:8, 778:22, 7/30/07 [1] - 779:4 1010:25, 1011:10, 775:22, 775:23, **55103** [1] - 780:23 779:3, 779:13, 1011:13, 1011:25, 70 [5] - 843:25, 775:23, 775:24, **559** [1] - 768:7 793:10, 794:23, 948:19, 949:6, 1012:22 776:2, 776:3, 776:4, **56** [1] - 777:3 802:13, 803:23, 3,300 [1] - 915:20 958:9. 971:9 776:5, 776:6, 776:6, **57** [3] - 799:2, 920:12, 804:5, 804:14, 700 [2] - 768:22, 3,900 [1] - 956:2 776:7, 776:8, 776:8, 920:19 828:4, 830:20, 777:21 **3.4** [2] - 849:15, 776:9, 776:10, **57042** [1] - 766:10 831:3, 831:21, 776:11, 776:11, **701** [1] - 949:21 857:10 **57058** [1] - 827:7 831:25, 856:3, 776:12, 776:13, 707 [1] - 768:23 **3.5** [1] - 930:20 **57322** [1] - 889:9 916:16, 916:18, 776:14, 776:15, **709** [1] - 768:23 30 [9] - 804:14, **57402** [1] - 766:3 923:2, 960:6, 969:8, 815:23, 837:11, 776:16, 776:17, **713** [1] - 768:24 **57501** [2] - 765:17, 969:14, 979:12, 776:18, 776:20, **724** [1] - 768:24 843:22, 844:6, 766:8 979:24, 985:15 776:20, 776:21, 727 [1] - 769:2 979:6, 982:9, **58** [8] - 777:2, 788:3, 4,200 [1] - 932:14 776:21, 776:22, **739** [3] - 769:3, 778:2, 989:12, 991:17 798:21, 798:23, 4-foot [3] - 948:12, 776:22, 776:23, 300 [1] - 827:7 778:2 799:15, 870:2, 948:22, 948:24 776:23, 776:24, 308 [1] - 925:5 **74-76** [1] - 776:6 950:22, 952:6 4/27/07 [1] - 774:20 777:2, 777:3, 777:3, 310 [2] - 939:10 743 [1] - 769:4 **58-60** [1] - 777:4 **40** [1] - 947:23 777:4, 777:4, 777:5, **32** [1] - 804:15 **75** [1] - 971:10 **581** [1] - 768:8 **40916** [2] - 901:10, 777:6, 777:7, 777:8, **321** [1] - 767:22 **750** [1] - 778:25 **584** [1] - 768:8 912:4 777:9, 777:10, **324** [1] - 767:23 **751** [1] - 769:5 **589** [1] - 768:9 40918 [1] - 889:9 777:11, 777:12 33 [2] - 974:23, 983:19 **752** [1] - 769:6 **59** [9] - 788:3, 788:5, 41 [1] - 851:3 **620** [1] - 768:11 **339** [2] - 952:6, 961:7 **756** [3] - 769:7, 778:4, 798:19, 852:15, **412** [1] - 766:14 **639** [1] - 768:12 **34** [10] - 802:9, 951:9, 778:5 853:6, 858:24, 42,000-gallon [1] -**64** [2] - 767:4, 767:5 955:13, 956:14, **761** [1] - 769:7 873:7, 876:23, 932:15 **642** [1] - 768:12 956:19, 965:11, **765-1,027** [1] - 765:8 878:21 **423** [1] - 768:3 **644** [1] - 768:13 965:12, 970:18, 77 [1] - 775:19 **591** [1] - 768:10 44 [2] - 767:4, 774:13 **645** [1] - 768:14 971:22, 972:23 **780** [1] - 769:9 59W1/4[1] - 775:10 **450** [1] - 765:22 **65** [1] - 777:3 35 [1] - 929:1 784 [2] - 779:21, **5:30** [2] - 1001:15, **457** [1] - 768:4 **650** [1] - 777:14 **350** [1] - 767:23 779:22 1001:21 **459** [1] - 768:4 **652** [1] - 768:15 356 [1] - 767:24 786 [3] - 769:9, **5:40** [1] - 1026:20 **46** [2] - 850:2, 850:10 **66** [1] - 951:14 359 [1] - 767:24 779:12, 779:17 **5H1** [1] - 765:23 **47-51** [1] - 776:23 **660** [1] - 953:15 36 [16] - 774:2, 849:22, **791** [1] - 769:10 48 [2] - 920:18, 920:20 **663** [1] - 768:15 851:9, 851:12, **796** [1] - 769:10 6 49-41B-22 [2] - 782:1, 664 [1] - 768:17 851:20, 862:5, 909:10 **671** [2] - 777:16, 862:6, 862:7, 862:9, 8 **490** [1] - 766:3 777:17 **6** [17] - 765:8, 774:23, 862:11, 863:6, **491** [1] - 768:6 775:12, 778:23, **672** [1] - 768:17 869:3, 880:16, **493** [1] - 774:16 8[7] - 774:24, 775:13, 779:4, 779:15, 673_[1] - 768:18 881:5, 1004:25 779:16, 827:19, **360** [3] - 983:13, 782:17, 782:21, **683** [1] - 768:19 5 923:2, 943:20, 983:14, 983:15 811:1, 811:4, 689 [2] - 768:20, 978:13 **361** [1] - 768:2 916:20, 917:7, 777:19 8,000 [1] - 850:6 **363** [1] - 774:8 923:2, 970:7, **690** [1] - 768:20 **5** [14] - 774:22, 775:11, 80 [10] - 882:9, 948:19, 985:18, 994:12, **692** [1] - 768:22 368 [1] - 774:14 778:23, 779:4, 949:6, 955:14, 997:18 6th [2] - 766:15, **37** [1] - 775:21 779:14, 780:22, 958:9, 971:9, **6-26-07** [1] - 977:7 38 [1] - 850:14 1027:10 827:18, 827:19, 974:22, 983:18, **60** [3] - 798:16, 380 [2] - 774:14, 828:1, 943:24, 983:22, 986:21 955:13, 955:15 774:15 979:12, 994:12, 80-mile [1] - 947:5 **609** [1] - 768:11 389 [1] - 774:15 995:7, 1001:11

800 [1] - 1004:25 970 [2] - 778:23, accessible [1] -1008:14 1015:5 81 [1] - 767:5 778:23 942:14 act [3] - 850:3, 1004:4, adjacent [2] - 934:8, **81-82** [1] - 776:24 971 [2] - 770:6, 770:6 accessing [1] - 851:15 1007:17 1019:1 Adjustment [1] -817 [1] - 769:11 974 [1] - 770:8 Accident [1] - 849:10 **ACT** [1] - 765:5 action [3] - 993:14, 774:13 818 [1] - 927:4 977 [1] - 779:2 accident [9] - 848:1, 997:22, 997:23 administrative [1] -819 [1] - 769:11 980 [4] - 770:8, 779:2, 848:10, 848:14, 849:1, 856:22, actions [3] - 795:18, 888:12 822 [1] - 769:12 779:3, 779:3 859:14, 865:6, 795:19, 805:5 administrator [2] -99 [1] - 863:8 827 [1] - 769:13 933:10, 950:3 991 [1] - 770:9 active [2] - 940:21, 827:12, 835:11 **832** [4] - 778:7, 778:7, accidents [8] -940:22 admissible [2] -778:8, 778:8 994 [3] - 779:4, 779:4, 779:5 827:21, 830:16, activities [4] - 857:22, 966:10, 970:3 **835** [1] - 769:14 848:3, 848:8, 875:6, 875:20, admission [2] - 945:2, 847 [1] - 769:14 **995** [1] - 770:9 848:17, 848:25, 933:14 964:3 998 [1] - 770:10 **85** [2] - 952:13, 953:17 856:10, 863:4 activity [2] - 982:14, admit [5] - 831:21, 856 [1] - 769:15 acclimated [1] -1022:12 884:22, 884:25, 860 [1] - 769:15 Α 938:23 actual [5] - 841:1, 966:11, 967:12 **87** [1] - 767:6 accommodating [1] admitted [8] - 784:18, 841:4, 841:6, 878_[1] - 769:16 a.m [4] - 766:16, 926:23 842:16, 1021:21 786:5, 832:1, 890:7, 882 [1] - 769:16 779:4, 992:13, accompanied [1] -902:12, 928:2, Acute [1] - 776:4 889_[1] - 769:18 1002:15 868:9 **AD** [1] - 774:2 977:2, 980:2 890 [2] - 769:18, Aaron [1] - 914:10 accomplish [1] ads [1] - 945:19 Ad [2] - 774:13 778:13 AB [1] - 765:23 900:4 Adam [1] - 765:16 adverse [3] - 1005:17, **8:30** [2] - 766:16, abandoned [3] accomplished [2] -1005:20, 1005:22 add [6] - 883:24, 780:5 971:23, 972:2, 900:3, 967:22 advice [2] - 982:8, 904:18, 912:8, 985:22 According [3] -1004:13 913:8, 949:10, 9 Aberdeen [4] - 766:3, 783:24, 864:5, Advisory [2] -987:16 774:25, 774:25, 905:14 Add'l [3] - 774:16, 1006:13, 1006:16 9 [12] - 774:24, 775:13, 886:17 according [9] advocate [1] - 929:5 779:2, 779:3 abide [1] - 981:21 779:16, 803:24, 789:16, 833:1, added [2] - 923:14, advocated [1] ability [1] - 794:24 804:7, 886:23, 839:10, 863:25, 949:9 940:20 able [19] - 786:13, 897:4, 908:3, 908:8, 933:25, 993:6, aerial [3] - 800:8, addition [3] - 928:6, 926:22, 1002:15, 790:24, 792:19, 997:25, 999:21, 801:5, 851:14 973:11, 992:4 810:19, 813:16, 1021:9 999:23 affect [10] - 805:2, Additional [5] -832:13, 839:24, 9-30-07 [1] - 849:20 account [3] - 820:24, 774:10, 779:3, 805:7, 893:10, 851:9, 851:20, 9/7 [2] - 779:4, 779:5 821:4, 907:10 893:11, 956:7, 779:5, 936:18, 983:7 859:20, 903:19, 90 [2] - 825:23, 826:3 accounting [1] additional [24] -984:25. 1005:2. 903:25, 904:1, 900 [1] - 932:5 848:23 1005:4, 1009:21, 791:21, 794:19, 910:20, 937:8. 901 [1] - 769:20 accurate [2] - 837:3, 1019:22 795:2, 801:24, 968:6, 978:16, 902 [1] - 778:15 839:9 804:9, 809:13, affected [9] - 787:14, 991:5, 1002:22 906 [2] - 778:16, accurately [2] -822:4, 897:13, 809:15, 817:13, above-entitled [2] -778:16 836:25, 925:16 881:19, 928:4, 929:3, 933:7, 766:13, 1027:10 907 [1] - 769:20 achieved [1] - 807:12 974:22, 979:16, 928:5, 934:21, above-ground [1] -912 [1] - 769:22 acknowledged [1] -946:7, 948:17, 1018:9, 1018:13 916:7 919 [3] - 769:22, 878:13 958:2, 959:3, afternoon [8] -Absolutely [1] -778:18, 778:19 acquire [1] - 838:17 975:13, 975:25, 885:19, 896:25, 820:14 977:18, 978:6, 922:14, 936:8, 922 [1] - 769:23 acre [9] - 917:13, absolutely [2] - 961:9, **927** [1] - 770:2 978:7, 986:23, 971:4. 974:5. 951:13, 955:3, 973:15 928 [1] - 778:10 955:5, 955:10, 993:16, 994:19 986:14, 995:5 absorbed [1] - 930:22 955:11, 955:15, additions [3] - 782:7, age [6] - 867:7, **936** [3] - 770:3, abstains [1] - 989:21 956:2, 972:24 782:13, 888:4 867:18, 868:3, 778:11, 778:11 abundance [2] -868:15, 871:25, address [8] - 780:20, Acreage [1] - 774:11 938 [1] - 770:3 929:18, 929:21 780:22, 818:6, 953:2 941 [1] - 770:4 acreages [1] - 973:8 abut [1] - 925:18 827:6, 830:2, agencies [9] - 929:24, acres [6] - 955:4, 944 [1] - 770:5 academic [1] - 941:8 834:18, 889:8, 1003:24, 1007:2, 972:20, 978:3, 945 [1] - 778:21 accept [3] - 901:1, 944:12 1007:6, 1007:15, 983:18, 1022:25, **95** [5] - 818:13, 962:21, 979:7 addressed [1] -1017:12, 1018:1, 1023:1 818:19, 952:13, acceptable [4] -978:23 1018:2, 1019:10 Act [9] - 1004:2, 953:17, 953:21 886:6, 954:3, 1004:3, 1004:21, Addressed [1] - 776:3 Agency [1] - 1007:8 961 [2] - 778:21, 996:14, 1017:3 adequate [4] - 810:11, agency [27] - 817:21, 1004:23, 1006:15, 778:22 accepted [1] - 956:18 810:12, 1014:24, 817:24, 897:20, 1007:14, 1008:9, **97** [2] - 955:6, 955:8

1004:12, 1004:13, agriculture [2] -909:6, 923:19, Anyway [4] - 931:3, apply [2] - 833:15, 5 1005:5, 1005:9, 941:9, 948:1 945:22, 968:5, 945:18, 953:12, 862:2 1005:14, 1005:18, ahead [10] - 823:13, 1020:13, 1022:12, 965:1 appointed [3] -1005:21, 1006:10, anyway [13] - 891:17, 1022:18 831:6, 935:8, 886:24, 887:12, 1006:14, 1006:19, 941:17, 942:10, analyses [3] - 836:5, 900:9, 904:13, 1027:8 1006:20, 1006:21, 974:14, 986:24, 836:9, 838:11 929:23, 930:3, appointment [2] -1006:24, 1006:25, 1002:3, 1002:9, analysis [17] - 781:25, 945:13, 950:10, 968:9, 993:17 1007:12, 1011:19, 1025:19 830:15, 833:23, 950:17, 952:11, appreciate [5] -1012:6, 1012:12, ain't [2] - 958:7, 836:15, 836:19, 955:23, 963:14, 811:19, 834:10, 1012:16, 1014:16, 964:24 846:9, 846:12, 964:25, 1017:25 883:21, 900:12, 1020:17, 1024:15, 847:9, 866:23, aircraft [1] - 851:14 anywheres [1] -901:3 1024:22 867:23, 868:25, Alaska [4] - 849:18, 945:21 Appreciate [2] agency's [3] - 1005:1, 874:15, 874:19, apart [1] - 860:19 862:18, 873:25, 812:14, 870:21 1006:2, 1011:17 880:9, 882:22, apologize [12] - 787:3, 948:22 approach [1] - 832:5 agent [28] - 778:22, 929:7, 931:19 Alaskan [1] - 869:5 790:21, 922:4, approached [1] -778:23, 779:4. **Analysis** [1] - 933:14 Alberta [7] - 776:2, 968:4, 974:6, 991:2, 838:16 902:15, 902:16, 776:12, 776:13, analyst [2] - 827:12, 1001:5, 1002:17, approaches [1] -903:8, 947:20, 835:12 1002:23, 1014:10, 776:16, 777:7, 953:19 949:19, 951:11, analyze [3] - 867:15, 1018:21, 1025:23 854:19, 863:21 appropriate [2] -963:22, 966:3, 867:16, 875:10 **Apologize** [1] - 829:17 album [1] - 919:11 817:16, 888:6 977:7, 977:12, alert [1] - 1026:7 analyzed [2] - 781:13, apology [1] - 826:20 appropriately [2] -977:14, 978:17, 807:25 appear [5] - 800:24, alien [2] - 811:1, 785:16, 813:22 980:13, 991:16, analyzing [2] - 836:21, 801:5, 801:8, 855:8, 811:12 approval [5] - 993:20, 992:14, 993:11, 836:24 Alignment [1] - 774:10 932:4 998:14, 999:1, 993:13, 993:15, AND [1] - 765:5 alive [2] - 892:2, APPEARANCES [2] -1005:25, 1006:6 994:6, 997:6, Anderson [21] - 767:6, 765:15, 766:1 973:21 approved [3] - 970:20, 997:11, 997:13, 767:14, 768:10, appeared [2] - 884:10, all-volunteer [1] -979:15, 981:1 997:24, 998:13, 771:16, 775:8, 900:2 929:1 Approximate [1] -999:22 775:11, 775:13, appearing [7] alleged [1] - 843:5 775:15 agent's [2] - 982:14, 775:13, 775:23, 765:17, 765:20, allow [5] - 793:13, approximate [1] -996:22 776:1, 776:6, 777:1, 765:23, 766:4, 933:16, 954:12, 859:3 agents [6] - 903:7, 777:4, 779:6, 779:7, 766:5, 766:11, 989:19, 994:25 April [3] - 920:4, 950:2. 972:8. 815:12, 886:14, 1002:14 allows [1] - 860:24 936:17, 936:19 982:12, 993:2, 886:15, 886:25, apples [2] - 861:2 alluvium [2] - 813:7, aquatic [1] - 1016:20 1000:14 947:17, 955:7 applicable [2] - 783:5, Aquifer [12] - 785:12, 813:8 ago [7] - 806:6, 929:1, ANDERSON [2] -916:11 almost [2] - 851:1, 785:13, 787:9, 955:6, 958:15, 886:17, 886:19 **Applicant** [9] - 765:17, 880:24 787:12, 790:18, 1017:23, 1022:5 Anderson's [1] - 955:2 765:20, 765:23, 790:23, 791:3, **Almost** [1] - 1012:17 agree [15] - 790:24, anecdotal [1] - 868:24 832:23, 833:6, 799:9, 799:13, alongside [1] - 1024:4 817:18, 819:20, angle [3] - 850:15, 860:7, 860:8, 909:9, 799:19, 816:23, Alta [1] - 776:3 819:23, 844:18, 850:17, 903:22 1014:5 820:21 alternative [1] -846:16, 863:12, angling [1] - 917:2 Applicant's [4] aquifer [28] - 787:14, 942:12 878:12, 878:15, animal [1] - 908:23 774:1, 779:13, 800:12, 800:16, amended [2] - 920:14, 881:8, 888:14, annual [1] - 840:18 782:1, 845:2 801:13, 812:1, 920:24 963:24, 991:16, answer [13] - 803:21, application [1] -812:7, 812:11, amendment [1] -1006:12, 1026:14 876:13, 881:15, 854:14 816:4, 816:8, 920:11 agreed [7] - 903:5, Application [18] -884:10, 921:4, 819:12, 819:21, amendments [2] -947:13, 954:5, 921:18, 924:3, 774:2, 774:11, 820:3, 820:23, 919:24, 920:8 970:3, 991:19, 928:17, 963:14, 780:2, 846:22, 820:25, 821:3, America [3] - 776:16, 992:4, 1022:19 980:20, 994:25, 905:18, 919:25, 821:8, 821:11, 840:17, 866:8 Agreement [2] -1009:23, 1023:16 920:3, 920:15, 821:13, 821:15, America's [1] - 993:3 774:19, 1005:23 936:19, 987:25, answered [5] - 803:8, 824:13, 824:17, American [3] - 774:25, agreement [6] -877:13, 896:21, 1003:21, 1006:23, 824:18, 824:19, 774:25, 979:20 778:16, 903:5, 1020:3, 1023:13 1007:4, 1008:2, 824:20, 825:11, **Amount** [1] - 776:7 903:11, 912:14, answers [4] - 950:24, 1009:2, 1017:17, 883:11, 943:3, 947:9 amount [18] - 810:12, 916:9 950:25, 951:3, 951:6 1017:21, 1018:7 aquifers [4] - 811:18, 825:17, 825:18, agreements [1] -APPLICATION [1] -821:12, 905:15, **Answers** [1] - 776:15 837:6, 849:12, 934:19 765:4 905:17 anticipation [1] -851:11, 858:1, agricultural [2] -882:19 applied [2] - 862:19, archeology [1] -868:7, 882:12, 822:5, 822:10 anxious [1] - 919:10 934:17 1008:17 882:14, 887:8,

Arden [1] - 770:19 arriving [2] - 809:2, 1013:10, 1013:11 798:24 В area [68] - 785:14, 933:1 attended [4] - 905:23, Beadle [3] - 905:8, 785:16, 788:8, arrow [2] - 801:14, 905:24, 922:2, 920:12, 920:13 **B.S** [3] - 941:9, 999:3, 793:18, 793:20, 878:23 1019:8 beans [6] - 892:16, 999:5 793:22, 798:4, attending [2] - 891:1, 892:18, 904:2, arrows [1] - 801:8 bachelor [1] - 780:25 799:4, 799:8, 955:20 904:3, 904:6, 904:10 artesian [1] - 908:11 background [8] -800:11, 806:4, attention [3] - 800:6, Bear [1] - 1008:19 article [1] - 779:10 780:24, 827:8, 811:8, 812:20, 888:24, 964:25 bearing [4] - 784:23, Article [27] - 774:25, 813:4, 813:18, 832:4, 835:10, 775:6, 775:22, attentive [1] - 891:10 785:3, 785:8, 880:21 849:9, 952:23, 813:21, 814:2, attenuation [1] became [1] - 783:1 775:23, 775:24, 978:9, 1002:9 become [1] - 948:8 814:8, 814:20, 776:2, 776:3, 776:4, 933:15 815:5, 816:18, **bad** [1] - 931:24 attorney [10] - 827:3, 776:5, 776:7, 776:8, becomes [1] - 938:16 badger [7] - 904:19, 816:21, 839:12, 897:23, 909:14, 776:9, 776:10, bedrock [4] - 793:13, 908:22, 909:3, 852:3, 857:24, 776:12, 776:13, 954:15, 955:21, 794:9, 802:1, 809:11 911:13, 911:17, 869:21, 904:22, 776:14, 776:15, 963:22, 966:2, **BEFORE** [1] - 765:10 911:18 913:9. 929:16. 776:16, 776:17, 966:18, 979:14, began [3] - 842:14, badger's [1] - 911:19 929:20, 930:12, 776:18, 777:5, 992:2 950:6, 968:7 930:23, 931:9, Attorney [4] - 765:13, Badgers [1] - 909:6 777:6, 777:7, 777:8, begin [1] - 950:23 931:14, 934:2, balance [2] - 811:11, 777:9, 777:10, 765:14, 766:7, beginning [4] -937:5, 937:20, 964:10 777:11 1002:14 813:20, 894:22, 938:18, 938:19, **bale** [1] - 949:14 articles [2] - 774:23, attorneys [3] - 884:7, 897:16, 962:25 938:20, 938:21, 775:2 898:11, 1001:18 ball [3] - 913:24, begins [2] - 926:5, 939:3, 939:15, 915:18, 957:5 artifacts [1] - 1010:13 attributes [1] - 868:14 946:22 939:17, 940:4, Bank [1] - 982:4 arts [1] - 780:25 August [4] - 920:8, begun [1] - 825:4 940:7, 940:24, banker [2] - 979:2, ascertain [3] - 859:16, 920:25, 921:4, 921:6 behalf [15] - 765:17, 941:8, 942:4, 942:7, 869:24, 925:16 Aunba [1] - 952:25 982:2 765:20, 765:23, 949:22, 953:5, bar [1] - 841:9 aside [1] - 894:19 Austin [1] - 765:19 766:4, 766:11, 956:1, 972:20, barely [2] - 780:5, assess [1] - 801:25 authority [2] - 870:14, 883:22, 927:6, 977:25, 979:10, 952:7 assessment [1] -963:5 927:9, 927:10, 979:11, 981:24, Barnett [1] - 766:2 936:11 authorization [1] -940:23, 987:20, 1005:8, 1005:14, barrel [1] - 882:13 Assessment [2] -950:20 988:24, 989:20, 1010:5, 1010:13, barrels [8] - 833:2, 779:15, 933:13 automatically [1] -1002:14, 1007:14 1010:23, 1011:13, 849:15, 857:11, assist [3] - 783:12, 873:14 behind [4] - 914:25, 1019:24, 1020:5 784:19, 787:24 available [13] -878:10, 931:23, 915:1, 1001:25, areas [46] - 781:15, 931:25, 932:10, associate [1] - 898:12 781:19, 785:18, 1023:17 785:6, 785:9, 932:14 associated [5] -790:10, 792:11, beings [1] - 904:23 785:13, 787:8, Barrett [1] - 908:3 803:24, 808:5, 793:11, 794:20, believability [3] -787:12, 787:14, bars [6] - 842:4, 899:10, 941:5, 808:2, 809:4, 810:4, 832:21, 845:2, 860:7 788:16, 788:17, 845:23, 880:4, 1004:17 812:8, 839:20, 855:9 **believable** [1] - 999:12 788:21, 790:16, 880:5, 880:6, 882:16 Average [2] - 845:24, assume [5] - 837:5, **Belle** [2] - 944:11, 793:15, 799:6, based [14] - 800:24, 880:13 873:17, 899:9, 944:13 802:1, 802:5, 802:7, 811:7, 815:25, 923:21, 1011:13 average [3] - 811:12, below [3] - 799:7, 802:16, 804:1, 828:15, 846:9, 833:1, 879:18 Assuming [1] - 824:24 800:21, 861:20 804:2, 804:11, 850:11, 866:1, averages [1] - 841:6 assuming [4] - 871:7, Ben [4] - 769:4. 804:13, 811:15, 876:2, 882:14, 873:14, 960:9, avoid [3] - 929:25, 778:24, 778:25, 812:10, 812:12, 882:22, 887:23, 961:11 942:5, 1022:10 896:13 812:21, 813:3, 909:16, 967:17, awake [1] - 891:11 assumption [1] **bending** [1] - 904:15 813:6, 816:2, 817:3, 971:6 887:6 aware [12] - 783:1, bent [2] - 904:12, 820:20, 823:4, Based [4] - 784:21, assure [1] - 945:20 821:11, 839:19, 904:14 824:4, 874:12, 812:8, 813:2, 820:19 attach [1] - 969:13 873:4, 873:8, **benzene** [1] - 1025:6 875:3, 912:10, baseline [1] - 933:16 attached [10] - 774:2, 875:19, 923:12, beside [1] - 909:7 930:15, 939:4, **basis** [5] - 843:17, 778:23, 970:1, 953:7, 954:19, Best [2] - 766:6, 940:9, 977:22, 880:8, 956:7, 977:6, 977:19, 1003:21, 1025:7 770:17 984:11, 1018:11, 967:18, 973:7 awful [3] - 829:9, 991:15, 991:17, best [14] - 824:10, 1018:12, 1019:20, bat [1] - 885:18 911:13, 999:11 994:5, 1027:11 832:5, 834:16, 1020:8 Bay [4] - 780:21, attempt [1] - 875:9 ax [1] - 884:1 834:18, 872:10, **Argus** [1] - 779:10 781:9, 804:19, attempting [2] -**AXTHELM** [1] - 969:8 872:18, 872:19, arrangements [1] -808:15 792:13, 868:3 892:6, 895:6, 907:4, 934:19 BDM [4] - 777:21, attempts [1] - 792:9 907:6, 982:7, arrived [1] - 806:6 778:2, 791:14, attend [3] - 1013:9, 1011:18, 1020:2

б

bet [1] - 943:17 Beth [1] - 993:6 better [20] - 807:3, 808:18, 823:24, 866:23, 867:11, 867:12, 867:13, 872:16, 882:24, 884:8, 895:5, 897:3, 897:25, 942:13, 946:3, 958:12, 968:16, 979:3, 1009:11, 1012:1 Betty [1] - 775:19 between [22] - 796:18, 799:18, 801:1, 807:4, 811:13, 816:7, 825:12, 849:4, 849:20, 867:24, 873:25, 877:20, 900:8, 912:20, 944:11, 946:15, 948:19, 952:13, 956:15, 957:18, 963:22, 972:3 bias [1] - 884:1 big [11] - 899:1, 911:13, 912:9, 912:16, 914:19, 916:21, 933:4, 946:4, 993:2, 1002:25, 1015:13 **Big** [1] - 777:7 bigger [2] - 790:25, 917:10 biggest [3] - 891:6, 896:20, 957:11 bill [1] - 955:22 Bill [1] - 771:8 billion [1] - 827:22 Billion [1] - 777:11 binder [1] - 855:1 Binding [1] - 774:19 biodegradation [1] -933:15 biological [2] -936:13, 936:22 biologically [1] -1019:23 biotic [1] - 941:5 **birds** [1] - 1024:5 bit [21] - 814:18, 827:8, 832:4, 835:10, 850:13, 863:7, 872:23, 886:1, 896:5, 896:7, 896:12, 900:1, 902:22, 904:10, 904:13, 925:16, 947:16, 972:7,

974:5, 1026:5, 1026:6 black [8] - 786:20, 796:17, 797:21, 798:13, 916:8, 967:12, 977:20, 977:22 Black [1] - 775:3 blackmail [1] - 970:22 blank [1] - 951:13 **blankety** [1] - 951:13 blankety-blank [1] -951:13 block [1] - 915:23 blocks [1] - 925:21 blowouts [4] - 956:24, 957:2, 958:2 blue [3] - 858:10, 973:17, 977:23 board [2] - 905:8, 927:5 Board [7] - 774:24, 856:5, 856:7, 863:4, 864:1, 871:16, 927:6 **Bob** [2] - 776:18, 994:2 **body** [1] - 787:13 bond [5] - 879:10, 879:19, 879:23, 879:25, 934:12 **bonding** [1] - 945:23 book [5] - 807:19, 916:3, 918:19, 918:25, 921:7 **Book** [1] - 778:19 booklet [1] - 882:9 books [1] - 948:24 Boom [1] - 776:15 border [3] - 808:1, 924:22 Border [1] - 1018:14 boring [4] - 788:18, 794:9, 794:20, 797:23 borings [6] - 793:20, 794:5, 804:9, 817:14, 822:24, 823:2 bottom [15] - 804:14, 827:20, 849:14, 853:7, 868:17, 891:18, 893:3,

904:22, 916:7,

938:16, 968:1,

987:4, 987:16,

989:5, 1005:24

bottoms [1] - 1022:21

boundary [2] - 796:18,

bought [3] - 907:19,

952:15, 955:6

800:12 **box** [1] - 849:16 Box [3] - 765:16, 766:3, 766:10 **boys** [1] - 954:20 **BP**[1] - 776:10 brands [1] - 807:2 breadth [1] - 937:11 break [9] - 826:14, 830:22, 885:2, 885:7, 888:22, 943:16, 1001:15, 1001:20 **Brede** [1] - 914:12 Brenda [4] - 769:8, 779:12, 780:13, 780:21 Brett [4] - 765:15, 963:23, 969:18, 1025:9 Brian [2] - 768:5, 772:2 bridge [1] - 833:17 brief [3] - 888:8, 939:23, 975:10 **briefly** [4] - 840:14, 879:12, 880:11, 975:10 Briefly [1] - 939:21 bring [1] - 816:17 British [1] - 855:11 **Britton** [1] - 799:2 broad [2] - 793:17, 875:3 broke [1] - 915:13 broken [3] - 868:19, 912:19, 1010:19 Brookdale [2] -833:11, 839:6 brought [7] - 822:2, 829:3, 876:14, 912:8, 947:1, 999:9, 1021:10 **Brown** [11] - 782:15, 782:19, 782:25, 783:2, 783:3, 785:10, 790:16, 790:19, 810:20, 810:25 Bruce [2] - 977:7, 977:17 Bryan [2] - 773:2, 779:12 bucks [3] - 955:10, 955:14, 955:15 buffalo [7] - 957:11, 957:15, 958:3, 958:22, 972:19, 973:18, 973:19

904:7 build [4] - 823:17, 850:9, 902:21, 953:13 builders [1] - 948:16 building [3] - 914:2, 914:15, 1008:17 **buildings** [9] - 914:2, 914:3, 914:4, 914:25, 915:8, 915:9, 922:7, 923:19, 952:17 built [6] - 825:2, 851:6, 851:7, 861:19, 946:16, 979:10 **bullet** [1] - 873:5 Bulletin [2] - 783:17, 805:21 bulletin [2] - 783:18, 787:2 **bump** [1] - 989:14 bunch [2] - 891:13, 892:17 burden [6] - 782:1, 909:9, 910:4, 910:16, 975:25, 978:7 **Burden** [1] - 779:2 Burger [1] - 776:22 Burhardt [2] - 992:20, 993:1 buried [6] - 784:24, 814:21, 880:18, 880:20, 881:3, 979:9 **Burnaby** [2] - 875:5, 875:11 Burning [1] - 776:17 **burrow** [1] - 917:17 **burying** [1] - 910:12 **Buscher** [1] - 771:19 **bushel** [1] - 917:12 **bushels** [1] - 917:13 business [6] - 835:22, 836:15, 915:3, 915:17, 955:25, 991:18 businesses [1] -915:14 Buster [8] - 767:16, 773:22, 904:11, 950:1, 978:20, 978:23, 991:23, 991:24 Butte [2] - 973:16, 1008:19 **buy** [1] - 949:24 BY [33] - 780:16, 786:9, 791:11,

bugs [2] - 904:3,

796:11, 817:10, 819:3, 822:21, 835:7, 847:20, 856:2, 858:9, 878:20, 882:2, 890:21, 907:17, 919:23, 922:22, 936:7, 938:5, 941:21, 971:3, 971:21, 980:10, 995:4, 998:9, 1000:11, 1003:6, 1009:15, 1012:4, 1014:14, 1016:5, 1019:4, 1022:4 **bypass** [1] - 906:1 bypassing [1] -938:17 Byron [10] - 938:11, 938:12, 938:17, 938:18, 938:24, 939:13, 939:17, 939:18, 940:5 C

7

CA [1] - 776:14 cabins [1] - 940:8 cafe [2] - 914:7, 914:8 cage [2] - 948:12 calculate [2] - 821:19, 868:15 Calculated [1] -774:16 calculated [5] -789:15, 792:2, 857:8, 871:24, 880:8 calculations [3] -818:17, 818:18, 871:4 **Calgary** [1] - 765:23 California [4] - 841:4, 841:8, 841:23, 879:17 Canada [6] - 765:23, 861:18, 863:20, 868:13, 948:21, 992:8 **Canadian** [4] - 776:15, 841:5, 932:11, 992:7 cannot [6] - 905:9, 917:5, 932:6, 932:7, 1013:2 capable [2] - 897:13, 931:19 capacity [1] - 827:11 Capitol [1] - 766:14 caption [2] - 850:1,

851:8

buffalos [1] - 957:7

car [4] - 915:4, 950:3, 993:25 Carcinogens [1] -776:2 card [2] - 991:18, 991:19 care [14] - 891:16, 891:20, 900:17, 900:21, 903:8, 903:17, 906:6, 916:24, 928:3, 933:9, 933:10, 942:20, 946:6, 946:7 careful [1] - 910:19 carefully [4] - 823:4, 942:2, 942:3, 942:5 Carpenter [27] - 889:9, 901:10, 907:18, 912:5, 913:9, 913:14, 914:5, 915:21, 922:7, 923:8, 923:16, 923:18, 925:18, 925:19, 925:20, 930:19, 930:23, 931:2, 939:1, 939:2, 939:3, 939:10, 939:12, 939:15, 939:25 carried [1] - 931:15 carrying [1] - 807:19 Carthage [2] - 945:22, 957:18 case [34] - 781:10, 793:24, 827:9, 827:15, 832:16, 839:1. 842:19. 843:18, 848:22, 849:24, 869:23, 870:12, 878:7, 892:21, 897:23, 909:10, 920:22, 927:8, 944:1, 944:7, 944:15, 955:5, 962:25, 963:15, 974:25, 981:17, 981:23, 984:5, 1006:23, 1010:7, 1010:12, 1010:15, 1014:16 cases [1] - 854:6 cash [3] - 893:6, 934:13, 956:4 Cass [5] - 852:23, 858:24, 870:3, 876:23, 883:10 Cassels [3] - 769:6, 778:3, 778:4 catastrophic [2] -833:10, 863:18

catch [1] - 903:19 categories [1] - 852:4 category [1] - 852:11 cattle [14] - 905:3, 905:5, 913:23, 973:14, 978:9, 978:10, 978:16, 978:22, 979:1, 984:25, 985:1, 985:2 caught [2] - 825:7, 896:13 caused [3] - 795:23, 795:25, 864:24 causes [3] - 865:3, 865:7, 865:14 cautions [1] - 1025:2 caveat [1] - 884:25 **CD** [8] - 778:8, 829:11, 829:12, 829:18, 829:22, 830:5, 830:21, 831:1 cell [3] - 953:5, 953:13, 992:21 **Celsius** [3] - 948:20, 949:7, 971:10 center [1] - 914:9 centered [1] - 817:12 centerline [6] -787:16, 787:17, 787:18, 787:21, 803:1, 952:8 century [1] - 957:1 certain [9] - 802:19, 843:7, 882:14, 897:14, 930:15, 933:2, 942:12, 948:13, 963:6 certainly [12] - 800:3, 875:7, 887:14, 887:15, 897:15, 931:15, 967:9, 983:4, 989:15, 1003:16, 1011:22, 1026:19 **Certainly** [1] - 930:6 CERTIFICATE [1] -1027:2 Certified [2] - 1027:6, 1027:19 certify [2] - 918:14, 975:3 **CERTIFY** [1] - 1027:8 cetera [6] - 794:9, 817:14, 963:9, 1019:10. 1020:12. 1020:20 CFR [3] - 774:14, 774:15, 1004:25 Chairman [3] - 887:6,

934:21, 943:11

CHAIRMAN [64] -765:10, 765:11, 812:17, 812:19, 813:19, 814:3, 814:10, 864:19, 865:4, 865:17, 866:6, 866:18, 866:22, 867:6, 867:15, 867:23, 868:11, 868:23, 869:3, 869:7, 869:18, 869:23, 870:2, 870:15, 883:24, 885:9, 887:2, 887:13, 887:25, 888:11, 888:15, 894:7, 894:9, 894:17, 895:7, 895:10, 895:14, 895:15, 900:10, 926:15, 959:24, 960:2, 960:6, 966:12, 967:3, 967:22, 969:1, 975:21, 982:22, 983:3, 983:7, 987:12, 988:2, 989:14, 989:24, 990:14, 1001:14, 1001:23, 1001:25, 1002:19, 1002:24, 1015:13, 1025:22, 1026:2 **challenge** [1] - 998:23 challenges [2] -875:21, 926:12 chance [5] - 816:11, 816:12, 829:25, 893:24, 928:7 change [9] - 845:9, 860:15, 860:20, 860:21, 861:2, 889:20, 891:19, 949:7, 971:16 changed [4] - 833:3, 861:3, 895:1, 960:20 changes [7] - 810:19, 862:18, 901:22, 954:13, 955:17, 1021:16 changes/route [1] -774:10 channeling [1] - 984:6 channels [1] - 784:24 characteristics [3] -816:14, 869:9, 869:11 characterize [2] -837:22, 868:24 charge [1] - 956:11

chart [20] - 840:16, 840:18, 840:23, 840:25, 841:10, 842:11, 842:16, 843:1, 843:25, 844:19, 845:3, 845:6, 845:16, 847:25, 848:2, 848:21, 849:8, 851:22, 858:10, 858:19 check [5] - 872:24, 873:4, 873:16, 873:20, 914:21 checked [1] - 992:8 chemical [1] - 904:7 chemo [1] - 921:25 CHERI [1] - 1027:5 Cheri [4] - 765:24, 959:20, 960:7, 1027:18 choice [3] - 811:20, 811:21, 990:19 choose [2] - 790:14, 832:9 **chose** [1] - 848:11 chosen [2] - 790:15, 832:9 Chris [3] - 768:19, 777:18, 777:19 Christensen [1] -914:25 chunks [1] - 785:21 church [2] - 915:5, 915:14 **Chute** [1] - 905:3 circled [1] - 852:11 circles [2] - 797:22, 977:23 citizens [4] - 894:19, 897:25, 898:15, 932:18 City [1] - 776:8 city [1] - 912:11 clamp [3] - 851:5, 851:9, 862:10 clarification [5] -830:4, 884:24, 890:24, 959:2, 961:10 clarified [1] - 884:23 clarify [7] - 797:2, 797:9, 801:17, 815:17, 845:15, 967:3, 986:5 Clark [40] - 774:22, 775:5, 891:1, 894:18, 895:11, 900:6, 902:25, 904:11, 921:12,

922:3, 931:2, 939:4, 8 977:13, 978:18, 991:17, 992:3, 992:8, 992:11, 992:14, 992:16. 992:21, 992:22, 992:25, 993:8, 993:9, 993:14, 993:17, 993:19, 993:20, 993:23, 994:6, 996:23, 997:4, 997:11, 997:23, 1018:18, 1022:16, 1022:25 Clark's [1] - 992:23 classified [2] - 848:12, 906:10 classify [3] - 849:1, 972:9, 972:10 clay [6] - 784:22, 784:25, 788:21, 789:11, 819:14, 859:4 clays [5] - 785:2, 785:7, 788:19, 789:18, 812:10 **Clayton** [1] - 776:23 clean [1] - 934:14 cleaned [2] - 814:24, 857:19 **Cleanup** [1] - 776:9 cleanup [1] - 857:22 cleanups [2] - 852:9, 942:24 clear [6] - 786:22, 835:3, 877:14, 877:18, 950:6, 989:17 Clearbrook [3] -776:8, 843:4, 932:23 **cleared** [1] - 859:23 clearly [1] - 964:1 clock [1] - 885:4 close [10] - 815:16, 850:6, 850:25, 866:12, 878:12, 917:22, 972:17, 978:3, 982:6, 984:14 closed [1] - 873:17 closer [6] - 791:17, 844:12, 844:25, 873:13, 924:21, 1016:22 closest [1] - 925:4 **closing** [1] - 979:16 clue [1] - 1001:17 **coalition** [1] - 941:22 **Coalition** [3] - 927:6, 928:25, 940:14 coarser [2] - 819:7,

819:18 922:23, 936:14, 899:5, 899:8, comparing [2] -891:19, 894:19, 9 Coast [1] - 777:8 945:9, 945:11, 899:12, 899:18, 846:23, 858:19 895:23, 971:13, coating [5] - 879:10, 963:18, 982:14, 900:2, 900:8, comparison [10] -971:14, 1009:4 900:11, 900:19, 982:25, 996:10, 879:19, 904:20, 840:16, 840:22, concerning [2] -846:25, 848:1, 908:22, 911:18 1001:10. 1025:25 900:22, 911:2, 815:21, 853:24 code [1] - 949:22 Commissioner [27] -911:11, 911:22, 857:5, 867:24, concerns [16] -806:20, 806:23, 924:16, 924:18, 872:11, 872:12, coerce [1] - 970:22 812:22, 845:1, 808:22, 808:23, 924:23, 925:1, 876:1, 882:11 876:14, 896:11, **collapse** [1] - 985:25 812:16, 814:12, 925:4, 925:9, comparisons [1] -896:20, 912:16, collocated [1] -820:7, 826:15, 925:14, 925:24, 872:5 922:5, 937:21, 842:23 926:3, 926:5, 926:7, 860:2, 864:18, colored [2] - 800:11, compensation [2] -941:23, 945:18, 870:17, 876:20, 926:10, 952:2, 945:23, 979:17, 858:11 942:23, 943:1 974:10, 983:10, 883:7, 883:8, 982:23, 1000:14, competently [1] -Columbia [1] - 855:11 895:18, 895:19, 983:15, 983:17, 1020:5, 1020:7 878:3 column [1] - 871:6 983:20, 984:11, 896:22, 897:9, concerted [2] compile [1] - 875:9 combination [1] -924:15, 925:15, 984:16, 985:4, 952:24, 953:4 complained [1] -867:10 926:14, 946:12, 985:9, 985:12, 982:15 conclude [1] - 887:8 **combine** [1] - 909:21 954:19, 983:9, 987:6, 990:17, concludes [3] -Complaint [1] combined [1] - 932:13 985:14, 991:5, 1025:18, 1025:21, 970:24, 979:23, 776:22 comfortable [1] -1001:3 1026:19 994:9 1022:22 complaint [1] - 982:15 **COMMISSIONER** [121] Commissioners [22] complete [7] - 781:16, conclusion [6] coming [15] - 859:20, - 765:11, 806:24, 806:20, 806:22, 837:3, 840:23, 793:14, 817:24, 888:2, 890:13, 807:7, 807:10, 853:17, 871:2, 840:24, 854:5. 856:11, 859:25, 901:3, 907:9, 807:14, 807:16, 894:5, 897:12, 854:6, 1008:21 919:12, 1011:7 922:14, 926:15, 902:13, 910:25, 807:24, 808:3, conclusions [3] completed [3] -946:18, 965:2, 808:7, 808:13, 925:12, 928:21, 792:10, 809:2, 857:21, 872:10, 980:6, 982:10, 943:9, 955:7, 808:17, 808:20, 841:14 941:10 986:9, 995:6, 998:4, 973:25. 975:12. 808:24, 809:1, concur [8] - 1006:2, completely [2] -1012:5 809:8, 809:16, 982:20, 988:19, 1006:8, 1006:9, 857:19, 1002:22 commencing [1] -809:22, 809:25, 1004:19, 1014:4, 1006:10, 1020:23, 766:15 complex [2] - 807:22, 810:14, 810:17, 1015:11, 1015:16, 1021:2 886:2 comment [14] -811:4, 811:10, 1025:16, 1026:18 concurrence [1] compliance [2] -791:20, 791:23, 811:17, 812:3, commitment [1] -794:17 1003:18, 1007:14 849:16, 850:4, 812:14, 814:14, 942:19 concurring [1] -865:18, 891:8, comply [1] - 909:12 814:22, 815:2, commitments [1] -1008:25 893:17, 901:19, computer [5] - 827:10, 815:4, 815:10, 885:21 condemnation [1] -908:6. 928:4. 830:14, 830:17, 860:3, 860:6, common [1] - 895:8 949:17 863:14, 863:15 933:12, 935:7, 860:10, 860:12, communicate [1] condition [3] - 822:23, computer-type [1] -990:2, 991:7 861:1, 861:5, 1000:21 909:18, 970:20 Comment [6] -830:14 861:18, 862:4, communities [1] conditions [8] - 784:7, 776:20, 776:20, computerized [1] -862:12, 862:20, 794:4 917:24, 933:16, 776:21, 776:21, 854:10 863:1, 864:9, community [2] -942:18, 973:14, 776:22, 776:23 computers [1] -864:16, 870:18, 914:9, 941:5 979:8, 996:9, 996:14 comments [9] -912:24 870:21, 870:25, companies [1] conduct [1] - 874:14 775:19, 775:21, Computers [1] -871:12, 871:15, 1018:16 conducted [3] - 837:6, 776:6, 822:22, 912:24 871:18, 871:21, Company [2] - 776:8, 841:4, 1014:24 899:14, 928:5, con [1] - 996:22 871:23, 872:17, 827:12 conduit [1] - 819:11 934:22, 939:23, **CONCAWE** [1] - 866:2 872:21, 873:3, company [16] - 841:5, **conference** [1] - 993:5 994:19 concern [18] - 812:21, 873:10, 873:12, 847:14, 849:19, Comments [7] confidence [3] -816:21, 826:2, 873:23, 874:4, 853:4, 853:15, 812:22, 833:24, 776:23, 776:24, 826:4, 839:21. 874:12, 874:14, 854:12, 857:21, 834:7 777:2, 777:3, 777:3, 839:25, 840:3, 874:18, 875:4, 860:25, 882:23, 777:4, 777:4 confidential [1] -896:20, 912:9, 875:14, 875:19, 882:25, 898:21, COMMISSION [3] -993:9 922:6, 929:10, 875:24, 876:6, 898:22, 929:4, 765:1, 765:10, confirmation [1] -930:1, 933:19, 876:12, 876:18, 977:15, 1020:19 765:12 1000:20 971:5, 978:17, 883:9, 883:14, compare [2] - 847:13, confirmed [1] - 802:15 Commission [18] -982:3, 1000:22, 888:14, 895:20, 850:8 765:13, 781:9, conflict [1] - 780:7 1000:25 895:22, 896:2, compared [3] -799:23, 837:6, Concerned [1] - 777:5 conforming [1] -896:8, 896:16, 861:11, 861:22, 897:19, 898:8, 916:10 concerned [9] - 834:7, 896:24, 897:2, 867:25 906:5, 920:1, confronted [1] -839:7, 875:24, 897:5, 898:4, 899:2,

832:10 838:1, 841:17, 812:11, 821:15, coordinator [1] -854:18, 855:22, 10 confused [2] - 999:14, 841:24 824:18, 905:5 1003:18 856:23, 858:20, 1002:21 constructing [1] contaminated [4] copied [1] - 1000:1 860:21, 860:22, 864:21, 871:6, confusing [2] -842:14 781:7, 824:14, copies [7] - 809:19, 878:24, 882:17. 824:22, 978:21 construction [15] -825:12, 1025:2 906:14, 959:20, confusion [4] -779:13, 804:19, contaminates [1] -965:14, 965:15, 882:18, 882:20, 814:4, 814:9, 823:3, 796:5 882:21, 898:2, 1001:6, 1011:1, 976:1, 986:23 1011:3, 1014:12 823:8, 824:3, 872:9, contamination [18] -898:4, 907:20, copper [2] - 954:22, 795:20, 795:21, 919:4, 923:22, 872:13, 892:22, connect [1] - 879:2 954:23 935:15, 960:11, 903:25, 936:10, 795:23, 812:1, connected [2] copy [8] - 797:12, 963:23, 971:24, 978:12, 978:22, 812:7, 820:22, 785:11, 879:4 799:24, 805:20, 1019:18 981:4, 990:19, connection [4] -820:25, 821:3, 805:25, 806:3, 992:11, 997:17, consult [2] - 781:10, 821:8, 821:11, 787:8, 790:23, 809:17, 903:13, 997:22, 997:24, 1006:13 821:12, 821:25, 793:2, 799:18 944:25 997:25, 998:12, consultant [3] - 891:9, 825:3, 852:6, 852:7, corn [5] - 893:14, Conoco [1] - 777:7 999:24, 1012:7, 1011:2, 1018:3 852:13, 852:24, consecutive [1] -917:12, 946:2, 946:3 905:1 1017:18, 1025:3, 947:24 consultation [9] -Corn [1] - 775:18 1005:21, 1006:11, contention [1] -1025:4, 1027:11 corner [15] - 880:5, consensus [1] -Correct [14] - 798:15, 1013:4, 1013:5, 875:20 1013:20 892:6, 892:7, 798:22, 799:11, 1013:14, 1013:16, contents [1] - 774:15 consequence [4] -915:22, 915:23, 799:14, 808:16, 1014:15, 1014:20, continue 131 - 912:12. 794:25, 804:2, 921:3, 926:8, 952:7, 808:19. 815:24. 1014:23 1006:11, 1006:16 952:14, 952:17, 804:11, 877:16 Consulting [1] -Continued [1] - 766:1 873:23, 874:4, 952:21, 956:15, consequences [1] -879:24, 880:2, 776:11 continued [1] - 873:15 956:18, 960:20, 936:12 998:2, 1017:19, consulting [1] continues [1] -965:5 Consequences [1] -1024:24 1006:16 1005:21 cornered [1] - 972:17 933:14 corrected [2] - 828:9, Contact [2] - 779:4, continuing [1] - 999:7 Corporate [5] - 833:5, Conservation [2] -916:2 995:19 contouring [1] -840:3, 842:7, 845:7, 977:19, 1007:9 correction [1] - 828:5 contact [13] - 790:17, 1022:21 859:21 conservation [2] corrections [3] -792:9, 838:20, contracted [1] - 781:9 corporate [1] - 834:12 905:7, 905:12 827:16, 827:17, 948:4, 972:7, Corporation [6] conservationist [1] contractor [1] -888:4 982:12, 987:19, 835:15, 835:17, 905:7 1010:7 correctly [6] - 788:20, 988:22, 991:15, 836:1, 836:6, 836:9, consider [8] - 785:8, contribute [1] - 854:9 839:10, 839:13, 992:7, 997:10, 836:12 785:15, 813:21, contributed [2] -843:21, 860:16, 1020:11 Corps [2] - 1007:8, 835:24, 838:6, 854:7, 863:5 997:21 contacted [7] -838:9. 930:3. 979:8 1019:9 contributing [1] correspondence [8] -825:10, 947:20, consideration [3] -853:19 corrals [1] - 913:23 817:20, 963:22, 949:17, 949:18, 934:6, 975:21, control [1] - 868:3 correct [82] - 781:10, 964:13, 970:17, 977:10, 982:13, 1004:14 convenient [1] -789:18, 795:24, 970:19, 1000:12, 997:9 796:18, 797:13, considerations [1] -887:16 1000:14, 1008:24 contacting [1] -942:13 797:19, 798:4, conversation [4] correspondences [1] 792:15 798:10, 798:14, considered [6] -966:4, 976:14, - 962:14 contacts [2] - 972:15, 798:21, 799:5, 785:13, 808:12, 993:18, 1000:24 corridor [1] - 947:6 990:24 799:16, 800:13, 838:9, 861:16, conversations [2] corrode [2] - 867:22, contain [1] - 793:12 800:22, 801:10, 1008:6, 1010:20 1000:17, 1019:15 911:19 contained [4] -808:1, 808:5, considering [1] -CONVERSION [1] corrosion [2] -927:13, 930:8, 808:15, 815:9, 930:4 765:5 864:25, 865:8 944:19, 973:6 816:5, 816:9, 817:5, consist [2] - 813:5, conveyed [2] - 1000:2, **Corrosion** [1] - 776:10 containment [6] -817:17, 817:24, 813:9 1024:9 **corrosive** [1] - 904:23 981:12, 981:13, 817:25, 818:2, constant [1] - 860:18 convinced [1] cost [2] - 892:20, 981:17, 981:19, 818:7, 818:8, constituents [1] -894:13 934:14 981:22, 981:24 818:10, 818:16, 796:2 convincing [1] costing [1] - 955:23 contains [3] - 962:17, 819:6, 822:24, Constr [1] - 774:19 999:11 costly [1] - 917:20 963:25, 976:13 824:15, 825:4, constraints [1] -Cooney [5] - 978:18, 825:13, 835:12, costwise [1] - 942:21 contaminant [2] -817:22 992:14, 993:17, 807:1, 877:4 835:13, 835:16, cot [1] - 891:12 998:13, 999:7 CONSTRUCT [1] -838:15, 840:2, contaminants [6] -Council [2] - 1006:14, 765:6 cooperation [2] -841:11, 842:18, 785:3, 805:5, 807:2, 1006:16 construct [2] - 780:3, 817:21, 817:24 843:10, 845:3, 807:5, 807:8, 824:20 Counsel [1] - 765:13 885:16 Cooperative [1] -846:11, 849:21, contaminate [4] counsel [1] - 886:9 766:9 constructed 131 -

count [3] - 913:17, 912:6, 919:21, CROSS [23] - 786:8, 770:6, 770:6, 770:8, 770:20, 770:21, 11 920:17 921:9, 922:20, 791:10, 796:10, 770:9, 770:10, 770:22, 771:3, 938:6, 941:13, 835:6, 847:19, 770:10, 770:13, 771:3, 771:4, 771:6, counted [1] - 789:9 962:16, 980:11, 770:13, 770:16, 771:7, 771:7, counties [4] - 807:19, 856:1, 858:8, 771:10, 771:10, 1014:12 890:20, 907:16, 770:18, 770:20, 809:12, 809:14, course [6] - 823:5, 919:22, 922:21, 770:21, 770:22, 771:14, 771:15, 813:1 865:19, 872:1, 771:3, 771:3, 771:4, 771:17, 771:18, counting [1] - 981:7 936:6, 938:4, 872:5, 951:1, 941:20, 971:2, 771:6, 771:7, 771:7, 771:20, 771:21, Country [1] - 914:5 1003:20 971:20, 980:9, 771:10, 771:10, 771:23, 771:24, country [7] - 874:9, 772:3, 772:4, 772:6, court [16] - 780:14, 995:3, 998:8, 771:14, 771:15, 891:22, 946:22, 1000:10, 1012:3, 771:17, 771:18, 772:6, 772:8, 772:9, 827:1, 889:2, 889:4, 957:8, 973:16, 901:6, 906:15, 1014:13, 1022:3 771:20, 771:21, 772:12, 772:12, 982:9, 982:10 771:23, 771:24, 772:16, 772:16, 912:3, 926:24, cross [52] - 783:17, County [67] - 774:22, 944:3, 963:5, 784:3, 785:19, 772:3, 772:4, 772:6, 772:17, 772:20, 775:4, 775:4, 775:5, 772:6, 772:8, 772:9, 772:21, 772:21, 974:18, 983:6, 787:4, 788:4, 788:5, 776:9, 778:5, 779:9, 772:12, 772:12, 773:3, 773:3, 773:4, 986:13, 1003:4, 788:23, 789:1. 782:16, 782:19, 772:16, 772:16, 773:8, 773:8, 773:9, 782:20, 782:25, 1016:3, 1023:16 789:19, 789:21, 773:13, 773:13, COURT [2] - 959:21, 790:9, 790:11, 772:17, 772:20, 783:2, 783:3, 783:6, 790:14, 790:15, 772:21, 772:21, 773:14, 773:18, 960:8 783:18, 785:10, 773:3, 773:3, 773:4, 773:18, 773:19, Court [2] - 777:10, 791:8, 791:12, 786:22, 787:5, 773:8, 773:8, 773:9, 773:23, 773:24, 964:7 794:20, 796:9, 789:1, 789:3, 789:5, 773:13, 773:13, 773:24 797:17, 797:22, 789:12, 790:9, courtesy [1] - 887:11 773:14, 773:18, **CROSS-**790:16, 790:19, courts [1] - 954:11 798:3, 798:6, 798:8, 800:25, 801:6, 773:18, 773:19, **EXAMINATION** [23] -805:22, 807:16, cover [4] - 805:19, 773:23, 773:24, 807:11, 807:13, 786:8, 791:10, 810:21, 810:25, 909:3, 917:1, 934:13 773:24, 779:22 807:14, 807:18, 796:10, 835:6, 812:12, 812:20, covered [2] - 841:19, cross-examination 807:20, 807:25, 847:19, 856:1, 812:24, 816:25, 916:4 858:8, 890:20, 808:2, 810:20, 1101 - 785:19, 791:8. 820:12, 820:15, cows [1] - 973:20 812:9, 815:20, 796:9, 835:4, 888:5, 907:16, 919:22, 820:20, 822:3, crack [1] - 885:5 816:1, 816:25, 890:9, 907:2, 936:2, 922:21, 936:6, 822:8, 824:25, create [2] - 875:20, 971:1, 980:4 818:9, 835:4, 888:5, 938:4, 941:20, 850:23, 905:8, 930:15 890:9, 907:2, 917:5, **Cross-Examination** 971:2, 971:20, 920:13, 931:2, created [1] - 877:2 930:25, 936:2, [112] - 767:4, 767:4, 980:9, 995:3, 998:8, 939:4, 946:12, credibility [2] -950:7, 952:21, 767:5, 767:5, 767:6, 1000:10, 1012:3, 949:12, 951:9, 832:21, 845:1 954:12, 971:1, 767:9, 767:10, 1014:13, 1022:3 951:18, 956:5, Creek [13] - 775:14, 979:6, 980:4, 990:6 767:10, 767:13, cross-examined [1] -956:6, 956:8, 905:3, 930:24, Cross [113] - 767:4, 767:14, 767:14, 990:6 956:10, 973:5, 935:20, 938:7, 767:4, 767:5, 767:5, 767:17, 767:18, cross-section [25] -973:15. 973:16. 938:8, 938:9, 940:2, 767:6, 767:9. 767:18, 767:21, 783:17, 784:3, 977:19, 986:19, 940:24, 1023:23, 767:10, 767:10, 767:22, 767:22, 992:16, 1023:19, 787:4, 788:4, 788:5, 1023:25, 1024:1, 767:13, 767:14, 767:23, 768:3, 788:23, 789:1, 1023:21, 1024:9, 1024:10 768:3, 768:4, 768:4, 767:14, 767:17, 789:19, 789:21, 1024:12 creek [11] - 905:2, 768:6, 768:7, 768:7, 767:18, 767:18, 790:14, 790:15, **COUNTY** [1] - 1027:3 905:3, 905:6, 938:7, 768:11, 768:11, 767:21, 767:22, 791:12, 797:17, county [17] - 781:19, 939:2, 939:12, 767:22, 767:23, 768:15, 768:17, 797:22, 798:3, 793:17, 797:18, 939:14, 940:4, 768:3, 768:3, 768:4, 768:18, 768:20, 798:6, 798:8, 797:22, 798:3, 941:1, 941:2, 941:3 768:4, 768:6, 768:7, 768:20, 768:22, 800:25, 801:6, 798:4, 798:9, 800:8, Cremer [2] - 765:14, 768:7, 768:11, 768:23, 768:23, 807:11, 807:13, 801:5, 809:13, 898:11 807:14, 807:20, 768:11, 768:15, 768:24, 769:3, 809:21, 947:20, crews [3] - 851:4, 768:17, 768:18, 769:5, 769:7, 769:7, 816:1, 816:25 947:22, 953:20, 851:9, 864:4 768:20, 768:20, 769:9, 769:10, cross-sectional [1] -956:22, 959:14, crib [1] - 946:2 769:10, 769:14, 768:22, 768:23, 815:20 973:3 Crimp [1] - 776:14 768:23, 768:24, 769:14, 769:15, cross-sections [6] couple [24] - 806:24, critical [6] - 833:10, 769:3, 769:5, 769:7, 769:15, 769:18, 790:9, 790:11, 809:14, 810:9, 839:15, 839:17, 769:20, 769:22, 769:7, 769:9, 807:18, 807:25, 815:11, 827:16, 932:16, 966:16 769:10, 769:10, 769:23, 770:3, 808:2, 818:9 830:13, 835:23, criticize [1] - 932:25 769:14, 769:14, 770:3, 770:4, 770:6, crossed [1] - 790:22 866:9, 874:1, crop [3] - 893:7, 769:15, 769:15, 770:6, 770:8, 770:9, crosses [14] - 788:1, 874:22, 876:21, 893:10, 917:11 769:18, 769:20, 770:10, 770:10, 881:23, 888:22, 788:4, 799:16, crops [3] - 893:11, 769:22, 769:23, 770:13, 770:13, 801:1, 929:15, 890:22, 907:14, 947:19, 947:20 770:16, 770:18, 770:3, 770:3, 770:4,

930:13, 940:2, 792:14, 792:24, 865:22, 866:23, 996:21 934:20, 942:22 12 940:3, 945:24, 802:15, 803:9, 867:23, 868:24, debt [1] - 958:17 **Denny** [3] - 993:7, 950:22, 952:4, 803:25, 811:24, 872:6, 874:14, decade [2] - 867:25, 993:12, 997:14 952:7, 953:14, 812:6, 816:13, 875:9, 879:14, 868:1 denoted [4] - 788:13, 983:23 817:20, 827:7, 879:15, 879:17, 788:14, 842:5, decades [2] - 838:5, crossing [4] - 782:25, 851:25, 862:21, 880:11, 880:12, 845:23 846:8 783:3, 792:1, 810:7 874:7, 883:22, 880:13, 933:2, **December** [5] - 765:8, **DENR** [1] - 1016:18 Crow [5] - 775:14, 885:16, 889:9, 936:22, 1019:16 766:15, 854:20, dense [1] - 788:12 897:25, 898:23, Database [3] -1023:23, 1023:25, 1027:10 densely [2] - 788:13, 1024:1, 1024:10 898:25, 901:10, 1017:10, 1019:16, decide [2] - 917:24, 788:14 908:19, 908:20, 1019:21 crow [1] - 931:5 1026:7 deny [1] - 906:5 909:10, 912:5, database [10] -CRR [1] - 765:24 decision [3] - 832:10, department [1] -917:3, 918:3, 918:6, 827:11, 830:16, crude [46] - 774:15, 832:15, 1011:21 1016:12 919:25, 920:4, 833:2, 835:11, 779:14, 780:3, decisions [2] -Department [20] -927:4, 927:5, 835:12, 837:2, 781:16, 785:5, 832:13, 1021:16 870:13, 891:2, 928:24, 934:13, 787:7, 795:10, 846:2, 846:5, 848:8, Decker [1] - 914:11 891:9, 894:12, 940:13, 941:9, 795:12, 804:25, 849:2 Dee [1] - 944:4 921:11, 922:6, 941:24, 942:1, databases [2] -807:5, 808:4, 1003:25, 1006:25, deep [4] - 916:15, 944:13, 946:18, 812:10, 813:16, 836:24, 848:2 916:16, 916:18, 1007:11, 1008:23, 946:22, 947:22, date [2] - 809:11, 821:13, 824:24, 966:5 1011:19, 1013:17, 948:16, 949:8, 946:12 837:15, 837:16, 1013:21, 1014:16, deeper [3] - 799:19, 949:21, 954:20, 837:17, 851:24, Dated [1] - 1027:13 1014:22, 1015:3, 916:22, 979:10 974:22, 986:19, 851:25, 852:1, dated [2] - 809:10, 1016:9, 1016:11, defensive [1] - 897:6 1003:10, 1004:7, 852:17, 852:22, 965:23 1019:8, 1020:25 define [2] - 803:6, 1011:20, 1011:24, 858:12, 858:14, David [6] - 765:15, **depicted** [1] - 853:5 892:7 1013:9, 1016:9, 858:16, 859:3, 768:21, 772:15, depiction [1] - 828:24 defined [1] - 804:1 1027:7, 1027:13 860:4. 861:6. 798:24, 801:19, deposition [1] definitely [3] - 863:12, **DAKOTA** [3] - 765:2, 864:23, 874:25, 819:25 799:25 909:19, 910:2 877:17, 877:20, 765:5, 1027:1 **Davis** [2] - 770:19, deposits [6] - 785:10, **Definitely** [1] - 814:7 Dakotas [1] - 942:1 877:22, 885:16, 774:21 definition [2] - 774:14, 785:11, 812:23, damage [8] - 861:6, 918:5, 930:7, 932:9, days [9] - 821:9, 813:5, 813:8, 820:11 774:15 864:25, 865:8, 932:11, 932:22, 825:23, 826:3, depth [7] - 785:6, degraded [1] - 814:17 875:12, 909:6, 933:11, 934:14, 864:22, 902:24, 794:9, 802:19, degree [6] - 780:25, 940:24, 942:8, 929:11, 940:25, 904:5, 917:7, 815:23, 872:15, 827:9, 829:2, 941:3 943:2, 955:20 946:16, 947:23 916:5, 916:10 845:20, 854:24, cultural [5] - 1008:18, damaged [3] - 815:7, **DD** [5] - 779:21, **Deputy** [1] - 1002:13 863:15 978:4, 1023:3 1012:6, 1012:8, 797:16, 797:24, **Derric** [2] - 771:5, degrees [9] - 948:19, 1013:5, 1015:2 Damages [1] - 777:10 798:2, 799:3 792:25 948:20, 948:24, damages [1] - 946:7 culvert [3] - 965:2, De [1] - 946:15 describe [6] - 840:14, 949:6, 971:6, 971:9, 965:10, 984:2 damaging [1] - 908:22 deadline [1] - 817:22 848:25, 964:20, 971:10 cumbersomeness [1] damn [1] - 964:24 Deal [1] - 776:19 1000:16, 1008:12, **DEIS** [2] - 774:13, - 974:7 dams [1] - 946:16 deal [18] - 792:24, 1018:25 817:12 current [2] - 793:11, Dan [2] - 773:7, 793:1, 825:10, described [1] - 813:8 delay [1] - 1025:23 955:10 779:13 898:6, 949:21, Description [1] delays [1] - 978:13 Curt [3] - 766:5, 772:7, dangerous [1] -950:2, 954:24, 774:18 delete [4] - 782:15, 999:18 861:11 962:11, 963:18, **description** [1] - 888:6 782:17, 782:18, cut [1] - 830:22 darker [1] - 977:22 980:14, 980:16, descriptions [2] -782:21 cuts [1] - 978:8 darn [2] - 921:21, 980:22, 980:24, 951:21, 962:13 deleting [1] - 967:20 948:9 981:2, 982:6, design [8] - 814:4, deletions [2] - 782:7, D darned [1] - 948:11 1016:17, 1016:18 850:12, 867:8, 782:13 **Data** [3] - 774:17, dealer [2] - 981:5, 869:9, 869:11, **delve** [1] - 793:19 779:22, 779:23 981:19 869:20, 1015:1, **DELWIN** [1] - 901:9 **D.C** [2] - 765:20, data [32] - 792:11, dealing [3] - 832:17, 1015:4 **Delwin** [14] - 769:19, 922:11 792:18, 792:19, 951:22, 974:7 designed [2] - 947:5, 776:21, 777:3, **Dad** [1] - 958:4 792:22, 794:20, deals [2] - 909:11, 1020:9 778:14, 778:15, dad [1] - 952:23 812:9, 827:12, 1013:8 **destroy** [2] - 905:10, 901:4, 901:9, 902:5, **Dakota** [66] - 765:17, 842:6, 842:11, dealt [2] - 951:3, 951:5 905:16 903:14, 906:24, 766:3, 766:7, 766:8, 846:1, 858:19, Dean [1] - 835:23 detail [1] - 790:13 911:3, 925:7, 766:14, 766:15, 858:21, 860:17, death [4] - 995:23, detailed [5] - 793:12, 925:10, 939:5 780:4, 781:20, 860:20, 865:5, 996:1, 996:13, 794:8, 802:10, denied [3] - 918:9, 781:23, 792:9,

803:24, 931:18 details [1] - 978:24 detected [1] - 825:25 determination [6] -1006:2, 1006:18, 1008:25, 1011:17, 1014:23, 1015:3 determine [6] -825:11, 859:16, 1005:7, 1005:15, 1009:20, 1011:17 determined [3] -1005:13, 1005:16, 1005:19 determining [1] -804:10 devaluate [1] - 910:2 devastate [1] - 978:14 developed [1] -864:14 **Developer** [1] - 777:6 development [4] -910:17, 953:9, 1016:14, 1017:12 devil [1] - 961:12 diagonal [1] - 978:8 diagonally [1] -892:10 diagram [9] - 852:15, 852:17, 852:20, 853:6, 853:9, 853:12, 876:23, 877:1, 879:7 **Diane** [1] - 766:6 Dick [4] - 914:12, 992:20, 992:22, 993:1 dictate [2] - 884:4, 1004:24 dictionary [2] -970:21, 992:11 differ [1] - 807:8 difference [6] - 807:4, 848:23, 865:20, 877:20, 916:21, 951:19 differences [2] -865:10, 873:25 different [39] - 807:1, 807:2, 807:6, 807:8, 810:10, 811:13, 839:18, 847:2, 850:14, 850:17, 852:4, 860:24, 860:25, 863:7, 864:23, 871:7, 874:22, 884:7, 894:23, 894:24, 898:16, 898:17, 912:20, 921:18,

923:5, 951:3, 951:6, 954:13, 957:4, 964:6, 976:3, 1018:11, 1018:12, 1021:4. 1023:6. 1023:9, 1024:6 differs [1] - 830:5 difficult [4] - 867:15, 867:16, 867:20, 869:24 difficulty [1] - 866:22 dig [3] - 904:19, 911:17, 911:20 digging [4] - 904:4, 908:22, 909:6, 909:8 dime [1] - 834:12 dining [1] - 947:4 dinner [1] - 1001:15 dip [1] - 816:3 Direct [84] - 767:3. 767:9, 767:13, 767:17, 767:21, 768:2, 768:6, 768:10, 768:14, 768:17, 768:19, 768:22, 769:2, 769:4, 769:6, 769:9, 769:13, 769:18, 769:20, 769:22, 770:2, 770:5, 770:8, 770:9, 770:12, 770:12, 770:15, 770:15, 770:17, 770:18, 770:20, 771:2, 771:5, 771:6, 771:9, 771:9, 771:13, 771:14, 771:17, 771:19, 771:20, 771:22, 771:23, 772:2, 772:3, 772:5, 772:8, 772:11, 772:15, 772:20, 773:2, 773:7, 773:12, 773:17, 773:23, 774:2, 774:3, 774:4, 774:5, 774:6, 774:7, 774:9, 774:21, 774:22, 777:14, 777:16, 777:19, 778:2, 778:4, 778:7, 778:10, 778:13, 778:15, 778:18, 778:21, 778:25, 779:2, 779:7, 779:9, 779:12, 779:12, 779:13, 779:14, 779:15 direct [30] - 782:5,

783:8, 785:23,

792:8, 792:21, 793:9, 801:21, 803:23, 804:5, 804:14, 814:15, 817:19, 822:23, 827:14, 827:18, 828:13, 828:20, 829:2, 830:8, 834:25, 840:8, 845:15, 856:3, 859:8, 868:10, 879:13, 888:3, 894:11, 928:16, 935:13 **DIRECT** [5] - 780:15, 1003:5, 1009:14, 1016:4, 1019:3 direct's [1] - 935:16 directed [1] - 894:10 directing [2] - 822:3, 928:8 direction [4] - 801:9, 801:14, 853:11, 1023:9 directions [1] - 957:17 directly [8] - 829:3, 836:3, 842:7, 853:13, 853:15, 857:8, 938:17, 1006:13 directors [1] - 927:5 Dirty [1] - 776:16 disagree [1] - 790:24 disappointed [2] -833:7, 972:11 discharged [1] -787:13 discovered [1] -852:23 discuss [8] - 792:10, 792:15, 869:4, 885:19, 888:22, 898:12, 923:21, 991:21 discussed [7] -782:24, 783:18, 802:4, 804:12, 821:10, 845:16, 881:10 discussing [2] -795:15, 821:17 discussion [13] -783:5, 820:6, 821:6, 825:19, 825:22, 829:17, 872:3, 872:24, 897:21, 900:12, 954:2, 964:3, 972:3

969:5, 969:15, 994:10, 1001:24 disease [1] - 921:20 disgusting [1] -891:13 dismiss [1] - 880:24 disruption [1] -892:23 dissect [1] - 810:6 dissolve [1] - 824:16 dissolved [4] - 796:2, 858:25, 859:3, 877:2 distance [11] - 789:3, 802:22, 803:2, 823:12, 859:3, 904:24, 931:8, 931:15, 948:13, 953:14, 959:14 distinction [1] -836:18 distribute [1] - 828:17 distribution [7] -793:12, 802:1, 848:4, 848:15, 849:5, 859:15, 861:16 District [2] - 945:22, 1024:1 district [3] - 951:5, 1024:11, 1024:14 disturb [1] - 1022:13 disturbances [1] -774:12 ditch [1] - 956:22 diverted [1] - 938:11 **Division** [2] - 1003:17, 1016:16 division [1] - 836:2 **DNV** [4] - 776:11, 825:20, 833:23, 846:12 DO [1] - 1027:8 Docket [1] - 780:1 docketed [1] - 897:24 doctor [1] - 921:23 doctor's [1] - 968:8 document [27] -797:7, 797:15, 798:2, 798:12, 799:24, 805:14, 805:25, 806:12, 806:15, 806:16, 806:17, 809:17, 809:18, 810:8, 816:21, 823:18, 830:11, 830:18, 884:22, 884:24, 936:12, 956:3, 968:3, 968:12, 995:11, 995:14

842:20, 947:21 documented [1] -841:7 documenting [1] -823:14 documents [12] -794:25, 795:2, 809:3, 809:6, 809:7, 829:9. 830:12. 830:15, 856:19, 936:11, 936:18, 988:9 dollar [2] - 852:9, 951:4 dollars [4] - 827:22, 918:5, 954:22 domain [2] - 982:24, 992:12 **Don** [3] - 855:11, 993:4, 994:8 done [56] - 810:15, 814:13, 816:12, 817:17, 835:20, 847:2, 854:1, 871:4, 872:19. 896:17. 919:13, 934:3, 936:16, 945:13, 947:18, 948:10, 954:17, 957:1, 975:24, 976:24, 978:17, 980:14, 980:16, 980:22, 980:24, 980:25, 981:2, 983:1, 986:6, 986:22, 989:11, 1005:5, 1005:9, 1005:18, 1010:2, 1010:10, 1010:25, 1011:7, 1011:10, 1011:13, 1011:14, 1012:19, 1012:22, 1012:24, 1012:25, 1015:2, 1019:14, 1021:5, 1021:12, 1021:14, 1022:23, 1023:15 door [2] - 988:10, 989:6 **dormancy** [1] - 947:23 dormant [1] - 893:12 Dorothy [2] - 992:17, 992:22 **DOT** [1] - 803:25 dotted [3] - 788:16, 799:4, 799:8 double [1] - 910:13 doubt [3] - 866:23, 869:2, 879:11 down [38] - 828:3,

documentation [2] - 13

Discussion [6] -

888:18, 951:25,

862:13, 862:16, 973:19 edits [4] - 782:7, 805:4, 814:5, 814:7, 14 easement [35] -863:24, 864:3, drift [1] - 994:21 832:11, 838:17, 782:13, 782:23, 814:24, 818:6, 864:7, 864:8, drill [1] - 927:1 902:17, 902:24, 783:9 820:23, 820:24, 868:17, 868:19, 903:2, 903:5, 903:7, 821:1, 821:5, drink [1] - 784:5 educate [1] - 864:20 873:14, 873:16, 903:10, 903:11, 821:24, 823:21, drinking [3] - 784:23, educational [2] -874:11, 883:15, 903:13, 908:3, 780:24, 945:12 824:9, 824:10, 878:8 883:10, 908:9 884:3, 904:3, 904:5, 908:5, 908:7, 908:8, eminent [2] - 982:23, Edward [5] - 769:13, drive [1] - 892:15 904:19, 908:22, 916:6, 952:8, 992:12 770:5, 778:20, Drive [1] - 780:22 912:19, 912:23, Emissions [2] -953:15, 953:18, driven [1] - 886:2 827:6, 944:9 912:24, 913:18, 954:8, 956:15, 776:12, 776:13 Edwards [2] - 768:14, driving [1] - 909:21 915:13, 928:21, 958:16, 958:21, drought [1] - 957:4 777:14 **empathize** [1] - 920:7 931:15, 935:14, 958:24, 959:1, effect [12] - 794:1, Empire [1] - 780:22 dry [5] - 893:16, 941:2, 946:19, 970:20, 979:10, 805:8, 862:1, employ [1] - 866:11 893:24, 949:15, 949:2, 951:10, 979:11, 980:23, 947:18, 948:1, employed [4] -971:15, 973:14 955:15, 956:14, 992:9, 992:10, 948:17, 1005:17, 835:15, 856:21, drying [1] - 949:13 962:21, 967:25, 992:17, 993:23, 1005:21, 1006:3, 897:23, 1016:8 due [4] - 780:6, 974:2, 981:3, 981:8, 993:24, 998:20, 1008:25, 1020:1 Employee [1] - 842:8 956:25, 957:3 1025:25 999:4 effective [2] - 821:24, **employee** [1] - 953:6 dugout [1] - 956:21 downstream [3] -Easement [1] - 778:16 1022:18 employees [2] - 886:5, dugouts [3] - 977:23, 850:23, 931:5, easement's [1] -**Effects** [1] - 776:4 992:1 979:1, 984:25 938:10 954:23 effects [7] - 859:7, **employer** [3] - 780:19, duly [1] - 1027:8 downward [4] - 785:2, easements [11] -861:22, 868:7, 780:21, 781:9 duly-appointed [1] -813:11, 853:7 899:24, 907:25, 933:10, 933:20, employer's [2] -1027:8 Draft [4] - 794:17, 948:7, 954:12, 1005:15, 1005:22 780:19, 780:22 dunes [2] - 811:1, 802:4, 802:17, 958:20, 963:21, effort [3] - 949:20, employment [1] -811:8 817:12 980:14, 992:15, 952:24, 953:4 835:21 duplicates [1] drafted [1] - 988:9 1018:15, 1018:17, efforts [4] - 795:8, Enbridge [21] - 828:1, 918:22 drain [4] - 864:7, 1022:21 795:17, 838:17, 841:5, 842:5, 842:7, **During** [2] - 791:25, 874:11, 905:10, easier [3] - 887:14, 955:18 842:14, 842:19, 907:23 951:21, 962:11 958:23 eight [5] - 815:22, 843:5, 843:8, during [18] - 792:12, Drain [3] - 1023:23, easily [1] - 807:22 835:19. 843:12. 843:12, 843:18, 813:14, 823:14, 1023:25, 1024:10 east [14] - 786:23, 871:10, 931:5 844:22, 845:5, 835:14, 856:21, 788:2, 801:9, drainage [10] - 929:15, eighth [2] - 905:24, 845:7, 853:3, 870:3, 857:14, 872:24, 929:16, 929:17, 815:20, 909:1, 985:7 871:10, 874:23, 892:12, 892:22, 930:25, 939:3, 917:11, 924:19, **EIS** [2] - 939:19, 879:18, 880:12, 892:23, 903:25, 924:22, 925:22, 939:15, 940:3, 939:22 882:17, 882:25 907:20, 931:16, 941:1, 1024:11, 946:23, 953:11, encounter [1] - 823:17 either [5] - 802:21, 932:19, 934:14, 1024:14 985:9. 985:10 803:2, 821:3, encountered [3] -938:14, 938:15, Drainage [2] - 775:14, East [4] - 766:7, 894:25, 952:21 784:7, 795:13, 978:21 1024:1 766:9, 766:11, elaborate [3] - 891:20, 919:12 **DUSTY** [1] - 765:10 drainages [1] - 932:21 777:13 908:23, 1023:1 encouraged [1] -Dusty [1] - 960:5 drains [4] - 905:2, eastern [2] - 939:4, elapsed [1] - 868:20 905:8 duties [1] - 1003:20 956:22, 965:10, 946:17 elected [3] - 898:23, end [22] - 793:10, **Dylla** [1] - 776:20 1024:2 easy [4] - 810:23, 898:24, 899:6 831:15, 834:1, dramatically [1] -948:9, 948:11, electric [2] - 908:1, 861:1, 879:1, Ε 1015:14 833:3 888:12, 915:24, 951:4 draw [5] - 800:6, eaten [1] - 1024:16 Electric [1] - 766:9 938:11, 946:3, 840:23, 840:24, e-mail [7] - 956:3, economic [6] electrical [1] - 1018:15 946:13, 954:24, 779:15, 909:18, 903:4, 1022:14 991:19, 994:5, 963:2, 979:15, **elements** [1] - 963:6 963:9, 976:1, 977:6, drawing [8] - 778:22, 999:21, 999:23, 985:19, 985:20, **Elevation** [1] - 775:14 978:7 783:15, 783:17, 999:24, 1000:1 985:21, 986:1, elevation [2] - 798:14, 783:22, 784:1, e-mails [2] - 870:7, Ed [7] - 778:6, 778:7, 1006:12, 1022:11, 862:18 784:4, 784:6, 791:13 778:21, 826:19, 950:25 1022:16, 1022:23, eligible [1] - 1008:15 drawings [4] - 783:11, 886:24, 943:25, eager [2] - 918:4 1022:24 elk [1] - 1025:21 783:12, 783:13, 944:9 early [5] - 838:21, endanger [2] - 910:8, Ellis [3] - 767:12, edge [2] - 915:21, 784:19 841:22, 854:20, 1016:19 774:4, 994:8 drawn [1] - 816:20 923:16 930:20, 1019:8 endangered [2] -Ellis's [1] - 993:4 dream [1] - 979:20 Edit [1] - 776:11 ease [2] - 911:4, 1017:13, 1021:6 Emerado [1] - 776:18 drew [1] - 784:6 911:14 **Editorial** [1] - 774:25 ended [1] - 943:23 emergency [16] editorial [1] - 865:17 dries [2] - 949:11, eased [1] - 896:11 ends [1] - 946:23 795:16, 795:19,

ENERGY [1] - 765:5 envision [1] - 1021:3 985:25, 1024:12 767:5, 767:5, 767:6, 771:11, 771:11, 15 energy [1] - 848:4 EPA [1] - 1020:12 Eventually [1] -767:6, 767:7, 767:7, 771:12, 771:13, 938:13 767:9, 767:9, 771:14, 771:14, Energy [2] - 774:25, epoxy [4] - 879:10, 767:10, 767:10, 771:15, 771:15, 879:19, 879:23, evidence [31] -776:17 771:17, 771:17, 783:22, 797:3, 767:11, 767:11, 880:1 **engage** [1] - 1014:19 859:2, 859:20, 767:13, 767:13, 771:18, 771:19, engineer [1] - 991:23 equates [1] - 878:11 767:14, 767:14, 771:20, 771:20, 864:20, 877:25, Engineers [3] equipment [4] - 917:5, 889:23, 901:24, 767:15, 767:15, 771:21, 771:22, 917:18, 924:19, 775:24, 1007:8, 902:2, 906:18, 767:17, 767:17, 771:23, 771:23, 1019:9 952:14 771:24, 772:2, 906:25, 919:7, 767:18, 767:18, enjoying [1] - 897:5 equivalent [1] -767:19, 767:19, 772:3, 772:3, 772:4, ENSR [2] - 1018:4, 857:11 919:18, 927:18, 928:2, 936:1, 767:21, 767:21, 772:5, 772:6, 772:6, era [1] - 867:9 1021:5 767:22, 767:22, 772:8, 772:8, 772:9, 957:15, 961:15, error [1] - 958:25 ensure [1] - 1004:14 961:23, 963:8, 767:23, 767:23, 772:9, 772:10, enter [6] - 796:3, Esmond [4] - 945:24, 767:24, 767:24, 772:11, 772:12, 963:13, 963:14, 799:25, 800:3, 947:4, 949:14, 963:17, 964:4, 768:2, 768:3, 768:3, 772:12, 772:13, 952:11 916:2, 919:4, 944:16 768:4, 768:4, 768:6, 772:13, 772:14, 965:6, 965:24, entered [5] - 797:3, especially [2] -772:15, 772:16, 967:5, 968:24, 768:6, 768:7, 768:7, 884:14, 962:3, 874:11, 1018:4 976:9, 980:3, 994:18 768:8, 768:8, 768:9, 772:16, 772:17, 966:14, 967:5 **essence** [1] - 857:13 768:10, 768:11, 772:17, 772:18, evident [2] - 837:13, enters [1] - 825:3 Essentially [1] -768:11, 768:12, 772:18, 772:20, 838:3 entire [15] - 789:20, 1004:25 768:12, 768:13, 772:20, 772:21, evidentiary [1] -806:3, 806:16, essentially [6] -768:14, 768:15, 772:21, 772:22, 988:11 806:17, 807:25, 836:21, 848:19, 768:15, 768:17, 772:22, 772:23, exacerbate [1] -810:5, 830:20, 867:18, 909:11, 768:17, 768:18, 773:2, 773:3, 773:3, 926:12 842:12, 846:6, 918:16, 944:20 768:19, 768:20, 773:4, 773:4, 773:5, exact [10] - 787:4, 866:16, 874:24, establish [1] - 1005:1 768:20, 768:22, 773:5, 773:6, 773:7, 809:6, 815:18, 875:2, 880:10, established [1] -768:22, 768:23. 773:8. 773:8. 773:9. 820:5, 875:22, 936:8, 952:15 828:15 768:23, 768:24, 773:9, 773:10, 918:15, 931:1, entirely [2] - 790:7, estimate [4] - 845:10, 768:24, 769:2, 773:10, 773:11, 951:14, 951:19, 1023:6 949:3, 957:2, 973:9 769:3, 769:4, 769:5, 773:12, 773:13, 975:7 entirety [1] - 888:9 estimated [2] -769:6, 769:7, 769:7, 773:13, 773:14, exactly [9] - 807:11, entities [1] - 898:17 850:19, 932:10 769:9, 769:9, 773:14, 773:15, 819:13, 845:7, entitled [3] - 766:13, estimates [2] - 818:10, 769:10, 769:10, 773:15, 773:16, 845:13, 857:3, 905:19, 1027:10 818:12 769:11, 769:11, 773:17, 773:18, 865:13, 891:5, entity [1] - 1006:17 estimating [1] - 985:6 769:12, 769:13, 773:18, 773:19, 930:2, 931:1 environment [13] estimation [2] -769:14, 769:14, 773:19, 773:20, examination [10] -804:21, 805:1, 812:24, 985:8 769:15, 769:15, 773:20, 773:21, 785:19, 791:8, 805:3, 805:7, et [6] - 794:9, 817:14, 769:16, 769:16, 773:21, 773:23, 796:9, 835:4, 888:5, 909:17, 918:2, 963:9, 1019:10, 769:18, 769:18, 773:23, 773:24, 890:9, 907:2, 936:2, 929:8, 930:12, 1020:12, 1020:20 769:20, 769:20, 773:24 971:1, 980:4 933:5, 934:18, etc [1] - 778:8 769:22, 769:22, examine [1] - 1002:9 **EXAMINATION** [33] -940:17, 940:20, **Europe** [1] - 866:3 **examined** [1] - 990:6 769:23, 770:2, 780:15, 786:8, 957:21 European [1] - 866:7 770:3, 770:3, 770:4, **Examiner** [1] - 812:15 791:10, 796:10, Environment [2] evaluate [7] - 781:15, 770:5, 770:6, 770:6, example [22] - 790:16, 817:9, 819:2, 776:17, 817:12 808:10, 813:17, 770:8, 770:8, 770:9, 816:25, 832:23, 822:20, 835:6, environmental [13] -932:17, 1005:10, 770:9, 770:10, 833:10, 833:23, 847:19, 856:1, 794:24, 891:9, 1016:14, 1016:25 770:10, 770:12, 834:3, 834:5, 858:8, 878:19, 929:6, 929:10, evaluation [9] - 788:1, 770:12, 770:13, 837:23, 839:15, 882:1. 890:20. 929:12, 929:22, 793:14, 878:8, 770:13, 770:15, 841:19, 851:18, 907:16, 919:22, 936:12, 941:23, 930:10, 934:1, 770:15, 770:16, 854:14, 855:14, 922:21, 936:6, 942:25, 1016:12, 934:3, 936:25, 770:17, 770:18, 862:18, 867:21, 938:4, 941:20, 1017:4, 1017:5, 937:11, 963:4 770:18, 770:20, 867:22, 868:10, 971:2, 971:20, 1018:5 evasive [1] - 1016:20 770:20, 770:21, 878:2, 881:1, 980:9, 995:3, 998:8, Environmental [11] evening [1] - 1026:13 770:21, 770:22, 930:18, 1008:18 1000:10, 1003:5, 794:17, 802:4, event [5] - 785:4, 770:22, 770:23, **examples** [1] - 863:19 1009:14, 1012:3, 802:18, 913:14, 878:14, 881:5, 771:2, 771:3, 771:3, excavate [1] - 851:18 1014:13, 1016:4, 916:1, 921:1, 981:14, 1026:11 771:4, 771:5, 771:6, excavation [2] - 875:6, 1019:3, 1022:3 922:12, 933:14, events [1] - 946:10 771:6, 771:7, 771:7, 876:4 Examination [227] -939:19, 1016:13, eventually [5] - 943:3, 771:9, 771:9, Except [2] - 848:22, 767:3, 767:4, 767:4, 1020:13 984:4, 984:10, 771:10, 771:10,

916:7 880:12, 882:10, experience [14] -865:8 fairly [5] - 829:2, 16 except [7] - 884:18, 882:12, 919:12, 781:4, 781:5, 818:2, extra [5] - 793:24, 838:3, 851:17, 884:20, 916:8, 934:25, 939:9, 820:16, 820:22, 946:7, 946:8, 947:19 994:22, 994:23 944:18, 944:23, fairness [1] - 963:7 957:9, 966:13, 821:20, 837:23, extremely [3] - 822:3, 967:4, 968:24 945:7. 966:8. 966:9. 852:3, 882:16, 957:4, 972:11 faith [2] - 947:12, **exception** [1] - 973:4 967:13, 967:17, 882:20, 882:23, Exxon [19] - 777:9, 970:23 968:11, 969:3, 882:24, 882:25, exchange [3] -777:10, 777:11, fall [4] - 829:18, 897:21, 998:22, 969:7, 969:24, 1024:9 827:12, 835:15, 893:18, 940:12, 970:2, 983:12 experienced [2] -998:23 835:17, 835:22, 978:11 exhibits [17] - 784:14, 817:21, 930:15 836:1, 836:6, 836:9, exclusively [1] familiar [15] - 841:12, 827:14, 831:5, 874:15 expert [9] - 800:7, 836:11, 849:18, 872:9, 872:14, 831:7, 831:12, Excuse [4] - 790:19, 803:22, 814:6, 856:21, 857:5, 872:18, 882:3, 831:23, 868:6, 838:6, 838:10, 814:12, 879:20, 857:12, 857:15, 929:20, 931:9, 873:6, 884:14, 937:16, 937:17, 857:17, 857:23 987:21 938:18, 949:9, 906:16, 906:18, excuse [8] - 781:1, 937:18, 937:20 eyes [1] - 991:14 1002:8, 1012:19, 919:3, 936:19, expertise [2] - 869:22, 844:10, 845:11, 1017:16, 1023:18, 962:13, 964:18, 850:22, 852:25, 931:20 F 1023:23, 1024:5 970:8, 980:2 experts [2] - 929:9, 874:6, 946:1, 948:22 familiarity [1] - 938:19 **Exhibits** [36] - 774:1, 937:21 excused [21] - 826:11, family [5] - 886:14, face [1] - 832:19 774:20, 775:1, explain [8] - 782:23, 826:13, 885:1, 891:21, 895:2, **FACILITY** [1] - 765:5 775:8, 776:1, 777:1, 786:12, 788:15, 900:24, 901:2, 914:19, 945:17 facility [3] - 793:21, 777:13, 777:15, 911:24, 912:1, 807:10, 814:18, far [35] - 798:17, 833:19, 916:7 926:17, 926:18, 777:18, 777:20, 853:22, 977:3, 802:21, 813:24, fact [10] - 845:4, 778:1, 778:3, 778:6, 1017:20 943:10, 943:13, 817:16, 825:6, 869:15, 880:20, 778:9, 778:12, explained [2] -974:1, 974:12, 825:7, 828:6, 841:9, 897:24, 900:12, 778:14, 778:17, 986:6, 986:10, 844:23, 845:19 858:25, 871:12, 921:20, 924:3, 778:20, 778:24, 1001:5, 1001:9, explains [1] - 994:5 872:22, 879:15, 932:5, 1005:14, 779:1, 779:6, 779:8, 1015:20, 1015:22, explanation [2] -880:5, 881:2, 1018:18 779:11, 784:18, 1025:20, 1026:3 898:7, 1004:20 882:19, 910:9, factor [3] - 825:18, 786:4, 831:25, Executive [1] - 776:11 910:19, 915:24, exploration [1] -850:12, 868:4 906:24, 919:17, **executive** [1] - 863:3 1016:17 922:24, 923:16, factors [4] - 867:11, 935:11, 935:25, Exh [1] - 774:2 930:3. 936:16. explosion [3] -869:19, 869:20, 960:10, 961:14, 970:8, 972:12, Exhibit [44] - 782:4, 877:15, 884:19, 1024:17 961:25, 962:1, 973:6, 985:4, 782:10, 783:25, 932:23 facts [2] - 884:4, 962:2, 979:24 784:10, 785:1, 1000:2, 1001:25, **Explosion** [1] - 776:8 exist [4] - 802:11, 884:11 1009:4, 1010:4, 785:9, 785:23, explosions [2] -803:9, 803:10, Fahrenheit [4] -1013:20, 1019:13, 786:10. 791:12. 854:22, 859:13 948:20, 949:7, 803:18 1022:22, 1026:7 796:12, 798:2, exposed [1] - 790:17 971:7, 971:11 exists [1] - 960:6 Fargo [2] - 775:23, 798:6, 801:18, express [1] - 845:6 exit [2] - 984:6, 984:10 fail [1] - 912:24 775:25 801:19, 830:20, expressed [16] failed [4] - 988:16, exits [3] - 977:25, Farm [2] - 775:11, 840:10, 840:16, 842:20, 844:7, 992:4, 992:8, 995:13 1007:8 851:23, 852:4, 844:11, 845:1, failing [2] - 899:19, **Expand** [1] - 777:8 farm [22] - 775:23, 857:8, 868:9, 845:14, 845:21, expansion [2] - 977:8, 899:20 868:11, 871:2, 903:22, 903:24, 847:3, 847:6, failure [8] - 811:23, 977:10 879:12, 879:20, 906:10, 908:10, 847:10, 848:24, 812:6, 863:22, expect [15] - 833:21, 879:21, 880:5, 908:11, 908:13, 865:15, 886:12, 866:7, 868:16, 834:8, 841:22, 880:11, 880:14, 915:8, 915:12, 982:3, 983:4, 872:8, 912:25, 844:11, 844:23, 882:8, 902:5, 919:2, 917:2, 917:9, 1020:5, 1020:7 934:10 939:25, 960:3, 856:20, 861:15, 917:19, 920:20, expressing [1] failures [5] - 856:10, 960:6, 969:14, 861:25, 869:22, 923:1, 923:5, 923:7, 847:12 864:23, 865:7, 876:3, 880:25, 923:15, 938:21, 977:2, 985:15, extend [1] - 812:25 871:10, 874:16 882:23, 887:20, 994:12, 995:7, 952:16, 978:2, **extension** [1] - 947:22 fair [13] - 789:6, 998:10 900:15, 951:6 985:6, 992:14 extensive [4] - 818:2, 831:18, 837:1, exhibit [33] - 797:4, expectation [7] farmed [3] - 907:18, 931:17, 931:19, 837:4, 837:6, 842:3, 867:5, 907:20, 957:12 799:3, 800:25, 962:17 846:25, 856:16, 872:15, 874:7, 806:9, 816:17, farmer [3] - 904:13, extent [7] - 805:10, 874:10, 874:13, 860:9, 886:16, 817:4, 827:15, 905:9, 918:1 809:18, 844:22, 899:24, 922:11, 828:10, 828:18, 877:22 Farmer [1] - 775:22 879:16, 879:25, 964:18, 1001:14 expeditiously [1] -831:1, 840:14, farmers [3] - 948:16, 884:4, 937:11 Fair [1] - 860:11 1001:19 849:3, 862:4, 868:8, 955:24, 978:1 external [2] - 864:24,

farming [5] - 905:9. fertilizer [1] - 914:4 finally [2] - 851:9, 1019:9, 1020:11, FOR [1] - 765:4 17 950:4 907:21, 909:23 Fertilizers [1] - 822:13 1020:21 foray [1] - 836:14 farmstead [1] - 985:11 few [25] - 810:22, financial [2] - 963:25, fish [5] - 1017:7, forced [1] - 979:7 1024:16, 1025:1, fast [1] - 895:3 847:21, 852:12, 976:13 forecast [4] - 833:22, findings [1] - 803:24 1025:2 faster [2] - 949:11, 858:7, 866:14, 836:19, 862:25, 878:18, 885:18, fine [27] - 819:5, fisherman [1] - 1025:6 949:13 865:23 Fisherman's [1] -885:20, 888:11, 819:7, 819:11, father [1] - 953:1 foreign [5] - 898:22, 888:16, 897:3, 1024:15 830:25, 881:12, 951:5, 977:15, fear [1] - 1015:14 899:13, 901:19, 885:9, 886:8, fishery [1] - 940:10 features [3] - 802:16, 982:9, 982:10 902:24, 911:7, forever [2] - 892:1, 886:11, 888:13, fishing [2] - 940:11, 813:3, 821:17 February [1] - 932:12 912:8, 918:5, 963:17, 966:13, 1024:22 954:10 922:10, 923:19, 967:5, 974:3, Fishing [1] - 940:11 forge [1] - 974:14 federal [31] - 981:16, 925:21, 930:21, 976:21, 980:5, 984:22, 1003:24, fit [4] - 808:18, 904:12, forget [1] - 948:22 954:13, 962:18, 987:11, 989:9, 904:16, 1024:1 1004:3, 1004:10, forgot [2] - 921:20, 964:11, 988:23 991:1, 991:8, 1004:11, 1004:12, five [6] - 866:17, 935:14 field [10] - 892:19, 991:11, 996:25, 1004:13, 1004:25, 887:19, 913:1, forgotten [1] -904:1, 904:2, 1011:2, 1013:3, 945:21, 981:7, 1005:5, 1005:9, 1018:21 913:24, 915:18, 1025:24 1005:14, 1005:17, 1021:4 form [1] - 817:4 917:2, 917:5, 946:3, Fine [1] - 819:14 flags [1] - 1020:24 1005:21, 1006:10, formations [1] -950:20, 950:21 Fined [1] - 776:10 1006:14, 1006:19, flange [2] - 878:23, 812:25 fifth [2] - 981:3, 981:8 1006:20, 1006:21, finger [2] - 898:24, 878:25 forms [1] - 963:25 fight [5] - 992:5, 898:25 1006:23, 1006:25, flatter [1] - 874:9 Fort [1] - 855:11 995:22, 995:25, fingertips [1] - 823:24 1007:2, 1009:20, flew [1] - 864:5 forte [2] - 861:23, 996:13, 996:20 1011:17, 1011:18, fire [1] - 910:8 flip [1] - 853:16 861:25 fighting [1] - 981:2 1012:11, 1012:12, **Fire** [5] - 841:4, 841:8, floating [1] - 853:8 forth [10] - 811:13, 1014:16, 1018:1, figure [17] - 787:4, 841:23, 879:17, flood [1] - 932:19 832:6, 860:25, 1020:20 790:2, 796:13, 907:7 flooded [2] - 938:16, 880:12, 880:14, 796:19, 796:23, fired [2] - 869:16, Federal [7] - 894:14, 984:4 928:20, 949:19, 797:20, 800:6, 897:20, 899:15, 888:9 floor [1] - 947:4 964:1, 968:22, 800:9, 800:18, 954:23, 954:25, fires [1] - 896:9 flow [20] - 777:21, 970:19 958:13, 958:19 811:14, 811:19, firm [2] - 930:10, fortunate [1] - 954:22 801:12, 813:10, 816:20, 862:20, federally [1] - 899:6 942:19 forward [5] - 834:8, 851:21, 853:11, fee [2] - 979:12, 872:4, 872:6, First [3] - 779:22, 862:6, 862:7, 862:9, 865:23, 866:15, 962:17, 978:12 980:19 945:10, 979:24 862:14, 862:15, 866:21, 960:14 Figure [10] - 779:21, feeder [1] - 978:9 first [42] - 783:15, 873:15, 873:16, forward-looking [1] -797:16, 797:17, feedlots [1] - 953:13 783:16, 783:17, 873:18, 930:16, 865:23 797:20, 797:21, fees [2] - 979:14, 793:18, 798:13, 930:21, 931:16, Foster [8] - 930:24, 798:2, 800:7, 992:2 831:4, 836:14, 935:4, 938:13, 935:20, 938:7, 800:24, 801:8 feet [17] - 815:23, 838:20, 847:22, 938:17 938:8, 938:9, figured [7] - 861:13, 819:22, 915:20, 855:15, 864:24, flowed [1] - 941:2 938:24, 940:2, 951:13, 955:3, 916:15, 916:20, 867:7, 867:25, flowers [1] - 862:7 940:24 958:23, 965:20, 923:16, 949:3, 868:1, 868:21, flows [4] - 905:3, foul [1] - 869:13 983:2, 985:3 951:14, 952:8, 871:6, 873:4, 938:11, 977:24, foundation [3] figures [4] - 787:22, 879:17, 886:3, 952:13, 953:15, 984:9 854:24, 884:20, 955:6, 955:9, 963:25 953:17, 953:21, 886:21, 892:3, foggiest [1] - 949:23 919:12 figuring [1] - 998:20 892:23, 893:14, 953:25, 956:15, folks [7] - 898:7, foundational [2] file [6] - 781:13, 965:6, 979:11 893:15, 900:5, 898:14, 946:10, 831:4, 1009:9 830:17, 919:25, fellow [2] - 871:2, 900:15, 909:11, 950:2, 955:18, Four [1] - 778:23 977:13, 989:2, 915:21, 916:6, 950:5 four [18] - 831:5, 964:25, 965:14 992:10 921:14, 928:24, felt [10] - 806:3, **follow** [2] - 982:16, 831:7, 843:9, filed [10] - 870:5, 946:25, 947:2, 810:11, 887:17, 1016:16 843:16, 844:14, 888:4, 905:18, 949:22, 962:10, 891:2, 965:4, 973:4, following [5] - 799:25, 844:16, 866:17, 920:4, 944:6, 976:12, 977:5, 991:23, 993:25, 895:24, 943:22, 887:19, 904:5, 975:16, 975:17, 982:11, 991:15, 996:20, 998:17 992:2, 1007:16 909:11, 913:1, 982:15, 987:3 1002:6, 1009:13, fence [4] - 910:19, follows [2] - 929:14, 915:14, 917:6, files [1] - 830:14 1009:19 956:21, 978:2 995:23 921:15, 921:18, filings [1] - 779:13 Fischer [1] - 776:24 fenced [2] - 957:25, food [1] - 912:11 956:22, 965:14, Fish [8] - 1007:7, final [3] - 865:25, 958:1 foot [2] - 916:16, 981:7 1006:18, 1016:17 1016:9, 1016:10, fences [1] - 978:21 Fourche [2] - 944:11, 916:18 fencing [1] - 978:22 Finally [1] - 991:19 1017:17, 1018:8, 944:13 foot's [1] - 923:17

fourth [1] - 910:15 fowl [2] - 940:12, 958:16 frame [3] - 849:13, 857:14, 933:17 Frank [1] - 776:6 Fred [1] - 982:4 free [2] - 928:23, 991:7 Frequency [2] - 842:5, 845:24 frequency [16] -833:23, 836:8, 840:17, 840:25, 846:12, 847:1, 847:9, 847:13, 860:23, 880:6, 880:7, 880:9, 931:18, 931:22, 932:25, 933:21 freshen [1] - 1026:13 friends [1] - 900:7 front [11] - 783:13, 901:14, 952:5, 960:3, 963:1, 965:18, 965:22, 967:4, 967:7, 967:9, 975:22 froze [1] - 893:23 frustrated [2] - 832:20 frustration [2] - 983:4, 983:5 Ft [1] - 1013:12 Fuel [1] - 776:8 fuel [5] - 981:4, 981:5, 981:19, 981:23, 981:24 Fueling [1] - 776:16 full [4] - 806:15, 846:7, 915:15, 918:20 Fulton [1] - 982:4 fun [3] - 945:12, 945:13, 969:20 function [4] - 820:23, 856:7. 867:6. 867:7 functions [2] - 836:4, 898:9 Fund [1] - 781:8 funded [1] - 1004:12 funding [1] - 1012:11 funny [1] - 984:18 fusion [4] - 879:9, 879:19, 879:22, 879:25 Future [1] - 776:17 future [3] - 833:20, 977:8, 977:10

G

gain [1] - 979:19 gallon [2] - 852:9, 878:2 gallons [11] - 849:16, 850:6, 851:10, 857:5, 857:11, 857:13, 864:2, 878:11, 882:14, 932:14 Game [4] - 1016:9, 1016:10, 1017:17, 1018:8

game [8] - 957:5, 979:15, 984:20, 985:19, 985:20, 985:21, 986:1, 996:22

garage [8] - 913:22, 914:6, 914:12, 914:17, 914:18, 915:2, 915:4, 915:19

GARY [1] - 765:11 gas [22] - 834:4, 839:12, 848:4, 848:5, 848:14, 849:5, 854:17, 859:10, 859:12, 859:15, 859:18, 861:8, 861:10, 861:12, 861:16, 865:6, 877:15, 877:20, 884:19, 914:5

Gas [7] - 775:22, 776:3, 776:11, 776:12, 776:14. 848:15, 1018:14 gathered [1] - 832:14

geese [2] - 984:24, 985:3

Gehring [1] - 776:20 Gene [2] - 769:6, 778:4

General [2] - 777:12, 1002:14

general [11] - 781:12, 793:10, 809:8, 810:6, 814:3, 814:5, 847:5, 848:22, 863:14, 867:4, 941:22

General's [1] - 766:7 generally [5] - 785:7, 817:4, 828:23, 942:10, 1004:19

gentleman [2] -956:17, 999:22 gentlemen [2] -883:19, 1001:11

Geologic [5] - 792:9, 792:14, 792:24, 793:4, 811:2

geologic [14] - 781:15, 781:18, 781:19, 783:5, 783:6, 785:14, 792:11, 793:11, 793:13, 811:2, 812:23,

geological [4] - 790:4, 802:18, 823:4, 824:4

812:25, 821:17

Geological [15] -774:21, 775:6, 781:21, 781:23, 792:15, 797:2, 797:13, 802:6, 802:15, 803:4, 803:25, 805:14, 809:9, 816:13, 817:20

geologically [3] -793:14, 804:2, 826:2

geologist [3] - 781:2, 803:7, 823:7 geologists [1] - 957:1

Geology [2] - 774:17, 805:22

geology [17] - 775:4, 775:4, 775:5, 780:25, 781:17, 793:20, 805:1, 805:2, 805:11, 807:21, 808:11, 809:15, 810:6, 820:19, 821:16,

825:16 George [12] - 770:2, 776:20, 778:9, 778:10, 886:21, 886:22, 926:19,

927:1, 927:3, 928:3, 934:24, 935:8

Gerdes [2] - 765:15, 765:16

GERDES [1] - 994:3 Giedd [13] - 766:6, 770:12, 770:15, 771:5, 771:9, 771:11, 771:13, 771:19, 771:22, 772:2, 1002:7, 1002:12, 1002:14

GIEDD [7] - 886:11, 1002:13, 1003:6, 1009:9, 1016:5, 1023:15, 1026:4

given [13] - 783:23, 798:4, 821:9, 840:19, 847:4, 848:10, 873:19, 883:20, 959:20, 977:13, 993:19, 998:14, 1004:13 Given [2] - 868:23, 873:19 glad [1] - 887:16

Glenn [1] - 776:20 global [1] - 824:1 glorious [1] - 990:5 goal [3] - 1016:24,

glare [1] - 885:4

1016:25 gold [1] - 1016:16

Goldie [1] - 914:18 Goodman [1] - 770:17 Goodness [1] -1014:6

gosh [1] - 957:16 GOSS [3] - 943:17, 944:4, 944:9

Goss [29] - 770:5, 778:20, 778:21, 886:24, 943:14, 943:16, 943:25, 944:1, 944:6, 944:9, 944:23, 945:3, 945:7, 953:1, 960:15, 961:14,

961:17, 966:12, 966:15, 967:3, 967:16, 968:10, 971:4, 971:22, 973:11, 973:25, 974:2, 974:10

Government [11] -891:2. 894:12. 894:14, 897:20, 899:15, 954:24, 954:25, 958:14, 958:19, 1014:20

government [1] -856:19

Government-to-Government [1] -1014:20

GPS [1] - 823:25 gracious [1] - 886:23 grain [2] - 893:17, 946:8

grandpa [2] - 952:15, 952:23

Grandpa [5] - 952:25, 953:1, 955:5, 955:9 grandparents' [4] -

915:8, 915:12, 920:20, 923:15 Grandpas [1] - 957:1418 grandpas [1] - 957:22 grant [2] - 908:5, 917:24 granted [1] - 942:17 graph [5] - 786:22, 788:9, 796:13, 797:17, 848:19 graphic [2] - 786:12, 828:24 grass [30] - 905:22, 948:11, 952:19,

952:20, 953:4, 956:20, 956:24, 956:25, 957:15, 958:1, 958:5, 958:7, 958:10, 958:19, 958:23, 965:11, 970:18, 973:9,

973:12, 973:13, 973:16, 973:18,

973:19, 978:4, 978:10, 978:14

grasses [4] - 973:7, 973:16, 973:18, 978:5

grassland [3] -952:24, 973:1, 973:3

grasslands [3] -905:16, 972:25, 1019:24

gravel [5] - 784:24, 785:3, 813:5, 819:18, 946:8

gravels [2] - 788:17, 813:12

gravitational [1] -862:19

Gray [12] - 767:16, 773:22, 774:5, 774:5, 875:16, 904:11, 950:1, 953:23, 961:22, 965:3, 978:23, 991:23

Gray's [1] - 978:20 graze [2] - 978:10,

978:16 great [6] - 863:16,

864:11, 898:6, 909:25, 918:3, 974:10

greater [5] - 812:20, 820:15, 904:25, 931:12

green [2] - 800:11, 893:21

greenhouse [1] -839:12

Greenhouse [3] -

GIS [1] - 824:6

776:11, 776:12, 874:6, 874:18, hand [9] - 784:1, Hanson [4] - 808:23, 900:6, 917:3, 19 776:13 875:22, 875:23, 800:18, 880:5, 870:17, 896:22, 931:17, 942:2, grew [3] - 938:20, 876:10, 877:21, 906:15, 952:17, 954:19 947:13, 947:16, 879:11, 881:3, 938:21, 957:6 952:20, 956:18, happiness [1] -956:6, 956:24, 881:16, 882:7. 966:12, 968:6. grind [1] - 884:1 993:23, 998:20 979:21 Gromlin [1] - 855:11 883:20, 887:6, Hand [1] - 962:9 hard [3] - 885:3, 997:15, 1026:6 894:21, 896:20, Handbook [1] hearing [19] - 780:1, Grote [3] - 769:4, 912:11, 921:24 901:19, 901:25, 1024:15 805:23, 826:18, 778:24, 778:25 hardcopy [1] - 969:1 904:21, 905:23, 828:12, 859:20, handbook [3] -Groton [1] - 956:1 Hardisty [1] - 863:21 Ground [1] - 821:23 906:2, 906:7, 885:14, 895:11, 1024:22, 1024:25, harmless [1] - 992:9 906:11, 907:4, 897:24, 902:25, ground [46] - 774:14, 1025:6 Harold [1] - 915:1 911:8, 911:16, 904:11, 943:12, handed [10] - 787:22, 781:6, 784:23, harvested [1] - 893:18 914:23, 920:7, 947:14, 948:1, 796:13, 796:25, 785:10, 786:18, harvesting [1] -921:20, 924:9, 965:17, 965:24, 889:11, 902:25, 786:21, 796:3, 892:13 928:24, 929:10, 968:7, 988:8, 950:11, 959:25, 796:5, 808:8, Hastings [6] - 768:16, 940:1, 946:13, 988:11, 990:2 815:19, 821:22, 960:4, 969:10, 768:19, 777:15, 951:20, 959:7, Hearing [3] - 812:15, 851:20, 852:6, 1021:4 777:16, 777:18, 898:10, 980:2 965:8, 972:11, handle [4] - 888:11, 852:24, 853:8, 777:19 972:12, 987:19, hearings [3] - 895:25, 853:11, 861:19, 1016:19, 1016:20, hauling [1] - 946:8 988:10, 988:20, 896:10, 980:25 1018:4 hay [1] - 949:14 861:20, 861:22, 988:23, 989:11, heart [2] - 906:1, 867:25, 868:2, handled [1] - 1020:25 hazardous [18] -990:17, 990:22, 945:16 881:10, 893:1, handling [1] - 1014:8 837:17, 840:17, 990:24, 996:12, hearts [1] - 917:22 906:10, 916:7, hands [1] - 906:4 848:5, 848:13, 996:17, 997:7, heat [4] - 893:8, 918:1, 933:17, handwriting [3] -848:18, 849:6, 1015:16, 1023:9, 947:19, 949:9, 949:1, 949:2, 959:12, 961:1, 961:4 849:10. 849:17. 1023:10, 1026:9 949:10 950:14, 951:14, handwritten [1] -853:19, 854:1, guessing [1] - 870:13 952:15, 953:8, heavier [1] - 979:10 778:22 857:13, 858:11, guesstimate [1] -954:1, 954:22, heavy [1] - 904:23 handy [1] - 987:14 858:12, 858:13, 887:23 957:9, 958:11, heck [2] - 957:6, 957:7 Hannan [3] - 773:7, 859:10, 863:3, Guide [2] - 775:18, 964:16, 965:1, Hecla [1] - 1019:21 779:13, 779:18 865:5, 875:2 775:19 965:9, 971:15, Heidi [2] - 768:2, **HANSON** [61] hazards [1] - 942:25 Gulf [1] - 777:8 983:24, 1010:4, 791:25 765:11, 808:24, HCA [1] - 774:14 1010:11, 1010:14 gunshot [4] - 850:6, heightened [1] - 813:1 809:1, 809:8, HCAs [1] - 852:8 850:21, 880:22, group [1] - 929:1 809:16, 809:22, head [9] - 873:11, held [5] - 766:13, 881:4 groups [2] - 898:16, 809:25, 810:14, 894:18, 924:18, 931:10, 939:2, gunshots [1] - 869:16 1018:3 810:17, 811:4, 980:25, 992:9 939:14, 958:12, Growers [3] - 914:1, guy [1] - 949:21 hell [4] - 995:22, 811:10, 811:17, 984:10, 991:23, guys [14] - 780:10, 914:2, 914:3 812:3, 812:14, 995:25, 996:13, 1014:6, 1016:11 888:20, 889:11, grows [1] - 971:16 996:20 870:18, 870:21, head) [1] - 898:3 899:1, 899:16, Growth [1] - 775:19 870:25, 871:12, Hello [1] - 924:17 headed [1] - 966:8 899:22, 900:14, guarantee [1] - 953:19 871:15, 871:18, help [15] - 787:23, heading [2] - 842:16, 900:15, 900:20, quess [91] - 796:6, 871:21, 871:23, 832:15, 865:9, 924:23 952:1, 976:1, 806:25, 810:23, 872:17, 872:21, headquarter [1] -894:20, 898:24, 988:23, 1001:4, 811:22, 813:11, 873:3, 873:10, 899:24, 907:5, 836:4 1021:22 816:11, 821:3, 873:12, 873:23, 907:10, 912:13, headquarters [1] -827:5, 827:8, 828:6, 874:4, 874:12, 913:6, 915:18, 836:3 Н 828:8, 828:11, 874:14, 874:18, 944:4, 951:23, Health [2] - 776:4, 830:4, 831:6, 832:3, 875:4, 875:14, 952:1, 989:13 842:8 832:7, 832:19, 875:19, 875:24, helped [1] - 911:23 health [6] - 805:7, habitats [1] - 1017:13 833:16, 834:9, 876:6, 876:12, hereby [1] - 780:4 805:8, 910:5, 910:6, hairline [1] - 951:10 834:15, 834:16, 876:18, 896:24, HEREBY [1] - 1027:8 910:7, 922:4 half [15] - 857:13, 836:18, 836:23, 897:2, 897:5, 898:4, Heritage [3] - 1017:9, hear [13] - 794:1, 916:20, 917:9, 839:23, 840:3, 899:2, 899:5, 899:8, 1019:16, 1019:21 819:25, 882:3, 925:23, 937:6, 844:4, 846:18, 899:12, 899:18, Hi [6] - 812:17, 889:1, 889:2, 896:7, 939:10, 947:4, 848:21, 850:11, 900:2, 900:11, 812:18, 894:7, 896:12, 902:13, 952:16, 952:18, 855:20, 856:8, 900:19, 900:22, 894:8, 895:20, 910:12, 931:21, 955:16, 972:13, 861:25, 862:3, 925:14, 925:24, 924:16 931:25, 963:8, 982:8 974:23, 1002:1 862:13, 862:15, 926:3, 926:5, 926:7, high [21] - 788:8, heard [17] - 794:3, Half [1] - 972:24 863:13, 866:15, 926:10, 952:2, 804:2, 804:10, 803:19, 879:10, Halverson [1] - 776:23 872:14, 873:17, 1025:18, 1026:19 812:22, 813:9, 887:1, 896:11, hampered [1] - 965:25

844:24, 851:1, 769:19, 769:21, 767:22, 767:24, 922:8, 926:11 hydraulically [3] -20 903:17, 930:14, 776:21, 777:2, 768:3, 768:7, 768:8, hoping [3] - 789:13, 785:11, 904:12, 930:16, 931:14, 777:3, 778:12, 768:11, 768:12, 864:19, 865:18 904:16 778:13, 778:14, 768:18, 768:20, horse [1] - 974:4 931:16, 932:20, hydro [4] - 781:15, 778:15. 778:17. 768:23, 769:3. 935:4. 938:14. 781:17, 781:19, Hoskinson [5] -952:14, 953:8, 778:18, 886:14, 769:5, 769:7, 770:11, 1002:7, 785:14 954:1, 955:14, 888:19, 889:8, 769:10, 769:12, 1002:19, 1003:8, Hydrocarbon [1] -983:24, 1016:19 889:25, 890:7, 769:15, 769:16, 1015:14 774:23 High [2] - 777:10, 890:13, 890:17, 769:18, 769:20, hosted [1] - 891:1 hydrocarbon [1] -890:22, 892:21, 769:23, 770:3, 814:16 hot [1] - 909:7 780:4 894:3, 894:6, 894:7, 770:6, 770:8, higher [7] - 833:3, hour [5] - 850:7, hydrogeologic [2] -844:11, 845:20, 895:17, 900:11, 770:10, 770:13, 885:5, 947:4, 792:10, 793:4 900:19, 900:25, 770:16, 770:18, 865:5, 867:1, 893:2, 1002:1, 1026:17 hydrogeological [1] -901:4, 901:9, 902:5, 770:21, 770:23, hours [11] - 821:9, 793:14 903:14, 903:15, 771:4, 771:6, highest [2] - 849:6, 851:9, 851:12, hydrogeology [2] -906:13, 906:24, 771:10, 771:11, 850:25 851:20, 862:5, 808:11, 809:15 907:9, 907:14, 771:14, 771:18, highlighted [1] -862:6, 862:7, 862:9, hypertechnical [1] -771:20, 771:23, 817:11 908:9, 911:1, 862:11, 887:20, 991:10 911:24, 912:2, 772:4, 772:6, 772:7, highly [1] - 815:4 913:1 912:4, 918:11, 772:12, 772:14, highway [3] - 925:21, house [17] - 861:13, ı 918:19, 919:2, 772:16, 772:18, 939:11, 957:19 896:6, 913:24, 919:11, 919:17, 772:21, 773:3, **Highway** [2] - 766:7, 914:11, 914:12, I-29 [1] - 942:12 919:24, 922:15, 773:5, 773:9, 925:25 914:17, 914:18, idea [9] - 809:8, 922:17, 922:20, 773:11, 773:14, hill [2] - 908:25, 914:19, 914:23, 924:13, 925:13, 773:16, 773:19, 892:13, 922:4, 1019:24 914:24, 915:1, 926:15, 939:5, 773:20, 773:24, 947:25, 949:15, Hills [1] - 1019:21 915:3, 956:17, 949:23, 971:14, 796:9, 808:3, 939:8, 939:9, 964:16, 994:1, 999:8 hills [2] - 1019:22, 809:16, 815:16, 991:24, 1000:4 939:25, 945:15 houses [4] - 914:10, 1019:23 ideal [1] - 953:7 **HOFER** [3] - 889:8, 817:12, 855:24, 914:13, 915:13, hindsight [2] - 834:14, 881:22, 890:19, 901:9, 912:4 identification [5] -923:5 836:17 Hofers [1] - 886:21 894:10, 897:18, 782:10, 1008:4, Hired [1] - 1010:8 **Houston** [1] - 827:13 907:13, 922:19, 1009:4, 1009:16, **HOHN** [49] - 784:16, hired [3] - 891:9, Howard [3] - 974:21, 938:3, 971:19, 1009:25 786:3, 796:11, 954:15, 1018:3 986:18, 992:15 998:7, 1002:11, identified [7] - 799:4, 797:8, 799:22, **HP07-001** [3] - 765:4, historic [18] - 973:12, 800:5, 801:17, 1022:1 802:19, 810:10, 1004:14, 1004:17, 780:1, 885:14 Hold [1] - 961:20 824:5, 855:16, 803:14, 803:19, **Hudson** [3] - 772:19, 1005:3, 1005:5, 806:18, 822:19, hold [1] - 805:14 1005:10, 1022:7 779:16, 779:20 1005:8, 1005:9, 822:21, 826:6, holding [2] - 943:12, **identifies** [1] - 965:5 1005:12, 1005:13, **HUGHES** [1] - 1027:3 identify [15] - 783:15, 831:24, 856:2. 960:16 1008:4, 1008:6, human [4] - 805:7, 858:4, 881:23, holds [1] - 849:4 783:16, 784:4, 1008:12, 1008:13, 805:8, 833:11, 882:2, 883:4, 890:5, hole [4] - 850:21, 787:16, 787:19, 1009:22, 1011:18, 854:11 890:21, 894:1, 862:3, 862:8, 911:17 794:24, 812:19, 1012:8, 1012:9, hundreds [1] - 833:8 902:9, 906:23, 823:3, 837:14, holes [3] - 797:23, 1012:15 hung [1] - 902:22 907:14, 907:17, 909:3. 985:25 937:8, 986:16, Historic [11] hunter [1] - 850:3 910:22, 919:15, 1005:6, 1010:2, holler [1] - 953:15 1003:19, 1004:2, hunting [2] - 940:12, 922:20, 922:22, 1011:18, 1012:15 home [20] - 861:9, 1004:3, 1004:21, 984:13 924:8, 927:25, identifying [7] -885:23, 889:13, 1004:22, 1006:14, **Huron** [1] - 927:4 935:23, 938:5, 785:15, 797:25, 895:4, 914:11, 1006:15, 1007:14, hurry [1] - 911:19 941:12, 945:6, 798:16, 800:15, 914:15, 914:19, 1007:21, 1008:9, hurt [1] - 921:19 971:21, 973:22, 813:21, 937:3 914:25, 915:2, 1008:14 husband [13] - 903:14, 980:10, 982:17, **Iles** [2] - 771:5, 792:25 921:19, 922:24, historical [8] - 832:23, 903:15, 916:4, 994:17, 998:9, illustrative [1] -923:1, 944:10, 833:17, 836:20, 916:24, 917:1, 999:20, 1000:7, 816:19 945:16, 965:7, 841:2, 862:24, 918:12, 923:4, 1012:4, 1013:24, 969:21, 977:20, **imaginary** [1] - 951:9 866:22, 1010:2 925:2, 950:16, 1022:4, 1023:8, 978:8. 985:4 imagine [3] - 881:3, Historical [1] -987:10, 990:10, 1025:8 homes [1] - 940:8 893:21, 893:23 1003:10 990:12 Hohn [80] - 766:5, hookup [1] - 908:13 Immediate [1] -**History** [1] - 1003:17 Hutchinson [1] -767:5, 767:7, hoot [1] - 957:23 802:22 hit [2] - 915:10, 953:18 816:25 767:10, 767:11, hope [5] - 900:17, immediate [6] hits [1] - 946:4 hydraulic [2] - 787:8, 767:14, 767:15, 787:13, 795:15, 912:13, 918:9, Hofer [60] - 769:17, 819:11 767:18, 767:19,

803:14, 803:20, 930:19, 930:20 1017:16 874:22, 874:25, 842:21, 843:24, 21 805:8, 933:8 incidences [1] - 871:9 indicates [4] - 789:19, 877:5, 880:15, 844:7, 844:23, immediately [3] incident [24] - 828:2, 842:16, 866:24, 900:12, 905:14, 845:9, 845:11, 911:6, 917:23, 979:10, 993:7, 787:14, 851:13, 828:3, 839:6, 839:7, 867:1 indicating [2] -929:7. 929:24. 1010:25, 1012:8 862:13 839:15, 839:17, intakes [1] - 1018:19 imminent [1] - 815:6 839:19, 840:1, 801:12, 878:23 931:21, 933:24, indication [3] -947:19, 976:13, integrity [4] - 785:16, Impact [10] - 794:17, 843:4, 848:15, 802:4, 802:18, 849:5, 849:25, 850:18, 868:6, 869:8 976:17, 990:3, 813:22, 869:19, 994:7, 994:8, 850:16, 850:20, 875:11 817:12, 913:15, indications [1] -853:2, 854:18, 1000:5, 1008:3, intelligent [2] -916:1, 921:1, 866:10 1017:24, 1019:14, 922:12, 939:19, 866:11, 866:19 858:23, 866:2, individual [7] -866:7, 867:1, 1020:10, 1024:25 1020:13 843:16, 885:7, intend [2] - 946:4, impact [7] - 805:1, 867:24, 868:1, 870:3 informed [1] - 885:20 885:22, 887:3, 989:15 857:24, 930:3. incidents [8] - 846:23, infrastructure [5] intended [5] - 797:23, 887:7, 887:10, 846:24, 848:3, 842:13, 846:6, 930:5, 932:21, 840:15, 884:24, 943:25 934:17, 1005:20 854:2, 854:5, 866:16, 874:24, 964:1, 988:23 individual's [1] impacted [3] - 815:1, 854:21, 856:9, 954:4 875:2 intends [1] - 882:10 822:10, 824:15 867:20 inhabitants [4] individually [1] intention [1] - 887:2 include [11] - 830:13, 804:21, 805:2, impacts [10] - 929:8, 898:10 interconnect [1] -909:18, 910:6 837:18, 841:20, 929:11, 929:25, individuals [2] -816:7 842:12, 846:6, inhibit [2] - 785:2, 930:11, 932:17, 886:2, 887:15 interconnection [1] -858:12, 858:13, 933:5, 940:25, industries [1] - 934:17 813:10 816:22 942:7, 1022:11, 861:8, 861:12, initial [5] - 792:17, Industry [2] - 845:24, interest [2] - 929:5, 874:24, 875:1 1022:18 885:25, 1017:23 880:13 982:7 included [14] - 781:18, impair [1] - 910:5 **injury** [1] - 909:17 industry [6] - 837:10, interested [3] - 872:7, 802:17, 839:11, impermeable [2] input [1] - 1011:20 837:24, 841:6, 942:15, 1021:11 818:14, 818:19 839:12. 842:24. inquire [1] - 793:25 879:18, 883:1, interesting [4] - 871:5, 843:14, 843:16, implemented [2] insert [1] - 810:21 916:10 883:25, 949:16, 846:4, 849:24, 864:14, 1023:11 insight [2] - 865:9, influence [1] -950:1 implementing [1] -856:18, 859:18, 883:20 1021:17 interests [3] - 897:25, 861:9, 866:10 1004:24 insignificant [1] influenced [1] -929:2, 929:4 includes [2] - 841:24, imply [1] - 877:16 804:21 1020:16 interface [2] - 816:7, 861:7 importance [1] insinuating [1] info [1] - 774:16 854:11 including [2] - 875:6, 891:22 inform [1] - 925:7 860:14 interfere [1] - 910:16 1025:1 important [13] inspections [1] -Internet [1] - 888:16 information [76] income [2] - 978:9, 833:14, 836:23, 866:11 774:24, 775:4, internet [6] - 855:10, 978:16 865:21, 891:21, 775:4, 775:5, installation [3] -889:1, 895:25, inconsequential [1] -893:6, 899:21, 813:14, 823:15, 781:20, 781:22, 947:17, 978:20, 833:9 899:22, 912:10, 867:12 789:14, 791:22, 988:2 inconsistencies [1] -929:19, 929:22, 792:1. 792:3. installed [9] - 841:21, intersection [1] -864:13 930:1, 962:4, 979:1 792:13, 792:16, 842:13, 846:6, 788:2 Incorporated [1] impose [1] - 1004:6 793:3, 793:5, 866:13, 867:9, intersects [2] -780:22 impossible [1] -868:14, 874:24, 793:12, 793:21, 789:24, 816:4 increase [1] - 910:13 903:22 794:4, 794:19, 916:10 Intervener [6] -Increase [1] - 776:11 impression [2] -795:5, 804:12, instance [24] - 794:2, 806:21, 826:19, independent [2] -863:10, 866:16 806:2, 806:13, 810:21, 830:15, 826:25, 927:8, 835:24, 841:3 809:13, 809:15, 832:24, 834:1, improved [1] - 837:23 928:11, 944:1 index [1] - 787:5 improvement [2] -810:2, 810:4, 840:20, 844:9, Interveners [12] -Indian [3] - 870:12, 810:11, 818:17, 844:19, 847:5, 837:25, 838:4 860:8, 876:15, 953:2, 957:23 847:7, 852:5, 823:6, 823:14, improvements [1] -884:5, 885:8, indicate [7] - 789:16, 823:20, 823:23, 863:20, 863:22, 864:12 885:22, 887:3, 832:14, 832:17, 814:16, 843:7, 868:21, 870:11, improving [2] -887:7, 887:10, 832:22, 833:6, 871:25, 875:10, 837:21, 837:22 877:5. 966:13. 888:1, 945:11, 970:17, 991:24 833:14, 833:15, 876:1, 877:21, IN [1] - 765:4 966:25, 1001:18 indicated [12] - 802:5, 837:11, 840:4, 879:5, 1010:25, Inaudible [1] -Intervenes [1] -841:2, 847:3, 853:3, 802:6, 835:11, 1011:8, 1021:2 1016:21 775:23 838:13, 852:24, 856:14, 856:15, instances [2] inch [1] - 873:15 intimately [1] - 872:18 856:18, 865:4, 878:8, 884:11, 843:11, 843:19 inches [7] - 850:2, introduce [3] - 889:5, 947:11, 948:25, 866:1, 866:25. Instead [1] - 834:24 850:10, 916:20, 918:19, 944:7 869:25, 870:22, 951:11, 993:10, instead [11] - 810:24, 917:6, 917:7, introduced [2] -

934:24, 945:7 886:10, 929:6, John [11] - 765:13, 791:25, 897:22, 816:1, 821:18, 22 introducing [2] -940:18, 940:19, 769:2, 770:14, 950:9 829:10, 832:8, 926:25, 974:19 940:20, 941:23, 773:12, 778:2, Karachi [1] - 776:5 832:12, 832:13, 832:15, 832:18, 961:23, 963:4, 855:11, 941:14, invasive [1] - 1016:20 Karen [2] - 765:14, 963:18, 973:13, 941:18, 1016:2, 898:11 832:20, 833:7. inventories [1] -978:22, 979:17, 1016:7, 1016:22 karst [11] - 802:1, 833:14, 834:13, 937:18 991:22, 1021:6 835:1, 848:16, Inventory [1] -Johnson [4] - 812:16, 802:4, 802:7, 802:9, issuing [1] - 1003:25 872:4, 897:9, 991:5 802:10, 802:16, 849:24, 850:3, 1020:10 item [2] - 910:4, 853:11, 862:1, JOHNSON [63] -803:5, 803:6, inventory [4] - 934:5, 863:7, 863:10, 910:15 765:10, 812:17, 803:22, 804:13 937:1, 937:12 864:14, 866:15, invest [1] - 955:8 items [4] - 888:12, 812:19, 813:19, karsts [1] - 803:8 868:6, 896:16, 898:12, 909:15, 814:3, 814:10, keep [15] - 808:14, investigate [2] -903:11, 908:25, 959:3 864:19, 865:4, 810:19, 848:2, 842:24, 856:9 911:12, 912:7, itself [12] - 807:22, 865:17, 866:6, 900:8, 916:2, 918:6, investigation [4] -916:25, 917:22, 851:6, 853:4, 866:18, 866:22, 918:22, 918:23, 781:5, 856:11, 918:8, 928:6, 929:5, 853:12, 853:15, 867:6, 867:15, 993:14, 997:22 925:10, 983:11, 934:9, 939:14, 854:7, 880:25, 867:23, 868:11, 985:1, 985:2, investigations [1] -881:2, 893:17, 868:23, 869:3, 990:25, 993:3, 942:5, 945:12, 854:1 945:16, 950:17, 925:20, 1004:22, 869:7, 869:18, 1021:24 investment [4] -950:23, 955:24, 1018:7 869:23, 870:2, keeps [2] - 952:2, 835:22, 955:8, 966:6, 982:8, 984:3, IV [1] - 765:8 870:15, 883:24, 955:11, 955:15 973:20 984:18, 990:22, Iverson [1] - 915:1 885:9, 887:2, Kelli [1] - 771:19 investor [1] - 835:25 991:9, 1005:11, 887:13, 887:25, Kent [4] - 772:5, invited [1] - 1013:10 888:11, 888:15, 1005:24, 1008:12, J 779:8, 779:9, 886:24 involuntary [1] - 832:8 1019:24, 1024:3, 894:7, 894:9, kept [2] - 845:13, involved [19] - 795:7, 1026:13 894:17, 895:7, 964:1 824:6, 828:3, 836:2, Jack [1] - 949:22 Kind [1] - 895:3 895:10, 895:14, key [1] - 801:14 852:6, 852:7, 852:8, Jackson [1] - 775:22 kinds [2] - 795:8, 895:15, 900:10, Keystone [41] -853:4, 880:1, James [27] - 765:18, 926:15, 959:24, 1022:19 774:17, 775:24, 990:23, 1003:25, 768:14, 778:11, 960:2, 960:6, Kingsbury [8] -777:8, 780:2, 1007:3, 1007:22, 778:11, 785:12, 966:12, 967:3, 949:12, 951:8, 785:15, 787:7, 1012:6, 1012:19, 785:13, 787:9, 967:22, 969:1, 951:18, 956:5, 793:23, 804:20, 1012:25, 1017:17, 787:12, 790:17, 975:21, 982:22, 956:10, 973:5, 813:20, 821:9, 1019:10 790:23, 791:3, 983:3, 983:7, 973:15 838:16, 840:21, involvement [4] -799:9, 799:12, 987:12, 988:2, Kirk [8] - 770:14, 841:1, 846:10, 1013:8, 1017:20, 799:19, 816:7, 989:14, 989:24, 1016:2, 1016:6, 846:13, 846:20, 1019:5, 1019:7 816:23, 820:21, 990:14, 1001:14, 1016:7, 1022:5, 848:12, 850:9. involving [3] - 856:9, 905:4, 929:12, 1023:18, 1025:17, 1001:23, 1001:25, 850:11, 850:24, 968:24, 1020:20 929:14, 929:17, 1002:19, 1002:24, 1025:22 859:10, 863:21, iron [1] - 904:13 938:12, 938:13, 1015:13, 1025:22, **kitty** [4] - 892:6, 892:7, 866:18, 873:22, Iroquois [2] - 946:15, 938:17, 939:18, 1026:2 915:22, 915:23 874:1, 874:2, 947:10 1024:10, 1024:13 joined [1] - 993:18 Klimisch [1] - 776:21 875:10, 876:3, irregular [4] - 786:15, Janssen [3] - 773:17, joke [2] - 891:6, **Knadle** [2] - 994:2, 879:15, 880:6, 786:20, 788:12 779:15, 779:19 921:17 994:5 880:17, 880:20, irrelevant [4] - 803:9, January [3] - 849:20, Jones [2] - 767:3, knowing [4] - 854:25, 880:21, 881:6, 803:18, 859:11, 932:9, 1027:13 774:2 875:24, 911:14, 885:15, 892:5, 859:16 Jay [1] - 1007:24 judgment [1] - 933:3 959:1 919:25, 929:13, Irrelevant [1] - 803:17 Jean [1] - 776:22 July [3] - 852:23, **Knowledge** [1] - 776:3 930:25, 995:7, irrigate [1] - 910:20 Jennifer [1] - 765:21 932:15, 991:17 knowledge [6] -995:22 irrigation [2] - 946:17, Jenny [1] - 772:19 juncture [1] - 900:4 **KEYSTONE** [2] -857:19, 869:18, 1016:15 **Jerry** [3] - 950:5, June [1] - 930:20 1000:12, 1000:16, 765:4, 765:6 IRS [1] - 963:25 951:10, 951:17 jurisdiction [1] -1000:24, 1025:5 Keystone's [2] isolated [1] - 863:25 Jim [2] - 770:17, 870:14 knowledgeable [1] -775:15, 847:8 issue [10] - 823:22, 777:14 jurisdictions [1] -897:13 kill [2] - 904:7, 942:23, 963:6, job [9] - 897:11, 870:11 1023:16 **known** [2] - 1014:19, 967:8, 998:12, 974:10, 992:6, 1016:11 killed [1] - 966:17 1005:25, 1006:4, 992:25, 996:23, K Kim [5] - 771:13, knows [2] - 826:21, 1006:6, 1008:24 999:3, 1009:11, 929:21 923:10, 923:11, issued [1] - 1025:6 1009:13, 1017:2 Koenecke [61] -924:5. 1026:4 issues [18] - 794:25, Kansas [1] - 932:19 jobs [1] - 883:20 kind [54] - 807:2, 765:15, 767:3, 832:21, 832:22, Kara [4] - 765:13,

767:6, 767:9, KOLBECK [61] -929:17, 930:9, 947:3 landowner [15] lead [5] - 821:2, 23 767:13, 767:15, 765:11, 806:24, lake [1] - 940:8 832:19, 833:5, 1006:25, 1007:12, 767:17, 768:2, 807:7, 807:10, Lake [16] - 852:23, 833:13, 833:20, 1014:16 768:6, 768:8, 768:9, Leader [1] - 779:10 807:14, 807:16, 858:24, 870:3, 833:24, 834:6, 768:11, 768:12, 807:24, 808:3, 870:12, 876:23, 838:13, 874:7, leader [1] - 883:1 768:13, 768:17, 808:7, 808:13, 883:10, 938:11, 918:1, 954:3, 963:7, leak [32] - 787:7, 768:20, 768:22, 808:17, 808:20, 938:12, 938:17, 972:10, 973:4, 808:8, 820:12, 768:24, 769:7, 814:14, 814:22, 938:18, 938:24, 978:1, 982:14 820:15, 820:20, 769:9, 769:11, 815:2, 815:4, 939:13, 939:17, landowners [10] -824:13, 825:2, 769:22, 770:3, 815:10, 860:3, 894:19, 897:13, 939:18, 940:5 825:3, 825:12, 770:6, 770:9, 771:7, 860:6, 860:10, lakes [3] - 946:21, 947:12, 947:14, 826:3, 850:18, 771:10, 771:12, 860:12, 861:1, 954:3, 979:12, 946:23, 1016:18 850:20, 851:1, 771:15, 771:15, 861:5, 861:18, 979:13, 979:17, land [91] - 778:22, 851:19, 853:5, 771:17, 771:21, 862:4, 862:12, 992:7, 992:15 778:23, 778:23, 862:1, 862:11, 771:24, 772:3, 862:20, 863:1, lands [1] - 1022:20 798:14, 832:9, 862:21, 873:20, 772:6, 772:8, 864:9, 864:16, 850:22, 892:6, large [1] - 972:20 878:2, 905:4, 772:10, 773:13, 883:9, 883:14, 892:11, 898:21, largely [2] - 832:17, 909:20, 910:1, 773:15, 773:18, 888:14, 895:20, 902:15, 902:18, 911:20, 913:5, 859:11 773:23, 784:11, 895:22, 896:2, 903:6, 903:8, 932:4, 934:9, larger [1] - 790:25 786:6, 791:24, 896:8, 896:16, 903:21, 903:23, 981:14, 981:17, largest [1] - 865:7 799:24, 818:24, 900:8, 911:2, 981:24, 983:24, 904:4, 904:12, last [34] - 806:14, 829:15, 829:16, 911:11, 911:22, 904:16, 904:24, 824:12, 828:2, 984:5 907:8, 919:20, 924:16, 924:18, 905:2, 905:4, Leak [1] - 775:22 829:23, 852:12, 936:4, 961:16, 924:23, 925:1, 905:19, 905:20, leaked [2] - 851:10, 864:22, 866:14, 962:20, 964:11, 925:4, 925:9, 905:22, 906:3, 853:6 877:24, 883:7, 965:17, 966:5, 974:10, 983:10, 906:4, 906:9, 883:16, 893:3, leaking [4] - 850:5, 966:14, 966:20, 983:15, 983:17, 906:10. 907:19. 910:15, 917:6, 851:5, 862:5, 878:23 968:15, 995:2. 983:20, 984:11, 909:2, 909:22, leaks [4] - 825:25, 921:13, 922:3, 1025:10 984:16, 985:4, 909:24, 910:9, 941:7, 942:23, 904:25, 910:7, 984:5 KOENECKE [65] -985:9, 985:12, 910:20, 923:1, 943:5, 954:10, Leaks [1] - 776:7 784:12, 785:25, 987:6, 990:17, 923:3, 924:6, 956:2, 970:16, learn [4] - 894:24, 786:7, 786:9, 791:5, 1025:21 924:20, 926:3, 972:19, 973:11, 911:7, 911:10, 818:25, 819:3, Kolbeck [9] - 806:23, 926:4. 938:16. 978:6, 980:12, 920:14 822:15, 829:17, 814:13, 826:15, 945:17, 949:19, 988:23, 991:18, learned [1] - 911:8 829:24, 830:2, 860:2, 883:8, 949:24, 950:2, 997:8, 997:10, least [16] - 789:16, 889:15, 890:2, 895:19, 924:15, 950:8, 951:10, 1013:3, 1013:11, 815:25, 816:1, 890:13, 902:7, 925:15, 983:9 951:11, 951:20, 1022:14, 1023:18 817:3, 843:7, 906:21, 907:9, Koski [3] - 767:8, 952:25, 955:12, lasting [1] - 933:22 844:15, 865:22, 919:10, 919:21, 774:3. 774:3 956:1, 956:5, lastly [1] - 1022:13 874:12, 877:3, 919:23, 924:1, 956:10, 956:20, Kothari [7] - 767:20, late [1] - 798:23 880:24, 895:1, 924:11, 927:23, 774:6, 774:6, 774:7, 957:2, 957:23, lately [1] - 909:20 895:8, 917:25, 935:16, 935:21, 839:11, 875:15, 958:18, 963:22, latitude [2] - 834:10, 923:19, 950:16, 936:5, 936:7, 945:4, 881:9 966:3, 967:21, 1013:1 854:24 960:13, 960:19, Kothari's [2] - 839:16, 977:7, 977:12, leave [4] - 780:8, launched [2] - 882:5 960:25, 961:3, 977:22, 977:24, 876:2 886:25, 909:24, launchers [1] - 882:4 961:6, 962:5, 978:1, 978:3, 978:4, law [2] - 981:16, 993:9 954:18 962:16, 962:22, 978:17, 979:7, L leaves [2] - 952:13, Law [1] - 909:10 963:24, 965:18, 979:13, 980:14, 956:14 laws [4] - 909:12, 965:21, 966:6, 982:12, 982:14, leaving [1] - 917:10 916:11, 917:23, L-shaped [1] - 956:20 966:22, 968:16, 986:21, 991:16, Lee [1] - 993:6 1008:10 **L.A**[2] - 767:16, 992:5, 992:14, 968:19, 969:22, lawyer [3] - 883:17, Leech [1] - 870:12 773:22 970:1, 971:3, 993:2, 993:11, 916:12, 919:13 **left** [16] - 786:15, Laabs [1] - 915:1 971:17, 976:12, 993:13, 994:6, 800:18, 800:21, lawyer's [2] - 903:4, labeled [3] - 801:18, 976:16, 976:19, 996:22, 996:24, 835:18, 835:22, 944:22, 976:8 980:1, 980:6, 987:1, 997:6, 997:24, 836:11, 841:10, lay [4] - 788:21, 909:7, lack [2] - 821:3, 988:7, 989:4, 998:13. 1000:14. 871:12, 879:14, 915:17, 932:18 994:15, 995:4, 884:19 1018:19, 1023:1 882:16, 956:18, layer [2] - 785:4, Lack [1] - 776:3 998:3, 1021:24, Land [1] - 905:19 972:18, 973:3, 818:20 1022:2, 1023:4, lady [2] - 891:11, landmarks [1] layers [1] - 818:14 985:24, 996:12 1023:12, 1024:18, 951:23 938:25 left-hand [2] - 800:18, laymen [1] - 803:6 1025:11, 1026:16 laid [4] - 888:13,

956:18 lied [1] - 884:9 929:25, 931:2, 915:15, 918:3, 1021:8 24 legal [2] - 834:13, lies [1] - 789:11 942:7, 946:14, 918:6, 923:1, 923:2, looked [12] - 797:7, 909:13 lieu [1] - 1022:12 947:1, 947:3, 947:5, 923:5, 949:12, 810:6, 818:9, 951:4, 951:9, 952:4, 972:12, 986:19 **Legal** [1] - 777:9 life [4] - 907:7, 952:18, 831:16, 837:16, 952:9. 952:10. lived [2] - 874:8, 965:8 legend [1] - 878:23 972:14, 979:20 839:23, 840:2, 953:16, 953:17, lives [2] - 833:11, 841:13, 934:6, lend [1] - 807:22 lifetime [2] - 892:1, 953:25, 954:17, 922:24 length [11] - 840:19, 969:9, 970:21, 934:14 964:25, 965:7, livestock [1] - 908:10 992:10 840:21, 846:10, lifted [2] - 898:24, 971:23, 971:25, Looking [4] - 799:3, livestocks [1] - 978:21 846:13, 846:20, 898:25 972:5, 977:21, 800:18, 890:22, 847:4, 848:10, living [5] - 891:23, light [4] - 873:3, 983:23, 984:2, 880:10, 956:16, 873:19, 956:25, 915:4, 979:20, 999:15 984:18, 984:20, 1012:23, 1024:4 982:6, 982:9 looking [41] - 780:11, 957:10 985:5, 985:10, 786:10, 786:15, lengths [1] - 860:24 LLP [1] - 765:19 likelihood [7] -985:22, 986:2, 788:6, 796:21, local [3] - 870:14, lengthy [4] - 887:7, 811:25, 820:15, 988:3, 1005:24, 796:23, 797:21, 887:11, 887:18, 821:24, 844:16, 981:5, 981:19 1024:19 798:12, 808:11, 887:24 872:6, 875:12, located [1] - 823:25 line's [2] - 948:19, lenses [2] - 784:24, location [24] - 775:15, 809:21, 810:9, 880:21 986:3 810:11, 821:18, 785:4 likely [19] - 784:7, 787:3, 787:4, linearly [1] - 834:24 833:20, 836:17, less [14] - 788:12, 788:18, 788:19, 787:24, 788:7, lines [3] - 802:10, 836:20, 837:12, 788:13, 812:11, 789:17, 811:25, 788:8, 791:13, 843:12, 910:12 840:24, 844:4, 817:4, 819:15, 812:5, 812:11, 798:17, 805:11, liquid [15] - 840:17, 852:19, 859:5, 819:18, 891:22, 812:13, 812:25, 815:18, 824:5, 848:5, 848:13, 859:8, 862:24, 955:16, 964:5, 820:11, 820:13, 834:3, 905:4, 923:6, 848:18, 849:6, 863:2, 865:23, 971:12, 972:24, 821:9, 821:11, 925:15, 931:1, 849:11, 849:17, 872:4, 878:21, 985:7, 1019:11, 822:10, 842:2, 931:6, 932:6, 942:9, 879:14, 880:4, 853:19, 853:24, 1026:17 864:23, 864:24, 946:13, 946:14, 883:9, 951:23, 854:1. 857:13. lessen [1] - 862:2 877:16, 933:17 946:19, 946:20, 858:11, 859:10, 955:16, 964:23, Lillian [4] - 768:10, 964:15 lessened [1] - 873:21 863:4, 875:2 995:6, 997:18, Letter [2] - 776:18, 777:4, 947:17, 993:2 locations [4] - 798:1, 998:10, 999:17, **Liquid** [1] - 842:5 798:9, 798:11, 843:7 778:22 Limine [4] - 962:18, 1004:16, 1010:13 liquids [3] - 837:17, 964:2, 964:8, 976:14 logical [2] - 946:19, letter [9] - 778:23, **Looks** [1] - 777:8 858:12, 858:13 limit [1] - 977:10 946:20 965:23, 966:2, looks [6] - 878:22, list [5] - 783:24, limited [4] - 794:25, logs [3] - 788:18, 968:11, 968:21, 868:12, 868:17, 909:25, 941:23, 968:22, 969:8, 812:23, 869:2, 794:9, 794:20 974:15, 1015:13 962:14, 972:20, 969:23, 1000:18 965:18 long-term [2] -1022:16 listed [15] - 830:16, letters [2] - 963:25, Line [3] - 794:8, 804:7, 933:10, 933:20 833:12, 839:14, lose [5] - 904:9, 970:16 828:4 Look [3] - 849:22, 844:6, 847:9, 848:7, 923:15, 979:19, line [81] - 782:15, 850:14, 851:22 letting [1] - 966:7 852:13, 852:25, 992:6, 992:25 782:17, 782:18, Level [18] - 1010:11, look [47] - 780:7, 853:1, 853:13, loss [1] - 978:15 1010:12, 1010:15, 782:21, 786:15, 783:21, 787:21, 855:10, 857:14, losses [1] - 1022:10 1010:16, 1010:18, 786:18, 786:20, 788:3, 788:4, 789:7, 1008:16, 1019:20, lost [1] - 858:1 1010:19, 1010:20, 792:8, 793:9, 789:25, 795:19, 1020:14 loud [2] - 910:11, 793:10, 794:11, 1010:21, 1010:22, 797:8, 807:21, listen [2] - 884:7, 992:24 794:12, 794:15, 815:15, 819:4, 1010:24, 1010:25, 911:5 love [1] - 978:1 1011:4, 1011:10, 794:23, 794:24, 819:23, 829:25, 796:17, 797:22, listened [4] - 896:5, 834:14, 836:25, low [3] - 964:16, 1011:13, 1011:25, 911:3, 955:2, 978:20 965:1, 965:9 798:13, 801:24, 837:9, 837:17, 1012:22 listening [3] - 947:2, 802:13, 803:23, lower [10] - 800:11, level [14] - 781:17, 840:8, 841:15, 962:25, 979:16 838:5, 841:1, 806:8, 813:20, 841:18, 842:4, 795:6, 809:13, listing [3] - 1005:10, 844:12, 844:25, 810:5, 812:22, 814:15, 815:20, 844:9, 845:23, 1008:15, 1025:5 816:3, 820:16, 847:21, 850:20, 866:3, 866:7, 818:12, 820:22, lists [3] - 1017:12, 880:23, 952:17, 828:4, 843:5, 851:2, 855:13, 820:23, 820:25, 1024:15, 1024:25 956:17 857:10, 859:13, 857:9, 859:5, 859:7, 821:5, 938:14, literally [3] - 833:8, lowest [3] - 848:15, 861:7, 861:8, 860:24, 862:23, 1010:25, 1015:1 861:13, 892:21, 864:5, 864:6 868:17, 917:22, 849:5, 967:25 Lewis [3] - 1018:18, 903:21, 909:8, literature [1] - 1010:20 919:10, 925:17, **LP** [3] - 765:4, 780:3, 1022:16, 1022:25 909:21, 909:22, 946:21, 946:25, 885:15 lithologic [2] - 787:16, liberty [2] - 979:21, 911:17, 911:19, 948:13, 952:16, 787:18 lunch [3] - 885:13, 982:2 911:20, 912:17, live [13] - 886:1, 901:8, 966:24, 967:1, 913:25 license [1] - 1024:22 916:8, 929:13, 969:19, 981:18, licensed [1] - 1004:12 901:9, 901:17, luxury [1] - 990:5

lying [1] - 991:25 790:7, 799:22, marking [2] - 830:25, 898:24, 905:21, 1005:22 25 800:8, 800:12, memory [3] - 843:21, 968:22 911:17, 920:2, M 800:15, 801:8, Markley [1] - 771:8 920:6, 921:6, 877:7, 882:10 928:14, 933:23, 801:9, 801:14, mention [2] - 992:3, marks [3] - 797:25, 802:17, 802:19, 937:6. 942:19. 992:4 968:3, 1016:19 machine [2] - 854:11, 809:10, 809:11, 943:2, 948:14, mentioned [15] marriage [1] - 916:25 915:2 811:2, 811:3, 811:7, 966:17, 980:17, married [2] - 986:19, 793:24, 795:7, macro [4] - 781:17, 819:5, 819:9, 985:20, 988:19, 798:13, 818:4, 989:12 795:6, 810:5, 818:12 823:18, 905:18, 999:12, 1007:12, 818:14, 839:5, Marshall [41] - 775:4, macro-level [1] -906:8, 924:18, 1011:3, 1011:19, 846:9, 856:24, 778:5, 779:9, 781:17 925:2, 938:23, 1021:13, 1022:23 782:16, 782:20, 881:2, 947:18, **Madison** [1] - 766:10 939:9, 946:21, meanders [1] - 939:16 783:1, 783:6, 971:22, 978:25, Madsen [6] - 923:7, 950:11, 959:23, meaning [2] - 832:21, 982:23, 1013:4, 783:18, 786:22, 923:8, 923:10, 960:15, 960:17, 980:24 1018:22 787:5, 789:1, 789:3, 923:24, 924:5 961:6, 977:6, 977:7, means [4] - 890:9, mercury [2] - 1024:16, 789:5, 789:12, Madsen's [2] - 913:23, 977:8, 977:13, 892:7, 952:6, 1025:2 790:9, 790:20, 923:11 977:17, 977:19, 790:21, 805:22, 1007:13 mercurymagnitude [2] - 931:4, 977:20, 983:13, meant [7] - 839:14, contaminated [1] -807:16, 810:21, 933:4 983:21 877:16, 894:21, 810:25, 812:12, 1025:2 mail [9] - 902:24, Map [20] - 774:22, 812:20, 812:23, 899:3, 911:19, merely [1] - 797:6 903:11, 956:3, 775:6, 775:10, 986:4, 1020:1 820:12, 820:15, mess [1] - 892:20 991:19, 994:5, 775:10. 775:11. 820:20, 822:2, measure [3] - 915:20, messed [1] - 958:15 999:21, 999:23, 775:11, 775:12, 822:7, 824:25, 915:23, 931:8 met [3] - 1018:1, 999:24, 1000:1 775:12, 775:13, 841:4, 841:9, measured [1] - 785:7 1018:2 mailed [4] - 829:14, 775:13, 775:14, 841:24, 879:18, measurements [1] method [1] - 824:10 829:18, 829:23 775:14, 777:12, 956:5, 956:6, 956:8, 801:25 methodology [2] mails [2] - 870:7, 777:21, 778:2, 1023:19, 1023:21, measures [1] -932:25, 933:2 950:25 778:16, 790:6, 1024:9, 1024:12 1022:20 mic [6] - 791:16, main [7] - 861:7, 809:10, 811:2, Mary [1] - 914:14 measuring [2] -888:24, 888:25, 861:13, 916:8, 905:19 master [1] - 999:5 913:20 941:15, 941:17, 940:14, 940:18, mapped [1] - 824:5 medium [1] - 899:2 material [7] - 788:13, 1016:22 978:9, 994:23 mapping [5] - 824:6, 788:14, 813:10, Medium [1] - 819:7 Michael [1] - 767:8 maintain [2] - 965:23, 934:4, 937:12, 830:6, 830:7, medium-sized [1] micro [1] - 795:6 1017:11 937:16, 937:17 863:22, 865:5 899:2 Mid [3] - 784:5, maintaining [1] -Maps [2] - 774:14, materials [3] - 793:13, Meera [1] - 767:20 908:19, 908:20 966:22 1020:10 834:21, 867:12 meet [6] - 870:7, Mid-Dakota [2] major [3] - 848:25, maps [18] - 774:10, matter [11] - 766:14, 885:22, 902:16, 908:19, 908:20 849:1, 1024:11 778:21, 781:18, 780:2, 825:6, 903:4, 903:9, 949:20 Mid-drink [1] - 784:5 majority [4] - 784:8, 781:19, 781:24, 885:15, 887:14, meeting [19] - 891:1, middle [9] - 799:7. 784:21, 812:9, 787:22, 793:11, 924:3, 932:5, 891:5, 891:10, 839:4, 848:16, 818:18 793:17, 794:9, 974:17, 989:11, 894:12, 894:18, 849:17, 884:3, man [2] - 855:10, 802:10, 810:10, 1017:1, 1027:10 897:19, 898:1, 902:15, 951:10, 917:3 818:9, 947:1, 947:3, MATTER [1] - 765:4 900:5, 900:15, 960:25, 997:19 managed [1] - 940:9 951:21, 951:22, matters [3] - 889:18, 905:24, 911:9, Middle [5] - 785:12, 959:8 management [3] -944:19, 994:20 921:11, 946:12, 785:13, 790:17, 785:16, 813:22, mark [14] - 783:23, Maxine [1] - 915:1 1013:11, 1013:14, 790:23, 820:21 839:19 828:17, 828:19, Mayer [1] - 771:22 1013:16, 1013:20, might [44] - 799:25, 828:20, 828:21, manager [1] - 798:24 MCCOMSEY [1] -1017:23, 1025:25 804:10, 809:12, manages [1] - 984:19 830:20, 906:16, 1027:5 meetings [11] -815:19, 816:2, 918:18, 927:20, Manchester [1] -McComsey [2] -905:23, 916:15, 816:6, 822:23, 957:18 935:6, 935:14, 921:13, 921:22, 765:24, 1027:18 825:25, 829:4, 959:16, 965:17, Mandan [2] - 947:1, 922:2, 955:20, McIntosh [2] - 771:13, 829:12, 837:3, 977:23 947:3 1013:9, 1013:10, 1026:4 844:5, 846:16, Mark [2] - 771:22, Manitoba [1] - 833:11 1019:8, 1019:12, mean [37] - 790:20, 864:24, 865:9, 959:22 manner [1] - 1007:23 810:16, 814:25, 1019:15 867:22, 869:13, marked [11] - 774:12, map [51] - 774:21, member [2] - 927:5, 819:8, 820:12, 876:22, 882:24, 774:16, 777:2, 778:22, 787:3, 838:2, 864:4, 940:13 883:24, 887:11, 782:3, 782:9, 840:9, 787:16, 787:18, members [4] - 781:21, 865:18, 873:22, 887:18, 907:5, 840:10, 905:19, 789:2, 789:7, 793:3, 806:1, 886:14 878:16, 879:20, 908:6, 911:13, 970:5, 995:6, 997:18 789:25, 790:5, 894:20, 898:13, Memorandum [1] -929:11, 930:8,

932:2, 934:10, 912:20, 923:2, 872:22, 885:17, 872:22, 896:2 MR [485] - 780:1, 26 938:24, 938:25, 931:5, 931:12, 941:14, 969:4, money [9] - 891:25, 783:23, 784:1, 942:12, 942:13, 939:17 990:9, 1014:5 902:19, 947:25, 784:11, 784:12, 962:18, 964:20, 784:13, 784:15, Miles [1] - 845:24 minutes [9] - 864:3, 955:1, 955:9, 967:19, 968:17, MILLER [6] - 827:5, 885:5, 885:19, 955:17, 955:19, 784:16, 784:17, 981:6, 987:13, 829:8, 830:13, 897:3, 943:19, 1020:20 785:20, 785:25, 1022:7, 1022:23 943:20, 962:17, monitoring [3] -786:2, 786:3, 786:4, 831:6, 832:3, 884:13 migrated [1] - 853:7 Miller [35] - 767:22, 962:19, 964:11 853:9, 877:3, 877:11 786:7, 786:9, 790:19, 791:5, migration [2] - 785:2, 768:4, 768:7, misheard [2] - 791:20, Montgomery [1] -813:11 769:13, 778:6, 972:1 791:8, 791:9, 776:9 778:7, 778:7, misinformed [1] -791:11, 791:16, Mike [16] - 770:7, month [3] - 806:14, 791:19, 796:7, 777:4, 779:1, 779:2, 826:19, 826:20, 991:25 930:19, 956:2 mislead [2] - 819:8, 796:9, 796:11, 779:3, 974:21, 826:23, 826:25, months [2] - 988:23, 797:5, 797:8, 986:19, 987:4, 827:2, 827:6, 820:8 1013:12 797:10, 799:22, 828:20, 828:21, 987:18, 988:17, misleading [2] morning [21] - 780:5, 800:5, 801:17, 989:5, 989:6, 828:22, 831:3, 833:13, 945:20 780:17, 780:18, 801:20, 803:14, 989:10, 989:23, 831:21, 831:25, misread [1] - 823:1 796:13, 808:24, 989:24, 990:12 835:8, 840:9, 803:18, 803:19, miss [1] - 984:19 808:25, 835:8, 803:21, 806:10, Mike's [1] - 986:22 840:10, 847:21, missed [6] - 814:15, 835:9, 870:19, 806:18, 806:20, 855:3, 855:7, 858:6, mile [33] - 778:19, 857:3, 897:23, 870:20, 888:8, 808:22, 812:16, 790:8, 843:9, 858:7, 860:3, 937:9, 947:7, 963:1 921:25, 926:22, 864:19, 870:19, 814:12, 815:11, 843:12, 843:15, 931:17, 953:6, missile [1] - 954:20 843:17, 844:14, 876:22, 878:21, 961:22, 968:9, 815:15, 815:25, missing [4] - 876:25, 879:13, 881:23, 816:6, 816:10, 850:24, 913:13, 989:2, 999:16, 877:3, 987:2, 987:14 816:16, 816:24, 884:6 913:19, 919:1, 1001:22, 1021:9 mission [1] - 940:14 817:2, 817:6, million [9] - 849:15, 920:12, 920:13, most [13] - 833:8, Missouri [2] - 941:11, 818:24, 818:25, 923:2, 923:17, 857:10. 857:11. 833:14, 837:25, 946:17 819:3, 822:15, 925:4, 925:21, 857:13, 864:2, 863:12, 864:23, misspell [1] - 950:18 925:25, 926:1, 878:2, 878:11, 822:17, 822:18, 864:24, 874:12, misspelled [1] -822:19, 822:21, 882:13 926:2, 930:5, 932:4, 884:6, 886:13, 950:19 Million [1] - 776:10 826:6, 826:8, 939:10, 939:18, 919:11, 946:19, misstating [1] -826:11, 826:17, 947:7, 947:8, 952:5, million-gallon [1] -946:20 966:15 827:2, 827:5, 952:6, 961:6, 878:2 Most [1] - 888:7 mistake [2] - 903:16, 828:19, 829:6, 972:13, 985:7 mind [13] - 808:14, mostly [4] - 835:1, 993:10 829:8, 829:12, Mile [1] - 983:15 813:24, 816:18, 888:4, 935:5, 937:6 misunderstanding [2] 829:16, 829:17, 868:3, 876:21, mileage [6] - 842:21, mothers [1] - 985:1 - 828:15, 837:2 829:20, 829:24, 843:23, 843:24, 877:3, 884:10, Motion [4] - 962:18, misunderstood [2] -829:25, 830:2, 844:12, 848:7. 891:3, 894:13, 964:2, 964:8, 976:14 823:16, 911:16 830:4, 830:10, 866:13 911:4, 911:12, motion [1] - 963:4 mitigate [2] - 1005:22, 830:11, 830:13, miles [51] - 782:18, 911:14, 987:19 mouth [2] - 941:18, 1023:2 830:19, 830:25, 782:22, 788:24, mine [2] - 953:8, 961:5 1016:23 mitigated [2] - 1022:8, 831:2, 831:6, 831:8, Miner [7] - 850:23, 789:4, 789:9, move [14] - 791:16, 1022:20 831:11, 831:14, 789:15, 790:22, 946:12, 951:8, 824:18, 824:19, mitigation [7] -831:20, 831:22, 792:1, 811:1, 811:4, 951:18, 977:19, 824:21, 886:13, 936:10, 1020:21, 831:24, 831:25, 818:15, 840:20, 986:19, 992:16 886:23, 887:8, 1022:11, 1022:13, 832:3, 834:19, 842:17, 842:19, mines [1] - 1016:17 970:15, 976:25, 1022:14, 1022:17, 835:2, 835:5, 835:7, 842:21, 842:25, minimize [1] - 1022:10 979:3, 982:7, 1023:11 847:16, 847:18, 843:14, 843:20, mining [1] - 934:18 983:25, 1001:19, mix [1] - 987:9 847:20, 854:23, 844:7, 845:4, 845:8, Minnesila [1] - 944:12 1009:25 Mngmt [1] - 775:19 855:2, 855:5, 845:9, 845:10, Minnesota [10] moved [7] - 923:24, mobile [1] - 914:11 855:23, 855:24, 845:11, 845:12, 776:7, 780:23, 953:25, 954:5, mode [1] - 877:11 856:2, 858:4, 858:5, 845:19, 845:21, 781:1, 781:2, 781:8, 973:15, 977:14, modify [1] - 955:14 860:1, 864:18, 846:10, 846:17, 827:10, 852:23, 1019:22, 1020:2 Moeckly [5] - 767:5, 870:17, 876:20, 846:24, 846:25, 909:20, 932:23, movement [4] - 791:2, 772:5, 779:8, 779:9, 877:12, 877:24, 847:2. 847:7. 946:24 801:15, 819:21, 886:24 878:16, 878:18, 847:10, 848:11, minor [3] - 827:16, 820:2 moisture [1] - 949:10 878:20, 881:18, 860:13, 860:19, 828:5 moving [6] - 963:21, moment [2] - 988:3, 881:19, 881:21, 860:20, 861:3, minus [1] - 1002:25 964:6, 966:3, 1022:5 881:22, 881:23, 865:15, 880:8, minute [9] - 820:9, 970:12, 970:17 moments [1] - 888:16 882:2, 883:2, 883:3, 882:13, 912:17, 825:3, 850:6, MP [2] - 939:10, 952:6 Monday [3] - 808:20, 883:4, 883:5, 883:7,

883:15, 883:23, 935:23, 935:25, 980:2, 980:6, 980:8, 780:16, 783:20, 1003:7, 1007:7, 27 884:13, 884:16, 936:4, 936:5, 936:7, 980:10, 982:17, 783:24, 784:3, 1016:6 884:18, 884:22, 938:1, 938:2, 938:3, 982:18, 982:20, 784:9, 785:18, name's [1] - 889:8 885:2, 885:11, 938:5, 941:12, 983:9, 985:14, 785:22, 796:21, names [4] - 809:6, 885:14. 886:8. 941:13, 941:14, 985:18, 986:4, 800:3, 803:8, 950:18, 987:23, 886:9, 886:12, 941:16, 941:17, 986:9, 986:11, 803:11, 803:16, 992:16 886:18, 886:20, 941:19, 941:21, 986:15, 986:25, 806:8, 817:8, **nation** [1] - 912:12 887:5, 887:22, 943:6, 943:7, 943:9, 987:1, 987:3, 817:10, 818:22, national [2] - 934:5, 888:7, 888:17, 943:14, 943:17, 987:17, 987:25, 826:10, 858:7, 937:12 888:19, 889:5, 943:18, 943:22, 988:7, 988:14, 858:9, 859:25, National [17] - 853:23, 883:6, 886:11, 889:8, 889:14, 944:4, 944:6, 944:9, 988:19, 988:22, 856:4, 856:6, 889:15, 889:17, 944:14, 944:18, 989:4, 990:22, 886:17, 886:19, 1004:2, 1004:3, 889:22, 889:25, 944:22, 944:25, 991:2, 991:4, 991:9, 890:6, 894:4, 898:3, 1004:21, 1004:22, 890:2, 890:3, 890:4, 945:2, 945:4, 945:5, 991:12, 994:3, 902:10, 910:24, 1005:11, 1006:15, 945:6, 945:7, 959:5, 994:11, 994:14, 912:4, 919:16, 890:5, 890:7, 1007:14, 1008:9, 890:13, 890:16, 959:7, 959:10, 994:15, 994:16, 924:14, 928:1, 1008:13, 1008:16, 959:12, 959:16, 994:17, 994:18, 935:24, 943:8, 890:18, 890:19, 1017:9, 1019:16, 890:21, 894:1, 959:19, 960:9, 994:25, 995:4, 967:14, 969:8, 1019:21, 1020:9 894:3, 894:5, 960:12, 960:13, 998:3, 998:5, 998:6, 973:24, 982:19, native [29] - 905:16, 895:18, 896:22, 960:19, 960:23, 998:7, 998:9, 1000:9, 1000:11, 948:11, 952:19, 900:24, 901:3, 960:25, 961:3, 999:18, 999:20, 1002:13, 1003:6, 952:20, 952:24, 901:7, 901:9, 961:6, 961:10, 1000:7, 1000:8, 1009:9, 1014:2, 953:4, 956:20, 901:11, 901:14, 961:14, 961:17, 1001:2, 1001:4, 1015:10, 1016:5, 956:24, 956:25, 901:17, 901:21, 961:25, 962:2, 1001:10, 1001:22, 1023:15, 1025:15, 957:2, 957:15, 902:1, 902:4, 902:7, 962:5, 962:7, 1002:3, 1002:4, 1026:4 958:1, 958:4, 962:12, 962:16, 902:8, 902:9, 1002:6, 1002:11, mud [1] - 851:16 958:12, 958:19, 962:22, 962:24, 1002:17, 1002:21, 902:11, 906:13, Muehlhausen [4] -958:23, 965:11, 906:17, 906:20, 963:3, 963:13, 1003:1, 1009:11, 773:12, 779:14, 970:18, 973:3, 906:21, 906:22, 963:24, 964:5, 1009:15, 1012:2, 779:18, 779:19 973:7, 973:9, 906:23, 906:24, 964:11, 964:18, 1012:4, 1013:24, multibillion [2] -973:12, 973:13, 907:7, 907:9, 964:20, 964:22, 1013:25, 1014:3, 951:4, 951:5 973:16, 973:18, 907:12, 907:13, 965:12, 965:16, 1014:9, 1014:10, multimillion [2] -978:3, 978:5, 978:10 907:14, 907:17, 965:18, 965:21, 1014:11, 1014:14, 852:9 natural [10] - 849:5, 910:22, 910:23, 965:25, 966:6, 1015:7, 1015:8, multimillion-dollar [1] 854:17, 861:8, 910:25, 911:24, 966:9, 966:20, 1015:11, 1015:16, - 852:9 861:10, 861:12, 912:2, 918:11, 966:22, 966:24, 1015:19, 1015:20, multimillion-gallon 865:6, 933:15, 918:18, 918:25, 967:1, 967:11, 1015:23, 1015:25, [1] - 852:9 940:16, 941:24, 919:3, 919:6, 919:9, 967:16, 967:25, 1016:22, 1019:4, multiple [4] - 811:20, 1019:24 919:10, 919:14, 968:10, 968:14, 1021:19, 1021:21, Natural [1] - 1007:9 845:4, 864:5, 864:6 1021:24, 1022:1, 919:15, 919:17, 968:16, 968:17, Multiple [1] - 811:20 nature [4] - 823:18, 919:21, 919:23, 968:19, 968:20, 1022:2, 1022:4, Murdock [2] - 773:2, 873:21, 973:12 922:16, 922:18, 968:21, 969:4, 1023:4, 1023:7, 779:12 **ND** [2] - 776:18, 777:5 922:19, 922:20, 969:6, 969:16, 1023:8, 1023:12, must [4] - 919:11, Near [2] - 776:2, 893:3 922:22, 924:1, 969:22, 969:25, 1024:18, 1024:20, 942:19, 947:23, near [12] - 790:7, 924:3, 924:7, 924:8, 970:1, 970:2, 1025:8, 1025:9, 992:18 820:20, 833:10, 970:11, 970:15, 1025:11, 1025:13, 924:9, 924:11, mutual [1] - 900:7 833:11, 852:23, 924:12, 924:15, 970:25, 971:3, 1025:16, 1025:19, 863:20, 907:18, 925:12, 926:14, 971:17, 971:18, 1025:20, 1026:9, Ν 923:7, 938:25, 926:17, 926:19, 971:19, 971:21, 1026:14, 1026:15, 945:21, 992:14, 926:20, 926:21, 973:22, 973:23, 1026:16, 1026:18 1018:23 926:25, 927:3, 973:25, 974:6, MRS [20] - 986:14, nails [1] - 984:19 nearby [2] - 852:13, 927:8, 927:12, 974:13, 974:19, 986:18, 987:4, name [23] - 780:19, 938:25 927:17, 927:20, 974:21, 974:24, 987:8, 987:15, 780:21, 827:5, nearly [1] - 818:13 927:23, 927:24, 975:2, 975:6, 975:9, 987:21, 988:1, 827:6, 855:10, Nebraska [2] - 951:4, 927:25, 928:2, 975:16, 975:18, 988:16, 988:21, 901:7, 912:4, 927:3, 977:14 928:10, 928:14, 975:20, 976:5, 989:1, 989:9, 944:9, 949:22, necessarily [6] -928:19, 934:23, 976:11, 976:12, 989:23, 990:9, 950:16, 982:2, 811:5, 815:6, 976:15, 976:16, 935:6, 935:8, 990:12, 990:16, 985:17, 987:4, 839:14, 863:18, 935:10, 935:13, 976:17, 976:19, 990:20, 991:1, 987:16, 988:8, 865:18, 887:20 935:16, 935:18, 976:20, 976:23, 991:3, 991:8, 991:11 988:16, 988:25, necessary [2] -935:21, 935:22, 979:24, 980:1, MS [51] - 780:12, 991:18, 993:4,

823:10, 875:17 903:4, 908:15, northeastern [1] -925:17, 931:12, 906:21, 906:22, 28 need [38] - 797:2, 914:8, 977:14, 810:24 951:2, 955:4, 906:23, 919:9, 987:6, 993:10, 808:14, 813:17, Northern [5] - 776:7, 962:13, 966:11, 919:14, 919:15, 827:17, 829:11, 997:6, 997:13 968:24, 969:3, 919:16, 924:9, 782:15, 782:19, 970:4, 972:9, 973:7, 832:10, 836:18, newer [4] - 867:2, 812:12, 1018:14 927:22, 927:23. 871:5, 876:7, 867:16, 867:20, northern [2] - 810:24, 977:1, 982:23, 927:24, 927:25, 884:14, 885:21, 983:14, 985:18, 928:1, 935:19, 868:1 937:6 888:11, 889:2, News [3] - 774:23, 993:4, 1003:24, 935:21, 935:22, Northwest [1] -907:5, 907:10, 774:25, 774:25 1007:5, 1022:9 935:23, 935:24, 765:19 945:2, 945:4, 945:5, 908:7, 944:25, news [2] - 870:25, numbered [1] - 976:4 northwest [2] - 931:2, 960:12, 961:10, 955:8, 955:16, numbers [15] -896:13 952:21 957:20, 960:2, 786:25, 820:5, 961:11, 965:18, Newspaper [1] - 775:2 Northwestern [1] -965:23, 966:10, 962:13, 967:3, 844:5, 844:10, next [13] - 798:19, 782:16 969:2, 970:10, 844:19, 844:22, 966:22, 967:17, 845:23, 865:19, northwestern [3] -968:15, 968:17, 975:14, 978:22, 844:23, 845:2, 892:15, 892:18, 782:19, 810:24, 986:1, 986:15, 968:20, 976:18, 845:10. 845:13. 896:18, 901:4, 810:25 979:25, 980:1, 988:17, 991:3, 948:7, 958:7, Notary [2] - 1027:6, 845:16, 860:15, 991:14, 993:3, 987:17, 989:19, 974:15, 1005:6, 865:20, 913:16, 1027:18 1001:16, 1005:10, 972:7 989:21, 991:4, 1005:7, 1022:1 note [7] - 813:20, 1022:7, 1025:1 994:14, 994:15, numerous [6] - 873:6, nice [2] - 1001:23, 831:19, 865:25, 994:16, 994:17, needed [4] - 810:13, 873:24, 1018:14, 1009:13 869:7, 870:3, 894:17 1026:15, 1026:16 817:23, 871:23, nicely [1] - 919:13 1019:14, 1019:15 noted [2] - 813:14, 985:13 nutrition [1] - 973:20 objectionable [1] **nightmare** [1] - 979:20 894:11 Needham [1] - 997:14 967:7 nine [4] - 871:9, notes [1] - 945:15 objections [5] -Needlham [2] - 993:7, 0 915:14, 917:4, **nothing** [7] - 791:5, 830:24, 965:22, 993:12 1019:11 822:15, 877:6, 977:1, 988:6, 989:7 needs [7] - 889:1, Ninth [1] - 927:4 979:19, 996:24, o'clock [10] - 885:9, 956:12, 967:9, **objective** [2] - 940:14, **nobody** [3] - 949:19, 998:3, 1015:19 885:11, 885:17, 979:14, 985:19, 1022:10 958:23, 972:11 notice [1] - 988:10 886:23, 897:4, objects [1] - 967:6 992:11, 1005:14 Nobody [1] - 994:3 **noticed** [9] - 825:9, 989:25, 993:17, obligations [1] negative [1] - 1005:20 **Nobody's** [2] - 951:22, 842:16, 854:2, 1001:11, 1021:9, 1004:6 neglected [1] - 1018:7 987:13 863:24, 871:24, 1026:11 negotiate [1] - 998:18 obstruct [1] - 811:5 noise [1] - 910:13 877:24, 878:22, oath [7] - 918:13, obtain [5] - 789:13, negotiated [1] none [2] - 907:12, 988:24, 989:1 918:14, 927:15, 792:13, 792:19, 955:17 notified [1] - 997:13 980:2 975:2, 990:6, 842:6, 855:7 negotiating [1] - 950:5 None [10] - 826:10, **noting** [1] - 887:25 991:13, 1025:19 obtained [4] - 781:20, Negotiations [1] -883:6, 894:4, November [5] -**Object** [1] - 900:10 784:23, 792:22, 777:5 910:24, 924:14, 932:22, 946:11, object [9] - 784:17, 794:19 negotiations [2] -943:8, 945:6, 950:24, 965:23, 803:16, 831:13, obvious [3] - 874:2, 961:22, 963:21 973:24, 982:19, 980:15 924:2, 964:3, 924:9, 1020:11 neighbor's [1] - 984:7 1015:10 NRCS [1] - 1019:9 966:19, 988:7, obviously [6] neighbors [2] nonpoint [1] - 822:4 NTSB [4] - 778:8, 1008:19, 1024:18 807:25, 810:15, 902:18, 923:22 nonprofit [1] - 928:25 829:10, 853:25, objected [2] - 966:14, 867:20, 872:23, nervous [2] - 896:14, noon [3] - 885:2, 856:17 987:13 873:13, 940:22 1003:13 885:17, 886:3 Number [3] - 979:9, objecting [2] - 964:9, nest [3] - 984:25, Obviously [3] -Norbert [1] - 775:21 979:11, 992:13 1023:4 876:16, 896:17, 985:1, 985:2 normally [4] - 883:25, number [46] - 788:4, **Objection** [3] - 883:2, 925:16 nested [1] - 984:24 884:2, 884:4, 987:13 789:15, 792:2, 890:3, 976:11 occasion [1] - 837:9 nests [1] - 984:24 North [8] - 788:4, 797:20, 804:4, objection [69] occur [10] - 805:4, Never [2] - 858:2, 798:16, 799:15, 809:12, 818:17, 784:12, 784:15, 812:13, 816:2, 858:3 840:18, 844:6, 840:17, 866:8, 784:16, 785:25, 818:5, 820:20, never [14] - 870:8, 917:3, 946:18, 846:12, 847:3, 786:2, 786:3, 838:19, 929:11, 887:22, 893:7, 949:21 847:7, 848:24, 831:11, 831:20, 934:10, 1021:16, 917:9, 917:18, north [8] - 799:2, 859:6, 861:1, 831:22, 831:24, 1022:13 945:25, 958:1, 915:7, 925:23, 868:19, 869:15, 855:2, 884:17, occurred [8] - 812:10, 958:8, 977:10, 869:19, 869:20, 939:3, 939:14, 884:18, 890:1, 813:18, 824:3, 988:24, 992:9, 983:18, 984:15, 871:6, 871:7, 890:2, 890:4, 890:5, 843:5, 857:17, 992:22, 997:9 984:16 871:13, 871:17, 890:6, 902:6, 902:7, 930:6, 932:19, 941:1 new [11] - 846:8, 875:23, 876:5, northeast [2] - 926:7, 902:8, 902:9, occurrence [1] -888:1, 894:24, 882:14, 922:7, 946:23 902:10, 906:20,

932:17 851:25, 852:1, 807:11, 807:13, 979:9, 981:6, 981:7, opportunity [10] -29 occurs [1] - 825:3 852:17, 852:22, 807:14, 812:2, 984:2, 984:6, 811:21, 867:18, October [3] - 950:6, 853:6, 853:8, 813:4, 814:14, 984:16, 984:23, 876:13, 887:19, 853:10, 857:5, 816:2, 816:24, 985:3, 985:15, 895:12, 928:11, 980:14, 1000:18 857:15. 857:23. odd [1] - 878:10 817:1. 818:12. 985:16, 991:15. 948:15, 959:3, **OF** [7] - 765:2, 765:4, 858:1, 858:12, 820:7, 822:22, 991:20, 992:18, 974:4, 990:1 858:14, 858:16, 824:12, 827:24, 993:23, 1013:3, 766:13, 1027:1, **oppose** [1] - 1017:2 859:3, 860:4, 861:6, 828:13, 829:8, 1013:22, 1014:8, opposed [4] - 844:16, 1027:3 861:11, 864:24, 831:1, 832:24, 1015:23, 1018:8, 845:12, 849:1, Offenders [1] - 776:14 874:25, 877:2, 833:9, 833:12, 1019:20, 1020:3, 861:16 offer [22] - 783:22, 877:17, 877:20, 834:24, 847:2, 1021:7, 1022:9, 784:9, 785:20, opposite [1] - 965:10 877:22, 882:12, 847:14, 847:15, 1024:6, 1025:25 785:21, 785:23, **OPS** [1] - 870:4 882:24, 885:16, 847:22, 849:1, One [10] - 866:10, 831:5, 831:7, **Opsahl** [2] - 914:23, 893:4, 893:9, 850:8, 851:4, 909:9, 912:16, 831:15, 889:22, 915:7 898:21, 903:17, 852:19, 852:25, 915:14, 917:1, 901:23, 902:2, Opsahl's [1] - 914:14 909:16, 918:5, 853:17, 854:7, 940:18, 951:8, 906:18, 919:6, option [3] - 989:18, 930:7, 932:9, 854:12, 854:16, 955:7, 989:18, 927:18, 928:4, 1006:11, 1006:13 932:11, 932:20, 854:19, 856:8, 992:18 935:11, 944:23, options [2] - 989:18, 932:22, 933:11, 858:20, 858:22, one's [2] - 914:24, 955:1, 960:10, 990:8 934:14, 940:24, 858:23, 861:19, 977:5 976:9, 991:6, 994:12 oral [1] - 983:3 942:8, 943:2, 862:22, 864:12, one-time [3] - 858:20, offered [6] - 837:6, oranges [2] - 861:2, 954:10, 954:17, 865:14, 868:5, 858:22, 858:23 902:4, 927:22, 861:3 955:20, 981:17, 868:13, 869:25, 935:3, 955:1, 955:5 ones [9] - 833:10, orchid [1] - 1021:7 983:23, 993:3 870:10, 873:13, 874:2, 875:11, offering [1] - 959:8 order [10] - 781:13, Oil [10] - 774:18, 874:1, 874:6, 876:1, 961:5, 976:3, office [13] - 848:23, 808:18, 832:13, 874:23, 877:24, 776:2, 776:4, 776:7, 984:14, 1007:9, 903:4, 903:9, 914:7, 869:14, 875:17, 878:2, 884:14, 776:8, 776:15, 950:9, 994:2, 1007:16 933:18, 990:25, 776:19, 777:7, 884:20. 888:24. ongoing [2] - 1009:6, 1003:19, 1004:8, 1021:21, 1021:23, 777:12 889:2, 891:19, 1022:6 1004:10, 1005:22, 1021:25 oil's [1] - 984:5 892:10, 897:16, open [4] - 946:4, 1006:11, 1012:18 Order [1] - 887:13 903:6, 903:23, Oil's [1] - 776:16 984:12, 988:10, **Office** [10] - 766:7, orderly [1] - 910:17 908:11, 911:11, Oil-Sands [1] - 776:19 841:7, 846:2, 989:6 ordinary [1] - 1016:18 913:13, 915:17, old [5] - 846:8, 867:24, 852:14, 853:1, opened [1] - 945:25 Oren [1] - 777:3 916:20, 916:23, 914:7, 953:2 opening [1] - 947:2 857:9, 875:1, organic [1] - 813:9 older [5] - 802:18, 921:4, 921:13, 977:19, 1003:19, **operate** [1] - 971:6 organization [8] -921:14, 922:3, 867:1, 875:8, 1007:21 operated [1] - 971:10 927:10, 928:25, 930:7, 930:21, 875:11, 876:1 officer [1] - 1003:20 operating [4] - 850:25, 937:21, 940:13, 932:3, 932:19, Oliver [1] - 775:19 Officer [1] - 898:10 882:24, 971:5, 940:22, 941:22, 933:12, 934:11, Olson [7] - 770:11, offices [1] - 793:2 971:12 941:25, 942:25 936:11, 941:7, 776:6, 1002:7, official [4] - 856:19, operation [6] - 779:14, organized [1] - 929:1 942:23, 945:15, 1002:20, 1003:8, 898:23, 898:25, 970:23, 971:9, origin [1] - 880:15 946:18, 947:7, 1014:12, 1015:14 944:12 973:6, 973:8, 979:1 original [3] - 969:17, 947:8, 948:24, Omaha [1] - 913:1 operational [1] - 948:8 officially [3] - 944:9, 973:12, 987:18 949:14, 949:19, on-the-ground [1] operations [1] -952:11, 1011:23 otherwise [4] -950:3, 952:5, 1010:11 officials [1] - 899:6 1016:20 854:15, 916:9, 953:15, 955:21, Once [2] - 824:13, operator [3] - 854:13, oil [80] - 774:15, 1008:10, 1025:25 956:14, 957:10, 993:22 779:14, 780:3, 863:24, 942:19 Otherwise [3] -957:11, 957:12, once [11] - 831:16, 781:16, 785:5, operators [1] - 863:8 889:12, 917:21, 957:17, 959:11, 856:11, 910:1, 787:7, 795:10, opinion [23] - 799:19, 994:19 959:13, 959:22, 940:2, 940:3, 953:9, 795:12, 804:25, 803:6, 804:19, ought [1] - 1021:22 959:23, 960:2, 965:8, 971:14, 806:25, 807:5, 804:22, 804:24, outcropping [1] -960:15, 965:1, 976:4, 986:3, 994:24 808:4, 812:10, 820:17, 823:7, 803:5 965:5, 965:7, 965:9, one [175] - 780:7, 824:8, 861:21, 813:16, 821:13, outcroppings [1] -965:10, 967:6, 786:23, 787:23, 824:13, 824:24, 892:25, 893:10, 802:1 967:11, 967:25, 788:22, 788:23, 832:18, 836:2, 908:24, 909:16, **outcrops** [1] - 793:13 969:2, 969:7, 788:25, 789:2, 836:5, 837:15, 910:16, 929:7, outfit [1] - 951:5 969:13, 970:10, 789:19, 789:21, 837:16, 837:17, 940:21, 940:23, outflow [1] - 873:15 970:20, 971:4, 796:3, 796:23, 840:18, 849:12, 941:25, 942:24, outhouse [1] - 913:25 972:19, 973:4, 798:19, 799:22, 946:14, 946:25, 849:15, 849:18, outlets [1] - 1016:18 973:7, 973:11, 800:6, 805:16, 851:10, 851:24, 962:22, 990:18 outside [3] - 834:2, 974:15, 976:2,

904:20, 973:5 overall [3] - 832:19, 844:24, 953:14 overburden [1] -801:25 overflows [1] - 938:12 overlies [1] - 788:21 overrule [3] - 968:18, 989:16, 989:19 overruled [1] - 924:10 Overruled [2] -806:10, 1024:20 oversight [1] -1006:15 overstated [6] -843:17, 844:1, 844:5, 844:20, 844:22, 845:17 overview [1] - 839:5 owe [1] - 826:19 own [18] - 811:21, 811:25, 826:25, 827:4, 834:11, 834:12, 835:24, 850:22, 868:3, 903:23, 950:14, 969:23, 983:22, 989:20, 1018:8, 1018:12, 1026:9 owned [4] - 898:21, 907:23, 907:24, 957:22 owners [1] - 906:3

Ρ

p.m [2] - 992:23, 1026:20 P.O [3] - 765:16, 766:3, 766:10 pa's [1] - 914:18 pace [1] - 984:3 pack [1] - 893:1 Packet [2] - 778:21, 778:23 packet [3] - 959:16, 962:3, 969:17 page [81] - 778:16, 782:15, 782:17, 782:18, 782:21, 792:8, 793:9, 794:8, 794:23, 799:8, 801:21, 802:9, 802:13, 803:23, 804:4, 804:5, 804:14, 811:11, 813:19, 814:15, 827:18, 827:19, 827:25, 847:23,

852:10, 852:15, 852:18, 853:6, 853:14, 853:16, 855:13, 855:20, 856:3, 858:10, 858:18, 859:8, 863:6, 866:1, 869:3, 873:7, 875:4, 876:23, 878:21, 880:16, 881:5, 882:8, 882:9, 890:25, 891:18, 892:4, 893:3, 898:20, 899:12, 908:21, 913:12, 960:3, 965:19, 965:22, 967:4, 967:7, 967:9, 967:20, 976:12, 980:11, 980:12, 980:13, 981:3, 981:5, 981:8, 995:6, 995:7, 997:19, 999:15, 999:17, 999:20 Page [17] - 767:2, 768:1, 769:1, 770:1, 771:1, 772:1, 773:1, 775:19, 775:21, 776:6, 776:23, 776:24, 777:2, 777:3, 777:3, 777:4, 848 19 pages [5] - 847:21, 855:8, 959:25, 965:22, 969:10 Pages [1] - 765:8 paid [5] - 891:23, 951:17, 955:10, 992:2 Paige [5] - 770:11, 1002:7, 1002:17, 1003:7, 1003:8 Pakistan [1] - 776:5 paleontological [1] -1008:5 Pam [17] - 769:21, 776:21, 778:17, 778:18, 901:4, 903:15, 912:4, 918:19, 919:1, 919:17, 925:11,

939:5, 977:7, 977:9,

977:13, 977:14,

Panel [1] - 777:5

paper [5] - 778:22,

977:17

849:8, 849:9,

849:22, 850:14,

851:3, 851:22,

959:10, 968:23, 987:22, 999:19 papers [1] - 959:17 paragraph [16] -827:19, 827:20, 828:1, 890:25, 891:8, 892:4, 893:4, 894:10, 894:17, 898:20, 899:9, 899:11, 899:12, 899:13, 981:3, 981:8 paragraphs [2] -811:14, 855:12 paralleled [1] - 871:1 Pardon [3] - 926:19, 996:5, 1014:5 parenthesis [1] -828:4 park [2] - 956:16, 972:18 Parks [4] - 1016:9, 1016:10, 1017:17, 1018:8 Part [3] - 774:14, 774:15, 1004:25 part [22] - 781:25, 795:17, 795:18, 805:23, 810:25, 839:18, 842:11, 852:14, 852:24, 856:14, 860:17, 861:9, 861:12, 864:3, 872:11, 910:7, 923:17, 927:7, 936:22, 957:24, 969:11, 984:1 particular [22] -790:14, 797:7, 810:8, 816:17, 816:18, 840:19, 849:3, 852:10, 853:1, 854:18, 863:22, 870:11, 873:25, 877:21, 957:25, 958:22, 959:1, 973:1, 1011:8, 1017:21, 1019:5, 1021:2 particularly [1] - 942:7 parties [12] - 824:6, 875:12, 885:25, 890:3, 890:9, 907:2, 919:19, 928:9, 961:18, 980:4, 988:4, 995:1 party [7] - 864:25, 865:8, 875:6, 875:20, 966:10, 987:25, 1010:7

passed [2] - 783:16, 783:20 passes [1] - 784:22 past [6] - 869:17, 896:2, 906:1, 930:18, 932:8, 944:11 pastor [1] - 915:17 pastors [1] - 915:18 pasture [2] - 905:20, 906:10 pastures [2] - 908:12, 958:5 patch [1] - 862:8 patient [1] - 926:22 Paul [1] - 780:23 Pause [1] - 990:11 pausing [1] - 988:3 pay [6] - 917:11, 964:24, 978:15, 978:19, 979:14, 986:2 Pay [1] - 777:11 paying [3] - 955:22, 956:12, 958:18 payment [4] - 917:13, 934:13, 956:18, 968:25 Pearl [1] - 914:17 peculiar [1] - 884:6 pen [1] - 967:23 people [37] - 791:21, 793:7, 793:23, 814:1, 827:18, 876:8, 881:1, 883:22, 885:20, 886:12, 887:9, 888:7, 888:25, 906:3, 910:8, 912:11, 912:16, 912:19, 912:20, 913:6, 913:19, 914:21, 915:14, 915:16, 922:10, 933:23, 937:22, 958:17, 972:8, 972:9, 988:5, 988:11, 988:12, 990:4, 1002:8, 1018:4, 1021:16 Per [1] - 845:24 per [13] - 819:22, 842:17, 843:15, 843:17, 847:4, 847:7, 848:10, 848:11, 850:6, 873:15, 882:12, 948:23, 951:12 perceived [1] - 929:8

pass [1] - 951:21 percent [11] - 818:13, 30 818:19, 843:22, 843:25, 844:6, 863:8, 866:13, 1010:22, 1011:4, 1011:7, 1011:15 percentage [3] -973:6, 973:7, 973:8 perfect [1] - 948:2 perfectly [1] - 888:13 perform [2] - 836:5, 836:8 Performance [1] -774:18 performance [3] -837:21, 837:22, 878:1 performed [5] -781:17, 801:25, 808:15, 836:11, 863:23 perhaps [11] - 811:20, 834:13, 834:16, 838:21, 843:11, 864:15, 867:13, 870:12, 876:4. 877:19, 967:18 period [13] - 835:14, 841:20, 849:11, 854:21, 868:18, 874:11, 904:8, 932:1, 955:17, 970:19, 978:22, 991:7, 1002:24 periods [1] - 947:24 **permafrost** [1] - 949:3 permanent [1] - 940:8 permeability [2] -811:18, 816:13 permeable [5] -788:17, 819:14, 819:15, 819:16, 819:18 permission [2] -950:21, 958:17 **PERMIT** [1] - 765:5 permit [14] - 780:3, 885:15, 902:17, 917:24, 934:19, 942:17, 942:18, 942:22, 979:15, 1004:1, 1005:25, 1006:4 Permit [1] - 774:11 permits [2] - 902:20, 903:3 permitted [1] -1004:12 perpetual [3] - 912:14, 954:8, 979:11

Perry [1] - 771:2 photos [12] - 854:25, 848:10, 861:7, 851:10, 851:18, 1012:7, 1012:20, 31 person [9] - 784:17, 855:1, 877:15, 862:2, 863:22, 852:1, 852:5, 1018:10, 1018:18, 855:12, 863:14, 877:21, 884:19, 864:7, 868:14, 852:22, 853:5, 1018:23, 1019:1, 853:7, 853:20, 918:20, 918:21, 868:15, 869:8, 1019:18, 1020:2, 949:19, 969:18, 918:25, 934:23, 869:10. 871:19. 854:1. 854:2. 1020:7 994:4, 997:15, Pipeline [48] - 774:17, 1005:24, 1015:24 935:19, 951:22, 871:25, 873:17, 854:17, 855:16, 878:22, 879:1, 856:25, 857:6, 774:18, 775:15, personal [6] - 778:16, 965:15 884:9, 910:17, phrase [2] - 878:10, 879:2, 879:3, 879:6, 858:11, 859:10, 775:23, 776:7, 879:9, 893:5, 893:7, 860:4, 860:25, 776:8, 776:10, 996:25, 1000:12, 985:20 861:9, 861:17, 1000:16 Phyllis [1] - 776:24 893:9, 893:10, 776:19, 777:5, 896:9, 904:12, 861:19, 862:5, 777:6, 777:8, 780:3, personally [2] - 954:7, physically [1] -904:14, 904:15, 862:13, 862:16, 787:7, 803:1, 828:2, 1000:23 1008:23 904:16, 904:17, 863:4, 863:9, 840:21, 841:1, personnel [1] - 793:1 picked [4] - 816:24, 904:20, 904:21, 863:25, 864:3, 841:7, 842:5, 846:2, perspective [7] -817:1, 924:11, 946:2 908:22, 911:12, 864:8, 864:24, 848:12, 849:25, 832:18, 833:25, pickup [2] - 972:18, 912:10, 916:5, 865:15, 865:16, 850:11, 850:24, 836:16, 836:20, 998:19 916:21, 916:22, 852:14, 853:1, 867:8, 867:9, 844:4, 856:8, 865:23 picture [4] - 807:22, 855:17, 857:9, 930:8, 930:25, 868:13, 868:18, pertain [1] - 899:14 849:23, 851:3, 869:5, 869:16, 932:5, 945:19, 859:10, 863:21, pertaining [2] -972:22 946:8, 972:5, 979:9, 869:19, 869:24, 866:19, 869:6, 792:16, 809:20 pictures [16] - 778:23, 981:13, 985:24, 871:7, 871:8, 871:9, 874:1, 874:2, pertains [1] - 899:16 859:12, 859:18, 985:25 871:22, 873:5, 874:16, 875:1. 914:2, 914:13, pertinent [2] - 806:3, **PIPELINE** [2] - 765:4, 873:9, 873:24, 875:10, 875:11, 915:11, 916:3, 897:10 765:6 873:25, 874:9, 876:3, 880:18, 930:21, 931:3, pesticides [2] -875:17, 875:25, 881:7, 885:15, pipeline [215] -938:6, 938:15, 822:12, 822:13 877:17, 877:20, 774:23, 775:15, 892:5, 929:3, 964:15, 964:25, petroleum [4] -877:23, 880:10, 933:13, 939:24, 779:14, 780:3, 969:6, 969:14, 970:6 795:11, 795:14, 780:4, 782:25, 880:18, 880:20, 995:7. 1018:14 piece [15] - 804:22, 795:21, 796:1 783:3, 784:8, 880:25, 881:2, pipeline's [1] - 909:1 869:25, 878:22, Ph.D[1] - 941:10 784:22, 785:6, 882:15, 882:24, pipelines [63] - 834:4, 879:2, 892:6, pheasants [1] -884:19, 885:16, 787:19, 788:1, 834:5, 838:1, 892:11, 903:23, 984:22 788:7, 788:21, 891:25, 897:14, 840:17, 841:15, 904:14, 909:2, **PHMSA** [9] - 774:11, 903:17, 903:18, 788:22, 788:24, 841:17, 841:20, 950:14, 957:25, 778:8, 830:16, 790:22, 792:16, 905:11, 908:4. 841:24, 842:10, 967:7, 1022:24 833:2, 846:2, 846:5, 793:11, 802:17, 909:16, 910:5, 842:14, 842:22, pieces [8] - 806:3, 848:2, 849:10, 802:21, 803:3, 916:9, 917:4, 918:5, 842:24, 843:9, 806:5, 806:13, 865:12 803:11, 803:16, 924:22, 924:24, 843:16, 844:14, 809:20, 830:22, phone [8] - 792:25, 929:16, 929:23, 808:1, 808:7, 810:3, 845:4, 846:4, 848:4, 879:3, 925:17, 902:16, 902:22, 810:7, 811:8, 930:2, 930:12, 848:5. 848:6. 968:23 953:5, 953:13, 930:13, 931:6, 811:24, 812:6, 848:15, 848:16, pierce [1] - 875:17 992:21, 993:4, 999:9 812:9, 813:3, 813:6, 932:7, 932:9, 934:7, 848:18, 849:4, pierced [3] - 869:16, phonetic [3] - 855:11, 813:13, 813:14, 939:24, 940:2, 849:6, 849:7, 880:21, 881:4 952:25, 992:20 944:10, 945:24, 814:21, 817:16, 849:11, 849:17, Pierre [5] - 765:17, phonetic) [1] - 978:18 948:6, 948:8, 818:13, 818:19, 853:24, 857:14, 766:8, 766:14, **Photo** [11] - 775:9, 948:13, 948:16, 820:12, 822:24, 859:11, 859:15, 806:6, 1027:13 775:9, 775:16, 948:21, 948:22, 823:2, 823:15, 859:19, 861:6, pig [3] - 882:4, 882:5 775:16, 775:17, 948:24, 949:13, 825:2, 828:3, 836:2, 861:10, 861:11, pigged [2] - 866:13, 775:17, 775:20, 950:7, 950:22, 837:10, 837:15, 861:12, 861:16, 866:17 775:20, 775:21, 952:21, 953:8, 838:6, 838:10, 865:5, 865:6, 866:2, pigs [2] - 866:11, 778:11, 778:11 953:10, 954:5, 838:14, 841:5, 866:7, 866:8, 867:1, 866:19 photo [1] - 919:11 955:20, 956:7, 867:2, 867:16, 842:21, 843:17, **pin** [1] - 826:2 photograph [10] -965:3, 971:5, 843:20, 844:17, 867:21, 867:24, **pink** [1] - 959:25 849:22, 850:2, 972:13, 973:10, 868:1, 872:12, 845:9, 845:12, Pink [1] - 778:22 850:4, 850:16, 845:22, 846:23, 974:23, 977:21, 872:13, 874:20, 851:2, 851:4, Pipe [1] - 845:25 846:24, 848:9, 977:25, 978:8, 874:25, 875:2, pipe [60] - 775:2, 855:13, 855:14, 978:14, 979:2, 848:11, 848:13, 875:7, 875:8, 855:15, 855:21 775:3, 802:21, 848:17, 848:23, 979:3, 979:6, 979:7, 875:12, 876:5, photographs [6] -803:2, 840:19, 979:18, 979:22, 850:2, 850:5, 850:8, 879:16, 930:7, 851:16, 854:16, 840:20, 842:23, 850:10, 850:12, 982:6, 986:20, 1016:14 854:19, 855:7, 846:10, 847:7, 993:20, 995:23, 850:14, 850:18, PIPER [2] - 926:20, 847:10, 847:11, 855:9, 862:17 996:21, 998:15, 851:5, 851:6, 927:3

Piper [15] - 770:2, plumb [1] - 954:1 816:1, 816:10, 930:15 828:13, 836:19, 32 778:9, 778:10, plume [4] - 853:10, 867:7, 878:14, precise [1] - 815:20 961:24 886:22, 927:3, 858:25, 859:3, 877:2 904:21, 1017:3 Preservation [11] predators [1] - 985:2 927:21, 928:2, Plus [1] - 915:15 possibly [4] - 843:8, predict [1] - 1002:22 1003:19, 1004:2, 935:6, 936:8, 938:6, 892:22, 970:10, 1004:3, 1004:21, plus [2] - 983:22, predicted [1] - 932:7 939:19, 941:7, 972:4 1004:23, 1006:14, 1002:25 prediction [2] -941:22, 943:9, post [11] - 790:8, 1006:15, 1007:14, point [47] - 780:6, 931:25, 932:3 1007:21, 1008:9, 943:10 848:9, 910:19, 785:20, 788:10, prefer [2] - 830:2, 914:7, 925:4, 1008:14 pipes [3] - 846:7, 788:22, 789:2, 834:23 846:8, 872:11 934:12, 939:10, preserve [1] - 940:16 789:24, 799:18, preference [1] preserved [1] - 957:21 piping [2] - 881:10, 800:2, 824:14, 956:15, 961:7, 1021:22 983:15 916:7 826:18, 831:16, presidential [1] preferred [1] - 783:1 place [17] - 793:18, posted [3] - 839:17, 833:12, 850:19, 1004:1 prefile [1] - 944:14 811:24, 814:9, 862:23, 863:13, 839:22, 840:1 pressure [13] prefiled [34] - 781:13, 820:16, 893:15, 863:17, 865:19, posting [1] - 839:17 850:19, 850:25, 782:5, 782:14, 903:12, 913:21, 875:5, 877:8, potable [1] - 785:8 783:7, 832:25, 861:22, 862:2, 916:20, 917:8, 877:18, 880:24, Potable [1] - 784:22 862:19, 873:14, 887:24, 888:3, 917:24, 918:3, 881:16, 890:7, potential [22] - 785:14, 875:16, 903:17, 897:7, 898:19, 918:6, 957:8, 898:9, 902:1, 905:25, 911:13, 795:25, 796:2, 901:11, 902:2, 919:18, 927:17, 979:15, 981:22, 911:14, 945:18, 804:13, 804:25, 902:6, 902:11, 985:19, 992:1 928:12, 928:15, 948:23 813:4, 823:3, 918:13, 918:18, places [3] - 813:13, 928:16, 931:23, 844:15, 866:9, pressurized [2] -927:9, 927:18, 833:5, 1025:1 932:24, 936:1, 870:10, 872:7, 862:17, 874:10 927:20, 928:6, plan [15] - 785:16, 943:25, 944:23, 929:11, 930:4, presumably [1] -944:6, 944:19, 813:22, 818:6, 952:6, 953:3, 930:11, 931:14, 983:5 974:24, 975:4, 961:17, 980:3, 904:2, 905:11, 933:5, 934:1, 942:6, 976:8, 976:15, presume [1] - 920:3 936:11, 978:14, 986:12, 994:23, 1005:2, 1005:4, pretty [17] - 815:16, 977:2, 978:25, 979:15, 1020:22, 1009:1, 1017:4, 1009:21, 1010:2 987:1, 987:15, 865:12, 878:12, 1022:6, 1023:10 1020:23, 1022:11, potentially [4] -895:9, 897:4, 988:4, 988:9, 1022:14, 1022:17, pointed [2] - 884:13, 988:12, 988:17 818:13, 823:3, 910:11, 913:7, 1023:11 965:4 824:4, 989:18 933:25, 935:2, pregnancy [1] - 950:4 plane [1] - 886:17 pointing [2] - 786:19, pothole [1] - 946:22 947:11, 948:9, prepare [4] - 806:2, planned [3] - 878:14, 801:9 pounds [2] - 850:18, 948:11, 949:5, 838:25, 856:11, 943:24, 1001:18 points [1] - 895:22 957:14, 970:24, 873:15 1020:17 policy [2] - 992:1, planning [6] - 785:17, 984:8, 994:21 power [2] - 951:4, prepared [2] - 872:23, 813:22, 817:15, 992:2 963:19 prevalence [1] - 934:4 954:14 878:7, 878:8, 878:9 **pollute** [1] - 905:5 prevent [3] - 863:18, Power [1] - 766:9 preparing [3] -Plans [1] - 777:7 poor [1] - 953:5 869:14, 892:3 PowerPoint [23] -805:23, 813:25, plans [5] - 866:19, popped [1] - 876:21 previous [5] - 810:9, 775:3, 778:8, 837:5 977:8, 977:11, portable [1] - 860:24 828:11, 828:14, presence [1] - 802:5 818:15, 879:10, 977:16, 1020:21 portion [11] - 789:17, 996:3, 996:6 828:21, 828:23, present [20] - 783:6, plant [5] - 892:15, 800:18, 824:19, 829:1, 830:6, 830:9, previously [5] -785:10, 802:7, 893:6, 893:14, 834:20, 843:1, 830:20, 830:21, 809:21, 872:3, 811:8, 811:9, 813:3, 905:22, 917:12 831:9, 831:13, 873:20, 968:5, 858:15, 899:18, 813:6, 813:15, 976:14 planted [1] - 893:18 834:20, 847:22, 966:13, 968:11, 814:20, 825:22, planting [2] - 892:13, 988:8, 988:11 855:8, 858:10, 829:3, 897:20, price [2] - 967:12, 858:18, 859:19, 986:2 904:2 portions [3] - 797:8, 898:1, 959:3, 959:6, **play** [9] - 795:17, 802:5, 1018:11 869:3, 873:6, 959:15, 962:10, primarily [2] - 828:24, 880:16, 881:6 795:18, 825:18, pose [2] - 909:17, 963:12, 965:13, 836:17 practical [1] - 973:13 Prime [2] - 787:6 860:11, 869:13, 928:21 1013:18 869:19, 884:3, position [4] - 942:14, practically [1] principal [1] - 929:10 presentation [9] -1004:2, 1017:15 966:17 942:15, 942:17, 775:3, 778:8, principally [1] pleased [2] - 965:3, 988:14 practices [9] - 822:5, 828:11, 828:14, 936:12 972:15 822:10, 867:8, 828:21, 830:6, **Position** [1] - 774:18 print [2] - 830:17, pleasure [1] - 1001:10 positioning [1] - 824:1 867:13, 872:10, 837:5, 839:5, 870:2 947:13 plot [1] - 815:18 possibility [1] -872:18, 872:19, presented [6] - 809:3, printed [2] - 806:17, plow [3] - 957:14, 905:12 818:15, 856:14, 904:25 921:2 958:2, 958:6 precautions [2] -856:15, 865:4, possible [11] - 803:15, printout [3] - 787:3, 869:14, 1020:14 plowed [1] - 957:24 812:13, 812:24, 946:11 828:10, 830:14 presenting [3] plowing [1] - 952:25 813:6, 813:12, precipitation [1] private [3] - 835:24,

898:21, 940:7 **pro** [4] - 766:5, 826:25, 854:24, 1001:18 probability [1] -862:21 problem [9] - 791:19, 796:3, 805:10, 813:15, 814:25, 825:11, 892:24, 912:23, 1001:7 problems [11] -795:13, 795:25, 796:2, 796:4, 796:6, 805:6, 818:4, 818:6, 864:15, 906:1, 922:4 procedure [1] - 928:7 procedures [1] - 867:8 proceed [12] - 784:20, 786:6, 829:7, 832:2, 832:11, 888:20, 889:6, 902:12, 945:8, 975:20, 1001:13, 1015:23 proceeding [1] - 927:7 Proceedings [1] -765:7 proceedings [3] -1026:20, 1027:9, 1027:12 PROCEEDINGS [1] -766:13 proceeds [1] - 786:16 process [16] - 926:11, 1004:15, 1004:20, 1004:22, 1005:18, 1007:3, 1007:22, 1008:2, 1009:1, 1009:3, 1009:5, 1009:6, 1009:17, 1018:7, 1022:6 **Produce** [1] - 776:18 produce [1] - 947:24 produced [1] - 949:14 product [5] - 795:14, 882:13, 893:5, 893:8, 949:9 Production [1] -775:18 production [2] -904:10, 984:11 productive [3] -903:23, 1019:23, 1019:25 products [3] - 795:21, 837:18, 858:14 professional [4] -781:2, 803:7, 827:11, 992:25 Professional [2] -

1027:5, 1027:19 **profile** [1] - 817:4 profit [1] - 955:23 program [2] - 858:24, 1016:11 Program [2] - 781:8, 1016:13 progress [2] - 1021:4, 1021:15 Project [4] - 775:15, 776:2, 804:20, 995:7 project [44] - 906:6, 918:9, 921:21, 923:21, 934:15, 939:20, 992:5, 1003:25, 1004:17, 1005:8, 1005:14, 1005:15, 1005:16, 1006:22, 1006:25, 1009:20, 1010:5, 1010:13, 1010:22, 1011:13, 1012:24, 1012:25, 1013:9, 1016:14, 1016:15, 1016:16, 1017:1, 1017:2, 1017:3, 1017:15, 1017:25, 1018:5, 1018:20, 1019:6, 1019:7, 1019:12, 1019:13, 1020:18, 1020:24, 1021:3, 1022:10, 1023:2, 1023:6 **PROJECT** [1] - 765:6 project's [1] - 1019:22 projected [4] - 840:25, 880:6, 880:7, 882:19 projection [1] - 847:9 projects [3] - 1013:1, 1020:20, 1022:15 promised [1] - 826:21 **prompt** [1] - 827:3 pronounce [1] - 994:3 pronouncing [1] -993:3 proof [7] - 782:1, 896:15, 909:9, 910:4, 910:16, 975:25, 978:7 **Proof** [1] - 779:2 proper [3] - 815:5, 924:2, 970:23 properly [3] - 897:11, 963:8, 1015:8 properties [21] -807:6, 1004:14, 1004:17, 1005:3, 1005:5, 1005:8, 1005:9, 1005:13,

1005:16, 1005:20,

1008:4, 1008:6, 1008:13, 1009:22, 1011:18, 1012:8, 1012:9, 1012:15, 1018:13, 1018:22 property [40] - 775:13, 775:13, 778:16, 815:22, 838:17, 906:3, 907:23, 907:24, 908:10, 910:2, 910:17, 923:7, 923:9, 923:10, 923:24, 925:17, 925:18, 926:8, 929:2, 945:24, 953:14, 953:18, 953:21, 954:12, 955:12, 955:24, 956:8, 957:17, 978:12, 979:4, 981:2, 984:7, 986:3, 1005:12, 1008:15, 1008:18, 1018:8, 1018:12 proposal [2] - 953:23, 955:18 proposals [1] - 954:15 propose [3] - 948:2, 948:3, 954:12 proposed [34] -782:24, 784:21, 787:20, 789:5, 802:16, 804:20, 859:9, 875:10, 903:21, 908:4, 909:1, 915:21, 926:1, 929:13, 930:12, 930:25, 931:6, 937:4, 948:6, 948:8, 948:13, 949:13, 953:9, 965:3, 977:21, 977:25, 978:8, 978:13, 979:2, 979:3, 979:21, 986:20, 1004:17, 1018:9

protective [2] -904:20, 911:18 protocol [1] - 828:16 prove [1] - 965:7 provide [8] - 790:15, 823:5, 907:24, 917:25, 990:1, 1017:24, 1018:17, 1019:14 provided [9] - 787:23, 803:25, 806:1, 807:13, 807:20, 833:22, 870:22, 1019:19, 1020:10 provider [1] - 908:18 providing [3] - 785:4, 862:25, 1019:16 provocative [1] -897:7 prudent [1] - 823:7 **PS** [2] - 913:9, 913:19 **PS-21** [1] - 778:19 psi [1] - 850:25 **PUBLIC** [2] - 765:1, 765:10 public [7] - 839:20, 918:1, 929:5, 940:9, 951:4, 990:1, 991:6 Public [14] - 776:20, 776:20, 776:21, 776:21, 776:22, 776:23, 897:12, 897:18, 898:8, 906:5, 919:25, 982:13, 1027:6, 1027:18 publicly [1] - 895:11 publish [1] - 843:19 published [4] -781:18, 793:11, 816:21, 841:19 publishes [2] -1024:15, 1024:23 **PUC** [22] - 803:25, 891:6, 894:18, 897:23, 902:25, 905:19, 907:5, 920:4, 936:9, 950:9, 953:6, 979:8, 993:19, 994:2, 998:14, 998:25, 999:8, 999:10, 999:22, 1000:1, 1000:19, 1003:21 **PUC-held** [1] - 894:18 pull [4] - 941:17, 964:9, 967:6, 1016:22 pulled [1] - 817:19 pulling [1] - 954:21

pump [10] - 850:23, 33 881:1, 881:10, 920:13, 922:24, 923:6, 923:13, 923:23, 939:9, 939:10 pumping [12] -904:24, 910:9, 910:10, 910:13, 912:21, 913:3, 913:14, 916:8, 919:1, 923:18, 926:1, 954:17 pumps [1] - 948:23 **purport** [1] - 849:8 purpose [2] - 888:2, 1019:13 purposes [2] - 782:10, 840:22 **pursuant** [1] - 976:13 pursuit [1] - 979:21 pushing [2] - 906:6, 994:1 put [34] - 814:9, 845:18, 864:20, 885:25, 892:9, 897:7, 899:23, 910:19, 911:4, 911:13, 912:20, 917:3, 917:4, 918:5, 920:21, 928:20, 942:5, 947:5, 947:8, 948:12, 951:9, 951:23, 962:9, 965:21, 968:8, 979:14, 982:5, 985:19, 988:16, 993:24, 993:25, 995:13, 995:17, 996:10 putting [4] - 891:22, 942:15, 942:16, 989:2 Q

Qualcomm [1] - 776:9 qualified [1] - 927:2 quality [5] - 814:16, 815:1, 821:5, 822:4, 872:9 quantity [1] - 932:6 quarter [12] - 885:2, 903:22, 926:6, 952:7, 958:11, 958:22, 960:16, 961:3, 961:7, 973:1, 985:7 quarters [4] - 974:22,

protection [4] - 785:4,

917:25, 940:17

proposes [1] - 850:9

protect [8] - 785:17,

813:23, 813:25,

899:25, 948:3,

955:24, 978:5,

protected [5] - 978:2,

1008:10, 1008:13

981:15, 1008:8,

protecting [1] -

996:24

979:13

983:19, 986:21 1025:14, 1025:15, 772:21, 772:23, reaches [1] - 824:13 982:13 34 Questioned [1] -1025:16 791:8, 817:11, react [2] - 931:24, reasons [1] - 995:23 777:6 Quick [1] - 775:19 822:17, 847:18, 933:3 rebuttal [1] - 817:23 855:5, 881:20, questioned [1] quick [3] - 876:22, Read [1] - 791:16 Rebuttal [8] - 774:3, 930:10 893:19, 985:15 886:6. 890:16. read [15] - 809:18, 774:4, 774:5, 774:6, questioning [4] quickly [2] - 883:9, 922:16, 938:1, 810:1, 841:13, 774:7, 774:8, 774:8, 998:5, 1002:4, 806:9, 935:9, 959:3, 970:14 889:11, 912:19, 774:9 1015:18, 1015:24, receipt [1] - 963:17 1024:19 quite [19] - 810:21, 920:5, 921:2, 1018:6 Questions [3] -815:21, 828:11, 933:12, 948:21, receive [8] - 805:25, RASMUSSEN [42] -776:15, 910:23, 844:2, 872:23, 949:6, 954:8, 961:5, 806:2, 806:5, 874:5, 898:8, 904:9, 784:15, 786:2, 986:17, 988:18, 973:23 806:15, 956:9, 790:19, 791:9, 920:22, 930:15, 989:22 968:21, 968:22, questions [108] -791:11, 791:19, 796:8, 806:18, 932:21, 936:24, reading [4] - 811:13, 994:18 796:7, 822:18, 954:13, 972:7, 998:13, 999:5, 806:21, 806:22, **Received** [6] - 774:1, 831:22, 847:20, 808:22, 815:11, 996:25, 1015:14, 1020:12 775:1, 776:1, 777:1, 855:23, 881:21, 1015:17, 1021:21, 820:7, 826:8, 828:7, reads [1] - 970:21 778:1, 779:1 886:8, 890:4, 829:4, 830:3, 832:6, 1026:6 ready [11] - 786:6, received [12] - 806:3, 834:17, 834:22, 890:18, 902:8, 827:19, 888:12, 806:13, 906:25, 906:22, 907:12, 847:16, 855:23, R 888:19, 889:13, 919:18, 935:14, 919:14, 922:18, 858:4, 858:5, 858:7, 926:20, 943:17, 935:17, 936:1, 927:24, 935:22, 860:2, 864:18, 944:2, 961:19, 941:9, 961:14, R59W [4] - 775:10, 938:2. 945:5. 871:1, 876:6, 876:8, 986:11, 1001:16 968:24, 970:4, 775:11, 775:12, 876:13, 876:14, 961:25, 967:11, real [5] - 896:14, 1000:20 775:12 968:20, 971:18, 876:19, 876:20, 905:25, 910:19, receiving [1] -Rahn [2] - 771:2, 980:8, 994:16, 878:18, 881:19, 922:2 1012:11 774:22 998:6, 1002:3, 881:23, 883:4, Realistically [1] recent [1] - 852:11 rain [2] - 917:6, 1002:6, 1009:11, 883:7. 884:7. 1026:16 recently [7] - 806:7, 930:19 1009:15, 1012:2, 884:23, 890:9, realize [4] - 854:13, 829:19, 829:20, rainfall [1] - 932:20 890:10, 890:14, 1015:19, 1015:25, 861:18, 972:9, 837:25, 932:22, raise [1] - 928:19 1019:4, 1021:19, 890:16, 890:22, 998:22 936:15, 1013:11 raised [2] - 930:21, 1025:19, 1026:14 891:14, 894:3, Really [1] - 970:16 reception [1] - 953:5 942:24 rate [16] - 791:2, 894:5, 895:18, really [40] - 814:24, recess [11] - 826:16, raising [1] - 973:14 834:15, 840:17, 897:9, 900:16, 830:14, 833:9, 826:18, 885:11, rambling [1] - 946:14 907:1, 907:10, 840:25, 847:1, 834:7, 838:21, 885:13, 885:17, 907:14, 909:11, range [7] - 786:25, 847:13, 848:1, 860:15, 862:3, 943:21, 943:23, 798:9, 798:17, 860:23, 865:6, 910:25, 918:12, 1026:12, 1026:18, 862:23, 872:14, 799:2, 815:23, 867:1, 867:24, 919:19, 921:5, 883:18, 884:9, 1026:20 846:7, 925:6 868:1, 874:24, 921:9, 922:16, 886:20, 887:22, recited [3] - 997:21, Range [3] - 788:3, 880:6, 880:7, 922:20, 924:8, 894:23, 894:25, 997:25 799:15 1002:21 924:12, 925:12, 898:12, 899:22, reclamation [1] rapid [1] - 930:16 Rate [2] - 842:5, 926:14, 928:8, 903:17, 904:21, 1016:17 845:24 928:19, 928:20, rapidly [1] - 1002:23 909:21, 911:5, recognition [2] rates [9] - 848:10, rare [2] - 1016:19, 938:1, 938:6, 918:9, 930:10, 953:24, 972:16 941:12, 941:13, 1017:13 848:14, 848:15, 932:4, 932:7, 933:3, recognize [4] -849:5, 859:14, 943:6, 943:7, 943:9, Rasmussen [49] -933:4, 934:20, 880:17, 897:12, 946:11, 951:1, 766:2, 767:4, 767:7, 866:2, 874:15, 955:24, 966:17, 974:8, 974:16 874:19, 874:21 961:18, 964:5, 767:9, 767:11, 975:14, 985:15, recognized [3] -971:17, 971:18, Rather [1] - 892:8 767:13, 767:17, 994:1, 999:3, 854:14, 883:1, rather [9] - 811:12, 973:25, 980:4, 767:21, 767:24, 1011:6, 1011:9, 915:25 980:7. 980:8. 768:3, 768:6, 811:19, 816:24, 1015:21, 1018:19, recollection [7] -980:11, 982:17, 768:23, 769:10, 871:5, 885:6, 1020:9 797:6, 820:10, 982:18, 982:20, 769:14, 770:12, 956:12, 982:5, Realtime [2] - 1027:6, 853:25, 878:7, 985:14, 994:20, 770:15, 770:18, 1019:7 1027:19 935:13, 935:15, 770:20, 770:21, 995:1, 998:6, Ray [1] - 775:11 reason [14] - 782:23, 998:1 1000:8, 1001:2, 771:2, 771:6, 771:9, Raymond [1] - 776:6 805:6, 806:11, recommend [2] -1001:3, 1001:18, 771:14, 771:20, re [1] - 934:6 816:16, 830:19, 823:11, 1026:12 re-looked [1] - 934:6 1009:10, 1013:25, 771:23, 772:3, 832:7, 847:8, recommendation [6] -1014:12, 1015:9, 772:8, 772:9, reach [1] - 787:9 859:18, 866:7, 801:24, 822:22, 1015:11, 1018:6, 772:12, 772:13, reached [2] - 934:19, 867:21, 889:11, 822:23, 823:8, 1021:20, 1025:12, 772:16, 772:18, 1013:21 958:22, 980:22, 823:15, 934:11

recommendations [3] 773:11, 773:15, 802:24, 829:4, 867:20, 873:20, 832:16, 833:25, 35 856:4, 873:7, 875:7, 877:15, - 794:18, 814:2, 773:15, 773:16, 964:2, 1023:5, 1011:22 773:20, 773:20, 874:18, 883:12, 882:4, 884:24, 1023:7, 1025:18 908:21, 929:10, recommending [3] -773:21 890:25, 891:8, relieve [1] - 839:21 893:4, 893:8, 1017:5 963:4. 964:6. 794:21, 802:3, 804:9 **RECROSS** [4] - 819:2, relocate [1] - 923:20 reconnaissance [2] -822:20, 878:19, reference [19] -972:19, 981:12, relocated [2] - 923:13, 882:1 797:10, 799:23, 982:14, 994:20, 1010:5, 1011:5 923:14 Recross-800:2, 802:9, 803:3, 1000:13, 1000:14, reconvene [1] remain [3] - 860:17, 803:5, 813:16, 1000:21, 1000:25, Examination [43] -943:20 862:17, 875:6 1013:14, 1020:17 767:7, 767:7, 820:11, 829:4, reconvened [2] remainder [1] - 965:22 834:21, 857:4, region [7] - 852:2, 767:11, 767:11, 780:4, 885:16 remediated [6] -767:15, 767:19, 857:12, 860:12, 910:17, 929:18, 818:7, 821:20, reconvening [1] -767:19, 767:24, 879:22, 891:18, 929:19, 937:1, 826:18 821:21, 821:22, 892:5, 908:20, 937:3, 937:4 767:24, 768:8, 821:23, 857:20 record [27] - 780:20, 768:12, 768:12, 967:11 regional [3] - 802:18, remediating [1] -788:15, 800:1, referenced [7] - 797:6, 851:24. 852:22 768:13, 768:24, 826:17, 827:6, 795:14 841:2, 841:5, 841:6, 769:11, 769:12, 802:25, 805:15, Register [2] - 1005:11, remediation [12] -806:9, 830:12, 769:16, 769:16, 1008:16 852:14, 852:25, 781:6, 795:7, 770:22, 770:23, 843:4, 856:24 registered [1] - 781:2 859:17, 864:21, 795:17, 815:6, 771:11, 771:12, references [3] -Registered [2] -867:17, 888:18, 818:2, 821:2, 821:5, 771:15, 772:10, 797:16, 834:1, 1027:5, 1027:19 897:22, 908:17, 821:10, 933:7, 772:13, 772:13, 967:20 951:25, 966:14, regret [1] - 797:5 933:14, 933:21, 969:5, 969:15, 772:14, 772:18, referencing [3] regs [1] - 968:8 943:4 772:18, 772:22, 834:4, 853:17, 939:9 974:8, 994:10, regulations [1] -Remember [1] -772:23, 773:5, referred [4] - 809:16, 997:17, 1001:24, 1004:24 941:17 773:5, 773:6, 853:18, 871:5, 906:9 1002:13, 1003:7, regurgitate [1] - 809:4 remember [20] -773:10, 773:10, 1016:6 referring [14] - 794:15, regurgitating [1] -797:5, 815:18, records [2] - 1010:21, 773:11, 773:15, 795:3, 801:4, 820:4, 820:5, 999:19 773:15, 773:16, 801:18, 802:22, 1017:14 reiterate [2] - 888:2, 839:10, 839:13, 773:20, 773:20, 803:1, 824:2, recourse [1] - 983:7 882:6, 886:15, 890:23 773:21 875:16, 899:15, recover [2] - 877:8, relate [2] - 955:2, 922:12, 923:17, **RECROSS-**961:7, 981:4, 953:16, 974:13, 877:9 962:18 **EXAMINATION** [4] -981:20, 1011:4, recovered [2] - 858:2, 987:22, 987:23, related [1] - 973:13 819:2, 822:20, 1017:5 858:3 995:10, 996:3, relates [3] - 827:9, 878:19, 882:1 refers [3] - 799:8, 996:6, 997:21 recovery [1] - 877:4 963:9, 998:12 red [3] - 853:9, 800:12, 966:3 recreation [3] - 935:5, remind [2] - 831:15, relating [1] - 859:12 882:16, 1020:24 refined [2] - 837:18, 940:7, 940:11 888:21 relation [1] - 856:25 redacted [6] - 778:22, 858:14 reminding [1] - 884:16 recreational [1] relations [2] - 963:7, 968:12, 968:23, reflect [1] - 845:3 1017:7 remission [2] -972:10 969:23, 976:13, reflected [5] - 841:17, recross [5] - 818:24, 921:21, 922:1 relationship [3] -976:18 842:11, 842:25, removal [1] - 913:5 818:25, 822:17, 811:18, 848:14, Redirect [18] - 767:6, 844:19, 879:17 878:17, 881:18 remove [4] - 805:5, 849:4 767:15, 767:23, reflective [1] - 828:23 857:23, 985:24, Recross [43] - 767:7, relative [2] - 873:25, 768:8, 768:9, reflects [1] - 816:18 767:7, 767:11, 986:2 975:10 768:15, 769:11, refresh [1] - 882:10 767:11, 767:15, removed [1] - 811:6 relatively [1] - 868:23 770:21, 771:11, refuge [1] - 984:20 767:19, 767:19, rent [2] - 955:6, 956:5 release [12] - 785:5, 772:9, 772:17, Regan [1] - 950:13 767:24, 767:24, 804:25, 805:2, renting [1] - 914:20 772:22, 773:4, 768:8, 768:12, regard [11] - 812:23, rents [1] - 955:13 805:4, 808:5, 773:9, 773:14, 768:12, 768:13, 837:14, 884:19, 812:10, 813:10, reoffer [2] - 935:19, 773:19, 773:21, 768:24, 769:11, 922:5, 925:15, 967:20 813:16, 813:18, 878:16 769:12, 769:16, 1007:3, 1009:2, 814:23, 821:13, reoffering [1] - 968:10 redirect [3] - 817:7, 769:16, 770:22, 1014:17, 1019:12, 826:4 Repeat [1] - 812:2 883:16, 1015:17 770:23, 771:11, 1019:17, 1022:25 releases [5] - 795:11, repeat [2] - 993:22, **REDIRECT** [1] - 817:9 771:12, 771:15, regarding [33] - 783:2, 795:12, 818:3, 999:10 reduce [2] - 821:24, 789:14, 793:4, 772:10, 772:13, 839:12, 859:3 rephrase [3] - 824:3, 1022:12 772:13, 772:14, 817:22, 825:20, relevance [4] - 806:8, 824:22, 1003:16 reducing [2] -772:18, 772:18, 825:22, 832:11, 884:21, 900:10, replace [2] - 782:16, 1022:18, 1022:21 772:22, 772:23, 832:22, 832:23, 1024:18 782:19 Reed [1] - 766:2 773:5, 773:5, 773:6, 837:16, 854:2, relevant [9] - 783:4, replicated [1] - 881:6 refer [12] - 802:12, 773:10, 773:10, 854:16, 867:4, 804:13, 832:14, reply [1] - 993:8

report [30] - 797:9, 786:17, 804:20 1012:9, 1013:5, rethink [1] - 887:11 risks [8] - 804:21, 36 797:12, 797:15, Request [2] - 779:22, 1015:2, 1017:6, return [3] - 933:16, 804:23, 808:4, 799:22, 800:8, 779:23 1017:7, 1022:7, 955:11, 993:7 808:5, 808:10, request [3] - 780:6, 806:5, 825:20, 1023:21 876:4, 942:6 returned [1] - 993:13 840:6, 840:7, 781:22, 792:7 respect [19] - 784:13, River [17] - 766:9, review [33] - 781:17, 848:23, 853:23, requested [3] - 780:8, 797:6, 833:9, 837:2, 781:18, 781:20, 766:11, 777:13, 853:25, 857:7, 837:10, 838:10, 778:11, 778:11, 781:24, 793:3 781:25, 784:21, 857:8, 857:14, 838:16, 845:15, 816:7, 905:4, requesting [1] - 792:5 792:12, 792:18, 863:2, 863:6, 860:23, 877:13, 929:12, 929:14, 793:17, 794:8, require [2] - 933:17, 863:11, 864:6, 877:17, 877:25, 929:17, 938:12, 988:20 803:24, 806:12, 906:2, 963:6, 963:9, 864:12, 865:13, 938:13, 938:17, required [5] - 870:5, 810:12, 810:13, 866:1, 866:10, 976:7, 1014:15, 939:18, 946:17, 954:11, 1012:12, 812:8, 813:2, 866:12, 870:4, 1015:1 1024:10, 1024:13 1012:14 816:11, 816:12, 871:17, 931:21, respects [1] - 867:11 817:2, 817:3, river [2] - 905:6, requirement [3] -991:17, 1020:17 respond [3] - 820:25, 932:20 817:17, 854:5, 866:21, 934:12, Report [8] - 776:14, 828:7, 876:8 939:19, 964:12, Road [1] - 944:12 981:20 797:2, 833:6, 840:4, responded [1] -975:14, 975:23, road [10] - 892:16, requirements [3] -849:10, 853:24, 792:25 988:4, 1003:18, 913:22, 917:15, 870:7, 916:11, 859:22, 864:1 responding [1] -1006:1, 1008:3, 928:22, 951:10, 934:16 Reported [1] - 765:24 834:21 1008:21, 1013:1, 951:12, 953:20, reroute [1] - 977:9 reported [5] - 839:7, 1016:12 956:23, 959:14, research [13] - 809:2, response [26] -841:16, 842:17, 795:16, 795:18, Review [1] - 1016:13 965:10 811:7, 837:7, 837:9, 848:17, 930:19 795:19, 805:4. reviewed [21] roads [4] - 945:24, 839:2, 859:2, 863:1, Reporter [4] - 1027:6, 814:5, 814:7, 781:12, 790:12, 945:25, 946:1, 946:5 866:6, 866:25, 1027:19, 1027:19 814:24, 818:4, 795:1, 795:3, 795:6, Robert [2] - 766:9, 869:8, 947:18, reporter [18] - 780:14, 948:25, 1015:4 818:6, 820:7, 805:23, 808:2, 767:3 827:1, 889:1, 889:2, 820:23, 820:24, 809:7, 809:9, rock [2] - 802:19, researched [1] - 809:3 889:4, 901:6, 821:5, 821:9, 809:10, 813:9, 957:9 researcher [2] - 948:4, 906:15, 912:3, 821:24, 823:21, 829:16, 831:10, rodent [2] - 904:19 948:5 926:24, 927:21, 824:9, 824:11, 866:1, 919:24, Rodrick [1] - 766:2 researchers [1] -944:3, 965:16, 870:8, 897:17, 920:3, 920:8, 936:8, rods [1] - 957:18 948:14 974:18, 986:13, 933:6, 933:8, 936:10, 936:13, rolling [1] - 1019:24 reseed [1] - 957:21 1003:4, 1016:3, 978:18, 978:21, 1012:11 Ron [1] - 775:18 Reservation [1] -1023:16, 1027:9 979:2, 999:21 reviewing [4] - 810:8, 870:12 Ronnie [1] - 915:7 840:3, 988:5, REPORTER [2] -Response [2] room [2] - 943:15, reserve [1] - 831:12 779:22, 779:23 1004:10 959:21, 960:8 947:4 reservoir [1] - 938:10 reporting [1] - 930:18 responsibility [5] -**Reviews** [1] - 775:6 Room [1] - 766:14 Reservoir [1] - 940:6 Reports [3] - 842:8, 839:8, 839:22, reviews [1] - 1012:6 Roswell [1] - 986:20 reside [1] - 927:3 842:9, 845:8 1004:13, 1005:1, Rex [1] - 1008:5 rotation [1] - 978:14 residence [1] - 944:11 1007:13 reports [6] - 813:8, Richard [5] - 766:6, rough [1] - 906:1 Residents [1] - 776:4 856:12, 856:16, Responsibility [5] -768:16, 776:23, residual [3] - 795:20, roughly [2] - 878:8, 856:17, 896:13, 833:6, 840:4, 842:8, 777:15, 777:16 795:21, 805:6 878:11 932:7 845:8, 859:21 ridge [2] - 946:15, round [4] - 892:9, resolution [1] represent [2] - 801:5, responsible [6] -946:22 912:22, 950:15 1006:12 897:24 934:18, 985:23, right-hand [3] - 880:5, Route [2] - 774:20, Resolution [3] -1004:10, 1006:22, representation [5] -952:17, 952:20 775:24 774:24, 778:5, 779:9 786:13, 786:22, 1007:16, 1014:11 Rights [1] - 1016:16 resource [7] - 785:17, route [62] - 774:10, 788:9, 797:19, 819:5 rest [6] - 893:21, rights [1] - 979:22 782:25, 783:1, 813:23, 813:25, 899:9, 965:21, representative [3] rip [1] - 917:19 784:8, 784:22, 929:6, 929:22. 966:7, 966:9, 967:12 891:7, 897:19, 899:4 Risk [1] - 933:13 785:6, 787:2, 929:24, 1012:6 restate [5] - 798:5, representatives [4] risk [16] - 804:24, **Resource** [1] - 1007:9 787:20, 788:22, 792:9, 922:10, 800:17, 821:7, 808:9, 832:18, 788:24, 789:5, Resources [4] -824:23, 1024:21 1013:17, 1020:19 833:11, 836:5, 789:11, 792:16, 805:22, 927:5, represented [2] restricted [1] - 858:15 836:14, 838:10, 792:17, 793:11, 928:25, 940:13 881:5, 898:9 Restrictions [1] -875:7, 893:2, 797:18, 802:17, resources [18] -774:19 representing [5] -909:25, 933:4, 802:21, 802:22, 929:19. 929:21. 798:8, 898:14, restricts [1] - 984:3 934:1, 934:9, 802:23, 803:1, 933:7, 936:13, 898:16, 937:20, result [3] - 818:5, 936:10, 936:11, 803:2, 803:3, 940:16, 940:19, 1007:24 837:3. 854:4 937:2 803:11, 803:14, 941:24, 942:6, resulted [1] - 827:21 represents [2] riskiest [1] - 848:17 803:17, 803:20, 946:21, 1008:5,

810:3, 810:4, 810:5, saturated [1] - 917:8 seat [2] - 888:21, 970:18, 971:22, 37 S 1002:11 810:9, 811:8, 812:9, save [4] - 905:9, 971:25, 972:1, 812:21, 813:3, 952:24, 953:4, seated [1] - 898:17 972:23, 974:23, S.W [1] - 765:22 983:19, 1004:23, 813:6, 813:13, 958:22 second [28] - 784:4, safe [2] - 810:20, 822:24, 823:2. 1004:24, 1006:1. saw [5] - 833:2, 833:4, 784:6, 827:25, 909:21 838:14, 860:19, 913:19, 916:20, 834:24, 842:4, 1007:3, 1009:1 903:21, 925:11, **safer** [3] - 863:9, sectional [1] - 815:20 1011:12 864:25, 872:11, 863:11, 916:22 929:13, 929:25, SCADA [17] - 853:18, 890:25, 892:4, sections [8] - 790:9, 930:5, 930:14, Safety [14] - 774:18, 790:11, 807:18, 853:24, 854:3, 892:23, 893:3, 841:7, 842:9, 846:3, 934:7, 937:4, 937:7, 894:10, 898:20, 807:25, 808:2, 854:7, 854:10, 852:14, 853:1. 939:24, 942:1, 863:2, 863:8, 899:12, 899:13, 810:12, 818:9, 951:8 942:5, 942:12, 853:24, 856:4, 863:11, 863:14, 908:21, 977:12, secured [1] - 1023:2 942:13, 977:21, 856:7, 857:9, 863:4, 981:3, 981:6, 981:8, sediment [1] - 781:6 863:18, 863:23, 1018:23, 1019:1, 864:1, 871:16, 875:1 864:8, 864:13, 995:6, 995:18, see [74] - 783:11, 1019:18, 1019:19 safety [9] - 837:10, 878:1, 878:3, 878:13 999:15, 999:17, 783:13, 786:25, 837:15, 838:7, routes [1] - 810:10 SCADAs [2] - 863:16, 1009:5, 1009:17, 788:10, 789:25, 848:23, 867:16, routing [1] - 1018:9 864:11 1022:5 790:1, 791:2, row [2] - 978:2 910:5, 910:6, 912:9, Second [3] - 779:23, 796:20, 798:16, scale [1] - 793:17 918:1 Rox [1] - 1014:3 989:21, 999:20 800:9, 802:7, 803:5, Schaeffer [1] - 775:18 Sahr [3] - 766:9, **Roxanne** [3] - 766:6, 804:3, 804:7, 804:8, secondary [5] schedule [3] - 885:19, 768:14, 768:15 1002:14, 1002:18 981:12, 981:13, 804:17, 808:8, 888:13, 1002:1 **sale** [1] - 949:24 RPR [1] - 765:24 981:17, 981:19, 816:3, 834:17, scheduled [4] rude [1] - 992:24 Salem [1] - 827:7 981:21 837:12, 847:5, 826:19, 886:4, sample [6] - 775:2, 847:6, 848:13, ruin [2] - 904:17, **secondly** [1] - 867:8 926:22, 944:1 775:3, 868:23, 904:20 section [51] - 783:17, 849:3, 849:14, scheduling [1] - 780:6 869:2, 1010:21, 849:16, 850:1, ruled [2] - 963:7, schematic [3] - 784:6, 784:3, 787:4, 788:4, 1011:16 989:16 788:5, 788:23, 850:4, 850:5, 851:8, 784:10, 784:25 **Samples** [1] - 775:7 789:1, 789:19, 851:15, 852:12, rules [3] - 905:12, Schematic [1] sampling [2] - 851:24, 853:6, 853:9, 789:21, 790:14, 968:7, 990:25 779:22 852:11 790:15, 791:12, 854:22, 855:15, ruling [7] - 966:23, school [1] - 923:17 sand [26] - 784:24, 855:21, 862:16, 797:17, 797:22, 967:8, 967:10, School [1] - 945:22 785:3, 785:9, 798:3, 798:6, 798:8, 868:8, 868:18, 976:23, 989:15, **Schramm** [3] - 772:15, 785:11, 789:15, 800:12, 800:25, 868:21, 877:1, 990:7, 990:15 779:16, 779:20 792:1, 799:4, 799:6, 877:2, 884:2, 884:5, 801:6, 802:25, run [7] - 834:19, Schroeder [1] -885:3, 889:11, 799:18, 800:16, 804:3, 807:11, 878:3, 892:5, 992:17 811:1, 811:7, 811:9, 912:14, 912:18, 807:13, 807:14, 892:16, 892:17, Schutz [1] - 766:2 912:25, 913:10, 812:12, 813:5, 807:20, 816:1, 909:22, 982:4 science [2] - 827:10, 814:20, 819:5. 816:25, 917:10, 916:22, 917:23, running [2] - 892:8, 863:15 928:14, 946:21, 819:7, 819:14, 925:6, 925:22, 957:7 Scientific [1] - 775:6 819:18, 823:3, 925:23, 952:7, 948:12, 955:19, runoff [1] - 930:22 scoping [3] - 921:11, 957:10, 957:17, 952:9, 952:10, 825:3, 859:4, runs [3] - 783:1, 921:14 960:15, 962:4, 1019:22, 1019:23 952:15, 953:16, 903:21, 948:24 Scott [7] - 765:21, 962:5, 966:1, **Sand** [1] - 1019:21 953:17, 953:25, rupture [4] - 854:16, 767:12, 771:16, sands [13] - 788:17, 965:6, 971:22, 966:18, 967:24, 873:13, 873:21, 779:6, 779:7, 969:11, 979:18, 790:16, 806:25, 971:23, 971:25, 932:23 886:15, 886:25 972:4, 973:2, 981:10, 988:5, 807:5, 811:1, ruptured [3] - 863:23, scouting [1] - 913:20 990:14, 995:21, 811:12, 811:18, 977:20, 977:24, 873:5, 932:10 scratch [1] - 957:9 997:18, 1000:1, 978:8, 979:6, 983:22 813:12, 816:22, ruptures [4] - 868:13, screen [1] - 878:22 819:11, 821:18, **Section** [36] - 775:10, 1002:3 868:18, 868:20, SD 181 - 766:10. seed [1] - 914:4 775:11, 775:12, 824:24, 956:25 868:22 774:10, 774:13, Sands [4] - 776:2, 775:12, 779:22, **Seeks** [1] - 777:9 rural [14] - 874:7, 774:14, 774:17, 787:5, 908:3, 908:8, seem [2] - 820:7, 776:16, 776:19, 907:25, 908:2, 774:20, 774:21, 950:8, 950:12, 873:12 777:7 908:6, 908:12, 775:6 950:14, 951:9, segment [4] - 840:20, sandy [5] - 787:8, 908:14, 908:17, SDCL [1] - 782:1 788:21, 790:23, 952:4. 954:1. 847:4. 847:11. 912:10, 1012:6, **se** [4] - 766:5, 826:25, 824:4, 824:14 955:12, 955:13, 848:11 1012:10, 1012:20, 854:24, 1001:18 956:14, 956:19, selected [5] - 816:17, Sask [1] - 776:13 1016:14 search [4] - 811:25, 958:1, 958:11, sat [1] - 1021:10 840:20, 942:2, Rural [3] - 774:24, 884:10, 1010:20, 960:15, 960:21, 942:3, 942:10 satisfactory [1] -791:14, 798:24 1010:21 965:1, 965:11, sell [2] - 954:23, 979:3 936:21 season [1] - 930:18

Selma's [1] - 915:2 sentence [3] - 827:20, sheets [1] - 959:10 shut [10] - 862:13, signature [1] - 980:12 38 SEMMLER [40] -828:2, 995:18 Shocking [1] - 777:11 862:16, 863:24, signed [4] - 902:18, 780:12, 780:16, separate [8] - 839:18, 864:3, 864:8, 989:5, 992:17, shook [1] - 956:4 783:20, 783:24, 841:3, 848:3, 854:1, 873:14, 904:3, 992:18 **shoot** [1] - 881:1 784:3, 784:9, 904:5, 912:23 854:21, 968:11, shop [2] - 896:6, significance [1] -785:18, 785:22, 969:24, 970:2 **SIBSON** [21] - 974:21, 915:2 811:14 986:14, 986:18, 796:21, 800:3, September [7] significant [20] shore [1] - 857:23 803:8, 803:11, 992:13, 993:12, 987:4, 987:8, 804:20, 804:23, short [9] - 826:14, 803:16, 806:8, 987:15, 987:21, 993:16, 996:21, 826:16, 826:18, 804:24, 808:4, 988:1, 988:16, 817:8, 817:10, 997:11, 997:19, 808:5, 808:12, 888:22, 904:24, 818:22, 826:10, 998:12 943:21, 959:23, 988:21, 989:1, 829:2, 837:25, 858:7, 858:9, 989:9, 989:23, sequence [1] - 946:10 838:4, 856:9, 973:16, 998:22 859:25, 883:6, 990:9, 990:12, series [3] - 854:16, 856:10, 858:1, shorthand [2] -890:6, 894:4, 898:3, 990:16, 990:20, 862:18, 864:7, 855:15, 962:14 1027:8, 1027:9 902:10, 910:24, 991:1, 991:3, 991:8, 876:4, 877:19, serious [1] - 909:17 **shot** [1] - 850:3 932:21, 940:25, 919:16, 924:14, 991:11 serve [1] - 913:25 shots [1] - 1011:24 928:1, 935:24, serves [3] - 843:21, **Sibson** [32] - 770:7, 941:2, 1008:20 show [27] - 782:3, 943:8, 967:14, 777:4, 779:1, 779:2, Significantly [1] -877:7, 905:2 782:9, 783:11, 779:3, 974:21, 973:24, 982:19, 833:3 **Service** [5] - 1007:8, 790:16, 805:19, 1000:9, 1000:11, 975:22, 976:8, significantly [3] -1007:9, 1019:9, 811:7, 840:15, 1014:2, 1015:10, 976:20, 980:6, 1020:12, 1020:22 837:23, 841:1, 847:25, 849:8, 980:11, 982:21, 1025:15 880:23 service [1] - 861:12 851:3, 851:22, Semmler [35] -982:22, 983:10, signing [1] - 999:4 **services** [1] - 861:8 852:5, 852:8, 765:13, 767:4, 986:11, 986:18, silt [3] - 784:22, session [3] - 872:22, 852:16, 882:10, 767:10, 767:18, 987:2, 987:18, 784:25, 819:14 943:22, 959:4 882:16, 884:24, 767:19, 767:23, 987:19, 988:5, **silts** [5] - 785:2, 785:7, set [9] - 842:4, 845:23, 888:1, 920:11, 768:4, 769:9, 988:7, 988:15, 788:19, 812:9, 813:9 879:15, 880:12, 920:23, 930:21, 769:11, 769:15, 989:5, 989:6, 989:8, Similar [1] - 795:5 931:4, 958:2, 880:13, 880:14, 770:10, 770:22, 991:12, 994:11, 958:10, 966:25, similar [4] - 783:6, 892:5, 894:19 995:5, 997:18, 771:3, 771:7, 772:9, 992:8 848:21, 877:16, sets [5] - 879:14, 998:10, 1001:3 772:11, 772:15, 879:17, 880:11, showed [5] - 848:22, 986:22 772:17, 772:20, **Sibsons** [1] - 974:15 similarly [1] - 975:7 880:13, 964:13 859:12, 862:4, 772:22, 773:2, sic [2] - 989:22, 993:7 878:2, 977:20 simple [1] - 903:16 **Sets** [1] - 776:12 773:4, 773:7, 773:9, side [18] - 786:23, seven [6] - 809:12, showing [3] - 787:5, **Simplified** [1] - 779:22 773:12, 773:14, 800:21, 802:21, 843:12, 905:23, 844:10, 938:7 **simplified** [3] - 784:6, 773:17, 773:19, 803:2, 841:10, 784:9, 784:25 931:5, 957:16, shown [10] - 784:25, 773:21, 773:21, 904:1, 924:21, 785:9, 797:23, 1012:17 **simply** [7] - 810:20, 773:24, 897:22, 924:22, 925:19, 802:10, 811:2, several [9] - 818:9, 846:19, 855:1, 898:11. 950:9. 951:12, 952:20, 827:11, 846:8, 842:11, 873:6, 937:14, 959:25, 1025:13 953:3, 953:16, 937:12, 938:14, 965:7, 988:12 852:4, 854:18, Semmler's [1] -955:14, 957:24, 939:24 905:8, 930:13, single [4] - 831:1, 877:13 959:25, 965:9, 944:11, 950:25 shows [30] - 787:3, 844:16, 850:5, 984:2 senators [2] - 899:3, 971:23 797:17, 799:10, severe [1] - 957:4 sit [1] - 833:18 922:10 **Sidley** [1] - 765:19 800:11, 800:21, severity [2] - 853:19, site [8] - 840:1, send [2] - 1000:5, Siegel [1] - 766:2 816:22, 840:18, 854:8 851:15, 857:19, 1008:22 Sieh [7] - 768:15, 848:19, 849:12, shall [1] - 916:9 883:13, 907:18, sense [3] - 814:3, 768:24, 769:2, 853:10, 853:11, shallow [7] - 785:5, 915:21, 954:20, 951:17, 954:16 770:4, 778:1, 778:2, 871:12, 882:12, 799:18, 815:22, 1008:17 sensitive [10] -941:14 882:14, 882:19, 816:4, 822:2, 822:4, **sites** [3] - 781:7, 781:16, 785:14, **SIEH** [5] - 941:13, 906:9, 935:4, 839:17, 1010:3 822:7 785:15, 793:15, 941:16, 941:19, 939:25, 952:8, shape [1] - 973:1 sits [1] - 951:8 804:2, 804:10, 941:21, 943:6 shaped [1] - 956:20 953:15, 956:17, sitting [1] - 1015:21 813:21, 814:20, sign [14] - 855:17, 959:13, 965:1, share [3] - 876:13, **situation** [5] - 816:2, 815:5, 824:4 855:18, 855:21, 965:6, 965:7, 965:9, 832:10, 876:24, 922:5, 956:7 sensitivity [2] - 813:1, 884:20, 902:17, 965:11, 977:8, 972:16, 1021:1 shared [1] - 922:6 814:16 903:1, 903:7, 977:21, 983:21 **shed** [3] - 914:6, **situations** [1] - 854:13 sent [9] - 870:7, 922:9, SHPO [8] - 1003:18, 903:12, 970:20, 914:16, 914:25 **six** [5] - 913:1, 913:13, 922:13, 949:17, 980:23, 992:15, 1003:20, 1007:19, sheep [1] - 973:20 915:25, 957:16, 953:23, 987:15, 992:19, 994:1, 1007:22, 1007:24, sheet [2] - 913:11, 996:9 987:22, 999:23 998:21 1008:1, 1012:18 size [4] - 868:24, 997:24

870:6, 957:12, 889:17, 889:22, 970:11, 970:15, 989:4, 989:14, 922:24, 923:4 39 1022:21 889:25, 890:3, 970:25, 971:19, 989:18, 990:7, soon [4] - 854:15, sized [1] - 899:2 890:7, 890:16, 973:23, 973:25, 990:18, 1001:25, 892:2, 948:5, 981:14 890:19, 894:3, 1002:25, 1015:15, 974:6, 974:13, **skipped** [1] - 937:9 sooner [2] - 893:21, 894:5, 895:18, 974:19, 974:24, 1025:12, 1026:4 893:22 slide [4] - 852:10, 853:18, 862:12, 896:22, 900:24, 975:2, 975:6, 975:9, **Smith's** [1] - 990:14 sorely [1] - 922:4 901:3, 901:7, 975:16, 975:18, **snow** [3] - 851:16, 870:2 Sorry [6] - 791:17, 901:11, 901:14, 975:20, 976:5, 913:5, 946:4 slope [1] - 929:14 941:16, 962:8, 901:17, 901:21, 976:11, 976:15, Slorby [5] - 992:23, Social [5] - 833:5, 964:25, 989:24, 902:1, 902:4, 976:17, 976:20, 840:4, 842:8, 845:7, 993:1, 993:4, 994:7, 992:12 902:11, 906:13, 976:23, 979:24, 859:21 994:8 sorry [30] - 788:2, 906:17, 906:20, 980:2, 982:18, **slow** [2] - 853:5, 984:3 social [7] - 839:8, 790:4, 790:6, 906:24, 907:7, 982:20, 983:9, 839:22, 909:18, 794:14, 794:16, small [4] - 799:4, 907:13, 910:23, 985:14, 985:18, 963:9, 976:1, 977:5, 804:5, 819:15, 825:25, 868:23, 910:25, 911:24, 986:4, 986:9, 978:7 823:13, 823:16, 933:4 912:2, 918:11, 986:11, 986:15, Small [1] - 776:7 **Society** [1] - 1003:10 843:14, 852:21, 986:25, 987:3, 918:18, 918:25, Smet [1] - 946:15 Socio [1] - 779:15 860:1, 876:10, 919:3, 919:6, 919:9, 987:17, 987:25, 879:21, 920:12, Socio-economic [1] -**SMITH** [292] - 780:1, 919:17, 922:16, 988:14, 988:19, 921:8, 949:5, 963:1, 779:15 783:23, 784:1, 922:19, 924:3, 988:22, 990:22, 968:5, 968:6, 972:1, 784:11, 784:13, Soil [3] - 777:12, 924:7, 924:9, 991:2, 991:4, 991:9, 777:17, 821:21 972:3, 989:8, 784:17, 785:20, 924:12, 924:15, 991:12, 994:11, soil [18] - 781:6, 990:16, 993:3, 786:4, 791:8, 925:12, 926:14, 994:14, 994:18, 994:2, 1006:21, 790:23, 793:20, 791:16, 796:9, 926:17, 926:19, 994:25, 998:5, 1007:25, 1012:5, 797:5, 797:10, 796:5, 798:4, 799:4, 926:21, 926:25, 998:7, 999:18, 1012:10 815:8, 821:20, 801:20, 803:18, 927:8, 927:12, 1000:8, 1001:2, 803:21, 806:10, 822:24, 823:2. sort [8] - 795:23, 927:17, 927:20, 1001:4, 1001:10, 824:14, 862:1, 827:3, 913:23, 806:20, 808:22, 1001:22, 1002:4. 928:2. 928:10. 893:20, 904:22, 928:14, 954:10, 812:16, 814:12, 928:14, 928:19, 1002:11, 1002:17, 973:12, 1010:21, 905:1, 933:11, 815:11, 815:15, 934:23, 935:6, 1002:21, 1003:1, 815:25, 816:6, 1020:17 933:17, 942:6 935:8, 935:10, 1013:25, 1014:3, sorting [1] - 969:20 816:10, 816:16, **soils** [9] - 784:22, 935:13, 935:18, 1014:10, 1015:8, 784:25, 788:17, sound [2] - 887:20, 816:24, 817:2, 935:25, 936:4, 1015:11, 1015:16, 897:6 817:6, 818:24, 798:8, 823:17, 938:1, 938:3, 1015:20, 1015:23, 824:4, 824:5, 859:4, sounded [1] - 999:11 822:17, 826:8, 941:14, 941:17, 1016:22, 1021:21, 826:11, 826:17, 905:9 sounds [5] - 829:6, 943:7, 943:9, 1022:1, 1023:7, 827:2, 828:19, Soils [1] - 774:17 888:13, 1000:20, 943:14, 943:18, 1024:20, 1025:9, 829:6, 829:12, 1006:17, 1021:13 sold [2] - 956:2, 1025:13, 1025:16, 943:22, 944:6, 829:16, 829:20, source [5] - 846:1, 978:10 944:14, 944:18, 1025:20, 1026:9, 829:25, 830:11, someone [6] - 822:7, 853:3, 874:25, 944:22, 944:25, 1026:15, 1026:18 830:19, 831:2, 908:9, 978:9 861:23, 884:7, 945:2, 945:7, 959:5, Smith [51] - 765:13, 831:8, 831:14, sources [4] - 822:4, 912:22, 928:21, 959:7, 959:10, 784:12, 786:1, 831:20, 831:25, 841:3, 847:2, 874:22 940:21 959:12, 959:16, 801:17, 814:11, 834:19, 835:2, Someone [1] - 961:3 Sources [1] - 774:17 959:19, 960:9, 819:1, 822:2, 847:18, 855:2, **SOUTH** [3] - 765:2, someplace [1] -960:12, 960:23, 830:25, 835:5, 855:5, 855:24, 931:11 765:5, 1027:1 961:10, 961:14, 847:17, 854:23, 858:5, 860:1, South [62] - 765:17, sometime [2] -961:17, 962:2, 864:16, 870:16, 864:18, 870:17, 925:10, 999:16 766:3, 766:7, 766:8, 962:7, 962:12, 870:18, 876:19, 876:20, 877:12, 766:14, 766:15, sometimes [4] -962:24, 963:3, 881:18, 881:21, 877:24, 878:16, 780:4, 781:20, 904:3, 938:15, 963:13, 964:5, 883:24, 884:14, 881:19, 881:22, 974:6, 1003:2 781:23, 792:9, 964:11, 964:18, 884:18, 885:10, 883:3, 883:5, 883:7, 792:14, 792:24, somewhat [2] -964:20, 964:22, 886:11, 887:2, 883:15, 883:23, 802:15, 803:9, 794:25, 820:10 965:12, 965:16, 895:16, 900:23, 884:16, 884:22, 803:25, 811:24, Somewhat [2] -965:25, 966:9, 919:10, 936:5, 885:2, 885:11, 812:6, 816:13, 841:13, 1023:20 966:20, 966:24, 941:19, 950:10, 885:14, 886:9, 817:20, 827:7, somewhere [1] -967:1, 967:16, 959:4, 962:23, 886:12, 886:18, 851:25, 862:21, 843:21 967:25, 968:10, 966:7, 966:12, 886:20, 887:5, 874:7, 876:23, somewheres [3] -968:14, 968:17, 967:8, 968:16, 887:22, 888:7, 883:22, 885:16, 931:1, 952:13, 954:9 968:21, 969:4, 969:1, 969:22, 888:17, 888:19, 889:9, 897:25, son [5] - 886:15, 969:6, 969:16, 970:14, 982:4, 889:5, 889:14, 898:23, 898:25, 907:1, 918:12, 969:25, 970:2, 987:21, 988:7,

901:10, 909:10, 912:5, 918:3, 918:6, 919:25, 920:4, 927:4, 927:5, 928:24. 934:13. 940:13, 941:9, 941:24, 942:1, 944:13, 946:18, 946:22, 947:22, 948:16, 949:8, 954:20, 974:22, 986:19, 1003:10, 1004:6, 1011:20, 1011:24, 1013:9, 1016:9, 1027:7, 1027:13 south [16] - 925:21, 925:22, 925:25, 926:1, 926:2, 939:10, 939:16, 939:25, 951:12, 952:16, 974:23, 984:1, 984:7, 984:9, 984:10, 984:17 southeast [5] - 939:2, 952:6, 960:18, 960:19, 961:3 Southwest [3] - 923:8, 927:4, 960:17 southwest [8] -950:22, 952:14, 956:19, 958:11, 960:16, 960:18, 960:20, 961:7 Soybean [1] - 775:19 soybeans [1] - 892:15 **space** [1] - 788:10 sparse [3] - 933:25, 936:24, 937:14 speaking [2] - 814:4, 988:20 **Spearfish** [1] - 944:12 **special** [1] - 851:5 Special [1] - 774:11 specialists [1] -825:10 **species** [5] - 1016:20, 1016:21, 1017:13, 1021:6 specific [11] - 781:22, 793:20, 793:22, 837:14, 840:1, 840:6, 865:14, 867:4, 963:10, 976:17, 1011:6 Specifically [1] -837:16 specifically [5] -837:17, 838:22, 840:9, 841:18,

1013:2 **specifics** [1] - 877:10 speculate [1] - 924:1 speech [2] - 878:5, 993:2 speed [1] - 976:6 spelled [1] - 950:15 spelling [1] - 992:11 spend [2] - 891:25, 908:14 spent [4] - 948:1, 952:18, 955:19, 972:13 **Spill** [6] - 776:4, 776:9, 777:10, 777:12, 842:5, 845:24 spill [66] - 774:16, 781:16, 795:14, 795:15, 796:1, 805:12, 818:2, 818:5, 820:12, 825:17, 825:18, 833:1, 833:11, 836:5, 836:8, 836:14, 838:10, 839:15, 840:16, 840:25, 843:14, 844:16, 846:23, 846:24, 847:1, 847:13, 851:13, 852:22, 853:10, 854:8, 854:14, 856:22, 856:25, 857:5, 857:12, 857:17, 857:25, 858:20, 859:21, 860:23, 863:18, 863:20, 864:4, 872:6, 874:15, 874:19, 874:21, 874:23, 880:6, 880:7, 931:14, 931:18, 931:22, 932:6, 932:13, 932:15, 932:24, 933:4, 933:5, 933:6, 933:7, 940:24, 942:8. 943:2 spilled [9] - 849:13, 849:15, 849:17, 857:15, 857:23, 882:12, 882:14, 932:10, 934:14 spills [39] - 795:8, 795:10, 832:18, 832:23, 833:9, 835:1, 837:21, 838:4, 840:19,

842:17, 843:15,

843:17, 844:6, 847:3, 847:7, 851:24, 851:25, 852:2, 852:5, 852:6, 852:7. 852:8. 852:9. 852:11, 852:12, 853:20, 856:25, 857:6, 859:6, 874:16, 875:5, 930:4, 930:6, 932:8, 932:13, 933:20, 933:21, 934:1 spills/releases [1] -774:23 Spink [2] - 931:2, 939:4 **splitting** [1] - 989:12 spot [3] - 953:7, 957:10, 984:6 spots [1] - 788:12 spotted [1] - 851:13 spray [3] - 892:14, 892:15, 904:6 spraying [1] - 892:13 spring [2] - 893:15, 893:18 springtime [1] -893:14 square [1] - 873:15 SS [1] - 1027:2 St [2] - 780:23, 855:11 Stadium [1] - 776:9 staff [18] - 780:6, 780:7, 781:10, 781:21, 789:14, 793:3, 806:1, 828:13, 834:12, 834:13, 884:2, 924:12, 928:21, 1000:13, 1000:17, 1000:21, 1000:24, 1025:13 STAFF [1] - 765:12 Staff [29] - 765:13, 765:14, 779:11, 782:3, 782:10, 783:24, 784:10, 784:17, 785:23, 787:20, 788:25, 789:16, 815:15, 816:17, 817:7, 819:4, 831:25, 858:5, 859:25, 883:5, 894:3, 910:23, 943:7, 967:14, 973:23, 982:18, 1000:8, 1013:25, 1015:8 Staff's [3] - 779:22, 779:23, 786:4

Stahl [1] - 777:3 stand [13] - 780:13, 826:24, 859:9, 871:15, 881:17, 913:25, 928:15, 935:9, 973:17, 996:4, 996:7, 1007:20, 1025:23 standard [1] - 854:12 standards [2] -867:13, 916:10 **Standards** [1] - 776:14 standpoint [6] -897:10, 954:14, 1019:25, 1023:25, 1024:8 staple [2] - 969:7, 970:6 start [16] - 792:17, 793:18, 885:3, 885:7, 915:22, 926:25, 939:15, 944:7, 948:5, 971:15, 974:19, 996:23, 1001:15, 1001:22, 1002:10, 1022:9 started [10] - 835:18, 907:21, 910:1, 913:20, 946:10, 977:3, 1001:20, 1017:22, 1019:7 starting [5] - 793:10, 794:23, 839:3, 871:25, 872:22 **Starting** [1] - 794:12 starts [7] - 786:15, 863:21, 910:8, 913:21, 925:21, 925:22, 981:4 State [48] - 766:14, 774:24, 781:2, 781:7, 793:17, 797:2, 797:12, 809:9, 811:2, 841:4, 841:8, 885:25, 886:5, 886:9, 887:4, 887:8, 891:1, 891:9, 894:12, 921:11, 922:6, 934:13, 940:9, 941:10, 947:22, 982:4, 984:12, 984:20, 1001:11, 1003:10, 1003:19, 1003:25, 1004:6, 1007:1, 1007:11, 1007:21, 1008:23, 1011:19,

stage [1] - 817:16

staff-called [1] - 884:2 1011:20, 1011:24, 40 1013:17, 1013:21, 1014:16, 1014:22, 1015:3, 1019:8, 1020:25, 1027:7 **STATE** [2] - 765:2, 1027:1 state [26] - 780:19, 780:24, 792:11, 793:1, 793:10, 802:6, 803:4, 817:15, 822:6, 827:5, 844:2, 844:3, 844:4, 891:2, 901:7, 929:14, 929:15, 929:22, 993:9. 993:20, 1003:7, 1008:10, 1010:19, 1016:6, 1018:2, 1019:10 State's [1] - 800:7 Statement [9] -794:18, 802:4, 802:18, 913:15, 916:1, 921:1, 922:12, 939:20, 1020:13 statement [18] - 795:4, 798:10, 802:2, 802:20, 804:19, 837:4, 853:18, 859:9, 860:6, 875:5, 886:16, 897:16, 898:19, 947:2, 971:8, 980:17, 993:23, 993:24 Statement's [1] -817:13 statements [4] -783:2, 811:11, 869:12, 975:3 states [4] - 852:3, 852:13, 863:3, 913:13 States [5] - 834:2, 841:6, 846:14, 846:21, 875:3 statewide [2] - 781:18, 809:10 stating [2] - 804:9, 866:4 station [19] - 850:23, 904:24, 910:10, 910:13, 913:14, 914:6, 919:1, 920:13, 921:19, 922:25, 923:6,

923:13, 923:18,

923:23, 926:1,

930:19, 939:9,

939:11 899:23 781:19, 793:4, 910:5, 927:14 816:3, 816:8, 41 stationed [1] - 912:22 stood [1] - 884:15 806:25, 816:12, **subsurface** [1] - 784:7 816:22, 821:18 stations [7] - 881:1, stop [7] - 851:5, 829:10, 1021:5 sucker [1] - 921:2 surmise [1] - 873:20 study [30] - 787:11, 881:10, 912:21, 851:20, 862:6, Sue [2] - 982:16, surprise [2] - 920:10, 913:4, 916:8, 862:7, 862:9, 790:25, 796:23, 920:14 993:18 921:15, 921:18 862:14, 991:20 802:11, 804:23, surprised [1] - 819:20 Sues [1] - 776:8 806:4, 807:1, 807:7, **statistic** [1] - 847:13 stopped [5] - 854:15, surrebuttal [19] sufficient [1] - 810:1 862:11, 873:18, 818:12, 819:23, statistical [3] -782:11, 782:14, suggest [4] - 947:25, 834:1, 841:3, 950:8, 953:9 782:24, 783:8, 830:12, 862:20, 967:11, 1026:5, 841:12, 841:13, 882:22 storage [3] - 914:4, 785:24, 802:8, 1026:10 841:16, 841:17, Statistics [1] - 849:10 914:16, 981:4 suggested [1] -802:12, 810:18, 841:18, 847:15, statistics [7] - 836:21, Store [1] - 914:5 812:19, 813:19, 1020:4 849:24, 853:24, 836:24, 852:19, stories [1] - 900:6 suggestion [2] -827:15, 827:25, 854:4, 854:5, 828:1, 828:20, 858:11, 861:14, storing [1] - 914:14 817:13, 885:24 860:13, 917:23, 862:24, 865:12 830:8, 843:3, story [1] - 863:7 suggestions [2] -931:18, 931:22, 865:25, 875:4 status [2] - 987:25, straight [2] - 892:8, 942:11, 1019:17 932:25, 941:8 1014:3 Surrebuttal [9] -909:22 suits [1] - 943:18 Study [8] - 775:5, 778:7, 779:17, statute [1] - 909:11 stream [9] - 784:24, sum [1] - 970:13 775:24, 776:2, 779:18, 779:18, **stay** [3] - 874:10, 813:5, 930:16, summaries [1] -776:3, 797:13, 779:19, 779:19, 904:9, 914:20 931:12, 931:13, 792:10 805:15, 841:9, 779:20, 779:20, staying [2] - 891:11, 931:16, 935:4, summarize [6] -841:24 779:21 923:19 938:16, 941:6 783:7, 802:3, 928:3, studying [1] - 803:16 surveillance [1] stays [2] - 904:23, Stream/Flow [2] -940:15, 975:11, stuff [17] - 834:13, 851:14 984:4 778:11, 778:11 980:13 896:9, 911:22, survey [20] - 802:19, streams [4] - 929:12, steamer [1] - 953:1 summarized [1] -913:23, 916:13, 950:20, 950:21, Steel [1] - 775:7 929:16, 930:13, 794:18 920:5. 950:23. 1010:4, 1010:5, steel [1] - 954:10 930:22 **Summary** [5] - 774:15, 964:16, 964:23, 1010:10, 1010:11, Street [6] - 765:19, step [8] - 794:21, 776:11, 779:4, 969:16, 969:20, 1010:21, 1010:22, 883:15, 974:2, 765:22, 889:9, 849:10. 995:19 984:21, 1018:16, 1011:4, 1011:5, 1005:6, 1005:7, 901:10, 912:4, 927:4 **summary** [13] -1020:14, 1020:15, 1011:6, 1011:7, 1009:5, 1009:17, street [3] - 860:10, 783:12, 784:19, 1020:21, 1021:7 1011:15, 1011:16, 1009:19 860:11, 886:1 784:20, 832:4, subject [3] - 879:9, 1011:25, 1012:12, Step [1] - 889:2 strength [3] - 869:9, 834:15, 857:7, 879:19, 982:25 1015:1, 1015:2, steps [3] - 793:24, 869:24, 875:25 863:3, 888:8, 945:8, submission [1] -1015:4 stress [1] - 921:23 966:17, 991:15, 813:24, 817:13 936:9 Survey [15] - 775:6, Steve [1] - 953:6 **stretch** [3] - 904:15, 992:3, 998:22 submissions [1] -781:21, 781:23, STEVE [1] - 765:11 904:16, 940:1 summer [5] - 838:21, 936:14 792:10, 792:14, stewards [1] - 978:4 **stretched** [1] - 904:14 932:8, 940:8, 948:7, submit [8] - 827:14, 792:15, 792:24, 978:10 sticking [1] - 957:9 strictly [2] - 836:20, 827:15, 888:5, 793:4, 802:6, sticks [1] - 911:12 860:8 **Summer** [1] - 838:23 901:11, 906:8, 802:15, 803:4, strike [3] - 810:17, **Super** [1] - 781:8 still [31] - 783:5, 804:1, 809:9, 927:9, 939:22, 792:5, 794:21, 810:20, 820:21 supervisor [1] -974:24 816:13, 817:21 stringent [1] - 934:16 992:24 818:16, 851:20, submitted [13] **surveyors** [1] - 965:4 **supplied** [1] - 891:12 859:9, 860:17, strip [1] - 905:22 798:2, 799:3, 828:9, surveys [4] - 1012:19, 862:1, 862:19, structure [4] - 875:25, **supply** [4] - 905:3, 829:10, 834:16, 1012:22, 1012:24, 864:2, 878:3, 905:5, 914:6, 954:9 913:22, 913:24, 936:14, 936:16, 1012:25 878:21, 880:4, 1008:17 support [2] - 828:8, 936:19, 939:5, **Susan** [1] - 986:18 1017:2 883:10, 893:1, structures [10] -939:8. 939:23. susceptible [2] -914:8, 923:18, 778:19, 913:13, supporting [3] -1008:3 874:5, 876:4 930:1, 947:7, 913:18, 914:8, 829:9, 830:5, 830:7 subpoenaed [3] **suspect** [1] - 862:17 958:16, 967:3, 915:25, 919:1, supposed [3] - 884:3, 886:4, 887:18, suspected [1] -968:15, 971:13, 920:12, 920:13, 900:3, 962:9 1002:15 869:12 988:3, 991:12, 920:17, 923:14 Surface [1] - 929:17 subsequent [1] sustain [2] - 967:17, 1001:11, 1006:12, struggling [1] **surface** [11] - 781:6, 835:20 991:4 1009:4, 1021:13, 865:23 785:10, 786:18, subsequently [1] -**Sustained** [1] - 883:3 1022:6 stuck [2] - 893:2, 786:21, 787:12, 792:21 SVRs [1] - 874:19 Still [1] - 777:11 917:19 787:13, 790:17, substantial [1] swear [2] - 889:3, stippled [2] - 788:16, studied [1] - 940:19 814:21, 852:7, 789:17 1019:20 799:6 Studies [1] - 777:17 852:13, 1010:14 substantially [2] swearing [1] - 780:11 stipulations [1] studies [7] - 778:8, surficial [5] - 793:13,

sworn [14] - 780:14, tenant [1] - 992:20 989:10, 991:6 928:3, 928:6, 42 taxes [1] - 945:20 826:24, 827:1, **TC** [1] - 779:4 tenants [1] - 992:18 testifying [7] - 800:4, 928:16, 931:17, 889:4, 901:6, 912:3, TC-1 [1] - 774:2 800:16, 898:13, 936:21, 937:16, tend [2] - 813:10, 939:6, 939:22, 926:24, 927:15, TC-10[1] - 774:10 928:12, 933:24, 843:16 980:16, 988:11 942:2. 944:6. 944:2, 944:3, TC-11 [1] - 774:11 tender [7] - 835:4, 974:18, 986:13, testimonies [1] -944:14, 944:20, TC-12[1] - 774:11 907:1, 919:19, 945:9, 945:14, 1003:4, 1016:3 936:2, 961:18, 828:24 TC-13 [1] - 774:12 Sympathy [1] - 777:9 testimony [163] -947:16, 955:3, 970:25, 994:20 TC-14[1] - 774:13 956:6, 962:10, system [27] - 791:14, 779:2, 779:5, tendering [1] - 890:8 TC-15[1] - 774:13 824:6, 839:19, 781:13, 782:5, 968:5, 974:24, TC-16[1] - 774:14 tens [1] - 933:18 975:4, 975:11, 782:11, 782:14, 843:8, 843:25, term [5] - 933:10, TC-17 [1] - 774:14 975:25, 977:18, 844:21, 844:24, 782:24, 783:8, 933:20, 975:11, TC-18 [1] - 774:15 978:6, 978:7, 845:5, 846:11, 783:18, 784:20, 1007:19, 1011:6 **TC-19** [1] - 774:15 978:20, 978:25, 846:13, 846:20, 785:12, 785:21, TC-20 [1] - 774:16 terminate [1] - 938:9 980:12, 981:3, 846:24, 847:14, 789:14, 791:23, termination [1] -TC-21 [1] - 774:16 983:3, 986:22, 854:7, 854:10, 791:25, 792:7, 938:15 TC-24 [1] - 774:16 986:23, 987:1, 854:11, 863:9, 792:8, 792:22, terminology [2] -TC-25 [1] - 774:17 863:11, 863:23, 793:9, 794:1, 794:3, 987:9, 987:14, 1011:1, 1012:10 TC-26 [1] - 774:18 801:1, 801:21, 987:15, 987:18, 864:8, 868:25, terms [43] - 804:10, TC-27 [1] - 774:18 987:20, 988:4, 878:4, 878:13, 801:22, 802:8, 830:12, 834:3, TC-28[1] - 774:19 988:12, 988:17, 934:4, 937:13, 802:13, 803:23, 837:21, 842:21, **TC-2D** [1] - 774:2 989:19, 990:13, 804:3, 804:14, 1012:11 843:23, 844:6, TC-3D[1] - 774:3 993:16, 994:9, system-wide [1] -806:2, 806:9, 844:7, 844:8, TC-3R [1] - 774:3 868:25 808:18, 810:18, 995:10, 996:3, 844:12, 845:21, TC-4D[1] - 774:4 996:6, 999:15, 811:15, 813:25, systems [10] - 853:19, 847:3, 847:6, TC-4R [1] - 774:4 1026:5 814:15, 817:11, 854:3, 856:10, 847:10, 847:12, TC-5D[1] - 774:5 Testimony [51] -817:19, 817:20, 863:2, 863:14, 848:14, 848:17, TC-5R [1] - 774:5 774:2, 774:3, 774:4, 864:13, 878:1, 818:16, 819:25, 848:24, 850:25, TC-6D[1] - 774:6 907:25, 1012:7, 822:23, 826:19, 774:4, 774:5, 774:5, 856:24, 857:12, TC-6R1 [1] - 774:6 827:14, 827:18, 774:6, 774:6, 774:7, 1012:20 858:13, 859:6, TC-6R2 [1] - 774:7 828:6, 828:8, 774:7, 774:8, 774:8, 859:14, 859:16, TC-7D[1] - 774:7 774:9, 774:9, Т 828:13, 829:2, 865:14, 865:15, TC-7R1 [1] - 774:8 830:8, 831:4, 774:21, 774:22, 867:4, 868:7, TC-7R2 [1] - 774:8 777:14, 777:16, 832:25, 833:1, 868:19, 870:6, T125N [4] - 775:10, TC-8D[1] - 774:9 834:15, 834:25, 777:19, 778:2, 878:9, 878:10, 775:11, 775:12, **TC-8R** [1] - 774:9 778:4, 778:7, 778:7, 838:25, 839:10, 886:13, 887:7, 775:12 TC-9 [1] - 774:10 839:16, 840:9, 778:10, 778:13, 918:13, 963:14, T2P [1] - 765:23 778:15, 778:18, team [4] - 806:1, 843:3, 845:15, 963:17, 973:13, table [3] - 785:5, 814:24, 823:21, 778:21, 778:25, 856:3. 856:4. 859:8. 980:24, 1008:1, 898:18, 921:3 825:10 864:22, 865:25, 779:2, 779:3, 779:3, 1008:4, 1008:22 **Table** [1] - 913:12 tear [1] - 905:22 866:24, 868:10, 779:7, 779:9, terrain [1] - 874:8 tad [1] - 791:17 779:12, 779:12, technical [1] -873:19, 875:15, terribly [2] - 887:7, tag [1] - 1025:21 779:13, 779:14, 1004:12 876:3, 878:6, 887:24 talks [1] - 967:18 779:15, 779:16, technically [2] -879:13, 881:9, test [2] - 781:15, 948:9 tall [1] - 973:17 779:16, 779:17, 988:20, 990:24 881:14, 882:3, testified [16] - 798:24, tame [1] - 984:24 887:17, 888:3, 779:17, 779:18, techniques [1] -799:12, 803:10, 779:18, 779:19, tank [1] - 981:24 889:7, 889:10, 821:10 815:12, 815:21, 779:19, 779:20, tanks [3] - 914:3, 889:19, 889:23, teens [5] - 844:11, 839:20, 860:4, 890:23, 890:25, 779:20, 779:21, 914:4 844:12, 844:13, 872:17, 876:9, 989:4 **Tar** [1] - 776:16 844:24, 844:25 892:4, 894:11, 880:17, 918:15, 895:22, 897:6, testing [2] - 817:17, tar [2] - 806:25, 807:4 telephone [3] -939:8, 945:16, 948:6 Target [1] - 776:13 897:7, 897:17, 949:18, 966:4, 966:18, 996:9, 898:19, 901:12, thaw [1] - 893:13 task [4] - 781:16, 1019:15 1003:11 901:18, 901:22, thawing [1] - 949:1 807:12, 808:14 temperature [9] testify [15] - 781:13, 902:2, 902:6, Thawing [1] - 949:2 tasks [1] - 808:14 893:4, 893:5, 893:8, 803:11, 839:18, 902:11, 908:20, THE [273] - 765:1, Tasman [1] - 776:4 893:20, 948:17, 886:13, 889:18, 908:21, 912:7, 948:18, 949:7, 765:2, 765:4, 765:5, tattle [1] - 1026:2 901:17, 927:13, 913:7, 913:9, 765:6, 765:10, Tax [2] - 774:13, 971:5, 971:12 940:23, 944:1, 918:13, 918:15, 790:21, 791:7, temperatures [2] -774:24 944:18, 947:14, 927:2, 927:9, 803:13, 807:4, 948:6, 948:9 tax [1] - 918:5 962:21, 975:7, 927:14, 927:18,

807:9, 807:13, 899:16, 899:20, 985:10, 985:17, 1016:19, 1017:13 890:13, 891:24, 43 807:15, 807:18, 900:5, 900:9, 985:21, 986:8, Threatens [1] - 775:25 901:17, 907:9, 808:2, 808:6, 900:14, 900:20, 991:14, 994:4, three [29] - 809:24, 912:8, 913:9, 916:2, 901:1, 901:13, 808:10, 808:16, 994:13, 994:22, 917:5, 918:10, 831:10, 841:3, 901:16. 901:19. 808:19, 808:25, 1001:7. 1002:20. 843:8, 843:16, 918:13, 918:15, 809:6, 809:9, 901:25, 902:3, 1023:6, 1025:24 848:3, 851:1, 927:13, 944:19, 809:20, 809:24, 902:14, 906:19, theirs [1] - 898:22 879:14, 879:17, 964:3, 972:15, 810:3, 810:16, 907:4, 907:11, themselves [1] - 888:5 880:4, 880:5, 975:3, 975:7, 980:6, 810:23, 811:6, 911:5, 911:16, 986:9, 986:22, thereafter [1] - 886:21 903:10, 904:5, 811:16, 812:2, 911:25, 918:17, 904:8, 909:15, 990:20, 998:4, thereby [1] - 785:4 812:8, 812:18, 918:23, 919:5, 915:17, 947:1, 1012:5, 1016:15 therefore [1] - 958:21 813:2, 814:1, 814:7, 919:8, 924:5, 947:3, 969:10, today's [2] - 872:12, Therefore [1] - 783:2 814:19, 814:23, 924:17, 924:21, 973:10, 974:3, 955:9 They've [2] - 940:17, 815:3, 815:8, 924:25, 925:3, together [5] - 969:7, 976:3, 976:4, 981:7, 1020:9 925:7, 925:20, 815:14, 815:24, 984:24, 989:18, 970:6, 979:18, they've [11] - 848:24, 816:5, 816:9, 925:25, 926:4, 989:2. 989:11 1017:22, 1018:12, 857:21, 866:20, 926:6, 926:9, 816:15, 816:20, 1018:22 tolerance [2] - 863:24, 923:14, 929:24, 926:13, 926:16, 817:1, 817:5, Three [3] - 917:7, 863:25 933:1, 940:18, 818:23, 822:16, 927:11, 927:16, 1018:11 tolerating [1] - 883:19 940:19, 1020:11, 826:7, 829:1, 927:19, 928:5, three-day [1] - 904:8 toluene [1] - 1025:6 1020:16, 1022:19 928:13, 928:18, 829:14, 829:22, threshold [2] - 878:9, thick [1] - 850:2 **Tom** [3] - 773:17. 830:7, 831:19, 928:24, 935:1, 1005:11 950:4, 994:7 thicker [4] - 850:10, 834:23, 855:4, 935:7, 935:9, threw [1] - 966:16 tomorrow [4] -850:13, 896:8, 912:9 860:5, 860:9, 935:12, 936:3, throughout [1] -808:18, 886:19, thickness [6] -860:11, 860:22, 943:11, 944:16, 929:15 896:18, 1002:16 801:25, 811:12, 861:4, 861:15, 944:21, 944:24, 850:8, 869:4, 869:7, throws [1] - 1020:24 tonight [5] - 896:17, 861:24, 862:9, 945:1, 945:10, tilled [1] - 818:19 897:4, 989:25, 891:19 862:15, 862:22, 952:1. 952:4. 959:6. Tillquist [6] - 768:2, 990:2, 991:7 thinker [1] - 895:3 863:12, 864:11, 959:8, 959:11, tons [2] - 875:16, 774:7, 774:8, 774:8, thinking [4] - 860:15, 865:2, 865:11, 959:13, 959:18, 791:25, 832:25 911:12 877:8, 909:5, 990:20 866:5, 866:9, 959:21, 959:22, Tim [17] - 769:17, took [22] - 793:23, thinner [1] - 945:19 866:20, 867:3, 960:1, 960:5, 960:8, 811:24, 834:14, 777:2, 778:12, thinner-walled [1] -867:10, 867:19, 960:11, 960:17, 851:9, 851:12, 778:13, 889:8, 945:19 960:22, 961:2, 868:5, 868:12, 851:20, 855:12, 889:23, 889:25, Third [1] - 875:6 869:1, 869:6, 961:4, 961:9, 890:7, 894:6, 855:15, 860:19, third [10] - 827:20, 869:11, 869:21, 961:12, 961:16, 895:20, 896:25, 862:5, 868:7, 828:2, 864:25, 870:1, 870:6, 961:20, 962:1, 888:22, 894:22, 911:3, 911:6, 925:9, 865:8, 875:12, 870:20, 870:24, 962:3, 962:9, 945:15, 950:4, 902:25, 913:15, 875:20, 892:4, 962:15, 962:20, 871:11, 871:14, 914:2, 916:24, 989:22 894:17, 981:6, 871:16, 871:20, 962:23, 963:1, 958:15, 958:21, 1010:7 **TIM** [1] - 889:8 871:22, 872:14, 963:12, 963:20, 993:14, 997:22, timing [2] - 932:6, third-party [4] -872:20, 873:2, 964:9, 964:15, 1027:9 933:6 864:25, 865:8, 964:19, 964:21, 873:8, 873:11, tool [1] - 807:23 **Timothy** [1] - 992:23 875:20, 1010:7 873:22, 873:24, 964:24, 965:13, tools [1] - 914:14 tired [1] - 905:25 **Third-party** [1] - 875:6 874:5, 874:13, 965:20, 966:2, top [15] - 786:18, TO [1] - 765:6 Thomas [5] - 768:5, 966:16, 966:25, 874:17, 874:21, 798:13, 851:19, Tobin [10] - 766:2, 774:9, 774:9, 875:13, 875:18, 967:9, 967:24, 853:14, 865:3, 773:3, 773:5, 773:8, 821:10, 878:6 875:22, 876:2, 968:2, 968:4, 871:9, 871:25, Thompson [1] -773:10, 773:13, 876:10, 876:17, 968:13, 969:20, 873:11, 910:19, 773:15, 773:18, 765:16 877:7, 877:18, 970:9, 970:13, 957:10, 980:12, 773:20, 773:23 thorough [1] - 835:3 878:15, 883:12, 970:16, 974:3, 985:17, 989:5, 995:7 today [43] - 780:9, thoughts [2] - 990:1, 883:18, 889:20, 974:8, 974:11, topography [1] -781:14, 807:15, 991:6 889:24, 890:12, 975:1, 975:5, 975:8, 803:22 807:20, 816:17, thousand [2] - 847:7, 890:15, 894:2, 975:13, 975:17, torn [1] - 990:22 821:6, 828:7, 847:8 894:8, 894:16, 975:19, 975:23, 832:20, 833:18, total [4] - 838:4, thousands [5] - 847:6, 894:21, 895:9, 976:10, 976:22, 843:20, 849:14, 838:5, 845:16, 954:21 977:5, 980:5, 983:1, 895:13, 895:21, 860:19 859:23, 867:12, threat [2] - 909:17, 896:1, 896:4, 983:6, 983:13, 867:14, 872:16, totally [2] - 917:8, 970:22 983:16, 983:18, 896:12, 897:1, 942:5 872:19, 879:10, threatened [4] -897:3, 899:1, 899:3, 983:21, 984:14, 888:2, 889:19, totals [1] - 857:9 992:19, 992:22, 899:7, 899:11, 984:18, 985:6,

touch [1] - 930:2 902:20, 903:1, 856:9, 952:10 859:16, 865:6, 1010:24, 1012:23 44 touched [1] - 958:8 872:4, 872:6, 877:9, 903:16, 904:3, transporters' [1] -Tyrannous [1] -905:11, 905:14, 874:20 921:24, 925:10, 1008:5 tougher [1] - 812:3 905:15, 905:18, 925:16, 974:13, tournaments [1] travel [3] - 859:4, 905:21, 905:24, 957:18, 959:14 983:11, 995:10. U 914:1 906:2, 906:5, traveled [1] - 858:25 998:17, 999:2, 999:3 toward [3] - 827:19, 913:13, 916:14, **TSB** [2] - 871:6, traverse [1] - 789:5 833:20, 905:2 **U.S** [12] - 774:18, 917:25, 919:9, 871:12 traversing [1] - 789:3 towards [2] - 807:2, 803:25, 845:24, 923:13, 929:3, Tubby [1] - 914:23 938:15 treated [4] - 823:4, 866:3, 879:18, 929:4, 934:12, Tuesday [3] - 808:20, tower [1] - 953:12 947:15, 994:22, 880:13, 891:1, 936:9, 939:24, 833:3, 896:3 town [9] - 914:1, 994:23 894:11, 1007:7, 945:11, 946:10, turn [12] - 816:6, treatment [2] - 921:25, 914:2, 915:3, 915:7, 1013:17, 1020:11, 947:11, 948:2, 871:2, 886:4, 889:2, 915:17, 915:22, 922:3 1020:21 950:25, 951:23, 892:18, 952:14, 925:18, 925:19, trees [5] - 905:10, ultimate [5] - 1014:22, 956:12, 972:4, 957:1, 959:4, 925:20 905:16, 957:6, 1015:3, 1016:24, 972:7, 972:16, 962:21, 972:17, towns [1] - 938:25 1024:3 1016:25 977:9, 977:10, 980:3, 1018:6 tremendous [1] -Townsend [1] ultimately [2] -978:15, 979:13, Turn [3] - 849:8, 909:6 775:21 929:17, 933:16 979:14, 979:19, 851:3, 852:15 Township [11] trench [1] - 892:18 unable [1] - 805:5 985:19, 987:17, turned [1] - 1014:6 789:24, 790:1, trenches [1] - 896:9 unclear [1] - 820:10 991:16, 992:3, turning [1] - 880:11 799:15, 800:21, trend [2] - 837:20, uncover [1] - 866:6 992:14, 995:21, Turning [1] - 880:16 854:2 800:22, 908:3, **UNDER** [1] - 765:5 996:12, 996:20, twice [1] - 940:2 945:24, 947:4, trends [3] - 837:10, under [21] - 833:17, 997:10, 999:22, 949:14, 952:11, Two [2] - 860:10, 837:12, 837:14 1000:2, 1000:5, 839:12, 909:10, 986:20 860:11 tribe [1] - 1013:21 1000:13, 1000:17, 910:15, 917:17, two [42] - 783:11, township [9] - 786:25, tribes [4] - 1013:6, 918:13, 918:14, 1000:18, 1000:21, 783:13, 785:21, 793:21, 796:18, 1013:15, 1014:15, 921:23, 927:15, 1000:25, 1010:8, 788:12, 793:3, 798:9, 798:17, 1014:24 948:23, 956:21, 1017:17, 1018:4, 801:1, 816:22, 801:1, 925:6, tributaries [1] - 930:17 956:23, 970:20, 1019:18, 1020:2 945:23, 946:1 828:24, 850:24, tributary [1] - 929:15 975:2, 990:6, TRANSCANADA [1] -854:20, 864:22, townships [2] - 801:2, tried [2] - 851:23, 991:13, 1004:20, 765:4 865:2, 865:7, 867:7, 973:10 852:1 1008:9, 1008:10, TransCanada's [8] toxicity [1] - 943:2 877:2, 879:3, triggered [1] - 950:24 1008:13, 1025:19 777:8, 817:16, 880:11, 899:3, traces [1] - 787:5 **Triggers** [1] - 775:22 underground [4] -839:7, 859:21, 903:6, 904:8, track [9] - 841:2, trillion [1] - 827:22 861:22, 862:1, 1003:21, 1006:23, 906:18, 910:12, 841:5, 841:6, 848:2, trip [1] - 891:24 874:3, 947:9 1007:3, 1009:2 914:24, 915:7. 859:17, 867:17, trouble [3] - 851:15, underlain [1] - 789:17 **transcribed** [1] - 990:3 919:3, 932:13, 925:10, 983:11, 870:21, 891:11 underlined [1] -TRANSCRIPT [1] -935:3, 945:21, 986:20 trucks [4] - 946:7, 789:11 766:13 951:3, 954:2, tracks [3] - 892:16, 946:8, 946:9 Underlying [1] transcript [2] - 896:19, 959:10, 959:24, 983:22, 984:8 true [9] - 849:4, 774:17 986:17 974:22, 981:7, tractor [2] - 909:21, 856:13, 870:1, underlying [1] - 785:3 Transcript [1] - 765:7 983:19, 986:21, 972:17 871:20, 900:17, underneath [1] transcription [1] -992:18, 1001:11, traditional [1] -918:14, 974:16, 788:14 1027:11 1013:11, 1017:22 1008:18 975:4, 1027:11 transects [1] understated [2] -Two-way [2] - 860:10, trailer [1] - 956:16 trunk [2] - 993:24, 843:22, 843:23 1010:13 860:11 TransAlaska [1] -993:25 understood [5] transmission [6] -Type [1] - 905:19 849:25 truth [2] - 865:11, 810:1, 836:25, 848:5. 848:16. type [9] - 781:22, TransAlaskan [1] -999:13 857:3. 987:20. 859:11, 859:13, 830:14, 832:22, 869:6 **Try** [1] - 888:25 996:25 859:15, 861:17 848:17, 878:13, TransCanada [78] try [10] - 824:23, Understood [1] -TRANSMISSION [1] -951:14, 1008:15, 765:22, 775:15, 834:17, 852:2, 830:10 765:5 1017:14, 1017:25 776:22, 780:2, 870:7, 886:19, undertake [1] - 855:6 transport [2] - 882:13, types [11] - 802:19, 791:21, 803:1, 890:23, 907:5, 882:15 undertaken [1] -807:3, 810:6, 813:2, 825:9, 854:17, 955:24, 970:13, Transportation [7] -933:15 818:6, 834:4, 848:3, 855:16, 855:21, 1022:12 undertaking [9] -853:23, 856:4, 848:8, 858:12, 874:16, 882:4, trying [21] - 790:5, 1004:11, 1005:2, 856:7, 863:4, 864:1, 934:16, 1022:11 882:20, 884:20, 811:10, 811:14, 1005:4, 1005:7, 870:13, 871:16 typically [5] - 1010:10, 885:15, 892:5, 811:17, 811:19, 1005:17, 1005:19, transportation [2] -1010:11, 1010:15, 894:22, 902:15, 821:4, 821:14,

1006:22, 1009:21 1010:19, 1016:11, variable [1] - 869:25 vulnerable [1] - 817:4 929:12, 929:14, 45 undertakings [1] -1020:22, 1020:24, variation [1] - 774:10 930:16, 931:16, 1004:11 1022:14, 1022:16, Variations [1] - 774:20 W 933:11, 933:17, 938:14, 940:12, unfamiliar [1] - 928:7 1026:13 variations [1] - 774:10 unfortunately [2] update [2] - 774:11, 940:19, 942:6. various [7] - 795:8, w/in [1] - 778:19 825:2, 1002:22 993:13 946:21, 956:21, 798:8, 798:11, Wade [6] - 768:21, updated [2] - 781:24, 958:16, 977:24, unique [2] - 1017:13, 830:12, 856:3, 777:20, 798:24, 793:4 979:1, 983:22, 1019:20 990:24, 1021:6 799:12, 801:18, 984:1, 984:3, upper [2] - 800:18, **United** [5] - 834:2, vegetation [2] -801:19 844:13 1012:7, 1012:11, 841:6, 846:14, 971:16, 1024:4 Wade's [1] - 819:25 1012:20, 1016:18, 846:21, 875:3 upset [3] - 903:12, vein [3] - 799:4, Wait [1] - 1023:15 1016:19, 1018:18 916:25, 955:21 units [1] - 783:6 799:18, 800:16 wait [3] - 783:20, Water [8] - 766:4, upsets [1] - 950:17 **University** [4] - 781:1, veins [2] - 799:16, 1012:5, 1014:5 774:24, 775:25, urgency [1] - 886:13 827:10, 941:10, 823:3 waiting [2] - 904:8, 776:2, 791:14, 941:11 **USA** [2] - 774:15, verbal [3] - 993:19, 966:23 798:24, 805:22, unless [1] - 966:10 827:12 998:14, 999:1 walk [2] - 953:21, 1016:16 Unless [3] - 831:20, useful [7] - 799:25, verge [1] - 990:18 1010:13 water-bearing [3] -887:5, 942:18 804:10, 805:21, Vermont [1] - 827:7 walked [1] - 864:6 784:23, 785:3, 785:8 unlikely [2] - 812:5, 807:23, 823:20, versus [3] - 857:5, walled [1] - 945:19 water/source [1] -881:6 824:8, 824:9 858:20, 948:13 wallow [4] - 957:15, 774:14 uses [1] - 940:5 unoxidized [1] -Versus [2] - 858:22, 958:23, 972:19, waters [6] - 931:10, 816:14 **UTILITIES** [2] - 765:1, 858:23 972:21 938:9, 938:13, 765:10 up [85] - 786:16, vested [1] - 929:2 wallows [2] - 957:11, 939:14, 1024:9, **Utilities** [6] - 897:12, 788:25, 805:14, via [1] - 816:7 958:3 1024:12 810:19, 811:21, 897:19, 898:8, VICE [1] - 765:11 Walsh [4] - 772:2, waterway [1] - 984:8 814:24, 820:9, 906:5, 920:1, 982:13 vicinity [1] - 931:6 772:11, 779:17, ways [7] - 854:10, 822:2, 824:13, utilities [2] - 907:25, view [3] - 801:5, 779:21 886:3, 904:9, 825:22, 830:22, 1018:16 872:3, 1017:4 wants [3] - 947:21, 913:22, 915:7, 844:10, 857:19, views [1] - 884:9 951:2, 959:1 956:16, 1003:1 859:23, 866:12, V vintage [4] - 841:15, warming [1] - 971:15 weaken [1] - 904:17 876:14, 877:15, 842:10, 846:4, 879:6 washed [1] - 932:20 weather [3] - 851:17, 878:21, 887:5, visited [2] - 949:25, vacated [9] - 952:9, Washington [2] -930:18, 978:13 888:2, 888:21, 977:12 952:10, 952:11, 765:20, 922:10 WEB [6] - 766:4, 891:3, 892:9, Vogt [2] - 1007:24, 953:16, 953:17, waste [1] - 891:16 774:20, 775:1, 893:19, 893:21, 1008:1 965:6, 971:25, wasted [1] - 1021:9 800:3, 1012:24, 894:13, 894:22, Void [1] - 777:10 972:2, 972:4 watching [2] - 912:17, 1012:25 895:9, 897:6, 898:9, volume [17] - 833:23, Vacated [2] - 972:2, 916:19 WEB's [1] - 800:3 900:4, 902:23, 836:8, 838:4, 972:3 website [4] - 839:8, water [74] - 774:14, 903:4, 905:22, 846:12, 847:9, Valdez [8] - 777:9, 777:21, 778:2, 839:22, 853:13, 909:3, 913:1, 856:24, 856:25, 777:10, 777:12, 781:6, 784:23, 917:20, 918:5, 883:10 859:6, 874:15, 849:18, 856:21, 785:3, 785:5, 785:6, websites [2] - 781:21, 921:3, 924:11, 874:19, 874:21, 857:12, 857:15, 785:8, 787:13, 992:8 924:18, 934:14, 874:23, 878:9, 857:17 791:2, 796:3, 796:5, 938:20, 938:21, Wednesday [1] -880:9, 931:18, valid [1] - 1005:6 801:12, 801:15, 939:3, 940:18, 896:3 931:22, 932:25 Valorem [1] - 774:13 814:16, 815:1, 941:17, 943:23, week [6] - 828:2, Volume [1] - 765:8 valuation [8] - 963:10, 815:5, 815:8, 946:13, 946:23, 829:23, 833:4, volumes [1] - 774:16 963:18, 964:7, 819:21, 820:2, 950:13, 952:20, 865:19, 896:18, voluminous [1] -967:17, 967:18, 821:22, 821:23, 953:3, 956:1, 956:4, 911:4 837:5 968:11, 968:23, 956:7, 956:17, 822:4, 833:17, weeks [4] - 809:24, voluntarily [2] -976:17 852:6, 852:7, 957:24, 958:15, 903:10, 917:7, 785:15, 813:21 valuations [1] -852:13, 852:24, 960:16, 961:5, 978:13 voluntary [1] - 940:22 967:21 962:5, 970:13, 853:8, 853:11, Wegman [1] - 953:6 volunteer [2] - 929:1, value [2] - 905:17, 857:25, 905:2, 970:21, 971:15, weigh [2] - 967:2, 937:22 1008:20 905:5, 906:3, 972:21, 982:5, 967:15 Vonk [1] - 1026:2 valves [5] - 872:25, 907:25, 908:2, 982:16, 984:14, welcome [3] - 818:23, Voss [1] - 776:23 873:5, 873:8, 908:6, 908:9, 987:9, 987:10, 965:15, 967:19 vote [2] - 1026:9, 988:18, 989:10, 873:20, 916:8 908:10, 908:12, welfare [3] - 910:6, 1026:10 vandalism [2] - 850:3, 908:14, 908:16, 989:12, 993:9, 963:9 vulnerability [1] -874:6 908:17, 918:1, 996:3, 997:11, wells [6] - 791:13, 816:19

815:22, 822:2, 830:23, 831:8, winter [7] - 893:6, 860:11, 860:22, 943:11, 944:16, 46 853:10, 877:3 835:4, 860:14, 893:11, 893:12, 861:4, 861:15, 944:21, 944:24, west [19] - 786:23, 878:17, 1014:8 893:17, 947:22, 861:24, 862:9, 945:1, 945:10, WHITE [17] - 830:4, 952:1, 952:4, 959:6, 862:15, 862:22, 788:2, 788:7, 801:9, 947:24, 948:7 815:20, 904:1, 830:10, 830:25, wintertime [1] -863:12, 864:11, 959:8. 959:11. 917:9, 917:16, 831:11, 835:5, 945:25 865:2, 865:11, 959:13, 959:18, 835:7, 847:16, 866:5, 866:9, 959:22, 960:1, 924:19, 924:21, Wisconsin [3] - 781:3, 924:23, 925:19, 854:23, 878:18, 932:9, 932:12 866:20, 867:3, 960:5, 960:11, 939:16, 947:10, 878:20, 881:18, 867:10, 867:19, 960:17, 960:22, wish [4] - 784:17, 868:5, 868:12, 953:8, 953:25, 883:2, 884:18, 961:2, 961:4, 961:9, 890:10, 891:6, 976:8 869:1, 869:6, 961:12, 961:16, 956:23, 971:23, 1014:9, 1014:11, wished [2] - 892:25, 985:9 1014:14, 1015:7 869:11, 869:21, 961:20, 962:1, 897:18 870:1, 870:6, 962:3, 962:9, West [9] - 780:21, white [3] - 788:10, withdraw [1] - 935:7 781:9, 788:3, 788:5, 959:24, 960:2 870:20, 870:24, 962:15, 962:20, withstand [2] -871:11, 871:14, 962:23, 963:1, whole [13] - 807:25, 798:16, 799:15, 911:12, 911:14 871:16, 871:20, 963:12, 963:20, 808:15. 827:7 834:6. 863:13. Witness [1] - 968:3 964:9, 964:15, 871:22, 872:14, West's [1] - 804:19 888:9, 892:17, witness [35] - 780:8, western [10] - 824:24, 896:7, 928:22, 872:20, 873:2, 964:19, 964:21, 780:13, 780:14, 873:8, 873:11, 964:24, 965:13, 854:19, 929:14, 930:11, 957:4, 785:18, 826:9, 873:22, 873:24, 965:20, 966:2, 983:22, 1008:2, 939:4, 949:12, 826:13, 826:24, 874:5, 874:13, 966:16, 966:25, 954:20, 973:5, 1011:13, 1021:9 827:1, 884:6, 885:1, 874:17, 874:21, 967:9, 967:24, 973:10, 973:18 Wicks [1] - 914:11 885:3, 885:7, 889:4, 875:13, 875:18, 968:2, 968:4, wet [1] - 904:23 Wicks' [2] - 914:17, 901:2, 901:6, 912:1, 875:22, 876:2, 968:13, 969:20, wetland [13] - 905:10, 914:18 912:3, 924:1, 876:10, 876:17, 970:9, 970:13, 929:19, 929:21, wide [2] - 854:23, 926:18, 926:24, 877:7, 877:18, 970:16, 974:3, 930:2, 930:11, 868:25 943:13, 944:3, 878:15, 883:12, 974:8, 974:11, 936:25, 937:4, wife [3] - 944:4, 974:12, 974:18, 883:18, 889:20, 975:1, 975:5, 975:8, 937:11, 937:12, 982:16, 999:8 986:10, 986:13, 889:24, 890:12, 975:13, 975:17, 937:18, 958:21, wife's [1] - 950:16 1001:9, 1002:6, 890:15, 894:2, 975:19, 975:23, 983:25, 1022:20 wild [1] - 957:14 1003:4, 1014:1, 894:8, 894:16, 976:10, 976:22, Wetlands [2] - 779:3, Wildlife [5] - 1007:8, 1015:12, 1015:22, 894:21, 895:9, 977:5, 980:5, 983:1, 1020:10 1017:7, 1019:9, 1016:3, 1025:12, 895:13, 895:21, 983:6, 983:13, wetlands [24] -1020:12, 1020:22 1026:3 896:1, 896:4, 983:16, 983:18, 905:10, 905:15, wildlife [12] - 906:3, WITNESS [264] -896:12, 897:1, 983:21, 984:14, 905:16, 905:17, 940:24, 941:5, 790:21, 791:7, 897:3, 899:1, 899:3, 984:18, 985:6, 929:12, 929:25, 984:21, 984:22, 803:13, 807:4, 899:7, 899:11, 985:10, 985:17, 930:5, 934:1, 934:4, 807:9, 807:13, 1017:6, 1017:7, 899:16, 899:20, 985:21, 986:8, 934:5, 934:7, 934:8, 807:15, 807:18, 1019:25, 1023:21, 900:5, 900:9, 991:14, 994:4, 937:5, 937:19, 808:2, 808:6, 1023:25, 1024:1, 900:14, 900:20, 994:13, 994:22, 940:19, 977:18, 808:10, 808:16, 1024:8 901:1, 901:13, 1001:7, 1002:20, 977:20, 977:22, Willard [1] - 950:4 808:19, 808:25, 901:16, 901:19, 1023:6, 1025:24 978:3, 981:15, 809:6, 809:9, William [2] - 772:11, 901:25, 902:3, Witnesses [7] - 767:2, 1019:25, 1020:15, 809:20, 809:24, 776:21 902:14, 906:19, 768:1, 769:1, 770:1, 1022:7 810:3, 810:16, Williams [1] - 766:6 907:4, 907:11, 771:1, 772:1, 773:1 wheat [7] - 893:6, 810:23, 811:6, willing [6] - 861:21, 911:5, 911:16, witnesses [15] -893:11, 893:15, 811:16, 812:2, 977:16, 978:23, 911:25, 918:17, 780:7. 854:24. 893:18, 947:23, 812:8, 812:18, 988:10, 988:13, 918:23, 919:5, 882:4, 883:25, 947:24, 973:18 813:2, 814:1, 814:7, 989:6 919:8, 924:5, 884:2, 885:19, Wheat [3] - 914:1, 814:19, 814:23, winds [1] - 931:13 924:17, 924:21, 885:25, 886:7, 914:3 815:3, 815:8, windshield [2] -924:25, 925:3, 887:4, 887:12, White [26] - 765:18, 815:14, 815:24, 1011:5, 1011:6 925:7, 925:20, 887:19, 887:21, 767:21, 767:23, 816:5, 816:9, Winkler [16] - 769:8, 925:25, 926:4, 888:1, 1002:15, 769:14, 769:16, 816:15, 816:20, 779:12, 779:17, 926:6, 926:9, 1026:6 770:13, 770:20, 817:1, 817:5, 780:13, 780:17, 926:13, 926:16, Witter [1] - 835:23 818:23, 822:16, 770:22, 771:3, 780:21, 780:24, 927:11, 927:16, **WITTLER** [1] - 1027:5 772:13, 772:17, 826:7, 829:1, 781:25, 786:10, 927:19, 928:5, Wittler [2] - 765:24, 829:14, 829:22, 772:20, 772:22, 796:12, 801:21, 928:13, 928:18, 1027:18 773:4, 773:6, 773:8, 830:7, 831:19, 806:22, 812:17, 928:24, 935:1, woman [1] - 950:16 834:23, 855:4, 773:10, 775:2, 814:11, 822:22, 935:7, 935:9, wonder [1] - 909:20 776:18, 830:3, 860:5, 860:9, 826:11 935:12, 936:3,

wonderful [2] -1017:11, 1017:12 wondering [15] -806:11, 889:15, 896:10, 904:18, 909:5, 911:23, 913:3, 913:6, 921:7, 921:8, 977:15, 985:20, 986:1, 996:12, 996:15 word [4] - 952:9, 956:22, 970:21, 970:22 words [5] - 807:22, 828:8, 841:16, 861:13, 882:13 works [4] - 833:19, 908:15, 1004:24, 1020:25 **Workshop** [1] - 776:5 world [3] - 912:12, 954:18 worried [2] - 916:5, 916:13 Worse [1] - 807:3 worst [1] - 878:7 Worst [1] - 776:13 worth [4] - 887:25, 951:12, 951:14, 957:23 writing [3] - 860:1, 997:23, 1000:2 written [4] - 903:13, 960:19, 960:25, 1000:5 wrote [3] - 792:21, 961:3, 961:13 www. enbridgecasslake. com [1] - 853:14

835:19, 835:23, 837:11, 852:12, 858:19, 858:21, 866:14, 866:17, 868:19, 868:21, 868:22, 869:15, 882:25, 892:23, 905:8, 905:13, 906:11, 917:4, 919:13, 929:1, 931:23, 932:1, 932:5, 933:18, 940:18, 943:4, 944:5, 944:11, 945:21, 953:2, 954:9, 955:6, 955:8, 955:17, 958:9, 978:15, 978:17, 979:6, 982:9, 989:12, 1012:16, 1017:23, 1024:8 Years [1] - 777:11 yesterday [15] -783:19, 787:22, 798:23, 806:17, 809:18, 809:23, 815:13, 819:25, 825:19, 826:20, 853:17, 878:6, 896:5, 942:3 yield [1] - 1002:11 young [1] - 953:2 yourself [8] - 838:6, 838:9, 889:5, 926:25, 927:9, 944:7, 974:20,

Ζ

986:16

zero [1] - 1022:11 zone [1] - 785:8 zoology [1] - 941:10

Υ

Yankton [1] - 807:17 Yates [1] - 1013:12 year [17] - 819:22, 838:22, 838:24, 839:3, 839:4, 848:9, 849:25, 857:17, 868:14, 892:15, 892:22, 892:23, 908:14, 912:22, 917:6, 917:12, 1013:2 yearlings [1] - 978:11 yearly [2] - 979:12, 980:19 years [46] - 781:5,

781:7, 827:11,

113 of 113 sheets Page 47 to 47 of 47 01/03/2008 04:14:48 PM