1 THE PUBLIC UTILITIES COMMISSION 2 OF THE STATE OF SOUTH DAKOTA 3 _ _ _ _ _ _ 4 IN THE MATTER OF THE APPLICATION HP14-002 OF DAKOTA ACCESS, LLC FOR AN ENERGY FACILITY PERMIT TO CONSTRUCT 5 THE DAKOTA ACCESS PIPELINE 6 7 Transcript of Proceedings 8 Public Input Hearing 9 January 21, 2015 Bowdle, South Dakota 10 = = = = 11 12 BEFORE THE PUBLIC UTILITIES COMMISSION 13 CHRIS NELSON, CHAIRMAN GARY HANSON, COMMISSIONER 14 RICHARD SATTGAST, ACTING COMMISSIONER 15 COMMISSION STAFF 16 John Smith 17 Kristen Edwards Greg Rislov 18 Brian Rounds Darren Kearney 19 20 APPEARANCES 21 Brett Koenecke and Kara Semmler, Dakota Access Pipeline 22 23 24 Reported By Cheri McComsey Wittler, RPR, CRR 25

1	TRANSCRIPT OF PROCEEDINGS, held in the
2	above-entitled matter, at the Bowdle High School,
3	Bowdle, South Dakota, on the 21st day of January, 2015,
4	commencing at 12 o'clock p.m.
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

CHAIRMAN NELSON: Good afternoon. I'd like to welcome everybody here today.

1

2

I'm Chris Nelson, Chairman of the South Dakota Public Utilities Commission. With me here this afternoon are Commissioner Gary Hanson and Acting Commissioner, our State Treasurer, Rich Sattgast.

7 Mr. Sattgast is serving as a Commissioner for 8 Commissioner Fiegen due to Commissioner Fiegen's 9 determination that she has a conflict of interest because 10 the pipeline will, if constructed, cross land owned by 11 her sister-in-law and brother-in-law, and the Governor, 12 therefore, appointed Mr. Sattgast to act as Commissioner 13 in place of Commissioner Fiegen.

Our purpose here this afternoon is to hold a
public hearing in Docket HP14-002 entitled In the Matter
of the Application of Dakota Access, LLC For an Energy
Facility Permit to Construct the Dakota Access Pipeline.

18 On December 15, 2014, Dakota Access, LLC filed 19 an Application for an energy facility permit for the 20 proposed Dakota Access Pipeline Project. On December 23, 21 2014, Dakota Access filed a Revised Application that 22 relocates the line in Spink County to avoid a center 23 pivot irrigation system and to accommodate landowner 24 preferences and in Lincoln County to avoid property 25 within and close to development areas near Sioux Falls.

1 The Revised Application is for approval of a 2 permit to construct a 1,134-mile 12-inch to 30-inch diameter pipeline that will connect the Bakken and 3 4 Three Forks crude oil production areas in North Dakota 5 to existing pipeline infrastructure in Illinois. 6 The project will originate in the northwest 7 portion of North Dakota, travel southeast through 8 South Dakota, Iowa, and Illinois, and terminate at the 9 existing Patoka, Illinois Hub. 10 The pipeline is proposed to transport 11 approximately 450,000 barrels per day initially with an anticipated capacity of up to approximately 570,000 12 13 barrels per day. 14 Approximately 272.3 miles of the 1,134-mile-long 15 pipeline will be constructed within South Dakota, 16 crossing 13 counties in the eastern half of the state. 17 The project would enter South Dakota in Campbell County 18 approximately 17 miles east of the Missouri River and 19 continue southeast through McPherson, Edmunds, Faulk, 20 Spink, Beadle, Kingsbury, Miner, Lake, McCook, Minnehaha, 21 Turner, and Lincoln Counties. 22 The project would cross the Big Sioux River approximately 14 miles south of Sioux Falls and continue 2.3 24 in a southeasterly direction through Iowa. One pump 25 station would be located within South Dakota

1 approximately 7 miles southeast of Redfield in 2 Spink County. A copy of the Revised Application is on file 3 4 with the county auditors of each of the 13 counties 5 crossed by the project. 6 You can also access the Application and all other nonconfidential documents in the official file on 7 8 the Commission's website at www.puc.sd.gov under 9 Commission Actions, Commission Dockets, 2014 Hydrocarbon 10 Pipeline Dockets, and scroll down to HP14-002, or by calling or writing or stopping in at the Commission. 11 The purpose of this hearing this afternoon is to 12 provide information to the public about the proposed 13 14 project and to hear public comments about the project. 15 Interested persons have the right to present their views 16 and comments regarding the Revised Application. And we 17 want to encourage you to do so. No decisions are being 18 made tonight, today, or in the immediate future. 19 The parties in this proceeding at this time are 20 Dakota Access and the Commission Staff. The South Dakota 21 Department of Transportation has filed an Application for 22 party status, but the Commission hasn't acted on it yet. 2.3 And I also understand, I believe, Lake County has filed 24 an Application, which we have not acted on either. 25 Under South Dakota Law each municipality,

1 county, and governmental agency in the area where the 2 facility is proposed to be constructed or any interested 3 person or organization may be granted party status in 4 this proceeding by making a written application to the 5 Commission on or before February 13, 2015.

6 We have Application For Party Status forms 7 available here this afternoon if you would like to apply 8 for party status. And the form is also available on the 9 Commission's web page for this docket or by contacting 10 the Commission.

I would like to emphasize for everyone, however, that you do not need to become a party in the case to make your voice heard by the Commission. The reason we're here this afternoon is to hear your comments and what you have to say and your concerns about the project.

We will also be accepting comments in written form from anyone, either by mail, personal delivery, or e-mailing the Commission at puc@state.sd.gov right up until the time of the decision.

20 So you only need to apply for party status if 21 you want to participate formally in the case by putting 22 on actual testimony or other factual evidence, conducting 23 discovery, cross-examining witnesses, making legal 24 arguments, et cetera, and to preserve your right to 25 appeal to the court if you don't believe our decision is

legally correct.

2	I also want all of you to know that each of the
3	Commissioners and all of the Staff assigned to this
4	docket thoroughly read all comments submitted by the
5	public, and they are also filed in the docket file.
6	For its permit to be approved our law says that
7	Dakota Access must show that the proposed transmission
8	facility will comply with all applicable laws and rules,
9	will not pose a threat of serious injury to the
10	environment or to the social and economic condition of
11	inhabitants or its expected inhabitants of the siting
12	area, will not substantially impair the health, safety,
13	or welfare of the inhabitants, and will not unduly
14	interfere with the orderly development of the region,
15	with due consideration given to the views of governing
16	bodies of affected local units of government.
17	Based on these factors, the Commission will
18	decide whether the permit for the project should be
19	granted, denied, or granted upon such terms and
20	conditions or modifications of construction, operation,
21	or maintenance of the facility, as the Commission finds
22	appropriate.
23	I'd like to point out to everyone that we have
24	our court reporter, Cheri Wittler, here this afternoon.
25	So I'd like to ask you to use the microphone, introduce

1 yourself, spell your name when you speak so that we can 2 get it on the record.

I'd also like to point out that we have Brian Rounds, Darren Kearney, and Kristen Edwards of the Commission Staff here this afternoon. And we want you to feel free to seek them out if you have questions or need help with anything, either here this afternoon or as we go throughout the process.

9 We will begin the hearing by having the 10 Dakota Access representatives make a presentation to 11 explain the proposed project. Following that 12 presentation, we will take comments from any interested 13 persons or organizations, and we want to strongly 14 encourage members of the public to present your views.

15 Before we get started I'd also like to ask all 16 of you to make sure to put your information on the 17 sign-in sheets so we have a record of who is attending 18 here today.

I'd also like to thank the Superintendent,
Ryan Orrock, of the school and Carolynn Nelson, the
business manager, and the custodial staff for making this
facility available to us and making us welcome here
today.

24With that, Brett Koenecke --25Commissioner Hanson has made a good point.

1 For anybody who's back here and maybe on this 2 side, you may not be able to see the screen like you'd like to. And so feel free to walk around behind us and 3 4 get seated over here where you can get the best view of 5 the screen. Otherwise, you're going to miss the 6 presentation and fully understanding what's going on. 7 With that, Brett Koenecke, the attorney for 8 Dakota Access will be the introductory spokesman for 9 Dakota Access this afternoon. 10 Brett, I'd like to ask you to introduce the 11 people that you have here with you this afternoon and proceed with your presentation. 12 13 MR. KOENECKE: Thank you, Mr. Chairman. 14 Good afternoon, members of the Commission, 15 Staff, and those of you who have taken time on a snowy 16 afternoon to come and visit with us. We appreciate your 17 being here. 18 My name is Brett Koenecke. I'm a lawyer from 19 Pierre, and I'm representing Dakota Access in this 20 proceeding before the Public Utilities Commission. 21 With me is Joey Mahmoud, Senior Vice President of Engineering, with responsibility for development and 22 2.3 execution of the project. Joey's to my right. 24 To my immediate left is Tom Siguaw, Senior 25 Director, with responsibility for the entire project.

Chuck Frey is to my far left, Vice President of Liquid 1 Engineering and Chief Engineer on this project for design 2 3 and safety. Behind me is Jack Edwards, Project Manager for 4 5 Iowa and South Dakota and overall construction manager. 6 Micah Rorie, Right of Way Manager for North Dakota and 7 South Dakota. Monica Howard, Environmental Manager for 8 the project. 9 Keegan Pieper is the Associate General Counsel 10 and Project Counsel from Texas. And my law partner, 11 Kara Semmler, is back there someplace. 12 With that, Mr. Chairman, I'll turn it over to 13 Joey. We do have a short presentation. We look forward 14 to participating this afternoon and hearing the comments 15 and answering any questions that might arise. 16 Thank you. 17 MR. MAHMOUD: Good afternoon. Can everybody 18 hear me okay? Great. 19 Well, thank you, number one, for giving us this 20 opportunity to speak and present our project to the 21 Commission as well as to the community. 22 My name is Joey Mahmoud. I'm Senior Vice 2.3 President of Engineering and Energy Transfer. Energy 24 Transfer, I'll show you who that is. We're the parent 25 company of Dakota Access Pipeline. So I may use

Dakota Access or Energy Transfer interchangeably.
They're one in the same for practical purposes of talking
today.
So Energy Transfer Partners is a diverse family
of four master limited partnerships where -- the
important part here and why we have it here is so we're
a big company. We're actually a Fortune 500, in the

8 top 100. We own somewhere around 71,000 miles of pipe.
9 We're the second largest pipeline company in
10 North America. Depending on what's trading that day from
11 a carbon-based commodity trading basis, we're either the
12 top or the second largest in the country.

13 We operate a lot of assets so although you may 14 not have heard of us, you may not have heard of Dakota 15 Access, we are a very large company with a lot of assets 16 that span essentially from the California-Arizona border 17 all the way to Florida, from Texas up to the central part 18 of the United States to the Michigan marketplace in the 19 northeast. And, of course, you can see up here where we 20 extend up to the Dakotas as part of this Dakota Access 21 Pipeline Project.

Our scope of the project is really pretty basic. It's to move crude oil from the Bakken Play up in northwest North Dakota down to Patoka, Illinois. It's a direct link moving the crude that's produced by a third party or by the producing community. We're taking that crude, and we're moving it to Patoka, Illinois for redelivery to third-party pipes, other modes of transportation to bring that crude oil for utilization either in refining or for consumption and crude derivatives.

7 And everything we have, we're a carbon-based 8 society so we use crude oil for a lot of the products we 9 rely upon every day, the fuels in our vehicles and the 10 fuels in our tractors that we use in the fields.

11 Our purpose for the project is to move roughly 12 450,000 barrels of crude oil starting on day one, which 13 is in December of 2016, up to, and depending on the final 14 subscription, could be 570,000 barrels per day or maybe 15 more. That's roughly a third of the production coming 16 out of the Bakken Play today.

The scope includes, as Commissioner Nelson pointed out, 1,134 miles of 30-inch pipe, some being smaller in diameter in North Dakota, 12-inch and 24-inch, and six tank farms where those are what we call our pooling points. So that's where the pipe or the crude oil actually enters into our pipeline.

Through South Dakota roughly 270, 274 miles of 30-inch pipe. One pump station. Those are the assets that will cross from the northern part of South Dakota

through southeast and enter into Iowa.
This shows you kind of a broad picture of what
the project looks like. It's northwest North Dakota into
Patoka, Illinois, kind of a straight line, as straight as
we can make it. And this is what it looks like through
the State of South Dakota, on kind of the easterly side
of the state.
For those that want the mileage breakdown,
this is an approximate length of crossing within each
county that the pipeline traverses, summing up to that
274 miles.
If I'm going too fast, tell me to slow down.
Some of this we went over with Commissioner Nelson, but,
please, just point it out to me.
The project benefits, you know, a lot of people
ask us, you know, why is this project important? What
does it do for our country? How does it affect me as an
individual?
You know, I'm going to start very broad, big
picture. This project is roughly a 3.8 billion dollar
investment to the U.S. economy, roughly 820 million
dollars into the State of South Dakota. That means all
the pipe, the construction, the right-of-way payments,
all of that is total somewhere around 820 million dollars
that will be directly spent here in the State of

1 South Dakota.

2	The big benefit to you and I as individuals and
3	consumers of crude-based products is it provides a
4	reliable domestic source of crude oil to our refineries
5	that make our oil, our gas, rubber, paint, you know, many
6	products that we call crude derivatives that we utilize
7	every day.
8	So it helps us as a country become more energy
9	independent, rely upon our own crude oil instead of
10	importing it from a foreign source that are very
11	unreliable. And as we have seen as oil prices have
12	crashed what those countries do to our local economy.
13	So this project is critically important to help
14	us as a country become energy independent and not swing
15	based on the whims of a foreign country. That's
16	important to all of us.
17	The other things that are important, it improves
18	the safety to the public. When I say that, pipelines are
19	the safest mode of transportation of any product in the
20	United States. And that's based on pure statistics of
21	products moved based on the amount of transportation of
22	pipe on the ground.
23	When you compare that to rail, you compare that
24	to trucks, pipelines are simply safer. So this improves
25	safety to us as residents or people driving down the

1	road. We have a less chance of being impacted by an
2	incident than we do with a pipeline.
3	The other benefit to a lot of you in the room is
4	it frees up the ability for the rails to transport the
5	commodities that you would otherwise be stranded or stuck
6	waiting for those rails to free up to transport your
7	products as opposed to crude oil coming out of the
8	Bakken. Those are the side benefits that we get with
9	this pipeline, but very important to South Dakota to move
10	your grain commodities out of the state.
11	Another important aspect to this project, it
12	creates a tremendous amount of jobs. And construction
13	jobs in their very nature are temporary. So you might
14	build something. Construction doesn't last forever. So
15	when we say temporary, the construction may be temporary,
16	but the long-term effect is we're providing a sustainable
17	career path for a lot of individuals that are in the
18	construction industry.
19	This will affect somewhere between 10 and 12,000
20	people in our country. These are union-based labor.
21	These are highly trained, skilled individuals that live
22	in these communities or the surrounding areas.
23	We know South Dakota, for example, in this state
24	there will be somewhere around 4,000 people building this
25	pipe. We know 4,000 people are not coming from

Г

1 South Dakota. That's not realistic. But they're coming 2 from the local union halls that are in this region that 3 support construction in this area. Roughly 50 percent of 4 that 4,000. So 2,000 people will come from those areas. 5 So it's a big benefit to South Dakota, the construction 6 work force, as well as the surrounding areas.

7 Long term, it creates somewhere around 40 to 8 50 jobs. 12 of those in South Dakota. Probably 9 three-quarters in Spink County because that's where the 10 pump station is going to be located.

11 The other thing this does for South Dakota is 12 it's a big boost to the local economy as a tax base. 13 These numbers are rough. These are based on the actual 14 cost of the construction. So if you quote these numbers, 15 they're going to be pretty accurate, but they may change 16 based on the ultimate purchasing of the materials, the 17 cost of the contracts to put the line in, et cetera. But 18 roughly somewhere around 36 million dollars in tax revenue to the state. 19

Long term from an ad valorem or property tax basis it's about 13 million dollars. That's in year one. The pipe does depreciate value just like a tractor does. So we will pay taxes on that asset on a depreciated basis going forward. I can't tell you what that is because tax laws change, but at least year one it's about 13 million

dollars.

2	The direct benefit to the landowners when you
3	have a pipeline on your property is essentially the cost
4	or the value of the easement that we would compensate the
5	landowners for and any potential damages to the crops.
6	That estimate for the 274 miles in South Dakota is
7	roughly 47 million dollars. And I'll go over later how
8	that's paid out so to give us an understanding of how
9	we're going to approach that.
10	That's kind of the big, broad brush picture of
11	what this project is about, how it benefits South Dakota
12	and the communities we cross.
13	We started the project last July. We had a
14	meeting with the PUC Staff and introduced the project and
15	what our anticipated filings were. We had open houses in
16	October. We made our Application in December. We're
17	asking for a certificate in the third quarter of this
18	year. We don't know if that's going to happen or not.
19	So not to put you guys on the spot. That's just our hope
20	and desire.
21	We would like to start construction immediately
22	after we get our certificate, and then we would go into
23	service anticipated to be sometime in the fourth quarter
24	of 2016. And that's to meet our contractual obligations.
25	So when I say that the product that we're going

to move is 450,000 barrels, we have contracted -- people have taken capacity on this system for that 450,000 barrels, actually roughly 450,000. Because we reserve 10 percent of that capacity for walk-up capacity for some producer to transport on. That's part of that common carrier or public utility style of project.

As we go through, a lot of people ask us how in the world did you end up with this pipeline on my property? Why did you route it in that manner?

10 When we look at these pipes we start at point A 11 and we need to get to point B. We start at a very high 12 macro level, and then we start to contemplate rivers, 13 houses, communities, city centers, schools, golf courses, 14 hunting areas. We look at everything in kind of a big 15 picture macro level.

We put that into a database. We start to narrow it down. And then, as most of you know, we start a civil survey and environmental survey. That's what we call micro routing. So once we start real big then we start to narrow that down, and we look at it to avoid a person's house, maybe an important orchard, or for those type of commodities.

23 So we try to avoid every constraint we can, but 24 simply we have to connect the dots. So it has to be a 25 contiguous piece of pipe, and ultimately we have to pick

1 a route that's the least environmentally intrusive and 2 least impacting route to the public as a whole. 3 So some people say, well, why are you on my 4 property? It's not that we're trying to be unfair or 5 arbitrary in our decisions. It's just that that pipe led 6 us to that piece of property just because of some other 7 constraint in the area. 8 So that's the balance. It's very technical in 9 nature when we're doing this, and we do try to consider 10 all considerations. And we still are today. So your 11 comments are critically important to us not only today 12 but to work with our right-of-way agents. Because we 13 don't catch everything the first time around. 14 So if we miss something, if you know of 15 something that would be in our way that you would not --16 that is more sensitive in nature, please tell us about it 17 so we can consider that and try to balance that with the 18 rest of the pipe. 19 Right of way, big question we get a lot. We're 20 asking for a 50-foot permanent easement across the 21 properties that we traverse. That's for permanent 22 operations. We're also asking for 25 to 100 feet of 2.3 temporary workspace to build the pipe. 24 The pipe will be buried no less than 36 inches 25 from the top of the pipe in nonagricultural areas and

1	then 48 inches, or four feet, in agricultural areas. And
2	then in certain areas, roads, rivers, streams, creeks,
3	will be no less than 5 feet or 60 inches.
4	When we approach you for an easement we've done
5	a market study where we took the comparative values of
6	the property on a sale basis. We generated a number.
7	That's an average across the counties and an average in
8	each of the counties. That will be our starting point
9	for discussions.
10	We will also include damages to the property
11	during construction as well as impacts to crops or
12	commodities. Our intent is to pay 100 percent of damage
13	year one, 80 percent year two, 60 percent year three.
14	Our construction, why we're doing 100 percent year one is
15	we believe that our construction period will occur and
16	happen during that first year in 2016 when we start and
17	finish construction.
18	This is what the right-of-way configuration will
19	look like. And I think the important part here is this
20	stack of dirt or soil where the first thing we do when we
21	enter the property is we will move that topsoil off of
22	the construction area to preserve and protect it
23	throughout construction. That's also the last thing
24	we'll do when we're putting the soil back together is
25	we'll move that soil back into that construction work

1 area, protecting that topsoil throughout the duration. 2 And this is just a representation. The width varies between construction 75 and 150 feet, depending on 3 4 site-specific conditions, but the permanent easement is 5 always 50 feet. 6 One of the other things that we're doing and we 7 filed with the Commission is we put together a detailed 8 Agricultural Mitigation Plan which spells out our 9 construction techniques as well as our restoration 10 techniques. 11 That plan is general in nature. What we hope to do is work with each landowner to make that plan a 12 13 site-specific plan. It contemplates everything from how 14 we move into the construction area to how we move out and 15 how we restore that property. 16 We think it's a good idea. We hope everybody 17 will work with us on that. We've hired a couple of 18 experts, an outfit called Key Agricultural Services and 19 DuraRoot. They're agricultural experts in this region. 20 We don't pretend to be ag experts. We're pipe guys. So 21 we hope between your knowledge, the knowledge of the 22 third parties, as well as us cooperating together we'll 2.3 be able to come up with a plan to minimize impacts to the 24 property. 25 Finally, and this is the last part of my

1 presentation, is safety in operations of the pipe. And 2 it's not last because we don't consider it to be the most 3 important. It actually is the most important part of our 4 project.

And I wanted to make sure and emphasize this and leave you with these couple of slides to remember, if anything else, that we monitor this pipe 24/7, 365 days a year. There's no point in time somebody's not evaluating, monitoring, and operating this pipe.

We do it remotely. We have operators on the ground. We have SCADA systems that we communicate with the pipe. We have pressure and temperatures and flow meters along this pipe so we can tell what's happening in that pipeline all the time.

We have a complex computational pipeline monitoring system that's running mathematical algorithms throughout the duration that's telling us is the pipeline operating within its design capacity. So if something happens, it triggers an alarm, and we can take an action. Those things are happening all the time.

21 We fly our pipeline no less than every 10 days, 22 weather permitting, and no less than 26 times per year. 23 Some of these things are mandated. There's a federal law 24 out there that's managed by Department of Transportation 25 with a subset called the Pipeline Hazardous Material

Safety Administration, or PHMSA, which you may see. 1 Ιf 2 you want to look up the reference, it's Title 49, 3 CFR Part 195. 4 It gives all these guidelines how we're supposed 5 to design, operate, and manage our pipeline system. So 6 some of these things are regulatory required. Some are 7 more advanced where we go above and beyond. We go above 8 and beyond in a lot of categories. The flying above is 9 one of those things. 10 We participate in the One Call, which I know a 11 lot of you are familiar with. So if you're digging near 12 our pipe, we'll come out and mark our pipes to avoid 13 third-party conflicts. And then we have an education 14 program where we actually meet with all the emergency 15 responders or first responders in the communities at 16 least annually and any interested parties to help educate 17 not only on our plan but as well as the safety of that 18 pipeline. 19 And, lastly, we have an Emergency Response Plan. 20 This is a pretty common question, you know, do we have 21 one of these? And we will. I'm not saying we have it 22 today, but we are developing it for this pipeline. Ιt 2.3 will be enforced before we go into operation. 24 This is a plan that's turned in to the 25 Department of Transportation, or PHMSA, as well as to the

1 local emergency responders. It details every aspect of 2 how we're going to operate the pipe and how we're going 3 to respond to an emergency, should we have one, from the 4 resources that are on the ground and the region, as well 5 as how we would control a spill or a certain situation. 6 So we go through those planning motions. It is 7 a very controlled plan. It's something that actually the 8 Federal Government requires and mandates that we provide 9 to them. 10 That's all I have. We're here for questions. 11 And we certainly have the right team here to hopefully 12 answer anything that you would like to ask us. 13 Thank you. 14 CHAIRMAN NELSON: Mr. Mahmoud, thank you. We 15 appreciate the presentation. 16 As you can see, we've got about three hours 17 scheduled this afternoon to spend here with you all. The 18 Commission took a few minutes explaining the process. 19 The company has taken a little bit of time to explain the 20 project. The rest of the time is yours. 21 This is the time when we want to hear your 22 comments, your suggestions, your concerns, questions that 23 you might have for the Applicant to answer questions that 24 weren't answered in the presentation so that we can all 25 learn more about what this project is and what the real

1 concerns are out there.

2	As we do that, I guess I'd like for you to just
3	keep a couple of things in mind. First of all, 3 o'clock
4	is our hard deadline because we have another hearing in
5	Redfield this afternoon that we need to get to. So be
6	conscious of the time, and be respectful as you speak.
7	But we want all of you to have an opportunity to
8	participate.
9	And so with that, we've got a couple of wireless
10	mics. Darren's got a mic on this side. Kristen's going
11	to have a mic on this side. And in no particular order,
12	whoever is ready to be first up, we've got a microphone
13	for you.
14	Please, and again give us your name, spell your
15	name for our court reporter, and speak not like an
16	auctioneer so she can keep up.
17	Thank you.
18	MR. CHASTAN: Joe Chastan, J-O-E C-H-A-S-T-A-N.
19	Thank you, Commissioners, members of Dakota
20	Access for allowing me to speak here tonight. My name is
21	Joe Chastan. I'm employed by Local 49 as the pipeline
22	director in Minnesota, North Dakota, and South Dakota.
23	Our local represents approximately 39,000
24	members with their immediate family that are affected
25	individuals. The pipeline work, maintenance upgrades,

1 and mainline construction work employs thousands of our 2 members, many of whom are residents here in South Dakota 3 in the use of signatory contractors. 4 Projects of this size allows us to also hire 5 local individuals with little to no experience to be put 6 into entry level positions with room for advancement. 7 Our members are among the most competent, 8 highly qualified and trained heavy equipment operators 9 in the world. We have a training center that sits on 10 approximately 400 acres where we train with hands-on 11 operations to dig around buried pipelines as well as 12 other tasks required in the pipeline construction work. 13 This training is tailored for specific companies 14 like Energy Transfer to meet their specific requirements. 15 We have gas company representatives who teach at our 16 training center as their ground disturbance requirements 17 as well as all other tasks specific to their 18 regulations. Although the members who take these classes 19 are highly qualified to run their specific piece of 20 equipment prior to the training, these advanced courses 21 will teach them the owning company's procedures. 22 The training center also employs the University 23 of Minnesota to instruct our membership in environmental 24 compliance courses, both initial and refresher courses. 25 All of these things have been put into place to ensure

1 that the signatory contractors with Local 49 are using 2 operating engineers who are among the most competent, 3 qualified, safest, and environmentally conscious 4 operating engineers anywhere in the world.

As we know, the use of pipelines is the safest, most economical way to transport product. Other methods, including tanker, truck, rail, and barges, pose a much higher risk both to the public safety and environment. These methods have much higher exposure rated to traffic accidents, human error, and vandalism, which results in negative impact on both public safety and environment.

12 Rising oil and natural gas production is 13 outpacing the transportation capacity of our inadequate 14 national pipeline infrastructure. Crude oil shipments in 15 the rail have continued to expand with virtually no end 16 in sight. We all want to protect the environment, as it 17 is our duty and obligation for the future generations. Ι 18 feel pipelines are the much better method of 19 transportation of product than the alternatives.

The product will be transported from point A to point B. All Americans use it and will continue to use it. So the question is, is tanker, trucks, railroads, barges across our ocean a lower risk to the public safety and environment where high risk and exposures are present or pipelines?

We have to ask ourselves are tankers across the oceans a safer means of transportation, or are the environmental opposition groups against oil and development actually increasing the risk by forcing companies to make alternative routes?

6 The bottom line is this: Oil will come out of 7 the ground in North Dakota. Oil without question will 8 get to market one way or the other. Pipelines are 9 without question the safest mode of transporting this 10 oil, and thousands of North Dakota, South Dakota, as well 11 as Minnesota residents stand to gain the kind of wages 12 and benefits that raise their families by expanding and 13 building our pipeline system.

14 There is no question that this proposed pipeline 15 is needed and that it is in the interest of the citizens 16 that want access to affordable fuel and good paying jobs. 17 On behalf of thousands of our members and residents of 18 the state, in closing I'd like to ask the Commission to 19 approve this project and let the construction begin so 20 our men and women can get to work. 21 Thank you. 22 Thank you. CHAIRMAN NELSON: Who's next? 23 MR. BIEBER: My name is Dale Bieber. 24 B-I-E-B-E-R. 25 Okay. We're transporting crude. The problem I

1 have is we don't build refineries and transport the 2 refined product, which would be a lot less volume in some 3 respects. 4 What is the -- how many gallons of refined 5 product do you get from one barrel? I believe it's 6 around 38 gallons? And a barrel is approximately 44? 7 Am I correct? 8 CHAIRMAN NELSON: I would ask somebody from the 9 company that has expertise in that to respond to the 10 questions. 11 MR. MAHMOUD: 42 gallons in a barrel. How many 12 gallons of refined product? 13 MR. FREY: There probably are somewhere in the 14 upper 30s of gallons in each barrel in lighter refined 15 products. The residual heavier is used for items like 16 asphalt. So the entire 42 gallons is consumed and used 17 for production of other products. 18 MR. MAHMOUD: All right. We appreciate your 19 question and comment. 20 A lot of times we get that question. The simple 21 fact is these refineries exist today. The last new 22 refinery that was built was built in the early 1970s. A 2.3 modified or the latest big refinery modification in 24 Port Arthur, Texas was a 5 billion dollar endeavor for 25 Motiva.

There's been smaller ones and there's some new ones coming in today. All of those refineries are located on the Gulf Coast or the mid part of the United States. They're billions and billions of dollars to build.

6 The economics are such that it's cheaper to move 7 the product by pipeline to those refining centers that 8 exist than to build new. Because all we're doing is 9 transferring impacts from a 30-inch to a 10-inch or 10 12-inch. The fact remains we have to still build a 11 pipeline. So it's more economical for you and me as 12 consumers to have those products go to those refining 13 areas to make those refined products for consumption 14 rather than build new. That's why.

MR. BIEBER: That's fine. But we don't benefit from the transportation end of it. How --

17 Okay. How does the price of the refined product 18 at the refinery or close to it translate to what we pay 19 for the product here? We don't get the benefit is what 20 I'm saying. You want to move it across our area, but we 21 aren't really getting the benefit of having that product 22 in North Dakota and not being refined here so we can cut 2.3 our transportation costs of the refined product. 24 In the southern part of the state gasoline

25 dropped I can't tell you exactly. More than it would

1 drop in this area. We've got tanks of refined product 2 right north of Aberdeen. We've got them at Wolsey, and I 3 can't tell you where else they are. 4 Now can you explain to me why we won't get that benefit? 5 6 MR. MAHMOUD: Probably not in the context of 7 this meeting. And I would love to -- we can talk off 8 line and debate this out. 9 MR. BIEBER: That would be fine. 10 MR. MAHMOUD: I can tell you it's cheaper for 11 you and I as consumers to receive those products via the 12 refineries on the Gulf Coast and Midwest where they exist 13 today than to build new. And they translate into cheaper 14 commodity products for you and me to consume. 15 We can talk off line, but I just wanted to leave 16 you with you that. But thank you for your concern. 17 MR. BIEBER: Okay. One other thing. Now I lost 18 my train of thought. 19 You take that across here. You make a one-time 20 payment for easement? 21 MR. MAHMOUD: Yes, sir. That's correct. 22 MR. BIEBER: Okay. I had something else I was 2.3 going to ask, but I'll probably think of it later. 24 MR. MAHMOUD: Okay. Thank you. 25 Hi. My name is Charlie MR. HOFFMAN:

1	
1	C-H-A-R-L-I-E, Hoffman, H-O-F-F-M-A-N.
2	I'm a cattle rancher today in north central
3	South Dakota. The previous six years I've been in the
4	South Dakota Legislature representing this county and six
5	others in north central South Dakota, and I also sat on
6	the Agricultural Committee, the last two years being the
7	chair of that committee.
8	I can tell you that we've had lots of
9	legislation come before us dealing with wind and solar
10	and nuclear energy, all of which are not debatable as not
11	being able to produce agricultural products. We have to
12	have petroleum or carbon-based energy to grow food in the
13	area we live in, which is the largest breadbasket in the
14	world between the Appalachians and the Rocky Mountains.
15	When we look at what our agricultural products
16	do in this world it is a homegrown safety net we're
17	providing for hundreds of millions of people all over the
18	world. Those agricultural products in order to be timely
19	in getting to market need rail today to be shipped out of
20	our area.
21	The dollars and cents that go into shipping
22	those agricultural products by truck decrease the value
23	to every farmer and rancher and agricultural enterprise
24	in this area so that when we look at rail in relationship
25	to a pipeline in my estimation of everything we've looked

1 at there really is no justification for ever putting a 2 barrel of crude oil on a rail car unless there are 3 absolutely no other alternatives. 4 I'm 110 percent in favor of this pipeline. Ιt 5 is the safest, most efficient way to get crude oil to 6 market. We're all really glad today to be able to get 7 gasoline at under \$2 a gallon. The only reason that's 8 happening is because supply and demand, and it is a free 9 market occurrence that will be increased. The more crude 10 we get to market the cheaper our products will be on the 11 purchasing end of those petroleum dollars. 12 So to say that there is no benefit from this 13 pipeline directly relating to our back pockets I don't 14 think is long term enough. It's going to take some time, 15 but it will happen. 16 40 years ago we had -- through the middle of our 17 ranch we had the Northern Border Pipeline. And that came 18 through, and that's natural gas. Those people running 19 that, I make one call, and they're in my yard within two 20 hours. They are the best neighbors that we have. 21 Of course, we call One Call when we do any 22 digging, put a dugout in, put a fence in. But from what 23 I can see today and what I've dealt with and talked to 24 people, my respect I have for them I believe is the same 25 respect landowners will have for this pipeline company

30 or 40 years from today. And I say that with all due 1 2 respect for this whole entire process. It's being done 3 much better today than it was 40 years ago. 4 A couple interesting notes. The Wall Street 5 Journal recently called oil trains, some of which are a 6 mile long and cruise right through our towns, virtual 7 pipelines that are hiding in plain sight. Transporting 8 oil by rail car has been described as a 19th Century 9 solution to a 21st Century opportunity. 10 So the challenge that we have today is looking 11 at the broad, big picture of what do we produce in this 12 breadbasket? We produce agricultural products. How do 13 we get those products? We cannot grow food with 14 electricity. We cannot grow food with nuclear energy. 15 We cannot grow food with any other renewable resource. 16 You have to have petroleum to grow food. So in summing it up, I have one question. You 17 18 answered one, Mr. Mahmoud. Thank you. The airplanes 19 flying, taking visual inspection of those pipelines. 20 They do the same thing a couple of times a year over our 21 Northern Border. 22 But my question is how many times in a year in a 2.3 mile or a 5-mile stretch of your pipeline are there going 24 to be boots on the ground? And to drill down even 25 further, how often do you intend on digging down to that

1 pipe and inspecting the surface of that pipe in a 5 or 10 or 20 mile to get a good indication of any degradation 2 3 that the environment might be putting on that pipeline. 4 Thank you very much for the opportunity to speak 5 here today. 6 CHAIRMAN NELSON: If the company would respond. 7 MR. MAHMOUD: Sure. This is a two-person 8 response. I'm going to answer it in general terms, and 9 then I'm going to have Chuck answer the safety or the 10 integrity question. 11 This pipeline is buried, number one. So you normally would not see it at all. There's above ground 12 13 valves. And we have a pump station. Other than those 14 instances, the pipeline is buried. So we evaluate the 15 pipeline. Like I said, every 10 days we fly it. 16 Boots on the ground typically occur when we have 17 an indication that we need to put boots on the ground. 18 Normal operating condition says, and this is how we 19 operate, is that we do not have somebody walking the 20 pipeline at all times unless necessary. We do that with 21 our remote control system, our SCADA, our monitoring 22 devices, our CPM models, and then we send our technicians 2.3 to the field to evaluate special circumstances when 24 necessary. 25 Now from an integrity perspective, Chuck, can

1 you answer that and provide some detail? 2 MR. FREY: In regards to digging on the 3 pipeline, very seldom would there be any occasion where 4 we would need to expose the pipeline. Our integrity 5 program and testing of the pipeline now takes place 6 through use of instrument and tools that we run through 7 the pipeline on a regular basis. Generally once every 8 five years. 9 These tools look for any changes in wall 10 thickness, any deformation of the pipe, anything that 11 would indicate that there might be damage or degradation 12 of the pipe. 13 If we have evidence of that, then we can go to 14 the specific location where we have evidence that there 15 may be a problem. We can dig out just that location and 16 make any repairs that are needed. 17 But as Joey said, for the most part, you should 18 not have anybody have to come onto your property in the 19 future to do any digging or anything else that would 20 disturb your use of the ground for agricultural or other 21 purposes. 22 MR. HOFFMAN: Thank you. 23 MS. KUB: Hi. My name is Elaine Kub. That's 24 E-L-A-I-N-E, last name K-U-B. I'm a grain market 25 analyst, and I can just build a little bit on what
Charlie Hoffman said.

2	The math I've done shows that the basis loss
3	suffered in North and South Dakota in the past marketing
4	year compared to what we would have had in a normal basis
5	year when there wasn't the rail congestion would be like
6	130 million dollars. And that's not very large compared
7	to a 3.8 billion dollar project, but that's money coming
8	directly out of farmers' pockets and coming out of the
9	communities' pockets.
10	And the crude oil is not a really huge part of
11	the rail rate market, but every little bit I think taking
12	that volume off of the rail freight should in theory help
13	prices.
14	So this 450,000 barrel per day pipeline I think
15	would be equivalent to four or five shuttle trains per
16	day. And that's not a huge piece, and it's no guarantee
17	that the rail freight prices would go down simply from
18	this pipeline. But I think that the agricultural
19	industry, should support the nineline in the theory that
1)	industry should support the pipeline in the theory that
20	it would bring down freight prices.
20	it would bring down freight prices.
20 21	it would bring down freight prices. MS. HANSON: My name is Sheila Hanson. I'm a
20 21 22	it would bring down freight prices. MS. HANSON: My name is Sheila Hanson. I'm a landowner in Edmunds County. H-A-N-S-O-N.

1 It gets very personal when it comes within a very short distance of my land. It's not proposed to go 2 3 across my land, but it is proposed to go across my 4 relatives' land. So we've had many discussions. 5 Forgive me. I've collected a few questions 6 throughout your presentation and throughout the 7 questions. My questions are not all connected, but 8 they're from what I've heard so far. 9 I heard you talk about how deep you're going to 10 bury the pipeline. What about going from the other 11 What about the water table? Because what perspective? 12 I've heard in lots of conversations with fellow 13 landowners and people in the community is lots of 14 concern for the water. You know, burying the pipe 3 15 feet, 4 feet, 5 feet down, what about, you know, in some 16 areas the water table is very close to the surface. 17 What's your distance between the pipeline and 18 the water table? 19 MR. MAHMOUD: Typically, if the water table --20 and there's varying depths of the water table. I know 21 you know that. If there is a water table that is close 22 to the surface, we would actually put the pipeline -- it 2.3 would have an interface with that in the soil with that 24 water table. 25 That's pretty common. I can tell you we operate

1 many, many pipes that that occurs. We put on what's 2 called buoyancy controls to keep the pipe from floating in those situations, to keep it buried. 3 4 And, of course, we have -- when we're close to a 5 public water supply or a water supply area we have 6 controls in place if we did have an event that we could 7 isolate a particular section to minimize any impacts. 8 Not to say that it's 100 percent, but at least 9 we could try to minimize those impacts should an event 10 occur and we're directly within the water table when they 11 are that shallow. That is going to occur. MS. HANSON: That leads to one of my next 12 13 questions. 14 When there is an event, a leak, what is your 15 response time? I assume you guys are located primarily 16 in Texas maybe. 17 MR. MAHMOUD: Well, we're nationwide so we have 18 people all over the country. We have roughly 28,000 19 employees as a company. 20 How many of those are in my role versus 21 operation? I don't have the exact breakdown, but we will 22 have operators on the ground in this area. 23 When we have an event, if one does occur -- and 24 I talked about that computational model and the 25 monitoring. So as soon as we get an indication it's

1 literally within seconds that we're able to take some 2 form of action. 3 All of our valves are actuated, meaning they 4 have remote actuators to close those valves. In the 5 event something did that, we would be able to isolate 6 that section of the pipeline within the closest valves to 7 wherever the anomaly occurred to minimize that impact. 8 Those valves close in 3 to 5 minutes. So the 9 time before we could actually isolate the pipe is about 10 3 to 5 minutes, but we know literally within seconds of 11 something happening. MS. HANSON: And what's the distance between 12 each valve? Are they consistently spaced, or does that 13 14 vary? 15 MR. MAHMOUD: Well, generally speaking, and we 16 absolutely have the right people here to answer that 17 question in detail, it varies for a crude oil pipeline 18 based on what's called a hazardous analysis where we're 19 looking for hazards along the pipeline. So it could be a 20 mile. It could be 7 miles. It could be 10 miles. 21 Chuck, is there anything you want to add to 22 that? 23 MR. FREY: Yes. Part of our Spill Response Plan is looking at modeling releases and looking at high 24 25 consequence areas. And I don't -- are the valves sited?

1 MS. EDWARDS: In the process. We're finishing 2 that design this week. We're still in the process of siting 3 MR. FREY: 4 the involves and so we don't have the exact location. 5 Like Joey said, they vary. They're not like gas 6 pipelines where they're the same distance apart. And the 7 reason they vary is some areas are more at risk for 8 release. 9 MS. HANSON: What constitutes an at risk 10 release? 11 MR. FREY: Well, they're all at risk. 12 What constitutes a more high consequence area 13 would be the environmental sensitivity, the population 14 density, proximity to water source supply. 15 MR. MAHMOUD: Rivers, wetlands. 16 MS. HANSON: Okay. So switching gears just a 17 little bit here, what if a landowner refuses to give you 18 an easement? What do you do? 19 MR. MAHMOUD: Great question. And I'll tell you 20 from a company perspective -- I'm leaning over. From a 21 company perspective, that's our absolute last resort. 22 We do not seek the power of eminent domain as a 2.3 negotiation tool. We have a very proven track record of 24 negotiating and working with the landowners to minimize 25 those situations.

1	The simple fact and I hate to say this, but
2	the pipeline has to be contiguous. There cannot be a gap
3	in the pipeline at any point. So at some point there has
4	to be an end game. So holdout landowners or folks that
5	won't sign on the dotted line after we've gone through a
6	prolonged and in good-faith negotiation then as a project
7	then we're forced to rely upon the power of eminent
8	domain. In the event where we couldn't work out a deal
9	and we couldn't reroute or figure out a solution, then
10	that's what we're left to having to do.
11	And I hope that doesn't happen. Over 1,134
12	miles is that going to happen? I'm sure it is, but we
13	certainly don't expect to have very many of those.
14	MS. HANSON: Okay. Thank you.
15	And what is your contingency plan if the PUC
16	denies your Application?
17	MR. MAHMOUD: Well, I hope that doesn't happen.
18	But that's a good question. The contingency plan would
19	be to probably try to, you know, find some legal way to
20	challenge that. I'm not a legal expert. Our lawyers
21	could answer that.
22	That would be a very detrimental situation. Not
23	for me it wouldn't be necessarily. It would be bad for
24	our company. Ultimately, it would be bad for us. For
25	us, everybody in this room, for the United States, in

r

1 that we will lose an opportunity to move domestically 2 produced crude oil from producing regions in our country to the Gulf Coast and Midwest United States to produce 3 4 the products that we rely upon every day. 5 Polyester. Most of all our jackets in this room 6 you may not know but are crude-based products. The soles 7 on our shoes, the tires on our car, that everything we 8 utilize is a carbon-based, crude-based derivative that 9 we're relying on every day. 10 So it would really be detrimental to take a 11 third of our Bakken production area and not move it in a more efficient manner. That would be a result of --12 13 would it be devastating? Yes. But it would be more 14 devastating to our country. 15 MS. HANSON: I have two more questions. Forgive 16 me. 17 Have you studied how temperatures adjustments 18 from the -- the temperature of the oil going through the 19 pipeline will impact crop production? 20 I've heard different discussion about, you know, 21 if the pipeline is buried four feet deep, it heats the 22 soil to a point where it impacts the crop production 2.3 around the pipeline. 24 And an additional question on that is does your 25 easement include the opportunity to farm over the

1 pipeline?

prberrue:
MR. MAHMOUD: Okay. So I'm going to answer the
second one first.
Absolutely. Our easements only prevent the
placement of permanent structures on top of the right of
way. You can farm it. You can put cattle on it. You
can do anything you do today other than put a permanent
structure. So there is a limitation, but it doesn't
affect farming.
Our pipeline in ag fields are buried at least
4 foot below the surface of the ground. That's below
mostly the frost line, except really cold years.
Secondly, it's below the root zone of the plants that are
growing the crop. Every once in awhile you'll have a
crop that has a right that grows that deep, but very
rarely.
So it's actually the opposite. The ground
actually controls the temperature of the pipe. Where
it's received in North Dakota there may be an influence
and it may be such that the temperature of the pipe is
influencing the soil, but it quickly reverses and the
soil actually dictates the temperature of the product in
the pipe because we're not heating it along the way. So
it reaches an equilibrium.

1 the soil around the pipe and the product in the pipe will 2 be at the same temperature. 3 Okay. My last question, I think. MS. HANSON: 4 MR. MAHMOUD: Okay. 5 MS. HANSON: So we have cattle. You talk about 6 every 10 days a flyover. That sounds good, but it 7 concerns me a little bit because most of the people here 8 have cattle. And how high or low do you fly, and what 9 about the impact on the livestock every time you fly by 10 in 10 days? 11 MR. MAHMOUD: I'm not going to claim that I have 12 all the answers to that. But I will tell you we do not 13 get many complaints about our -- these are fixed wing 14 airplanes. They fly typically 500 feet above the ground. 15 And they're there and gone. It's probably happening 16 today. If you have a pipeline anywhere near your 17 property, it's happening today, and you don't even know 18 it. 19 We do it every 10 days as a company. That's 20 pretty common. Northern Border I would assume does 21 something very similar. And I don't know. Maybe you can 22 ask some people that have experienced that, but typically 2.3 that's not a complaint that we get. And we operate a lot 24 of miles of pipe. So I don't think it's going to be an 25 impact.

1 MS. HANSON: Thank you for your time and answering my questions. 2 3 CHAIRMAN NELSON: Those were great questions 4 which prompted me to ask two follow-up questions. 5 Do you use drones to monitor any of your 6 pipelines, or is that in the potential future? 7 MR. MAHMOUD: Right now we do not use drones. 8 And, Chuck, have you heard of anything like that? 9 MR. FREY: I'm not aware of anyone making 10 application to do so. 11 CHAIRMAN NELSON: There are, yes. 12 MR. FREY: Okay. As technology advances, I 13 mean, it's something we may consider if that becomes 14 something that is viable. 15 MR. MAHMOUD: I'll tell you the reason we -- we 16 are actively looking at the pipe. So part of the pilot's 17 obligation when they're flying the line is actually 18 visually look at the ground to look for impacts, spills, 19 disturbances, houses. 20 We actually train and test our pilots. So we'll 21 put stuff on the right of way. We'll put Xs. And if 22 they miss it, they're gone. 23 So having a drone provide that service is 24 probably not in our future. I don't want to say it's 25 100 percent not. But the majority of the benefit of

1 having that area flied every 10 days is to actually have 2 a person look at it to say, hey, do I have an issue on 3 this right of way? Yes or no. 4 CHAIRMAN NELSON: Thank you. The second 5 question. Talk about structures on top of the pipeline. 6 Can trees be planted? 7 MR. MAHMOUD: No, sir. That's a question great 8 question. I should have clarified that. 9 Within 50 foot -- typically we will allow trees 10 within 15 foot. So 30 foot will always be clear. Ιn 11 certain circumstances in a forested area we have and 12 probably would allow people to have trees within that 13 latter part of that, the outside portion of the right of 14 way. 15 The key is our ability to visually evaluate that 16 right of way at all times. So having trees prevents 17 that, but certain circumstances we could in sensitive 18 areas like forest or wetlands. 19 CHAIRMAN NELSON: Thank you. Yes. 20 MR. HARPER: Good afternoon. Thank you, 21 Mr. Chairman and Commissioners. My name is Steve Harper 22 spelled H-A-R-P-E-R. 23 I am the general manager for WEB Water 24 Development Association, Incorporated. And just a little 25 background on Web Water.

We are a rural water system that serves
14 counties in South Dakota and three counties in
North Dakota. We are the largest rural water system in
the state of South Dakota. And by miles of pipe in the
ground we are the largest in the United States.
Of course, having 6,800 miles of water pipeline

7 ranging from inch and a half PVC all the way up to 30-inch ductile iron pipe moving anywhere from 6 to 10 9 million gallons of water a day -- this is drinking water 10 not only for probably most of the people that are here, 11 but as well for their cattle, horses, livestock, 12 everything else -- it brings up some concerns that we 13 have.

I have been working with Mr. Edwards, and thank you for working with us. Some of the things that we have done, there's been some studies done by a Dr. Delvin DeBoer. He used to be an environmental professor at the South Dakota State University in Brookings.

And he has determined that, through his testing, crude oil will permeate not only the gaskets in the -the gasket in pipe, in other words, the water lines, the pipelines that the water runs through, but it can also permeate, in time, the PVC itself, getting into the pipe, getting into the water, and contaminating the potable 1 water supply for the residents.

I just wanted to, more than anything, express the concerns that we have that we want to -- not that we are in any way against this pipeline. We just want to make sure that the water source for the individuals and the livestock in this area are protected. And I will say after speaking with Mr. Edwards this week I think we're coming to a plan on that.

9 I also have registered as a party in this. I 10 just got it mailed off yesterday so you will be receiving 11 that. Only for that reason. Not to be against this but 12 to ensure the safety and the protecting of the potable 13 water supply in this northeast region of South Dakota.

14 We've done some research. We have 49 crossings 15 that we can find of our PVC pipeline and one crossing of 16 our 24-inch ductile iron pipe. In precedence, past with 17 other pipelines that have come through the state and 18 another pipeline that's planning to come through this 19 state, they've done things that -- we've lowered -- the 20 water systems have been able to lower their water lines 21 to maintain a distance of 7 or 8 feet below the bottom of 22 the pipe, encase an infusible PVC pipe so that if there 23 is a crude oil spill or crude oil would come in contact 24 with it, it will not permeate the fusible PVC. 25 And hopefully we can work something together.

And not only is WEB Water involved in this, there are other multiple rural water systems within the state of South Dakota, as well as Iowa and North Dakota, that are in the same shape that we are.

5 My last thing and kind of a question, we've 6 talked about integrity of the pipe. And one of the areas 7 of concern for us, because we run ductile iron pipe down 8 our main line, is cathodic protection. We run an 9 impressed current cathodic protection system along our 10 ductile iron pipe. And I'm going to make an assumption that the steel pipe you're going to run is a similar type 11 12 system.

In our crossing, the place where those two pipes will cross, what can we do between the two of us to make sure that those two impressed current systems do not overlap and cause problems for either system?

With that, I thank you, folks, for allowing usto speak. And thank you, folks.

MR. FREY: Where we will have any foreign line crossings that will have cathodic protection systems as we will, our cathodic protection designers will work with you. There will probably be a critical bond between the pipeline so we can look to any interference on the two cathodic protection systems between the pipelines. And we'll just have to address and adjust the

1 current settings to make sure we don't interfere with your cathodic protection and that your cathodic 2 protection doesn't interfere with us. 3 4 It's pretty common, especially down where we 5 have a lot of our pipes. We have a whole lot of 6 pipelines in close proximity to each other. And so our 7 guys that manage that system are familiar with and know 8 how to deal with foreign line crossings. 9 MR. FJELDHEIM: Al Fjeldheim, F-J-E-L-D-H-E-I-M, 10 with the Campbell County Commission. 11 What are your expectations from the smaller 12 towns as far as fire protection and so forth? We're 13 responsible for the health and safety of our residents. 14 Are any of these fire departments -- and which are quite 15 Is there any expectations from those departments, small. 16 ambulance, and so forth, those kind of services, with the 17 safety of this pipeline? 18 MR. MAHMOUD: Thank you. 19 Well, thank you for that question. And we are 20 actually going through, and we started I think last week, 21 where we have our operations Staff -- a person by the 22 name of Chad Arry [phonetic] -- who is communicating and 2.3 working with all the different emergency support organizations along our pipeline. 24 25 So that's coming your way, number one. So if

1	they haven't contacted you, we will actually do that over
2	the next probably 60 to 90 days.
3	In general, though, the response that we would
4	expect would be just like any other residence, to protect
5	human life and property where if we did have a spill,
6	obviously, we would control that to our best of our
7	ability. And we would deploy the resources necessary.
8	But if there was an incident, we would rely upon
9	the local emergency responders to help protect the
10	citizens and the personal property, and then we would
11	supplement your resources either with our resources or
12	with contracting resources that we will have along this
13	pipeline.
14	So we're not expecting or asking for you and
15	your safety organization or emergency response
16	organization to protect us 100 percent but certainly to
17	work with us to have a collaborative effort.
18	Those discussions are happening. I don't have
19	the exact plan because we're putting the plan together
20	now based on this exact feedback of what your
21	capabilities are, as well as what would be needed in the
22	event of an emergency based upon an Emergency Response
23	Plan.
24	Thank you.
25	MR. LEIDHOLDT: I'm Alan Leidholdt, and I'm from

Г

1 Roscoe. 2 What I was wondering -- I witnessed this with 3 TransCanada Pipeline -- if the project goes through and 4 it's a wet spring or a wet summer, who's responsible when 5 the county roads or the township roads get tore up? 6 Because I witnessed that when that went 7 through. 8 MR. MAHMOUD: We are. We take the liability and 9 responsibility. 10 So if we as a company -- we hire the 11 contractors. We actually hold our contractors liable. 12 If they fail to respond, then we will step in. But we 13 will actually take that responsibility. We'll film the 14 roads before we start. We'll monitor them during 15 construction. We'll repair them if we damage them, and 16 we'll work closely with the road organizations or the 17 road departments along the pipeline. 18 MR. LEIDHOLDT: Thank you for your time. 19 COMMISSIONER HANSON: Sir, if I could, 20 Commissioner Hanson down here, I see everybody looking 21 around. 22 During the -- for the Keystone Pipeline we had 2.3 two bonds that were required to assure that there would 24 be responsibility towards repairing roads and other 25 damages that might occur. And those bonds were not

1 released until after significant duration of time after 2 the project was done and all of the counties reported to us that the construction work had been done and taken 3 4 care of. 5 For Keystone I believe it was a 12 million 6 dollar bond and a 3 million dollar bond, totalling 15. For XL on the west side of the state and 7 8 West River I believe we required two of them that were 9 around 15.6 or something like that for about 31.2 million 10 dollars. 11 That is what we required in those two instances, and I have no doubt that we would -- I can't state what 12 13 the Commission's going to do. Certainly, don't know what 14 the other Commissioners will support. But, most likely. 15 That is the track record that we have of requiring bonds 16 to assure that any damages that occur are taken care of 17 and that the counties report back to us that they're 18 satisfied that the work has been completed. 19 Counsel Smith, would like to say something? 20 MR. SMITH: Just make one comment on 21 Commissioner Hanson's statement there. 22 There's actually a statute in the South Dakota 2.3 siting law that requires us to impose road bonds. We 24 don't have an option. We have to do it. But the key is

25 getting the number right.

1 And here we're talking a pretty big construction 2 project so in general those road bonds are a lot of 3 money. And they really provide a lot of incentive for 4 the company to do a super good job in administration. 5 And that's what we've seen. 6 CHAIRMAN NELSON: Darren, are you not finding 7 anybody on this side? Kristen's doing a better job. 8 Go ahead. 9 MR. BLUMHARDT: Glenn Blumhardt, 10 B-L-U-M-H-A-R-D-T. 11 CHAIRMAN NELSON: Go ahead. 12 MR. BLUMHARDT: My question, I guess, would go to Mr. Koenecke. 13 14 Knowing the system in South Dakota, we both know 15 that anything the PUC does is subject to appeal. And 16 knowing the system and that if they rule in favor and it 17 is appealed, it is appealed through the Circuit Court 18 system and the judge rules in their favor and then in 19 turn it's appealed again to the South Dakota Supreme 20 Court and if they've done their job correctly will be 21 approved by the Supreme Court, we're looking at roughly 22 two and a half, three years until this pipeline could be 23 started in moving forward. 2.4 Does that, in your mind -- you people, does that 25 change the scope of how you do anything? The easements

1 that we'll sign, will anything be done with those? Does any of that change with the system that we 2 have in South Dakota? 3 4 MR. KOENECKE: Thank you for your question. 5 I don't believe so. We certainly are of No. 6 the understanding that the Commission's decision can be 7 appealed by someone who is a party. We would hope that 8 the construction process is not hampered by that, but we 9 do understand that's something that is possible, and we 10 would hope to minimize any effects from that going 11 forward. 12 Is that the answer you're looking for? 13 MR. BLUMHARDT: Well, I was wondering, you know, 14 I'm familiar with projects, and I'm familiar with getting 15 hung up in court. 16 And as with the Hyperion -- as with Hyperion 17 down there, until it cleared the court system and 18 affirmed what the board did, it basically fell through. 19 And I just was wondering, is this in the same situation? 20 MR. KOENECKE: I'm going to let Joey take a 21 crack at that. 22 Thanks. 23 MR. MAHMOUD: Yeah. I'll tell you, no, it 24 doesn't. And the simple reason is because we treat 25 people just like we expect to be treated.

1 So if there's a landowner, we hope, I hope, as 2 an individual, as a person, that my right-of-way guys are 3 respecting that landowner and respecting the process and 4 we're treating everybody fairly. 5 The threat of a court decision or a District 6 Court or a Supreme Court influencing our project that we

7 would actually behave differently, not at all. Because 8 if we're behaving -- what I expect is that we're behaving 9 properly up front, we're treating people with respect, 10 we're compensating people fairly, that when we get to 11 that process, we've routed the pipeline to minimize those 12 environmental impacts, impacts to people, that it should 13 be -- if we've done our job right -- a clear decision all 14 the way through that we're not worried about being 15 subject to any challenges. 16 That's our goal. 17 MR. BLUMHARDT: Good luck. 18 MR. MAHMOUD: Thank you. MR. MAUCK: My name is Kent Mauck, M-A-U-C-K, 19 20 from Mobridge.

I own a company called Heartland Waste Management. It's a company that we've been picking up garbage from most of these small communities within a 200-mile radius so we service a lot of people in these small communities.

1	I'm in the process right now working with the
2	City of Faith in the XL Pipeline. And there may be, if
3	this goes through, maybe what they call a man camp of
4	around 6, 700 people. Is this something that would also
5	affect some of our small communities that I pick up
6	refuge right now from Pollock to Herreid, all the way to
7	Pierre.
8	Is this something we should be looking at? Is
9	there man camps involved, or how long does this project
10	actually take?
11	MR. MAHMOUD: Okay. That's a very good
12	question.
13	We are in the process now of discussing our
14	construction with our construction contractors. We're
15	thinking you've heard us mention we're utilizing
16	union-based contractors to do the labor and to execute
17	the work.
18	Those union-based laborers will work for what we
19	call a prime contractor. The folks that we've been
20	talking to to date have indicated they probably would set
21	up some form of man camp in South Dakota, maybe more than
22	one, and in those situations we would require the
23	services or the contractor would require the services for
24	refuge pickup, for water, supplies, groceries.
25	So those are actually part of the benefits to

r

1 local communities. When we say we're going to spend a lot of money in the community, those are called secondary 2 or indirect effects where that's the benefit. 3 4 Trash may not be a benefit, but in your case it 5 actually provides more income for your company, and we do 6 fully expect that. 7 Duration for construction, we hope that it's a 8 good year. If it's like this year, we would be under 9 construction. Overall it's going to be somewhere between 10 six and nine months of physical construction where we'll 11 be in the state actually moving dirt and putting a 12 pipeline in the ground. 13 MR. MAUCK: I see in Campbell County it looks 14 like about 29 miles, if I'm not mistaken. If they were 15 moving in that area, 29 miles, those people would be 16 there welding or putting pipe in for what, maybe a month, 17 two months? 18 MR. MAHMOUD: Somewhere between 30 and 90 days 19 of hard construction. Restoration will take longer. So 20 we would expect to be done within that same growing 21 season. Sometimes, depending on the weather conditions, 22 it may extend to two growing seasons. 23 So my general answer is it could be two growing seasons or two years. But the actual movement of dirt, 24 25 welding, putting the pipe in the ground, weather

1 dependent, could be no less than 30 days. We don't think 2 more than 90. But it could be. It's all about the 3 weather. 4 We don't work in real sloppy conditions because it's a negative impact to the soil. But in general terms 5 6 that's about what it is. 7 MR. MAUCK: And another note. I've been 8 involved in the trucking industry for probably 40 years. 9 I also had another company called East River Lumber & 10 Grain, which is a large trucking company. After 40 some 11 years we decided we were going to concentrate on the garbage business so we got rid of it in 2014. 12 But my dad was also involved in with the 13 14 Milwaukee Railroad, B&N, for 40 years. And I have to 15 tell you, I still believe that the safest way would be by 16 pipeline, even though I've been heavily involved in the 17 transportation business. 18 One gentleman mentioned the WEB project. We 19 were the ones who hauled the main pipeline for the WEB 20 project, our company. 21 So even though I think a lot of the transportation industry, been involved with it for quite 22 2.3 a few years, I still believe that the pipeline by far is 24 the safest way to handle this. 25 Thank you.

1 MR. GOEHRING: My name is Lowell 2 G-O-E-H-R-I-N-G. I'm the Campbell County Emergency 3 Manager, and I'd like to take this opportunity to thank 4 you for briefing the local emergency managers yesterday, 5 on the plan. Plus I have a couple of questions. 6 When the pipeline is -- or after its built you 7 have to put up markers, which has -- contains contact 8 information, I believe. And also my first question is 9 what's the spacing between these markers once they go up? 10 And the second one is does each marker have a 11 location code on it that tells us where it's located 12 along the pipeline? 13 MR. MAHMOUD: Tom, do you want to answer that 14 for us, what your plan is? 15 So the question was what's our spacing for the 16 pipeline markers. And I'm sorry. I didn't quite catch 17 the second half of your question. 18 MR. GOEHRING: The second half was, does each 19 marker have a location code or something on it that tells 20 exactly where it's at? 21 MR. MAHMOUD: Okay. 22 So Tom Siguaw. 23 MR. SIGUAW: Yeah. Tom Siguaw. And on the spacing, its line of sight and also 24 25 at all the road crossings, railroad crossings, public

1 lands. And so there's not a -- there's not a code, per se, but when you make your -- if you actually want to 2 3 call in, you go ahead and state the road marker or the 4 nearest road that you're at and then that would help us. That's what we look for. So we're actually tied 5 6 to the road crossings, public land IDs, waterways. We're 7 tied to those specific events, not just a code like a 8 telephone pole mark. We're not set up like that. 9 But they are line of sight also so at the road 10 crossings line of sight you proceed down the right of 11 way. 12 MR. MAHMOUD: And then to follow up, we do not 13 have -- we may have station numbers, or we may have an 14 aerial marker at certain pipeline signs that would give 15 us an indication of what that mile post is. That means 16 something to us as an operator. That says it's so many 17 miles from the origination point of the pipeline. So we 18 do have certain levels of that sophistication. 19 And our entire pipeline, wherever it's at, is 20 geographically mapped and civil surveyed so we know where 21 the pipe's in the ground. And the survey -- or the 22 pipeline markers sit inside of our 50-foot easement to 23 identify where our pipeline is located. 24 So if you see a pipeline marker, and that's very 25 common, that pipeline is somewhere very close to that

1 pipeline marker. Not on top of it, but it could be right next to it or within a couple of feet. 2 3 MR. GOEHRING: Okay. Thank you. 4 CHAIRMAN NELSON: We need to be very sensitive 5 of the endurance capabilities of our court reporter. 6 Could I just see how many more folks would like to speak 7 today? 8 I'm seeing only three or four. Cheri? 9 Okay. We're going to try it, and, Cheri, give 10 me the high sign if it takes long. 11 MR. LEIDHOLDT: I'm Alan Leidholdt, 12 L-E-I-D-H-O-L-D-T. 13 If this project goes through, how many employees 14 will be working on this project, and what communities are 15 going to be lucky to have the camp where the employees 16 are going to stay? 17 MR. MAHMOUD: Good questions. 18 In the State of South Dakota our construction 19 work force is estimated to be around 4,000 people. 20 Again, roughly half of those will be from the local union 21 halls, which could be North Dakota, South Dakota, or 22 Minnesota. 23 We don't know where the man camps would be yet. 24 We're working with our contractors now. We're going 25 through the sourcing of those contractors. So we don't

1	know.
2	And once we do, it will be very apparent to the
3	communities because our contractors will come out and
4	start sourcing those service needs and contracts for
5	water and trash, food. But I don't know today.
6	MR. LEIDHOLDT: All right. Thank you.
7	MR. HOERNER: My name is Kevin Hoerner,
8	H - O - E - R - N - E - R.
9	My question is if you're not the landowner of
10	the land and then you have someone operating it, are you
11	going to be reimbursing the operator on the crop that
12	you're destroying, or how is that going to work?
13	MR. MAHMOUD: If I understand your question, are
14	we going to compensate the tenant of the land?
15	MR. HOERNER: Yeah. Like the renter of the
16	land. Are you going to work it out with him with the
17	crop that you're going to destroy?
18	MR. MAHMOUD: And I'm going to try to answer.
19	And, Micah, you may have to help me here.
20	Typically we compensate the landowner for the
21	easement. So whoever is of record, that's who we
22	actually negotiate with for an easement.
23	Damages would be to the tenant farmer. And
24	that's very dependent upon the agreement between the
25	landowner and the tenant farmer on who receives that

1 compensation.

2	I'll say in general terms it's mostly the tenant
3	gets the crop damages, or damages. The landowner would
4	get the easement, temporary and permanent impacts.
5	Rorie, does that sum it up?
6	MR. RORIE: Yes, sir. That's exactly how we
7	operate.
8	CHAIRMAN NELSON: If I could just interject, as
9	a landowner, I went through one of these situations a
10	number of years ago. And in my rental contracts with the
11	folks that rent from me, we spelled all of that out, how
12	those dollars would flow from me to them for the years
13	that were impacted.
14	Yes, sir.
15	MR. HARPER: Steve Harper, S-T-E-V-E
16	H-A-R-P-E-R, WEB Water again.
17	This question was kind of addressed somewhat by
18	Commissioner Nelson in regards to and or excuse me.
19	Commissioner Hanson and Mr. Smith in regards to the
20	bonding that's used for the roads.
21	Now is there anything that is out there, in
22	other words, for bonding for the cleanup of the property
23	that's been disturbed as well as say in the future say
24	there's a incident or that you've talked about.
25	What is required to be available to take care of

1 that cleanup, whether it's removing soil or it's in wetlands and/or, you know, the Missouri River? 2 3 Of course, for us the Missouri River is very 4 near and dear to us because that's where our water comes 5 That's where we get the ground water, drinking from. 6 water. I know you crossed the Missouri River in 7 North Dakota. Ultimately, it flows downstream to us as 8 well. 9 So what is in place to make sure that those 10 clean-up efforts are completed? Where do the dollars 11 come from? And is there anything allocated specifically 12 to that? And for how long of a course? 13 MR. MAHMOUD: I won't try to answer for what the 14 Commission rules are. 15 I'll tell you from my easement perspective what 16 governs the business relationship between the company and 17 the landowner is that we have a signed document that 18 specifies what that restoration obligation is. 19 One, we're obligated to restore the property to 20 its preconstruction condition and elevation. That goes 21 without saying. That happens in every instance. We put 22 back the topsoil in how it came out as best we can. We 2.3 protect it during construction. 24 There is no bonding, per se, for an easement. 25 The bond is -- it's private land, number one. So I quess

1 maybe number two. So we have that contract with the 2 landowner, which is in the form of that easement, where 3 we're paying that landowner for the permanent easement 4 and the temporary damages and temporary easement for the 5 use of that property. 6 In that term that spells out what the

7 compensation is, and then we pay damages to the landowner 8 for damages that could occur, disturbance of a fence, 9 disturbance of a farmer's interior road, or whatever it 10 may be. So we actually compensate that landowner for 11 those damages.

Long term if there's a residual impact, we as a company, as a prudent operator, will work with the landowners to ensure there is no long-term impact for ditch line sluffing or sagging down if the soil doesn't necessarily -- is not preconstruction contour after we're done. So we'll actually address those things long term.

We as a company are committed to doing that to be good, prudent operators and to work with the landowners.

As far as a spill, that's a bit much different discussion. As a company, again, we have -- one, we're a multibillion dollar outfit. We have a lot of economic resources to step in, should we have a spill or an event.

1 We carry insurance to protect ourselves against those 2 situations. So if we don't have whatever resources to step 3 4 in immediately, we have an insurance policy that actually 5 steps in. 6 Third, we contribute to a federal program that 7 we pay into that we as an operator for whatever reason 8 can't step in or the government doesn't believe we're 9 mitigating whatever situation occurred, they will 10 actually step in and take over, and then we will -- are 11 required by law to reimburse the government for that 12 cleanup. 13 But, in general, we have policies in place, our 14 corporate structure, our financial resources come to 15 bear, plus our insurance policies, as well as government 16 programs that we contribute to on a continuous basis. 17 MR. SMITH: John Smith again, Commission 18 counsel. 19 The only statutory authority we have for bond 20 imposition is with respect to roads, bridges, and other 21 related public facilities. 22 Now I will say this. You know, like with the 2.3 Keystone XL Project -- and that one's more recent so I 24 remember it a little better, but we imposed well over 25 100 conditions in that decision.

And among those are absolute conditions about I mean, and our Staff, our consumer Staff restoration. and our other professional Staff, one of them used to be 3 Kara Semmler sitting right over at that table.

1

2

4

5 I don't know. Maybe Kara could answer this, but 6 we handled dozens and dozens and dozens and 7 dozens of situations in terms of acting as a mediator 8 between the company and landowners to get those problems 9 resolved.

10 And at this point we're really not hearing 11 anything anymore so I think they're resolved. I think 12 they are. But it takes a few years with a lot of types 13 of -- you know, where you've got to do horizontal 14 directional drilling, that kind of thing, there's a 15 length of time it takes for full restoration to occur.

16 Because, you know, you've got settling, and you 17 have to have -- it's a couple three-year process before 18 you finally have that agricultural land or whatever to 19 where it looks absolutely like it did before.

20 And I quarantee people in this room that when 21 you cross over the Keystone Pipeline on I-90 you're not 22 going to know where it is. You will not know where it is 2.3 unless you know where the sign post is. It has 24 absolutely been restored to invisible. 25 MR. STAPEL: Otto Stapel, S-T-A-P-E-L,

Campbell County Highway Superintendent. 1 2 I've been in touch with Ron Mills that's been doing coordinating with us in our county. One of the 3 4 things I wanted to know, he has not officially gave me an We wanted to know about trenching across section 5 answer. 6 lines. 7 He said that if they trenched across it, we 8 could have a minimum of 6 foot below the ditch line on a 9 section line. Can we get that in a guarantee? And 10 marking identifications on both sides of the section 11 lines of roads so we know where it's at so if we do 12 developing ourselves, we know where we got it at? 13 MR. MAHMOUD: So I'm assuming the section line 14 is a road. I don't live here. But is that a true 15 statement? Before I answer. 16 MR. STAPEL: Section lines has county 17 jurisdictions in Campbell County. 18 MR. MAHMOUD: But are they roadways? 19 MR. STAPEL: It will be for future developing of 20 roads. 21 MR. MAHMOUD: Okay. 22 In most instances -- and our construction men 2.3 are saying yes. But I'll tell you the broader answer is, yes, we think we will. 24 25 If it's a road crossing, we will be 5 foot

1 below, not 6. And a minimum of 5. That's the 60 inches 2 on each side. And that's below the ditch line if there's a road. So it's not below the surface of the road. 3 It's 4 below the bottom of the ditch next to the road. And we almost -- I can't think of an instance 5 6 where we would not post the markers on each side of the 7 roadway for that section line. 8 For future section lines where there may or may 9 not be a road, if we don't know about it, the answer is 10 we probably would not. But if you disclose that, the answer is we probably would because it's ease enough to 11 12 do at this point in the game. 13 So the general answer is yes, and please 14 continue to work with our Staff to identify those 15 locations. 16 MR. STAPEL: Okay. Thank you. 17 MS. HANSON: Sheila Hanson, H-A-N-S-O-N. 18 Clarifying question, if I might. When we were talking 19 about valves are the valves above the ground? 20 MR. MAHMOUD: Yes, they are. 21 MS. HANSON: Okay. Obviously, the world we live 22 in is changing daily, watching the news. And I don't 23 mean to be a fear monger by any stretch. You guys have 24 monitors along your 71,000 miles of pipeline. 25 What do you do in the systems that you currently

1 have for terrorism protection? Obviously, the PUC is 2 dealing with that on a lot of levels, but what's to say 3 someone couldn't blow up a valve? You know what I mean? 4 And I don't mean to scare people, but that's a 5 possibility. 6 MR. MAHMOUD: Sure. And, you know, the 7 possibility is real for you and me and for our company 8 and everyone else. 9 We cannot protect against terroristic threats in 10 any means possible if we don't know about them. 11 But what we do do is we work with local 12 authorities, state authorities, federal authorities where 13 we have terror programs in our company. They are not for 14 public disclosure. They're very confidential because 15 they're working with the government agencies that protect 16 our country as well as our infrastructure assets. 17 So we have programs in place such if we did get 18 a threat or became aware of one, we would notify the 19 proper authorities and work with them to protect not only 20 the public but our assets. 21 CHAIRMAN NELSON: Any other questions or 22 comments? 23 MR. HOYLE: My name is Dennis Hoyle, H-O-Y-L-E. 24 I happen to be an Edmunds County Commissioner. 25 I recognize the benefits here, but I also know how I
1 would feel if this was going across my land. I ask very seriously that you take care of the 2 landowners and their concerns. That's not just a piece 3 4 of dirt. It's something they've worked at maybe for 5 generations. Please take care of them. 6 CHAIRMAN NELSON: Any other questions or 7 comments? 8 MS. ERNST: Sonia, S-O-N-I-A, E-R-N-S-T. 9 As a landowner, I guess, first of all, I 10 appreciate the thought with regard to the water table and 11 especially in light of the flooding that we've had in our area especially. And that would be the comment I would 12 13 make. 14 I guess the question I would have -- or the 15 first question I would have is I'm wondering if the PUC 16 can provide landowners information with regard to 17 historical perspective to what this is going to do to land values? 18 19 And then my second question would be if the 20 PUC does approve this, does that -- is that what 21 automatically confers eminent domain? 22 CHAIRMAN NELSON: Let me answer the last 2.3 question first. Eminent domain is a creature of state statute and is absolutely a separate process from 24 25 anything that we do.

1 There are some states where the commissions can 2 grant or deny access to eminent domain to a company. South Dakota is not one of those. The Commission is not 3 4 involved in that, nor do we have the power to determine 5 whether or not it can be used. That is something that is 6 a creature of statute, as I said, and would take place 7 between the company, the landowner, and the court system. 8 The Commission would not be involved.

9 So far as land values, we can't speak to that 10 authoritatively. And whether or not there's any evidence 11 in any of our past dockets that would speak to that, I 12 don't know. And whether or not there will be evidence 13 entered into this proceeding that will speak to that, I 14 don't know. So that's something that I can't answer.

MS. ERNST: Any suggestions as to where a person could investigate that?

MR. MAHMOUD: I can at least point you in one direction.

19 If you look up INGA, I know it's not for crude 20 oil, but the Interstate Natural Gas Association actually 21 has some publications out there. If you just do a search 22 for that and do land values, there are papers and studies 23 that have been done by independent groups that discuss 24 the exact question you're talking about, if pipelines 25 negatively affect land values.

1 We've done a lot of research. Obviously, we 2 have a lot of pipes so we get this question quite often. 3 In general terms -- and I've said in general terms a lot 4 today, but in general terms the answer is no. There is 5 no impact to your land value. 6 There could be an impact to the improvement 7 value of the land. And if that's the case, then we 8 would compensate that landowner for any decrease in that 9 That's part of the negotiation and assessment value. 10 process where we do appraisals on a per property basis as 11 we're negotiating to make that determination. 12 So I would encourage you to look at the INGA 13 They'll at least educate you on the process so papers. 14 when you're talking to our agents you can have an open 15 dialogue about that. 16 COMMISSIONER HANSON: Gary Hanson with the 17 Commission. 18 A couple of things. I'm a licensed real estate 19 broker and appraiser, and I have been an expert witness 20 in court for appraisals in my past life. 21 It's extremely difficult to try to analyze the 22 difference in prices. And I think you can get appraisers 23 that will say something on either side depending upon 24 which side they're hired by. 25 The biggest challenge, of course, is the

fluctuation in crop prices that have some effect on -and certainly interest rates that affect prices as well. But to really look at the core of it from the standpoint of the effect on the land itself, it depends upon the quality of the restructuring of the land after it has been modified, so to speak, by the Applicant.

If they don't do a good job, obviously it affects it. We would all recognize that. The fact that there's an easement there on cropland does not seem to have an effect. If it is close to a residential property, it does not have -- it does not appear to have an effect.

However, it all -- and I guess for the integrity of the Commission, I need to say that contrary to what has been stated earlier, we are working with a couple -at least two, if not three, landowners who had the Keystone Pipeline pass through their property.

18 I've met with them, even was on their property 19 within the past six months walking it and examining it, 20 and I could see where they were not having the yields and 21 the challenges on some of the area. And some of the 22 grassland that was replanted was not replanted properly. 23 And we're still working with them, even though 24 they are past that period of time, the three-year period. 25 They did not sign off with Keystone saying, yes, we're

1 satisfied with the work that you did. And so that's part 2 of the process as well. As a Commission, as elected people, we feel a 3 4 responsibility to work with the citizens to try and make 5 sure that they're treated right. 6 CHAIRMAN NELSON: Any other questions or 7 comments? 8 If not, let me just close by saying a couple of 9 things. 10 First of all, on behalf of the entire 11 Commission, I greatly appreciate you taking some time today caring about your community, about your land, about 12 your property to come and find out more about this and 13 14 engage in this dialogue. 15 I appreciate the questions that you've asked. 16 Good questions. I appreciate your comments. 17 As I indicated at the beginning, this is just 18 the very beginning of the learning process for the 19 Commission. We won't be making a decision on this in the near future. Our deadline is in December. 20 21 It will likely take most of the year for us to 22 work this through. And it will culminate with another 2.3 meeting or hearing at the end where any of the 24 Interveners and the actual parties in the docket will be 25 able to come together and provide their evidence. So

1 we're just at the very beginning of this, a long process. Before we close, I'd like to ask Commissioner 2 3 Hanson or Acting Commissioner Sattgast, do you have any 4 questions or comments? 5 COMMISSIONER HANSON: I wasn't going to ask. Ι 6 was going to do some research. But I'm curious of the 7 Applicant. 8 One of the arguments in favor of the pipeline --9 and certainly I understand pipelines are a lot safer than 10 rail, but do you have any idea of the amount of petroleum product that is presently being shipped either through 11 South Dakota or North Dakota that this pipeline would 12 13 free up? 14 Because we hear the argument that it will free 15 up locomotives for the opportunity to ship more grain. 16 And I believe that, but it just seems to make sense 17 intuitively. However, I'm curious if you have some hard facts on that. 18 MR. MAHMOUD: You know, there's no way we can 19 20 Sorry. answer that. 21 We can tell you, and the lady that spoke 22 earlier, it's about four to six unit trains a day that 2.3 will be displaced by this pipeline. If you look at just the rough numbers, it's about a third of today's 24 25 production.

1 If you do that math and you figure out how many 2 gallons or barrels a rail carrier can move, you multiply 3 that by what a unit train is, that's how many get 4 displaced. 5 If those are routed through South Dakota or 6 Minnesota, we don't know. There's no way we know where 7 that's going. 8 CHAIRMAN NELSON: Thank you. 9 In closing, I'd like to remind you on the table 10 we've got some information on this process and other 11 information you can take with you. We have other 12 information on our website that will be updated 13 periodically as more information is filed in the docket. 14 And, as we said at the beginning, you can 15 continue to comment to us, preferably through written 16 means, through e-mail, which we will then add to the 17 docket file also to make publicly available. 18 Thank you. 19 (The public hearing is concluded at 1:58 p.m.) 20 21 22 23 24 25

1 STATE OF SOUTH DAKOTA) 2 :SS CERTIFICATE 3 COUNTY OF SULLY) 4 5 I, CHERI MCCOMSEY WITTLER, a Registered 6 Professional Reporter, Certified Realtime Reporter and 7 Notary Public in and for the State of South Dakota: 8 DO HEREBY CERTIFY that as the duly-appointed 9 shorthand reporter, I took in shorthand the proceedings 10 had in the above-entitled matter on the 21st day of 11 January, 2015, and that the attached is a true and 12 correct transcription of the proceedings so taken. 13 Dated at Onida, South Dakota this 13th day of 14 February, 2015. 15 16 17 18 Cheri McComsey Wittler, Notary Public and 19 Registered Professional Reporter Certified Realtime Reporter 20 21 22 23 24 25

1	17:6 28,000 [1] - 39:18	71:1 6,800 [1] - 48:6	act [1] - 3:12 acted [2] - 5:22, 5:24	airplanes [2] - 34:18, 45:14
	29 [2] - 59:14, 59:15	60 [4] - 20:3, 20:13,	acting [1] - 69:7	Al [1] - 51:9
1,134 [2] - 12:18,		52:2, 71:1	Acting [2] - 3:5, 78:3	Alan [2] - 52:25, 63:11
42:11	3	02.2, 7	action [2] - 22:19,	alarm [1] - 22:19
1,134-mile [1] - 4:2	3	7		
1,134-mile-long [1] -		7	40:2	algorithms [1] - 22:16
4:14	3 [5] - 25:3, 38:14,		actions [1] - 5:9	allocated [1] - 66:11
	••	7 [3] - 5:1, 40:20,	actively [1] - 46:16	allow [2] - 47:9, 47:12
10 [11] - 15:19, 18:4,	40:8, 40:10, 54:6		actual [4] - 6:22,	allowing [2] - 25:20,
22:21, 35:1, 35:15,	3.8 [2] - 13:20, 37:7	49:21	16:13, 59:24, 77:24	50:17
40:20, 45:6, 45:10,	30 [4] - 34:1, 47:10,	700 [1] - 58:4	actuated [1] - 40:3	allows [1] - 26:4
45:19, 47:1, 48:8	59:18, 60:1	71,000 [2] - 11:8,	actuators [1] - 40:4	almost [1] - 71:5
10-inch [1] - 30:9	30-inch [5] - 4:2,	71:24	ad [1] - 16:20	alternative [1] - 28:5
100 [8] - 11:8, 19:22,	12:18, 12:24, 30:9,	75 [1] - 21:3		
20:12, 20:14, 39:8,	48:8		add [2] - 40:21, 79:16	alternatives [2] -
46:25, 52:16, 68:25	30s [1] - 29:14	8	additional [1] - 43:24	27:19, 33:3
	31.2 [1] - 54:9	0	address [2] - 50:25,	ambulance [1] - 51:16
110 [1] - 33:4	36 [2] - 16:18, 19:24		67:17	America [1] - 11:10
12 [3] - 2:4, 16:8, 54:5	••	8 [1] - 49:21	addressed [1] - 65:17	Americans [1] - 27:21
12,000 [1] - 15:19	365 [1] - 22:7	80 [1] - 20:13	adjust [1] - 50:25	amount [3] - 14:21,
12-inch [3] - 4:2,	38 [1] - 29:6	820 [2] - 13:21, 13:24	adjustments [1] -	15:12, 78:10
12:19, 30:10	39,000 [1] - 25:23	020 [2] - 13.21, 13.24	43:17	AN [1] - 1:4
13 [5] - 4:16, 5:4, 6:5,		^		
16:21, 16:25	4	9	administration [2] -	analysis [1] - 40:18
130 [1] - 37:6	· ·	-	- 23:1, 55:4	analyst [1] - 36:25
14 [2] - 4:23, 48:2		00 m E2:0 50:40	advanced [2] - 23:7,	analyze [1] - 75:21
	4 [2] - 38:15, 44:11	90 [3] - 52:2, 59:18,	26:20	annually [1] - 23:16
15 [3] - 3:18, 47:10,	4,000 [4] - 15:24,	60:2	advancement [1] -	anomaly [1] - 40:7
54:6	15:25, 16:4, 63:19	9th [1] - 80:13	26:6	answer [24] - 24:12,
15.6 [1] - 54:9	40 [7] - 16:7, 33:16,		advances [1] - 46:12	24:23, 35:8, 35:9,
150 [1] - 21:3	34:1, 34:3, 60:8,	A	aerial [1] - 62:14	36:1, 40:16, 42:21,
17 [1] - 4:18			affect [6] - 13:17,	44:2, 56:12, 59:23,
195 [1] - 23:3	60:10, 60:14		••	
1970s [1] - 29:22	400 [1] - 26:10	Aberdeen [1] - 31:2	15:19, 44:9, 58:5,	61:13, 64:18, 66:13,
19th [1] - 34:8	42 [2] - 29:11, 29:16	ability [3] - 15:4,	74:25, 76:2	69:5, 70:5, 70:15,
	44 [1] - 29:6	47:15, 52:7	affected [2] - 7:16,	70:23, 71:9, 71:11,
1:58 [1] - 79:19	450,000 [6] - 4:11,	able [8] - 9:2, 21:23,	25:24	71:13, 73:22, 74:14,
	12:12, 18:1, 18:2,	32:11, 33:6, 40:1,	affects [1] - 76:8	75:4, 78:20
2	18:3, 37:14	40:5, 49:20, 77:25	affirmed [1] - 56:18	answered [2] - 24:24,
	47 [1] - 17:7		affordable [1] - 28:16	34:18
		above-entitled [2] -	afternoon [18] - 3:1,	answering [2] - 10:15,
2 [1] - 33:7	48 [1] - 20:1	2:2, 80:10	3:4, 3:14, 5:12, 6:7,	46:2
2,000 [1] - 16:4	49 [4] - 23:2, 25:21,	absolute [2] - 41:21,		
20 [1] - 35:2	27:1, 49:14	69:1	6:14, 7:24, 8:5, 8:7,	answers [1] - 45:12
200-mile [1] - 57:24		absolutely [6] - 33:3,	9:9, 9:11, 9:14, 9:16,	anticipated [3] - 4:12,
2014 [4] - 3:18, 3:21,	5	40:16, 44:4, 69:19,	10:14, 10:17, 24:17,	17:15, 17:23
5:9, 60:12		69:24, 73:24	25:5, 47:20	apart [1] - 41:6
		accept [1] - 37:24	ag [2] - 21:20, 44:10	Appalachians [1] -
2015 [5] - 1:8, 2:3, 6:5,	5 [8] - 20:3, 29:24,		agencies [1] - 72:15	32:14
80:11, 80:14	35:1, 38:15, 40:8,	accepting [1] - 6:16	agency [1] - 6:1	apparent [1] - 64:2
2016 [3] - 12:13,	40:10, 70:25, 71:1	ACCESS [2] - 1:4, 1:5	agents [2] - 19:12,	appeal [2] - 6:25,
17:24, 20:16	5-mile [1] - 34:23	access [3] - 5:6,	75:14	55:15
21 [1] - 1:8	50 [4] - 16:3, 16:8,	28:16, 74:2		
21st [3] - 2:3, 34:9,	21:5, 47:9	Access [17] - 1:20,	ago [3] - 33:16, 34:3,	appealed [4] - 55:17,
80:10		3:16, 3:17, 3:18,	65:10	55:19, 56:7
23 [1] - 3:20	50-foot [2] - 19:20,	3:20, 3:21, 5:20, 7:7,	agreement [1] - 64:24	appear [1] - 76:11
24-inch [2] - 12:19,	62:22	8:10, 9:8, 9:9, 9:19,	Agricultural [2] - 21:8,	APPEARANCES [1] -
	500 [2] - 11:7, 45:14	10:25, 11:1, 11:15,	21:18	1:19
49:16	570,000 [2] - 4:12,		agricultural [12] -	applicable [1] - 7:8
24/7 [1] - 22:7	12:14	11:20, 25:20	20:1, 21:19, 32:6,	Applicant [3] - 24:23,
25 [1] - 19:22		accidents [1] - 27:10	32:11, 32:15, 32:18,	76:6, 78:7
26 [1] - 22:22	6	accommodate [1] -		
270 [1] - 12:23	U U	3:23	32:22, 32:23, 34:12,	application [2] - 6:4,
272.3 [1] - 4:14		accurate [1] - 16:15	36:20, 37:18, 69:18	46:10
274 [3] - 12:23, 13:11,	6 [4] - 48:8, 58:4, 70:8,	acres [1] - 26:10	ahead [3] - 55:8,	Application [12] -
			55:11, 62:3	3:16, 3:19, 3:21, 4:1,

			1	1
5:3, 5:6, 5:16, 5:21,	assuming [1] - 70:13	36:7, 37:2, 37:4,	55:9, 55:12, 56:13,	C 2
5:24, 6:6, 17:16,	assumption [1] -	68:16, 75:10	57:17	.
42:16	50:10	Beadle [1] - 4:20	Blumhardt [1] - 55:9	
APPLICATION [1] -	assure [2] - 53:23,	bear [1] - 68:15	board [1] - 56:18	C-H-A-S-T-A-N [1] -
1:4	54:16	became [1] - 72:18	bodies [1] - 7:16	25:18
apply [2] - 6:7, 6:20	attached [1] - 80:11	become [3] - 6:12,	bond [5] - 50:22, 54:6,	California [1] - 11:16
appointed [2] - 3:12,		14:8, 14:14	66:25, 68:19	California-Arizona [1]
80:8	attending [1] - 8:17			- 11:16
	attorney [1] - 9:7	becomes [1] - 46:13	bonding [3] - 65:20,	
appraisals [2] - 75:10,	auctioneer [1] - 25:16	BEFORE [1] - 1:11	65:22, 66:24	camp [3] - 58:3, 58:21,
75:20	auditors [1] - 5:4	begin [2] - 8:9, 28:19	bonds [5] - 53:23,	63:15
appraiser [1] - 75:19	authoritatively [1] -	beginning [4] - 77:17,	53:25, 54:15, 54:23,	Campbell [6] - 4:17,
appraisers [1] - 75:22	74:10	77:18, 78:1, 79:14	55:2	51:10, 59:13, 61:2,
appreciate [7] - 9:16,	authorities [4] - 72:12,	behalf [2] - 28:17,	boost [1] - 16:12	70:1, 70:17
24:15, 29:18, 73:10,	72:19	77:10	boots [3] - 34:24,	camps [2] - 58:9,
77:11, 77:15, 77:16	authority [1] - 68:19	behave [1] - 57:7	35:16, 35:17	63:23
approach [2] - 17:9,	automatically [1] -	behaving [2] - 57:8	border [2] - 11:16,	cannot [5] - 34:13,
20:4	73:21	behind [2] - 9:3, 10:4	34:21	34:14, 34:15, 42:2,
			Border [2] - 33:17,	72:9
appropriate [1] - 7:22	available [5] - 6:7, 6:8,	below [9] - 44:11,		capabilities [2] -
approval [1] - 4:1	8:22, 65:25, 79:17	44:13, 49:21, 70:8,	45:20	52:21, 63:5
approve [2] - 28:19,	average [2] - 20:7	71:1, 71:2, 71:3,	bottom [3] - 28:6,	
73:20	avoid [5] - 3:22, 3:24,	71:4	49:21, 71:4	capacity [6] - 4:12,
approved [2] - 7:6,	18:20, 18:23, 23:12	benefit [12] - 14:2,	Bowdle [2] - 2:2, 2:3	18:2, 18:4, 22:18,
55:21	aware [2] - 46:9, 72:18	15:3, 16:5, 17:2,	breadbasket [2] -	27:13
approximate [1] - 13:9	awhile [1] - 44:14	30:15, 30:19, 30:21,	32:13, 34:12	car [3] - 33:2, 34:8,
arbitrary [1] - 19:5		31:5, 33:12, 46:25,	breakdown [2] - 13:8,	43:7
area [22] - 6:1, 7:12,	В	59:3, 59:4	39:21	carbon [4] - 11:11,
16:3, 19:7, 20:22,		benefits [6] - 13:15,	Brett [5] - 1:20, 8:24,	12:7, 32:12, 43:8
21:1, 21:14, 30:20,		15:8, 17:11, 28:12,	9:7, 9:10, 9:18	carbon-based [4] -
31:1, 32:13, 32:20,	B&N [1] - 60:14	58:25, 72:25	Brian [2] - 1:17, 8:4	11:11, 12:7, 32:12,
	B-I-E-B-E-R [1] -			43:8
32:24, 39:5, 39:22,	28:24	best [4] - 9:4, 33:20,	bridges [1] - 68:20	care [5] - 54:4, 54:16,
41:12, 43:11, 47:1,	B-L-U-M-H-A-R-D-T	52:6, 66:22	briefing [1] - 61:4	65:25, 73:2, 73:5
47:11, 49:6, 59:15,		better [4] - 27:18,	bring [2] - 12:4, 37:20	
73:12, 76:21	[1] - 55:10	34:3, 55:7, 68:24	brings [1] - 48:12	career [1] - 15:17
areas [15] - 3:25, 4:4,	background [1] -	between [16] - 15:19,	broad [4] - 13:2,	caring [1] - 77:12
15:22, 16:4, 16:6,	47:25	21:3, 21:21, 32:14,	13:19, 17:10, 34:11	Carolynn [1] - 8:20
18:14, 19:25, 20:1,	bad [2] - 42:23, 42:24	38:17, 40:12, 50:14,	broader [1] - 70:23	carrier [2] - 18:6, 79:2
20:2, 30:13, 38:16,	Bakken [5] - 4:3,	50:22, 50:24, 59:9,	broker [1] - 75:19	carry [1] - 68:1
40:25, 41:7, 47:18,	11:23, 12:16, 15:8,	59:18, 61:9, 64:24,	Brookings [1] - 48:19	case [4] - 6:12, 6:21,
50:6	43:11	66:16, 69:8, 74:7	brother [1] - 3:11	59:4, 75:7
argument [1] - 78:14	balance [2] - 19:8,	beyond [2] - 23:7,		catch [2] - 19:13,
arguments [3] - 6:24,	19:17	23·8	brother-in-law [1] -	61:16
	barges [2] - 27:7,	_0.0	3:11	categories [1] - 23:8
37:24, 78:8	27:23	BIEBER [5] - 28:23,	brush [1] - 17:10	cathodic [7] - 50:8,
arise [1] - 10:15		30:15, 31:9, 31:17,	build [9] - 15:14,	
Arizona [1] - 11:16	barrel [6] - 29:5, 29:6,	31:22	19:23, 29:1, 30:5,	50:9, 50:20, 50:21,
Arry [1] - 51:22	29:11, 29:14, 33:2,	Bieber [1] - 28:23	30:8, 30:10, 30:14,	50:24, 51:2
Arthur [1] - 29:24	37:14	Big [1] - 4:22	31:13, 36:25	cattle [5] - 32:2, 44:6,
aspect [2] - 15:11,	barrels [7] - 4:11,	big [12] - 11:7, 13:19,	building [2] - 15:24,	45:5, 45:8, 48:11
24:1	4:13, 12:12, 12:14,	14:2, 16:5, 16:12,	28:13	center [4] - 3:22, 26:9,
asphalt [1] - 29:16	18:1, 18:3, 79:2	17:10, 18:14, 18:19,	built [3] - 29:22, 61:6	26:16, 26:22
assessment [1] - 75:9	base [1] - 16:12	19:19, 29:23, 34:11,		centers [2] - 18:13,
asset [1] - 16:23	based [19] - 7:17,	55:1	buoyancy [1] - 39:2	30:7
	11:11, 12:7, 14:3,		buried [7] - 19:24,	central [3] - 11:17,
assets [5] - 11:13,	14:15, 14:20, 14:21,	biggest [1] - 75:25	26:11, 35:11, 35:14,	32:2, 32:5
11:15, 12:24, 72:16,	15:20, 16:13, 16:16,	billion [3] - 13:20,	39:3, 43:21, 44:10	
72:20		29:24, 37:7	bury [1] - 38:10	cents [1] - 32:21
assigned [1] - 7:3	32:12, 40:18, 43:6,	billions [2] - 30:4	burying [1] - 38:14	Century [2] - 34:8,
Associate [1] - 10:9	43:8, 52:20, 52:22,	bit [6] - 24:19, 36:25,	business [4] - 8:21,	34:9
association [2] -	58:16, 58:18	37:11, 41:17, 45:7,	60:12, 60:17, 66:16	certain [6] - 20:2,
47:24, 74:20	basic [1] - 11:22	67:22	,,,	24:5, 47:11, 47:17,
assume [2] - 39:15,	basis [9] - 11:11,	blow [1] - 72:3		62:14, 62:18
45:20	16:21, 16:23, 20:6,	BLUMHARDT [4] -		certainly [8] - 24:11,
	1			

37:23, 42:13, 52:16,	clean [1] - 66:10	54:14	compliance [1] -	53:15, 54:3, 55:1,
54:13, 56:5, 76:2,	clean-up [1] - 66:10	commissions [1] -	26:24	56:8, 58:14, 59:7,
78:9	cleanup [3] - 65:22,	74:1	comply [1] - 7:8	59:9, 59:10, 59:19,
certificate [2] - 17:17,	66:1, 68:12	committed [1] - 67:19	computational [2] -	63:18, 66:23, 70:22
17:22	clear [2] - 47:10, 57:13	committee [2] - 32:6,	22:15, 39:24	consume [1] - 31:14
CERTIFICATE [1] -	cleared [1] - 56:17	32:7	concentrate [1] -	consumed [1] - 29:16
80:2	close [12] - 3:25,	commodities [4] -	60:11	consumer [1] - 69:2
Certified [2] - 80:6,	30:18, 38:16, 38:21,	15:5, 15:10, 18:22,	concern [3] - 31:16,	consumers [3] - 14:3,
80:19	39:4, 40:4, 40:8,	20:12	38:14, 50:7	30:12, 31:11
CERTIFY [1] - 80:8	51:6, 62:25, 76:10,	commodity [2] -	concerns [7] - 6:15,	consumption [2] -
cetera [2] - 6:24, 16:17	77:8, 78:2	11:11, 31:14	24:22, 25:1, 45:7,	12:5, 30:13
CFR [1] - 23:3	closely [1] - 53:16	common [6] - 18:5,	48:12, 49:3, 73:3	contact [2] - 49:23,
Chad [1] - 51:22	closest [1] - 40:6	23:20, 38:25, 45:20,	concluded [1] - 79:19	61:7
chair [1] - 32:7	closing [2] - 28:18,	51:4, 62:25	condition [3] - 7:10,	contacted [1] - 52:1
Chairman [4] - 3:3,	79:9	communicate [1] -	35:18, 66:20	contacting [1] - 6:9
9:13, 10:12, 47:21	Coast [3] - 30:3,	22:11	conditions [6] - 7:20,	contains [1] - 61:7
CHAIRMAN [20] -	31:12, 43:3	communicating [1] -	21:4, 59:21, 60:4,	contaminating [1] -
1:12, 1:13, 3:1,	code [4] - 61:11,	51:22	68:25, 69:1	48:25
24:14, 28:22, 29:8,	61:19, 62:1, 62:7	communities [10] -	conducting [1] - 6:22	contemplate [1] -
35:6, 46:3, 46:11,	cold [1] - 44:12	15:22, 17:12, 18:13,	confers [1] - 73:21	18:12
47:4, 47:19, 55:6,	collaborative [1] -	23:15, 57:23, 57:25, 58:5, 59:1, 63:14,	confidential [1] -	contemplates [1] -
55:11, 63:4, 65:8,	52:17	64:3	72:14	21:13
72:21, 73:6, 73:22, 77:6, 79:8	collected [1] - 38:5		configuration [1] -	context [1] - 31:6
	coming [9] - 12:15,	communities' [1] - 37:9	20:18	contiguous [2] -
challenge [3] - 34:10, 42:20, 75:25	15:7, 15:25, 16:1,	community [5] -	conflict [1] - 3:9	18:25, 42:2
challenges [2] -	30:2, 37:7, 37:8,	10:21, 12:1, 38:13,	conflicts [1] - 23:13	contingency [2] -
57:15, 76:21	49:8, 51:25	59:2, 77:12	congestion [1] - 37:5 connect [2] - 4:3,	42:15, 42:18 continue [5] - 4:19,
chance [1] - 15:1	commencing [1] - 2:4 comment [4] - 29:19,	companies [2] -	18:24	4:23, 27:21, 71:14,
change [4] - 16:15,	54:20, 73:12, 79:15	26:13, 28:5	connected [1] - 38:7	79:15
16:25, 55:25, 56:2	comments [14] - 5:14,	company [31] - 10:25,		continued [1] - 27:15
changes [1] - 36:9	5:16, 6:14, 6:16, 7:4,	11:7, 11:9, 11:15,	conscious [2] - 25:6, 27:3	continuous [1] - 68:16
changing [1] - 71:22	8:12, 10:14, 19:11,	24:19, 26:15, 29:9,	consequence [2] -	contour [1] - 67:16
Charlie [2] - 31:25,	24:22, 72:22, 73:7,	33:25, 35:6, 39:19,	40:25, 41:12	contract [1] - 67:1
37:1	77:7, 77:16, 78:4	41:20, 41:21, 42:24,	consider [4] - 19:9,	contracted [1] - 18:1
CHARLIE [1] - 32:1	Commission [29] -	45:19, 53:10, 55:4,	19:17, 22:2, 46:13	contracting [1] -
CHASTAN [1] - 25:18	3:4, 5:9, 5:11, 5:20,	57:21, 57:22, 59:5,	consideration [1] -	52:12
Chastan [2] - 25:18,	5:22, 6:5, 6:10, 6:13,	60:9, 60:10, 60:20,	7:15	contractor [2] - 58:19,
25:21	6:18, 7:17, 7:21, 8:5,	66:16, 67:13, 67:19,	considerations [1] -	58:23
cheaper [4] - 30:6,	9:14, 9:20, 10:21,	67:23, 69:8, 72:7,	19:10	contractors [9] - 26:3,
31:10, 31:13, 33:10	21:7, 24:18, 28:18,	72:13, 74:2, 74:7	consistently [1] -	27:1, 53:11, 58:14,
Cheri [5] - 1:24, 7:24,	51:10, 66:14, 68:17,	company's [1] - 26:21	40:13	58:16, 63:24, 63:25,
63:8, 63:9, 80:18	74:3, 74:8, 75:17,	comparative [1] - 20:5	constitutes [2] - 41:9,	64:3
CHERI [1] - 80:5	76:14, 77:3, 77:11,	compare [2] - 14:23	41:12	contracts [3] - 16:17,
chief [1] - 10:2	77:19	compared [2] - 37:4,	constraint [2] - 18:23,	64:4, 65:10
Chris [1] - 3:3	COMMISSION [3] -	37:6	19:7	contractual [1] - 17:24
CHRIS [1] - 1:12	1:1, 1:11, 1:15	compensate [5] -	construct [2] - 3:17,	contrary [1] - 76:14
Chuck [5] - 10:1, 35:9,	Commission's [4] -	17:4, 64:14, 64:20,	4:2	contribute [2] - 68:6,
35:25, 40:21, 46:8	5:8, 6:9, 54:13, 56:6	67:10, 75:8	CONSTRUCT [1] - 1:5	68:16
Circuit [1] - 55:17	COMMISSIONER [4] -	compensating [1] -	constructed [3] -	control [3] - 24:5,
circumstances [3] -	1:13, 53:19, 75:16,	57:10	3:10, 4:15, 6:2	35:21, 52:6
35:23, 47:11, 47:17	78:5	compensation [2] -	construction [37] -	controlled [1] - 24:7
citizens [3] - 28:15,	Commissioner [17] -	65:1, 67:7	7:20, 10:5, 13:23,	controls [3] - 39:2,
52:10, 77:4	3:5, 3:7, 3:8, 3:12,	competent [2] - 26:7,	15:12, 15:14, 15:15,	39:6, 44:18
city [2] - 18:13, 58:2	3:13, 8:25, 12:17,	27:2	15:18, 16:3, 16:5,	conversations [1] -
civil [2] - 18:17, 62:20	13:13, 53:20, 54:21,	complaint [1] - 45:23	16:14, 17:21, 20:11,	38:12
claim [1] - 45:11	65:18, 65:19, 72:24,	complaints [1] - 45:13	20:14, 20:15, 20:17,	cooperating [1] -
clarified [1] - 47:8	78:2, 78:3	completed [2] - 54:18,	20:22, 20:23, 20:25,	21:22
clarifying [1] - 71:18	Commissioners [4] -	66:10	21:3, 21:9, 21:14,	coordinating [1] -
classes [1] - 26:18	7:3, 25:19, 47:21,	complex [1] - 22:15	26:1, 26:12, 28:19,	70:3

		Ι		
copy [1] - 5:3	cropland [1] - 76:9	44:25, 48:2, 48:3,	deny [1] - 74:2	director [1] - 25:22 4
core [1] - 76:3	crops [2] - 17:5, 20:11	48:4, 48:18, 49:13,	Department [3] - 5:21,	Director [1] - 9:25
corporate [1] - 68:14	cross [7] - 3:10, 4:22,	50:3, 54:22, 55:14,	22:24, 23:25	dirt [4] - 20:20, 59:11,
correct [4] - 7:1, 29:7,	6:23, 12:25, 17:12,	55:19, 56:3, 58:21,	departments [3] -	59:24, 73:4
31:21, 80:12	50:14, 69:21	63:18, 63:21, 66:7,	51:14, 51:15, 53:17	disclose [1] - 71:10
correctly [1] - 55:20	cross-examining [1] -	74:3, 78:12, 79:5,	dependent [2] - 60:1,	disclosure [1] - 72:14
cost [3] - 16:14, 16:17,	6:23	80:7, 80:13	64:24	discovery [1] - 6:23
17:3	crossed [2] - 5:5, 66:6	Dakotas [1] - 11:20	deploy [1] - 52:7	discuss [1] - 74:23
costs [1] - 30:23	crossing [5] - 4:16,	Dale [1] - 28:23	depreciate [1] - 16:22	discussing [1] - 58:13
Counsel [1] - 10:9	13:9, 49:15, 50:13,	damage [3] - 20:12,	depreciated [1] -	discussion [2] -
counsel [3] - 10:10,	70:25	36:11, 53:15	16:23	43:20, 67:23
54:19, 68:18	crossings [7] - 49:14,	damages [11] - 17:5,	depths [1] - 38:20	discussions [3] -
counties [9] - 4:16,	50:20, 51:8, 61:25,	20:10, 53:25, 54:16,	derivative [1] - 43:8	20:9, 38:4, 52:18
4:21, 5:4, 20:7, 20:8,	62:6, 62:10	64:23, 65:3, 67:4,	derivatives [2] - 12:6,	displaced [2] - 78:23,
48:2, 54:2, 54:17	CRR [1] - 1:24	67:7, 67:8, 67:11	14:6	79:4
countries [1] - 14:12	crude [28] - 4:4, 11:23,	Darren [3] - 1:18, 8:4,	described [1] - 34:8	distance [5] - 38:2,
country [10] - 11:12,	11:25, 12:2, 12:4,	55:6	design [4] - 10:2,	38:17, 40:12, 41:6,
13:17, 14:8, 14:14,	12:5, 12:8, 12:12,	Darren's [1] - 25:10	22:18, 23:5, 41:2	49:21
14:15, 15:20, 39:18,	12:21, 14:3, 14:4,	database [1] - 18:16	designers [1] - 50:21	District [1] - 57:5
43:2, 43:14, 72:16	14:6, 14:9, 15:7,	date [1] - 58:20	desire [1] - 17:20	disturb [1] - 36:20
county [7] - 5:4, 6:1,	27:14, 28:25, 33:2,	Dated [1] - 80:13	destroy [1] - 64:17	disturbance [3] -
13:10, 32:4, 53:5,	33:5, 33:9, 37:10,	days [10] - 22:7,	destroying [1] - 64:12	26:16, 67:8, 67:9
70:3, 70:16	40:17, 43:2, 43:6,	22:21, 35:15, 45:6,	detail [2] - 36:1, 40:17	disturbances [1] -
County [13] - 3:22,	43:8, 48:21, 49:23,	45:10, 45:19, 47:1,	detailed [1] - 21:7	46:19
3:24, 4:17, 5:2, 5:23,	74:19	52:2, 59:18, 60:1	details [1] - 24:1	disturbed [1] - 65:23
16:9, 37:22, 51:10,	crude-based [3] -	deadline [2] - 25:4,	determination [2] -	ditch [4] - 67:15, 70:8,
59:13, 61:2, 70:1,	14:3, 43:6, 43:8	77:20	3:9, 75:11	71:2, 71:4
70:17, 72:24	cruise [1] - 34:6	deal [2] - 42:8, 51:8	determine [1] - 74:4	diverse [1] - 11:4
COUNTY [1] - 80:3	culminate [1] - 77:22	dealing [2] - 32:9,	determined [1] - 48:20	DO [1] - 80:8
couple [12] - 21:17,	curious [2] - 78:6,	72:2	detrimental [2] -	Docket [1] - 3:15
22:6, 25:3, 25:9,	78:17	dealt [1] - 33:23	42:22, 43:10	docket [6] - 6:9, 7:4,
34:4, 34:20, 61:5,	current [3] - 50:9,	dear [1] - 66:4	devastating [2] -	7:5, 77:24, 79:13,
63:2, 69:17, 75:18,	50:15, 51:1	debatable [1] - 32:10	43:13, 43:14	79:17
76:15, 77:8	custodial [1] - 8:21	debate [1] - 31:8	developing [3] -	dockets [2] - 5:9,
course [7] - 11:19,	cut [1] - 30:22	DeBoer [1] - 48:17	23:22, 70:12, 70:19	74:11
33:21, 39:4, 48:6,		December [5] - 3:18,	development [5] -	Dockets [1] - 5:10
66:3, 66:12, 75:25	D	3:20, 12:13, 17:16,	3:25, 7:14, 9:22,	document [1] - 66:17
courses [4] - 18:13,		77:20	28:4, 47:24	documents [1] - 5:7
26:20, 26:24		decide [1] - 7:18	devices [1] - 35:22	dollar [6] - 13:20,
Court [5] - 55:17,	dad [1] - 60:13	decided [1] - 60:11	dialogue [2] - 75:15,	29:24, 37:7, 54:6,
55:20, 55:21, 57:6	daily [1] - 71:22	decision [7] - 6:19,	77:14	67:24
court [9] - 6:25, 7:24,	DAKOTA [4] - 1:2, 1:4,	6:25, 56:6, 57:5,	diameter [2] - 4:3,	dollars [13] - 13:22,
25:15, 56:15, 56:17,	1:5, 80:1	57:13, 68:25, 77:19	12:19	13:24, 16:18, 16:21,
57:5, 63:5, 74:7,	Dakota [81] - 1:20, 2:3,	decisions [2] - 5:17,	dictates [1] - 44:22	17:1, 17:7, 30:4,
75:20	3:3, 3:16, 3:17, 3:18,	19:5	difference [1] - 75:22	32:21, 33:11, 37:6,
CPM [1] - 35:22	3:20, 3:21, 4:4, 4:7,	decrease [2] - 32:22,	different [3] - 43:20,	54:10, 65:12, 66:10
crack [1] - 56:21	4:8, 4:15, 4:17, 4:25,	75:8	51:23, 67:22	domain [5] - 41:22,
crashed [1] - 14:12	5:20, 5:25, 7:7, 8:10,	deep [3] - 38:9, 43:21,	differently [1] - 57:7	42:8, 73:21, 73:23,
creates [2] - 15:12,	9:8, 9:9, 9:19, 10:5,	44:15	difficult [1] - 75:21	74:2
16:7	10:6, 10:7, 10:25,	deformation [1] -	dig [2] - 26:11, 36:15	domestic [1] - 14:4
creature [2] - 73:23,	11:1, 11:14, 11:20,	36:10	digging [5] - 23:11,	domestically [1] -
74:6	11:24, 12:19, 12:23,	degradation [2] -	33:22, 34:25, 36:2,	43:1
creeks [1] - 20:2	12:25, 13:3, 13:6,	35:2, 36:11	36:19	done [16] - 20:4, 34:2,
critical [1] - 50:22	13:22, 14:1, 15:9,	delivery [1] - 6:17	direct [2] - 11:25, 17:2	37:2, 48:16, 49:14,
critically [2] - 14:13,	15:23, 16:1, 16:5,	Delvin [1] - 48:17	direction [2] - 4:24,	49:19, 54:2, 54:3,
19:11	16:8, 16:11, 17:6,	demand [1] - 33:8	74:18	55:20, 56:1, 57:13,
crop [8] - 43:19,	17:11, 25:19, 25:22,	denied [1] - 7:19	directional [1] - 69:14	59:20, 67:17, 74:23,
43:22, 44:14, 44:15,	26:2, 28:7, 28:10,	denies [1] - 42:16	directly [4] - 13:25,	75:1
64:11, 64:17, 65:3,	30:22, 32:3, 32:4,	Dennis [1] - 72:23	33:13, 37:8, 39:10	dots [1] - 18:24
76:1	32:5, 37:3, 44:19,	density [1] - 41:14	33.13, 37.0, 39.10	dotted [1] - 42:5
		1		1

[
doubt [1] - 54:12	30:11	32:10, 32:12, 34:14	61:20, 65:6	51:12, 60:23, 67:22 , 5
down [17] - 5:10,	economics [1] - 30:6	enforced [1] - 23:23	examining [2] - 6:23,	74:9
11:24, 13:12, 14:25,	economy [3] - 13:21,	engage [1] - 77:14	76:19	farm [2] - 43:25, 44:6
18:17, 18:20, 34:24,	14:12, 16:12	engineer [1] - 10:2	example [1] - 15:23	farmer [3] - 32:23,
34:25, 37:17, 37:20,	Edmunds [3] - 4:19,	Engineering [1] - 9:22	except [1] - 44:12	64:23, 64:25
38:15, 50:7, 51:4,	37:22, 72:24	engineering [2] - 10:2,	excuse [1] - 65:18	farmer's [1] - 67:9
53:20, 56:17, 62:10,	educate [2] - 23:16,	10:23	execute [1] - 58:16	farmers' [1] - 37:8
67:15	75:13	engineers [2] - 27:2,	execution [1] - 9:23	farming [1] - 44:9
downstream [1] - 66:7	education [1] - 23:13	27:4	exist [3] - 29:21, 30:8,	farms [1] - 12:20
dozens [5] - 69:6, 69:7	EDWARDS [1] - 41:1	ensure [3] - 26:25,	31:12	fast [1] - 13:12
Dr [1] - 48:17	Edwards [5] - 1:16,	49:12, 67:14	existing [2] - 4:5, 4:9	Faulk [1] - 4:19
drill [1] - 34:24	8:4, 10:4, 48:14,	enter [3] - 4:17, 13:1,	expand [1] - 27:15	favor [4] - 33:4, 55:16,
drilling [1] - 69:14	49:7	20:21	expanding [1] - 28:12	55:18, 78:8
drinking [2] - 48:9,	effect [5] - 15:16,	entered [1] - 74:13	expect [6] - 42:13,	fear [1] - 71:23
66:5	76:1, 76:4, 76:10,	enterprise [1] - 32:23	52:4, 56:25, 57:8,	February [2] - 6:5,
driving [1] - 14:25	76:12	enters [1] - 12:22	59:6, 59:20	80:14
drone [1] - 46:23	effects [2] - 56:10,	entire [5] - 9:25,	expectations [2] -	federal [3] - 22:23,
drones [2] - 46:5, 46:7	59:3	29:16, 34:2, 62:19,	51:11, 51:15	68:6, 72:12
drop [1] - 31:1	efficient [2] - 33:5,	77:10	expected [1] - 7:11	Federal [1] - 24:8
dropped [1] - 30:25	43:12	entitled [3] - 2:2, 3:15,	expecting [1] - 52:14	feedback [1] - 52:20
ductile [4] - 48:8,	effort [1] - 52:17	80:10	experience [1] - 26:5	feet [12] - 19:22, 20:1,
49:16, 50:7, 50:10	efforts [1] - 66:10	entry [1] - 26:6	experienced [1] -	20:3, 21:3, 21:5,
due [3] - 3:8, 7:15,	either [9] - 5:24, 6:17,	environment [6] -	45:22	38:15, 43:21, 45:14,
34:1	8:7, 11:11, 12:5,	7:10, 27:8, 27:11,	expert [2] - 42:20,	49:21, 63:2
dugout [1] - 33:22	50:16, 52:11, 75:23,	27:16, 27:24, 35:3	75:19	fell [1] - 56:18
duly [1] - 80:8	78:11	environmental [7] -	expertise [1] - 29:9	fellow [1] - 38:12
duly-appointed [1] -	Elaine [1] - 36:23	10:7, 18:18, 26:23,	experts [3] - 21:18,	fence [2] - 33:22, 67:8
80:8	ELAINE [1] - 36:24	28:3, 41:13, 48:17,	21:19, 21:20	few [5] - 24:18, 37:25,
DuraRoot [1] - 21:19	elected [1] - 77:3	57:12	explain [3] - 8:11,	38:5, 60:23, 69:12
duration [4] - 21:1,	electricity [1] - 34:14	environmentally [2] -	24:19, 31:4	FIEGEN [1] - 1:13
22:17, 54:1, 59:7	elevation [1] - 66:20	19:1, 27:3	explaining [1] - 24:18	Fiegen [2] - 3:8, 3:13
during [5] - 20:11,	emergency [9] -	equilibrium [1] - 44:24	expose [1] - 36:4	Fiegen's [1] - 3:8
20:16, 53:14, 53:22,	23:14, 24:1, 24:3,	equipment [2] - 26:8,	exposure [1] - 27:9	field [1] - 35:23
66:23	51:23, 52:9, 52:15,	26:20		fields [2] - 12:10,
duty [1] - 27:17	52:22, 61:2, 61:4	equivalent [1] - 37:15	exposures [1] - 27:24	44:10
uuty [1] - 27.17	Emergency [2] -	ERNST [2] - 73:8,	express [1] - 49:2 extend [2] - 11:20,	figure [2] - 42:9, 79:1
Е	23:19, 52:22	74:15	••	• • • •
	eminent [5] - 41:22,	error [1] - 27:10	59:22	file [4] - 5:3, 5:7, 7:5,
	42:7, 73:21, 73:23,	especially [3] - 51:4,	extremely [1] - 75:21	79:17
e-mail [1] - 79:16	74:2	73:11, 73:12		filed [7] - 3:18, 3:21,
e-mailing [1] - 6:18	emphasize [2] - 6:11,		F	5:21, 5:23, 7:5, 21:7,
E-R-N-S-T [1] - 73:8	22:5	essentially [2] - 11:16, 17:3		79:13
early [1] - 29:22	employed [1] - 25:21	estate [1] - 75:18	facilities [1] - 68:21	filings [1] - 17:15
ease [1] - 71:11	employees [3] - 39:19,	estimate [1] - 17:6	facility [6] - 3:17, 3:19,	film [1] - 53:13
easement [17] - 17:4,	63:13, 63:15	estimated [1] - 63:19	6:2, 7:8, 7:21, 8:22	final [1] - 12:13
19:20, 20:4, 21:4,	employs [2] - 26:1,		FACILITY [1] - 1:5	finally [2] - 21:25,
31:20, 41:18, 43:25,	26:22	estimation [1] - 32:25	fact [4] - 29:21, 30:10,	69:18
62:22, 64:21, 64:22,	encase [1] - 49:22	et [2] - 6:24, 16:17	42:1, 76:8	financial [1] - 68:14
65:4, 66:15, 66:24,	encourage [3] - 5:17,	evaluate [3] - 35:14,	factors [1] - 7:17	fine [2] - 30:15, 31:9
67:2, 67:3, 67:4,	8:14, 75:12	35:23, 47:15	facts [1] - 78:18	finish [1] - 20:17
76:9	,	evaluating [1] - 22:9	factual [1] - 6:22	finishing [1] - 41:1
easements [2] - 44:4,	end [6] - 18:8, 27:15,	event [8] - 39:6, 39:9,	fail [1] - 53:12	fire [2] - 51:12, 51:14
55:25	30:16, 33:11, 42:4, 77:23	39:14, 39:23, 40:5,	fairly [2] - 57:4, 57:10	first [12] - 19:13,
east [1] - 4:18		42:8, 52:22, 67:25	faith [2] - 42:6, 58:2	20:16, 20:20, 23:15,
East [1] - 60:9	endeavor [1] - 29:24	events [1] - 62:7	Falls [2] - 3:25, 4:23	25:3, 25:12, 44:3,
easterly [1] - 13:6	endurance [1] - 63:5	evidence [6] - 6:22,		61:8, 73:9, 73:15,
eastern [1] - 4:16	Energy [5] - 10:23,	36:13, 36:14, 74:10,	familiar [4] - 23:11,	73:23, 77:10
economic [3] - 7:10,	11:1, 11:4, 26:14	74:12, 77:25	51:7, 56:14	five [2] - 36:8, 37:15
37:23, 67:24	ENERGY [1] - 1:5	exact [5] - 39:21, 41:4,	families [1] - 28:12	fixed [1] - 45:13
economical [2] - 27:6,	energy [7] - 3:16,	52:19, 52:20, 74:24	family [2] - 11:4, 25:24	FJELDHEIM [2] - 51:9
	3:19, 14:8, 14:14,	exactly [3] - 30:25,	far [6] - 10:1, 38:8,	
	1		1	

Fjeldheim [1] - 51:9	front [1] - 57:9	Government [1] - 24:8	halls [2] - 16:2, 63:21	higher [2] - 27:8, 27:9 6
flied [1] - 47:1	frost [1] - 44:12	government [5] - 7:16,	hampered [1] - 56:8	highly [3] - 15:21,
floating [1] - 39:2	fuel [1] - 28:16	68:8, 68:11, 68:15,	handle [1] - 60:24	26:8, 26:19
flooding [1] - 73:11	fuels [2] - 12:9, 12:10	72:15	handled [1] - 69:6	highway [1] - 70:1
Florida [1] - 11:17	full [1] - 69:15	governmental [1] - 6:1	hands [1] - 26:10	hire [2] - 26:4, 53:10
flow [2] - 22:12, 65:12	fully [2] - 9:6, 59:6	Governor [1] - 3:11	hands-on [1] - 26:10	hired [2] - 21:17,
flows [1] - 66:7	fusible [1] - 49:24	governs [1] - 66:16	HANSON [16] - 1:13,	75:24
fluctuation [1] - 76:1	future [9] - 5:18,	grain [4] - 15:10,	37:21, 39:12, 40:12,	historical [1] - 73:17
fly [5] - 22:21, 35:15,	27:17, 36:19, 46:6,	36:24, 60:10, 78:15	41:9, 41:16, 42:14,	HOERNER [2] - 64:7,
45:8, 45:9, 45:14	46:24, 65:23, 70:19,	grant [1] - 74:2	43:15, 45:3, 45:5,	64:15
flying [3] - 23:8,	71:8, 77:20	granted [3] - 6:3, 7:19	46:1, 53:19, 71:17,	Hoerner [1] - 64:7
34:19, 46:17	71.0, 77.20	grassland [1] - 76:22	71:21, 75:16, 78:5	HOFFMAN [2] - 31:25,
flyover [1] - 45:6	G	great [4] - 10:18,	Hanson [8] - 3:5, 8:25,	36:22
• • • •	9	• • • •	37:21, 53:20, 65:19,	Hoffman [2] - 32:1,
folks [6] - 42:4, 50:17,		41:19, 46:3, 47:7	71:17, 75:16, 78:3	37:1
50:18, 58:19, 63:6,	G-O-E-H-R-I-N-G [1] -	greatly [1] - 77:11		
65:11	61:2	Greg [1] - 1:17	Hanson's [1] - 54:21	hold [2] - 3:14, 53:11
follow [2] - 46:4, 62:12	gain [1] - 28:11	groceries [1] - 58:24	hard [3] - 25:4, 59:19,	holdout [1] - 42:4
follow-up [1] - 46:4	gallon [1] - 33:7	ground [21] - 14:22,	78:17	homegrown [1] -
following [1] - 8:11	gallons [8] - 29:4,	22:11, 24:4, 26:16,	HARPER [3] - 47:20,	32:16
food [6] - 32:12,	29:6, 29:11, 29:12,	28:7, 34:24, 35:12,	65:15, 65:16	hope [11] - 17:19,
34:13, 34:14, 34:15,	29:14, 29:16, 48:9,	35:16, 35:17, 36:20,	Harper [2] - 47:21,	21:11, 21:16, 21:21,
34:16, 64:5	79:2	39:22, 44:11, 44:17,	65:15	42:11, 42:17, 56:7,
foot [6] - 44:11, 47:9,	game [2] - 42:4, 71:12	45:14, 46:18, 48:5,	hate [1] - 42:1	56:10, 57:1, 59:7
47:10, 70:8, 70:25	gap [1] - 42:2	59:12, 59:25, 62:21,	hauled [1] - 60:19	hopefully [2] - 24:11,
FOR [1] - 1:4		66:5, 71:19	hazardous [2] - 22:25,	49:25
force [2] - 16:6, 63:19	garbage [2] - 57:23,	groups [2] - 28:3,	40:18	horizontal [1] - 69:13
forced [1] - 42:7	60:12	74:23	hazards [1] - 40:19	horses [1] - 48:11
forcing [1] - 28:4	GARY [1] - 1:13	grow [5] - 32:12,	health [2] - 7:12,	hours [2] - 24:16,
foreign [4] - 14:10,	Gary [2] - 3:5, 75:16	34:13, 34:14, 34:15,	51:13	33:20
14:15, 50:19, 51:8	gas [6] - 14:5, 26:15,	34:16	hear [5] - 5:14, 6:14,	house [1] - 18:21
forest [1] - 47:18	27:12, 33:18, 41:5,	growing [4] - 44:14,	10:18, 24:21, 78:14	houses [3] - 17:15,
forested [1] - 47:11	74:20	59:20, 59:22, 59:23	heard [9] - 6:13,	18:13, 46:19
forever [1] - 15:14	gasket [1] - 48:22	grows [1] - 44:15	11:14, 38:8, 38:9,	Howard [1] - 10:7
forgive [2] - 38:5,	gaskets [1] - 48:21	guarantee [3] - 37:16,	38:12, 43:20, 46:8,	HOYLE [1] - 72:23
43:15	gasoline [2] - 30:24,	69:20, 70:9	58:15	Hoyle [1] - 72:23
Forks [1] - 4:4	33:7	guess [6] - 25:2,	hearing [8] - 3:15,	HP14-002 [3] - 1:4,
form [5] - 6:8, 6:17,	gears [1] - 41:16	55:12, 66:25, 73:9,	5:12, 8:9, 10:14,	3:15, 5:10
40:2, 58:21, 67:2	general [13] - 21:11,	73:14, 76:13	25:4, 69:10, 77:23,	Hub [1] - 4:9
formally [1] - 6:21	35:8, 47:23, 52:3,	guidelines [1] - 23:4	79:19	huge [2] - 37:10,
forms [1] - 6:6	55:2, 59:23, 60:5,	Gulf [3] - 30:3, 31:12,	Hearing [1] - 1:8	37:16
forth [2] - 51:12, 51:16	65:2, 68:13, 71:13,	43:3	Heartland [1] - 57:21	human [2] - 27:10,
Fortune [1] - 11:7	75:3, 75:4	guys [6] - 17:19,	heating [1] - 44:23	52:5
	General [1] - 10:9	21:20, 39:15, 51:7,	heats [1] - 43:21	hundreds [1] - 32:17
forward [4] - 10:13,	generally [2] - 36:7,	57:2, 71:23	heavier [1] - 29:15	hung [1] - 56:15
16:24, 55:23, 56:11	40:15	01.2, 11.20	heavily [1] - 60:16	•••
four [6] - 11:5, 20:1,	generated [1] - 20:6	Н	heavy [1] - 26:8	hunting [1] - 18:14
37:15, 43:21, 63:8,	generations [2] -		held [1] - 2:1	Hydrocarbon [1] - 5:9
78:22	27:17, 73:5			Hyperion [2] - 56:16
fourth [1] - 17:23	gentleman [1] - 60:18	H-A-N-S-O-N [2] -	help [7] - 8:7, 14:13,	•
free [6] - 8:6, 9:3,	geographically [1] -	37:22, 71:17	23:16, 37:12, 52:9,	
15:6, 33:8, 78:13,	62:20	H-A-R-P-E-R [1] -	62:4, 64:19	
78:14	given [1] - 7:15	47:22	helps [1] - 14:8	I-90 [1] - 69:21
frees [1] - 15:4	glad [1] - 33:6	H-O-E-R-N-E-R [1] -	HEREBY [1] - 80:8	idea [2] - 21:16, 78:10
freight [3] - 37:12,	Glenn [1] - 55:9	64:8	Herreid [1] - 58:6	
37:17, 37:20	goal [1] - 57:16	H-O-F-F-M-A-N [1] -	hi [1] - 31:25	identifications [1] -
Frey [1] - 10:1	GOEHRING [3] - 61:1,	32:1	Hi [1] - 36:23	70:10
FREY [8] - 29:13,		H-O-Y-L-E [1] - 72:23	hiding [1] - 34:7	identify [2] - 62:23,
36:2, 40:23, 41:3,	61:18, 63:3	half [6] - 4:16, 48:7,	high [6] - 18:11,	71:14
41:11, 46:9, 46:12,	golf [1] - 18:13	55:22, 61:17, 61:18,	27:24, 40:24, 41:12,	IDs [1] - 62:6
50:19	good-faith [1] - 42:6	63:20	45:8, 63:10	Illinois [6] - 4:5, 4:8,
	governing [1] - 7:15	00.20	High [1] - 2:2	4:9, 11:24, 12:2,
1	1		1	

				T
13:4	15:17, 15:21, 25:25,	investigate [1] - 74:16	76:17, 76:25	36:24, 41:21, 45:3,
immediate [3] - 5:18,	26:5, 49:5	investment [1] - 13:21	kind [10] - 13:2, 13:4,	50:5, 51:20, 73:22
9:24, 25:24	industry [4] - 15:18,	invisible [1] - 69:24	13:6, 17:10, 18:14,	lastly [1] - 23:19
immediately [2] -	37:19, 60:8, 60:22	involved [8] - 50:1,	28:11, 50:5, 51:16,	latest [1] - 29:23
17:21, 68:4	influence [1] - 44:19	58:9, 60:8, 60:13,	65:17, 69:14	latter [1] - 47:13
impact [10] - 27:11,	influencing [2] -	60:16, 60:22, 74:4,	Kingsbury [1] - 4:20	law [7] - 3:11, 7:6,
40:7, 43:19, 45:9,	44:21, 57:6	74:8	knowing [2] - 55:14,	10:10, 22:23, 54:23,
45:25, 60:5, 67:12,	information [8] - 5:13,	involves [1] - 41:4	55:16	68:11
67:14, 75:5, 75:6	8:16, 61:8, 73:16,	lowa [5] - 4:8, 4:24,	knowledge [2] - 21:21	Law [1] - 5:25
impacted [2] - 15:1,	79:10, 79:11, 79:12,	10:5, 13:1, 50:3	KOENECKE [3] - 9:13,	laws [2] - 7:8, 16:25
65:13	79:13	iron [4] - 48:8, 49:16,	56:4, 56:20	lawyer [1] - 9:18
impacting [1] - 19:2	infrastructure [3] -	50:7, 50:10	Koenecke [5] - 1:20,	lawyers [1] - 42:20
impacts [10] - 20:11,	4:5, 27:14, 72:16	irrigation [1] - 3:23	8:24, 9:7, 9:18,	leads [1] - 39:12
21:23, 30:9, 39:7,	infusible [1] - 49:22	isolate [3] - 39:7, 40:5,	55:13	leak [1] - 39:14
39:9, 43:22, 46:18,	INGA [2] - 74:19,	40:9	Kristen [2] - 1:16, 8:4	leaning [1] - 41:20
57:12, 65:4	75:12	issue [1] - 47:2	Kristen's [2] - 25:10,	learn [1] - 24:25
impair [1] - 7:12	inhabitants [3] - 7:11,	items [1] - 29:15	55:7	learning [1] - 77:18
important [12] - 11:6,	7:13	itself [2] - 48:24, 76:4	KRISTIE [1] - 1:13	least [9] - 16:25, 19:1,
13:16, 14:13, 14:16,	initial [1] - 26:24		KUB [1] - 36:23	19:2, 23:16, 39:8,
14:17, 15:9, 15:11,	injury [1] - 7:9	J	Kub [1] - 36:23	44:10, 74:17, 75:13,
18:21, 19:11, 20:19,	Input [1] - 1:8	-		76:16
22:3	inside [1] - 62:22		L	leave [2] - 22:6, 31:15
importing [1] - 14:10	inspecting [1] - 35:1	Jack [1] - 10:4		led [1] - 19:5
impose [1] - 54:23	inspection [1] - 34:19	jackets [1] - 43:5		left [3] - 9:24, 10:1,
imposed [1] - 68:24	instance [2] - 66:21,	January [3] - 1:8, 2:3,	L-E-I-D-H-O-L-D-T [1]	42:10
imposition [1] - 68:20	71:5	80:11	- 63:12	legal [3] - 6:23, 42:19,
impressed [2] - 50:9,	instances [3] - 35:14,	job [5] - 55:4, 55:7,	labor [2] - 15:20,	42:20
50:15	54:11, 70:22	55:20, 57:13, 76:7	58:16	legally [1] - 7:1
improvement [1] -	instead [1] - 14:9	jobs [4] - 15:12, 15:13,	laborers [1] - 58:18	legislation [1] - 32:9
75:6	instruct [1] - 26:23	16:8, 28:16	lady [1] - 78:21	Legislature [1] - 32:4
improves [2] - 14:17,	instrument [1] - 36:6	Joe [2] - 25:18, 25:21	Lake [2] - 4:20, 5:23	LEIDHOLDT [4] -
14:24	insurance [3] - 68:1,	JOE [1] - 25:18	land [20] - 3:10, 38:2,	52:25, 53:18, 63:11,
IN [1] - 1:4	68:4, 68:15	Joey [6] - 9:21, 10:13,	38:3, 38:4, 62:6,	64:6
inadequate [1] - 27:13	integrity [5] - 35:10,	10:22, 36:17, 41:5,	64:10, 64:14, 64:16,	Leidholdt [2] - 52:25,
incentive [1] - 55:3	35:25, 36:4, 50:6,	56:20	66:25, 69:18, 73:1,	63:11
inch [1] - 48:7	76:13	Joey's [1] - 9:23	73:18, 74:9, 74:22,	length [2] - 13:9,
inches [4] - 19:24,	intend [1] - 34:25	John [2] - 1:16, 68:17	74:25, 75:5, 75:7,	69:15
20:1, 20:3, 71:1	intent [1] - 20:12	Journal [1] - 34:5	76:4, 76:5, 77:12	less [7] - 15:1, 19:24,
incident [3] - 15:2,	interchangeably [1] -	judge [1] - 55:18	landowner [20] - 3:23,	20:3, 22:21, 22:22,
52:8, 65:24	11:1	July [1] - 17:13	21:12, 37:22, 37:24,	29:2, 60:1
include [2] - 20:10,	interest [3] - 3:9,	jurisdictions [1] -	41:17, 57:1, 57:3,	level [3] - 18:12,
43:25	28:15, 76:2	70:17	64:9, 64:20, 64:25,	18:15, 26:6
includes [1] - 12:17	interested [4] - 5:15,	justification [1] - 33:1	65:3, 65:9, 66:17,	levels [2] - 62:18, 72:2
including [1] - 27:7	6:2, 8:12, 23:16		67:2, 67:3, 67:7,	liability [1] - 53:8
income [1] - 59:5	interesting [1] - 34:4	K	67:10, 73:9, 74:7,	liable [1] - 53:11
Incorporated [1] -	interface [1] - 38:23		75:8	licensed [1] - 75:18
47:24	interfere [3] - 7:14,	K-U-B [1] - 36:24	landowners [12] -	life [2] - 52:5, 75:20
increased [1] - 33:9	51:1, 51:3	К-О-Б [1] - 36.24 Kara [4] - 1:20, 10:11,	17:2, 17:5, 33:25,	light [1] - 73:11
increasing [1] - 28:4	interference [1] -	69:4, 69:5	38:13, 41:24, 42:4,	lighter [1] - 29:14
independent [3] -	50:23	Kearney [2] - 1:18, 8:4	67:14, 67:21, 69:8, 73:3, 73:16, 76:16	likely [2] - 54:14,
14:9, 14:14, 74:23	interior [1] - 67:9	Keegan [1] - 10:9	lands [1] - 62:1	77:21
indicate [1] - 36:11	interject [1] - 65:8	keep [4] - 25:3, 25:16,		limitation [1] - 44:8
indicated [2] - 58:20,	interstate [1] - 74:20		large [3] - 11:15, 37:6,	limited [1] - 11:5
77:17	Interveners [1] - 77:24	39:2, 39:3	60:10	Lincoln [2] - 3:24,
indication [4] - 35:2,	introduce [2] - 7:25,	Kent [1] - 57:19	largest [5] - 11:9,	4:21
35:17, 39:25, 62:15	9:10	Kevin [1] - 64:7	11:12, 32:13, 48:3,	line [21] - 3:22, 13:4,
indirect [1] - 59:3	introduced [1] - 17:14	Key [1] - 21:18	48:5	16:17, 28:6, 31:8,
individual [3] - 13:18,	introductory [1] - 9:8	key [2] - 47:15, 54:24	last [13] - 15:14, 17:13 20:23 21:25	31:15, 42:5, 44:12,
37:24, 57:2	intrusive [1] - 19:1	Keystone [6] - 53:22,	17:13, 20:23, 21:25,	46:17, 50:8, 50:19,
individuals [6] - 14:2,	intuitively [1] - 78:17	54:5, 68:23, 69:21,	22:2, 29:21, 32:6,	51:8, 61:24, 62:9,
		1	1	, , ,

62:10, 67:15, 70:8,	М	11:18	mileage [1] - 13:8	most [15] - 18:17, 8
70:9, 70:13, 71:2,		marking [1] - 70:10	miles [19] - 4:14, 4:18,	22:2, 22:3, 26:7,
71:7	maara (0) 19:12	master [1] - 11:5	4:23, 5:1, 11:8,	27:2, 27:6, 33:5,
lines [6] - 48:22,	macro [2] - 18:12, 18:15	material [1] - 22:25	12:18, 12:23, 13:11,	36:17, 43:5, 45:7,
49:20, 70:6, 70:11,	MAHMOUD [40] -	materials [1] - 16:16	17:6, 40:20, 42:12,	48:10, 54:14, 57:23,
70:16, 71:8		math [2] - 37:2, 79:1	45:24, 48:4, 48:6,	70:22, 77:21
link [1] - 11:25	10:17, 29:11, 29:18, 31:6, 31:10, 31:21,	mathematical [1] -	59:14, 59:15, 62:17,	mostly [2] - 44:12,
liquid [1] - 10:1	31:24, 35:7, 38:19,	22:16	71:24	65:2
literally [2] - 40:1,	39:17, 40:15, 41:15,	MATTER [1] - 1:4	million [11] - 13:21,	motions [1] - 24:6
40:10	41:19, 42:17, 44:2,	matter [3] - 2:2, 3:15,	13:24, 16:18, 16:21, 16:25, 17:7, 37:6,	Motiva [1] - 29:25
live [4] - 15:21, 32:13,	45:4, 45:11, 46:7,	80:10	48:9, 54:5, 54:6,	Mountains [1] - 32:14
70:14, 71:21	46:15, 47:7, 51:18,	MAUCK [4] - 57:19,	48.9, 54.5, 54.0, 54:9	move [13] - 11:23,
livestock [3] - 45:9, 48:11, 49:6	53:8, 56:23, 57:18,	59:13, 60:7	millions [1] - 32:17	12:11, 15:9, 18:1, 20:21, 20:25, 21:14,
LLC [3] - 1:4, 3:16,	58:11, 59:18, 61:13,	Mauck [1] - 57:19	Mills [1] - 70:2	30:6, 30:20, 43:1,
3:18	61:21, 62:12, 63:17,	MCCOMSEY [1] - 80:5	Milwaukee [1] - 60:14	43:11, 79:2
Local [2] - 25:21, 27:1	64:13, 64:18, 66:13,	McComsey [2] - 1:24,	mind [2] - 25:3, 55:24	moved [1] - 14:21
local [12] - 7:16,	70:13, 70:18, 70:21,	80:18 McCook #1 4:20	Miner [1] - 4:20	movement [1] - 59:24
14:12, 16:2, 16:12,	71:20, 72:6, 74:17,	McCook [1] - 4:20 McPherson [1] - 4:19	minimize [7] - 21:23,	movement [1] = 55.24 moving [6] - 11:25,
24:1, 25:23, 26:5,	78:19	mean [5] - 46:13, 69:2,	39:7, 39:9, 40:7,	12:2, 48:8, 55:23,
52:9, 59:1, 61:4,	Mahmoud [4] - 9:21,	71:23, 72:3, 72:4	41:24, 56:10, 57:11	59:11, 59:15
63:20, 72:11	10:22, 24:14, 34:18	meaning [1] - 40:3	minimum [2] - 70:8,	MR [86] - 9:13, 10:17,
located [6] - 4:25,	mail [2] - 6:17, 79:16	means [5] - 13:22,	71:1	25:18, 29:11, 29:13,
16:10, 30:3, 39:15,	mailed [1] - 49:10	28:2, 62:15, 72:10,	Minnehaha [1] - 4:20	29:18, 30:15, 31:6,
61:11, 62:23	mailing [1] - 6:18	79:16	Minnesota [5] - 25:22,	31:9, 31:10, 31:17,
location [5] - 36:14,	main [2] - 50:8, 60:19	mediator [1] - 69:7	26:23, 28:11, 63:22,	31:21, 31:22, 31:24,
36:15, 41:4, 61:11,	mainline [1] - 26:1	meet [3] - 17:24,	79:6	31:25, 35:7, 36:2,
61:19	maintain [1] - 49:21	23:14, 26:14	minutes [3] - 24:18,	36:22, 38:19, 39:17,
locations [1] - 71:15	maintenance [2] -	meeting [3] - 17:14,	40:8, 40:10	40:15, 40:23, 41:3,
locomotives [1] -	7:21, 25:25 majority [1] - 46:25	31:7, 77:23	miss [3] - 9:5, 19:14,	41:11, 41:15, 41:19,
78:15	man [4] - 58:3, 58:9,	members [8] - 8:14,	46:22	42:17, 44:2, 45:4,
long-term [2] - 15:16,	58:21, 63:23	9:14, 25:19, 25:24,	Missouri [4] - 4:18,	45:11, 46:7, 46:9, 46:12, 46:15, 47:7,
67:14 look [18] - 10:13,	manage [2] - 23:5,	26:2, 26:7, 26:18,	66:2, 66:3, 66:6 mistaken [1] - 59:14	47:20, 50:19, 51:9,
18:10, 18:14, 18:20,	51:7	28:17	mitigating [1] - 68:9	51:18, 52:25, 53:8,
20:19, 23:2, 32:15,	managed [1] - 22:24	membership [1] - 26:23	Mitigation [1] - 21:8	53:18, 54:20, 55:9,
32:24, 36:9, 46:18,	Management [1] -	men [2] - 28:20, 70:22	Mobridge [1] - 57:20	55:12, 56:4, 56:13,
47:2, 50:23, 62:5,	57:22	mention [1] - 58:15	mode [2] - 14:19, 28:9	56:20, 56:23, 57:17,
74:19, 75:12, 76:3,	manager [7] - 8:21,	mentioned [1] - 60:18	model [1] - 39:24	57:18, 57:19, 58:11,
78:23	10:4, 10:5, 10:6,	met [1] - 76:18	modeling [1] - 40:24	59:13, 59:18, 60:7,
looked [1] - 32:25	10:7, 47:23, 61:3	meters [1] - 22:13	models [1] - 35:22	61:1, 61:13, 61:18,
looking [9] - 34:10,	managers [1] - 61:4	method [1] - 27:18	modes [1] - 12:3	61:21, 61:23, 62:12,
40:19, 40:24, 46:16,	mandated [1] - 22:23	methods [2] - 27:6,	modification [1] -	63:3, 63:11, 63:17,
53:20, 55:21, 56:12,	mandates [1] - 24:8	27:9	29:23	64:6, 64:7, 64:13, 64:15, 64:18, 65:6,
58:8	manner [2] - 18:9, 43:12	mic [2] - 25:10, 25:11	modifications [1] -	65:15, 66:13, 68:17,
looks [4] - 13:3, 13:5,	mapped [1] - 62:20	Micah [2] - 10:6, 64:19	7:20	69:25, 70:13, 70:16,
59:13, 69:19 Iose [1] - 43:1	mark [2] - 23:12, 62:8	Michigan [1] - 11:18	modified [2] - 29:23,	70:18, 70:19, 70:21,
loss [1] - 37:2	marker [6] - 61:10,	micro [1] - 18:19	76:6	71:16, 71:20, 72:6,
lost [1] - 31:17	61:19, 62:3, 62:14,	microphone [2] -	money [3] - 37:7, 55:3,	72:23, 74:17, 78:19
love [1] - 31:7	62:24, 63:1	7:25, 25:12	59:2 mongor (4) 71:22	MS [16] - 36:23, 37:21,
low [1] - 45:8	markers [5] - 61:7,	mics [1] - 25:10	monger [1] - 71:23 Monica [1] - 10:7	39:12, 40:12, 41:1,
Lowell [1] - 61:1	61:9, 61:16, 62:22,	mid [1] - 30:3	monitor [3] - 22:7,	41:9, 41:16, 42:14,
lower [2] - 27:23,	71:6	middle [1] - 33:16	46:5, 53:14	43:15, 45:3, 45:5,
49:20	market [8] - 20:5,	Midwest [2] - 31:12, 43:3	monitoring [4] - 22:9,	46:1, 71:17, 71:21,
lowered [1] - 49:19	28:8, 32:19, 33:6,	43.3 might [7] - 10:15,	22:16, 35:21, 39:25	73:8, 74:15
luck [1] - 57:17	33:9, 33:10, 36:24,	15:13, 24:23, 35:3,	monitors [1] - 71:24	multibillion [1] - 67:24
lucky [1] - 63:15	37:11	36:11, 53:25, 71:18	month [1] - 59:16	multiple [1] - 50:2 multiply [1] - 79:2
lumber [1] - 60:9	marketing [1] - 37:3	mile [5] - 34:6, 34:23,	months [3] - 59:10,	municipality [1] - 5:25
	marketplace [1] -	35:2, 40:20, 62:15	59:17, 76:19	

must [1] - 7:7	nonconfidential [1] - 5:7	2:1, 80:1, 80:3	orchard [1] - 18:21	56:7
N		official [1] - 5:7	order [2] - 25:11,	Party [1] - 6:6
Ν	normal [2] - 35:18,	officially [1] - 70:4	32:18	pass [1] - 76:17
	37:4	often [2] - 34:25, 75:2	orderly [1] - 7:14	past [6] - 37:3, 49:16,
ame [17] - 8:1, 9:18,	normally [1] - 35:12	oil [29] - 4:4, 11:23,	organization [3] - 6:3,	74:11, 75:20, 76:19,
10:22, 25:14, 25:15,	North [18] - 4:4, 4:7,	12:4, 12:8, 12:12,	52:15, 52:16	76:24
25:20, 28:23, 31:25,	10:6, 11:10, 11:24,	12:22, 14:4, 14:5,	organizations [3] -	path [1] - 15:17
	12:19, 13:3, 25:22,	14:9, 14:11, 15:7,	8:13, 51:24, 53:16	Patoka [4] - 4:9,
36:23, 36:24, 37:21,	28:7, 28:10, 30:22,	27:12, 27:14, 28:3,	originate [1] - 4:6	11:24, 12:2, 13:4
47:21, 51:22, 57:19,	37:3, 44:19, 48:3,	28:6, 28:7, 28:10,	origination [1] - 62:17	pay [5] - 16:23, 20:12,
61:1, 64:7, 72:23	50:3, 63:21, 66:7,	33:2, 33:5, 34:5,	Orrock [1] - 8:20	30:18, 67:7, 68:7
n arrow [2] - 18:16,	78:12	34:8, 37:10, 40:17,	otherwise [2] - 9:5,	paying [2] - 28:16,
18:20	north [3] - 31:2, 32:2,	43:2, 43:18, 48:21,	15:5	67:3
national [1] - 27:14	32:5	49:23, 74:20	Otto [1] - 69:25	payment [1] - 31:20
nationwide [1] - 39:17	northeast [2] - 11:19,	once [5] - 18:19, 36:7,	ourselves [3] - 28:1,	payments [1] - 13:23
natural [3] - 27:12,	49:13	44:14, 61:9, 64:2	68:1, 70:12	people [32] - 9:11,
33:18, 74:20	Northern [2] - 33:17,	one [41] - 4:24, 10:19,		
nature [4] - 15:13,		•••	outfit [2] - 21:18,	13:15, 14:25, 15:20,
19:9, 19:16, 21:11	45:20	11:2, 12:12, 12:24,	67:24	15:24, 15:25, 16:4,
near [5] - 3:25, 23:11,	northern [2] - 12:25,	16:21, 16:25, 20:13,	outpacing [1] - 27:13	18:1, 18:7, 19:3,
45:16, 66:4, 77:20	34:21	20:14, 21:6, 23:9,	outside [1] - 47:13	32:17, 33:18, 33:24,
	northwest [3] - 4:6,	23:21, 24:3, 28:8,	overall [2] - 10:5, 59:9	38:13, 39:18, 40:16,
nearest [1] - 62:4	11:24, 13:3	29:5, 31:17, 31:19,	overlap [1] - 50:16	45:7, 45:22, 47:12,
necessarily [2] -	Notary [2] - 80:7,	33:19, 34:17, 34:18,	own [3] - 11:8, 14:9,	48:10, 55:24, 56:25,
42:23, 67:16	80:18	35:11, 39:12, 39:23,	57:21	57:9, 57:10, 57:12,
necessary [3] - 35:20,	note [1] - 60:7	44:3, 49:15, 50:6,	owned [1] - 3:10	57:24, 58:4, 59:15,
35:24, 52:7	notes [1] - 34:4	51:25, 54:20, 58:22,	owning [1] - 26:21	63:19, 69:20, 72:4,
need [10] - 6:12, 6:20,	notify [1] - 72:18	60:18, 61:10, 65:9,	owning[i] - 20.2 i	77:3
8:6, 18:11, 25:5,	nuclear [2] - 32:10,	66:19, 66:25, 67:23,		per [9] - 4:11, 4:13,
32:19, 35:17, 36:4,	34:14	69:3, 70:3, 72:18,	P	12:14, 22:22, 37:14,
63:4, 76:14		74:3, 74:17, 78:8		
needed [3] - 28:15,	number [8] - 10:19,	One [2] - 23:10, 33:21	p.m [2] - 2:4, 79:19	37:15, 62:1, 66:24,
36:16, 52:21	20:6, 35:11, 51:25,	one's [1] - 68:23		75:10
needs [1] - 64:4	54:25, 65:10, 66:25,		page [1] - 6:9	percent [10] - 16:3,
negative [2] - 27:11,	67:1	one-time [1] - 31:19	paid [1] - 17:8	18:4, 20:12, 20:13,
-	numbers [4] - 16:13,	ones [3] - 30:1, 30:2,	paint [1] - 14:5	20:14, 33:4, 39:8,
60:5	16:14, 62:13, 78:24	60:19	papers [2] - 74:22,	46:25, 52:16
negatively [1] - 74:25		Onida [1] - 80:13	75:13	period [3] - 20:15,
negotiate [1] - 64:22	0	open [2] - 17:15,	parent [1] - 10:24	76:24
negotiating [2] -		75:14	Part [1] - 23:3	periodically [1] -
41:24, 75:11		operate [7] - 11:13,	part [18] - 11:6, 11:17,	79:13
negotiation [3] -	o'clock [2] - 2:4, 25:3	23:5, 24:2, 35:19,	11:20, 12:25, 18:5,	permanent [7] - 19:20
41:23, 42:6, 75:9	obligated [1] - 66:19	38:25, 45:23, 65:7	20:19, 21:25, 22:3,	19:21, 21:4, 44:5,
neighbors [1] - 33:20	obligation [3] - 27:17,	operating [6] - 22:9,	30:3, 30:24, 36:17,	44:7, 65:4, 67:3
NELSON [19] - 1:12,	46:17, 66:18	22:18, 27:2, 27:4,	37:10, 40:23, 46:16,	permeate [3] - 48:21,
3:1, 24:14, 28:22,	obligations [1] - 17:24	35:18, 64:10	47:13, 58:25, 75:9,	•
29:8, 35:6, 46:3,	obviously [5] - 52:6,			48:24, 49:24
46:11, 47:4, 47:19,	71:21, 72:1, 75:1,	operation [3] - 7:20,	77:1	permit [5] - 3:17, 3:19
		23:23, 39:21	participate [3] - 6:21,	4:2, 7:6, 7:18
55:6, 55:11, 63:4,	76:7	operations [4] - 19:22,	23:10, 25:8	PERMIT [1] - 1:5
65:8, 72:21, 73:6,	occasion [1] - 36:3	22:1, 26:11, 51:21	participating [1] -	permitting [1] - 22:22
73:22, 77:6, 79:8	occur [9] - 20:15,	operator [4] - 62:16,	10:14	person [6] - 6:3, 35:7,
Nelson [5] - 3:3, 8:20,	35:16, 39:10, 39:11,	64:11, 67:13, 68:7	particular [2] - 25:11,	47:2, 51:21, 57:2,
12:17, 13:13, 65:18	39:23, 53:25, 54:16,	operators [4] - 22:10,	39:7	74:15
net [1] - 32:16	67:8, 69:15	26:8, 39:22, 67:20	parties [4] - 5:19,	person's [1] - 18:21
new [5] - 29:21, 30:1,	occurred [2] - 40:7,	opportunity [8] -	21:22, 23:16, 77:24	personal [3] - 6:17,
30:8, 30:14, 31:13	68:9	10:20, 25:7, 34:9,	partner [1] - 10:10	38:1, 52:10
news [1] - 71:22	occurrence [1] - 33:9	35:4, 43:1, 43:25,	Partners [1] - 11:4	
next [5] - 28:22, 39:12,	occurs [1] - 39:1			persons [2] - 5:15,
52:2, 63:2, 71:4		61:3, 78:15	partnerships [1] -	8:13
	ocean [1] - 27:23	opposed [1] - 15:7	11:5	perspective [7] -
nine [1] - 59:10	oceans [1] - 28:2	opposite [1] - 44:17	party [10] - 5:22, 6:3,	35:25, 37:25, 38:11,
nonagricultural [1] -	October [1] - 17:16 OF [7] - 1:2, 1:4, 1:4,	opposition [1] - 28:3	6:8, 6:12, 6:20, 12:1,	41:20, 41:21, 66:15,
19:25				

petroleum [4] - 32:12,	59:12, 60:16, 60:19,	Port [1] - 29:24	2:1	63:13, 63:14 10
33:11, 34:16, 78:10	60:23, 61:6, 61:12,	portion [2] - 4:7, 47:13	proceedings [2] -	projects [2] - 26:4,
PHMSA [2] - 23:1,	61:16, 62:14, 62:17,	pose [2] - 7:9, 27:7	80:9, 80:12	56:14
23:25	62:19, 62:22, 62:23,	positions [1] - 26:6	Proceedings [1] - 1:7	prolonged [1] - 42:6
phonetic [1] - 51:22	62:24, 62:25, 63:1,	possibility [2] - 72:5,	process [18] - 8:8,	prompted [1] - 46:4
physical [1] - 59:10	71:24, 78:8, 78:12,	72:7	24:18, 34:2, 41:1,	proper [1] - 72:19
pick [2] - 18:25, 58:5	78:23	possible [2] - 56:9,	41:3, 56:8, 57:3,	properly [2] - 57:9,
picking [1] - 57:22	Pipeline [12] - 1:20,	72:10	57:11, 58:1, 58:13,	76:22
pickup [1] - 58:24	3:17, 3:20, 5:10,	post [3] - 62:15,	69:17, 73:24, 75:10,	properties [1] - 19:21
picture [5] - 13:2,	10:25, 11:21, 33:17,	69:23, 71:6	75:13, 77:2, 77:18,	property [23] - 3:24,
13:20, 17:10, 18:15,	53:3, 53:22, 58:2,	potable [2] - 48:25,	78:1, 79:10	16:20, 17:3, 18:9,
34:11	69:21, 76:17	49:12	produce [4] - 32:11,	19:4, 19:6, 20:6,
piece [5] - 18:25, 19:6,	pipelines [17] - 14:18,	potential [2] - 17:5,	34:11, 34:12, 43:3	20:10, 20:21, 21:15,
26:19, 37:16, 73:3	14:24, 26:11, 27:5,	46:6	produced [2] - 11:25,	21:24, 36:18, 45:17,
Pieper [1] - 10:9	27:18, 27:25, 28:8,	power [3] - 41:22,	43:2	52:5, 52:10, 65:22,
Pierre [2] - 9:19, 58:7	34:7, 34:19, 41:6,	42:7, 74:4	producer [1] - 18:5	66:19, 67:5, 75:10,
pilot's [1] - 46:16	46:6, 48:23, 49:17,	practical [1] - 11:2	producing [2] - 12:1,	76:11, 76:17, 76:18,
pilots [1] - 46:20	50:24, 51:6, 74:24,	precedence [1] -	43:2	77:13
pipe [49] - 11:8, 12:18,	78:9	49:16	product [17] - 14:19,	proposed [9] - 3:20,
12:21, 12:24, 13:23,	pipes [7] - 12:3, 18:10,	preconstruction [2] -	17:25, 27:6, 27:19,	4:10, 5:13, 6:2, 7:7,
14:22, 15:25, 16:22,	23:12, 39:1, 50:13,	66:20, 67:16	27:20, 29:2, 29:5,	8:11, 28:14, 38:2,
18:25, 19:5, 19:18,	51:5, 75:2	preferably [1] - 79:15	29:12, 30:7, 30:17,	38:3
19:23, 19:24, 19:25,	pivot [1] - 3:23	preferences [1] - 3:24	30:19, 30:21, 30:23,	protect [10] - 20:22,
21:20, 22:1, 22:7,	place [9] - 3:13, 26:25,	present [4] - 5:15,	31:1, 44:22, 45:1,	27:16, 52:4, 52:9,
22:9, 22:12, 22:13,	36:5, 39:6, 50:13,	8:14, 10:20, 27:24	78:11	52:16, 66:23, 68:1,
23:12, 24:2, 35:1,	66:9, 68:13, 72:17,	presentation [9] -	production [8] - 4:4,	72:9, 72:15, 72:19
36:10, 36:12, 38:14,	74:6	8:10, 8:12, 9:6, 9:12,	12:15, 27:12, 29:17,	protected [1] - 49:6
39:2, 40:9, 44:18,	placement [1] - 44:5	10:13, 22:1, 24:15,	43:11, 43:19, 43:22,	protecting [2] - 21:1,
44:20, 44:23, 45:1,	plain [1] - 34:7	24:24, 38:6	78:25	49:12
45:24, 46:16, 48:4,	Plan [4] - 21:8, 23:19,	presently [1] - 78:11	products [20] - 12:8,	protection [9] - 50:8,
48:8, 48:22, 48:24,	40:23, 52:23	preserve [2] - 6:24,	14:3, 14:6, 14:21,	50:9, 50:20, 50:21,
49:16, 49:22, 50:6,	plan [14] - 21:11,	20:22	15:7, 29:15, 29:17,	50:24, 51:2, 51:3,
50:7, 50:10, 50:11,	21:12, 21:13, 21:23,	President [2] - 9:21,	30:12, 30:13, 31:11,	51:12, 72:1
59:16, 59:25	23:17, 23:24, 24:7,	10:23	31:14, 32:11, 32:15,	proven [1] - 41:23
pipe's [1] - 62:21	42:15, 42:18, 49:8,	president [1] - 10:1	32:18, 32:22, 33:10,	provide [7] - 5:13,
PIPELINE [1] - 1:5	52:19, 61:5, 61:14	pressure [1] - 22:12	34:12, 34:13, 43:4,	24:8, 36:1, 46:23,
pipeline [90] - 3:10,	planning [2] - 24:6,	pretend [1] - 21:20	43:6	55:3, 73:16, 77:25
4:3, 4:5, 4:10, 4:15,	49:18	pretty [7] - 11:22,	Professional [2] -	provides [2] - 14:3,
11:9, 12:22, 13:10,	planted [1] - 47:6	16:15, 23:20, 38:25,	80:6, 80:19	59:5
15:2, 15:9, 17:3,	plants [1] - 44:13	45:20, 51:4, 55:1	professional [1] - 69:3	providing [2] - 15:16,
18:8, 22:14, 22:15,	Play [2] - 11:23, 12:16		professor [1] - 48:18	32:17
22:17, 22:21, 22:25,	plus [2] - 61:5, 68:15	prevent [1] - 44:4 prevents [1] - 47:16	program [3] - 23:14,	proximity [2] - 41:14,
23:5, 23:18, 23:22,	pockets [3] - 33:13,	previous [1] - 32:3	36:5, 68:6	51:6
25:21, 25:25, 26:12,	37:8, 37:9	•	programs [3] - 68:16,	prudent [2] - 67:13,
27:14, 28:13, 28:14,	point [17] - 7:23, 8:3,	price [1] - 30:17	72:13, 72:17	67:20
30:7, 30:11, 32:25,	8:25, 13:14, 18:10,	prices [7] - 14:11, 37:13, 37:17, 37:20,	Project [4] - 3:20,	public [18] - 3:15,
33:4, 33:13, 33:25,	18:11, 20:8, 22:8,		10:4, 11:21, 68:23	5:13, 5:14, 7:5, 8:14,
34:23, 35:3, 35:11,	27:20, 27:21, 42:3,	75:22, 76:1, 76:2	project [42] - 4:6, 4:17,	14:18, 18:6, 19:2,
35:14, 35:15, 35:20,	43:22, 62:17, 69:10,	primarily [1] - 39:15	4:22, 5:5, 5:14, 6:15,	27:8, 27:11, 27:23,
36:3, 36:4, 36:5,	71:12, 74:17	prime [1] - 58:19	7:18, 8:11, 9:23,	39:5, 61:25, 62:6,
36:7, 37:14, 37:18,	pointed [1] - 12:18	private [1] - 66:25	9:25, 10:2, 10:8,	68:21, 72:14, 72:20,
37:19, 38:10, 38:17,	points [1] - 12:21	problem [2] - 28:25,	10:10, 10:20, 11:22,	79:19
38:22, 40:6, 40:17,	pole [1] - 62:8	36:15	12:11, 13:3, 13:15,	PUBLIC [2] - 1:1, 1:11
40:19, 42:2, 42:3,	policies [2] - 68:13,	problems [2] - 50:16,	13:16, 13:20, 14:13,	Public [5] - 1:8, 3:4,
43:19, 43:21, 43:23,	68:15	69:8	15:11, 17:11, 17:13,	9:20, 80:7, 80:18
44:1, 44:10, 45:16,	policy [1] - 68:4	procedures [1] - 26:21	17:14, 18:6, 22:4,	publications [1] -
47:5, 48:6, 49:4,	Pollock [1] - 58:6	proceed [2] - 9:12,	24:20, 24:25, 28:19,	74:21
		62:10		
	nolvester 111 - 43.5		37:7, 42:6, 53:3.	nublicly 111 - 70.17
49:15, 49:18, 50:23,	polyester [1] - 43:5	proceeding [4] - 5:19,	37:7, 42:6, 53:3, 54:2, 55:2, 57:6,	publicly [1] - 79:17 PUC [6] - 17:14
	polyester [1] - 43:5 pooling [1] - 12:21 population [1] - 41:13	proceeding [4] - 5:19, 6:4, 9:20, 74:13 PROCEEDINGS [1] -	37:7, 42:6, 53:3, 54:2, 55:2, 57:6, 58:9, 60:18, 60:20,	publicly [1] - 79:17 PUC [6] - 17:14, 42:15, 55:15, 72:1,

73:15, 73:20	ranch [1] - 33:17	registered [1] - 49:9	26:14, 26:16	
puc@state.sd.gov [1]	rancher [2] - 32:2,	Registered [2] - 80:5,	requires [2] - 24:8,	ri
- 6:18	32:23	80:19	54:23	ri
pump [4] - 4:24,	ranging [1] - 48:7	regular [1] - 36:7	requiring [1] - 54:15	
12:24, 16:10, 35:13	rarely [1] - 44:16	regulations [1] - 26:18	reroute [1] - 42:9	
purchasing [2] -	rate [1] - 37:11	regulatory [1] - 23:6	research [3] - 49:14,	R
16:16, 33:11	rated [1] - 27:9	reimburse [1] - 68:11	75:1, 78:6	R
pure [1] - 14:20	rates [1] - 76:2	reimbursing [1] -	reserve [1] - 18:3	
purpose [3] - 3:14,	rather [1] - 30:14	64:11	residence [1] - 52:4	
5:12, 12:11	reaches [1] - 44:24	related [1] - 68:21	residential [1] - 76:10	ri
purposes [2] - 11:2,	read [1] - 7:4	relating [1] - 33:13	residents [6] - 14:25,	
36:21	ready [1] - 25:12	relationship [2] -	26:2, 28:11, 28:17,	r
put [18] - 8:16, 16:17,	real [5] - 18:19, 24:25,	32:24, 66:16	49:1, 51:13	
17:19, 18:16, 21:7,	60:4, 72:7, 75:18	relatives' [1] - 38:4	residual [2] - 29:15,	
26:5, 26:25, 33:22,	realistic [1] - 16:1	release [2] - 41:8,	67:12	
35:17, 38:22, 39:1,	really [10] - 11:22,	41:10	resolved [2] - 69:9,	
44:6, 44:7, 46:21, 61:7, 66:21	30:21, 33:1, 33:6,	released [1] - 54:1	69:11	
putting [8] - 6:21,	37:10, 43:10, 44:12,	releases [1] - 40:24	resort [1] - 41:21	r
20:24, 33:1, 35:3,	55:3, 69:10, 76:3	reliable [1] - 14:4	resource [1] - 34:15	
52:19, 59:11, 59:16,	Realtime [2] - 80:6,	relocates [1] - 3:22	resources [8] - 24:4, 52:7, 52:11, 52:12,	r
59:25	80:19	rely [5] - 12:9, 14:9,	67:25, 68:3, 68:14	re
PVC [5] - 48:7, 48:24,	reason [7] - 6:13, 33:7, 41:7, 46:15,	42:7, 43:4, 52:8 relying [1] - 43:9	respect [5] - 33:24,	R
49:15, 49:22, 49:24	49:11, 56:24, 68:7	remains [1] - 30:10	33:25, 34:2, 57:9,	r
, - , -	receive [1] - 31:11	remember [2] - 22:6,	68:20	R
Q	received [1] - 44:19	68:24	respectful [1] - 25:6	r
	receives [1] - 64:25	remind [1] - 79:9	respecting [2] - 57:3	
	receiving [1] - 49:10	remote [2] - 35:21,	respects [1] - 29:3	r
qualified [3] - 26:8,	recent [1] - 68:23	40:4	respond [4] - 24:3,	R
26:19, 27:3	recently [1] - 34:5	remotely [1] - 22:10	29:9, 35:6, 53:12	R
quality [1] - 76:5	recognize [2] - 72:25,	removing [1] - 66:1	responders [4] -	R
quarter [2] - 17:17,	76:8	renewable [1] - 34:15	23:15, 24:1, 52:9	r
17:23	record [5] - 8:2, 8:17,	rent [1] - 65:11	response [4] - 35:8,	
quarters [1] - 16:9	41:23, 54:15, 64:21	rental [1] - 65:10	39:15, 52:3, 52:15	r
questions [23] - 8:6,		rental [1] - 65:10 renter [1] - 64:15	39:15, 52:3, 52:15 Response [3] - 23:19,	r
questions [23] - 8:6, 10:15, 24:10, 24:22,	41:23, 54:15, 64:21	renter [1] - 64:15		r
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25,	41:23, 54:15, 64:21 redelivery [1] - 12:3		Response [3] - 23:19,	r
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13,	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5	renter [1] - 64:15 repair [1] - 53:15	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9,	
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3,	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4	R
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17,	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22,	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] -	R
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3,	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4	R
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6,	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1 refineries [5] - 14:4,	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20	R
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1 refineries [5] - 14:4, 29:1, 29:21, 30:2,	renter [1] - $64:15$ repair [1] - $53:15$ repairing [1] - $53:24$ repairs [1] - $36:16$ replanted [2] - $76:22$ report [1] - $54:17$ Reported [1] - $1:24$ reported [1] - $54:2$ reported [1] - $54:2$ reporter [4] - $7:24$,	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20 restoration [5] - 21:9,	R re
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1 refineries [5] - 14:4, 29:1, 29:21, 30:2, 31:12	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20 restoration [5] - 21:9, 59:19, 66:18, 69:2,	R ro ro
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14,	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1 refineries [5] - 14:4, 29:1, 29:21, 30:2, 31:12 refinery [3] - 29:22,	renter [1] - $64:15$ repair [1] - $53:15$ repairing [1] - $53:24$ repairs [1] - $36:16$ replanted [2] - $76:22$ report [1] - $54:17$ Reported [1] - $1:24$ reported [1] - $1:24$ reported [1] - $54:2$ reporter [4] - $7:24$, 25:15, 63:5, 80:9 Reporter [4] - $80:6$,	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20 restoration [5] - 21:9, 59:19, 66:18, 69:2, 69:15	R ra ra ra
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1 refineries [5] - 14:4, 29:1, 29:21, 30:2, 31:12 refinery [3] - 29:22, 29:23, 30:18	renter [1] - $64:15$ repair [1] - $53:15$ repairing [1] - $53:24$ repairs [1] - $36:16$ replanted [2] - $76:22$ report [1] - $54:17$ Reported [1] - $1:24$ reported [1] - $1:24$ reported [1] - $54:2$ reporter [4] - $7:24$, 25:15, 63:5, 80:9 Reporter [4] - $80:6$, 80:19, 80:19	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20 restoration [5] - 21:9, 59:19, 66:18, 69:2, 69:15 restore [2] - 21:15,	R ra ra ra R
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1 refineries [5] - 14:4, 29:1, 29:21, 30:2, 31:12 refinery [3] - 29:22, 29:23, 30:18 refining [3] - 12:5,	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] -	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20 restoration [5] - 21:9, 59:19, 66:18, 69:2, 69:15 restore [2] - 21:15, 66:19	R ra ra R r
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14	41:23, 54:15, 64:21 redelivery [1] - 12:3 Redfield [2] - 5:1, 25:5 reference [1] - 23:2 refined [9] - 29:2, 29:4, 29:12, 29:14, 30:13, 30:17, 30:22, 30:23, 31:1 refineries [5] - 14:4, 29:1, 29:21, 30:2, 31:12 refinery [3] - 29:22, 29:23, 30:18 refining [3] - 12:5, 30:7, 30:12	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2	Response $[3] - 23:19$, 40:23, 52:22 responsibility $[6] -$ 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible $[2] -$ 51:13, 53:4 rest $[2] - 19:18$, 24:20 restoration $[5] - 21:9$, 59:19, 66:18, 69:2, 69:15 restore $[2] - 21:15$, 66:19 restored $[1] - 69:24$	R ra ra R ri R
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \hline \textbf{redelivery}\ [1]\ -\ 12:3\\ \hline \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \hline \textbf{reference}\ [1]\ -\ 23:2\\ \hline \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \hline \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \hline \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \hline \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \hline \textbf{refresher}\ [1]\ -\ 26:24\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 reportes [2] -	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20 restoration [5] - 21:9, 59:19, 66:18, 69:2, 69:15 restore [2] - 21:15, 66:19 restored [1] - 69:24 restructuring [1] -	ra R ra ra R ru ru ru ru
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \hline \textbf{redelivery}\ [1]\ -\ 12:3\\ \hline \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \hline \textbf{reference}\ [1]\ -\ 23:2\\ \hline \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \hline \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \hline \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \hline \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \hline \textbf{refresher}\ [1]\ -\ 26:24\\ \hline \textbf{refuge}\ [2]\ -\ 58:6,\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \end{array}$	R ra ra ra ra ru ru ru
$\label{eq:product} \begin{array}{l} \textbf{questions} \ [23] - 8:6, \\ 10:15, 24:10, 24:22, \\ 24:23, 29:10, 37:25, \\ 38:5, 38:7, 39:13, \\ 43:15, 46:2, 46:3, \\ 46:4, 61:5, 63:17, \\ 72:21, 73:6, 77:6, \\ 77:15, 77:16, 78:4 \\ \textbf{quickly} \ [1] - 44:21 \\ \textbf{quite} \ [4] - 51:14, \\ 60:22, 61:16, 75:2 \\ \textbf{quote} \ [1] - 16:14 \\ \hline \begin{array}{c} \textbf{R} \\ \hline \textbf{radius} \ [1] - 57:24 \\ \textbf{rail} \ [13] - 14:23, 27:7, \\ \end{array} $	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \textbf{redelivery}\ [1]\ -\ 12:3\\ \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \textbf{reference}\ [1]\ -\ 23:2\\ \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \textbf{refresher}\ [1]\ -\ 26:24\\ \textbf{refuge}\ [2]\ -\ 58:6,\\ 58:24\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] -	Response [3] - 23:19, 40:23, 52:22 responsibility [6] - 9:22, 9:25, 53:9, 53:13, 53:24, 77:4 responsible [2] - 51:13, 53:4 rest [2] - 19:18, 24:20 restoration [5] - 21:9, 59:19, 66:18, 69:2, 69:15 restore [2] - 21:15, 66:19 restored [1] - 69:24 restructuring [1] -	R ra ra ra ra ru ru ru
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \textbf{redelivery}\ [1]\ -\ 12:3\\ \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \textbf{reference}\ [1]\ -\ 23:2\\ \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \textbf{refresher}\ [1]\ -\ 26:24\\ \textbf{refuge}\ [2]\ -\ 58:6,\\ 58:24\\ \textbf{refuses}\ [1]\ -\ 41:17\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \end{array}$	R ra ra R ru ru ru
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24 radius [1] - 32:24,	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \textbf{redelivery}\ [1]\ -\ 12:3\\ \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \textbf{reference}\ [1]\ -\ 23:2\\ \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \textbf{refresher}\ [1]\ -\ 26:24\\ \textbf{refuge}\ [2]\ -\ 58:6,\\ 58:24\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4 represents [1] - 25:23	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \\ \textbf{results [1] - 27:10} \\ \end{array}$	R ra ra R ru ru ru
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24 radius [1] - 57:24 quote [1] - 14:23, 27:7, Q7:15, 32:19, 32:24, 33:2, 34:8, 37:5,	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \hline redelivery\ [1]\ -\ 12:3\\ \hline Redfield\ [2]\ -\ 5:1,\ 25:5\\ \hline reference\ [1]\ -\ 23:2\\ \hline refined\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \hline refineries\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \hline refinery\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \hline refining\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \hline refresher\ [1]\ -\ 26:24\\ \hline refuge\ [2]\ -\ 58:6,\\ 58:24\\ \hline refuses\ [1]\ -\ 41:17\\ \hline regard\ [2]\ -\ 73:10,\\ 73:16\\ \hline \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4 represents [1] - 25:23 require [2] - 58:22,	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \\ \textbf{results [1] - 27:10} \\ \textbf{revenue [1] - 16:19} \\ \end{array}$	R ra ra ra ra ra ra ra ra
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24 rail [13] - 14:23, 27:7, 27:15, 32:19, 32:24, 33:2, 34:8, 37:5, 37:11, 37:12, 37:17,	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \textbf{redelivery}\ [1]\ -\ 12:3\\ \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \textbf{reference}\ [1]\ -\ 23:2\\ \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \textbf{refresher}\ [1]\ -\ 26:24\\ \textbf{refuge}\ [2]\ -\ 58:6,\\ 58:24\\ \textbf{refuses}\ [1]\ -\ 41:17\\ \textbf{regard}\ [2]\ -\ 73:10,\\ 73:16\\ \textbf{regarding}\ [1]\ -\ 5:16\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4 represents [1] - 25:23 require [2] - 58:22, 58:23	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \\ \textbf{results [1] - 27:10} \\ \textbf{revenue [1] - 16:19} \\ \textbf{reverses [1] - 44:21} \\ \end{array}$	
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24 rail [13] - 14:23, 27:7, 27:15, 32:19, 32:24, 33:2, 34:8, 37:5, 37:11, 37:12, 37:17, 78:10, 79:2	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \hline redelivery\ [1]\ -\ 12:3\\ \hline Redfield\ [2]\ -\ 5:1,\ 25:5\\ \hline reference\ [1]\ -\ 23:2\\ \hline refined\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \hline refineries\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \hline refinery\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \hline refining\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \hline refresher\ [1]\ -\ 26:24\\ \hline refuge\ [2]\ -\ 58:6,\\ 58:24\\ \hline refuses\ [1]\ -\ 41:17\\ \hline regard\ [2]\ -\ 73:10,\\ 73:16\\ \hline \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4 represents [1] - 25:23 require [2] - 58:22, 58:23 required [7] - 23:6,	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \\ \textbf{results [1] - 27:10} \\ \textbf{revenue [1] - 16:19} \\ \textbf{reverses [1] - 44:21} \\ \textbf{Revised [4] - 3:21,} \\ \end{array}$	
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24 rail [13] - 14:23, 27:7, 27:15, 32:19, 32:24, 33:2, 34:8, 37:5, 37:11, 37:12, 37:17, 78:10, 79:2 railroad [2] - 60:14,	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \textbf{redelivery}\ [1]\ -\ 12:3\\ \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \textbf{reference}\ [1]\ -\ 23:2\\ \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \textbf{refresher}\ [1]\ -\ 26:24\\ \textbf{refuge}\ [2]\ -\ 58:6,\\ 58:24\\ \textbf{refuses}\ [1]\ -\ 41:17\\ \textbf{regard}\ [2]\ -\ 73:10,\\ 73:16\\ \textbf{regarding}\ [1]\ -\ 5:16\\ \textbf{regards}\ [3]\ -\ 36:2,\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4 represents [1] - 25:23 require [2] - 58:22, 58:23 required [7] - 23:6, 26:12, 53:23, 54:8,	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \\ \textbf{result [1] - 43:12} \\ \textbf{result [1] - 16:19} \\ \textbf{revenue [1] - 16:19} \\ \textbf{reverses [1] - 44:21} \\ \textbf{Revised [4] - 3:21,} \\ 4:1, 5:3, 5:16 \\ \end{array}$	
questions [23] - 8:6, 10:15, 24:10, 24:22, 24:23, 29:10, 37:25, 38:5, 38:7, 39:13, 43:15, 46:2, 46:3, 46:4, 61:5, 63:17, 72:21, 73:6, 77:6, 77:15, 77:16, 78:4 quickly [1] - 44:21 quite [4] - 51:14, 60:22, 61:16, 75:2 quote [1] - 16:14 R radius [1] - 57:24 rail [13] - 14:23, 27:7, 27:15, 32:19, 32:24, 33:2, 34:8, 37:5, 37:11, 37:12, 37:17, 78:10, 79:2 railroad [2] - 60:14, 61:25	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \textbf{redelivery}\ [1]\ -\ 12:3\\ \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \textbf{reference}\ [1]\ -\ 23:2\\ \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \textbf{refresher}\ [1]\ -\ 26:24\\ \textbf{refuge}\ [2]\ -\ 58:6,\\ 58:24\\ \textbf{refuses}\ [1]\ -\ 41:17\\ \textbf{regard}\ [2]\ -\ 73:10,\\ 73:16\\ \textbf{regarding}\ [1]\ -\ 5:16\\ \textbf{regards}\ [3]\ -\ 36:2,\\ 65:18,\ 65:19\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4 represents [1] - 25:23 require [2] - 58:22, 58:23 required [7] - 23:6, 26:12, 53:23, 54:8, 54:11, 65:25, 68:11	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \\ \textbf{result [1] - 43:12} \\ \textbf{results [1] - 27:10} \\ \textbf{revenue [1] - 16:19} \\ \textbf{reverses [1] - 44:21} \\ \textbf{Revised [4] - 3:21,} \\ 4:1, 5:3, 5:16 \\ \textbf{Rick [1] - 3:6} \\ \end{array}$	R rc rc R ru ru
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	$\begin{array}{c} 41:23,\ 54:15,\ 64:21\\ \textbf{redelivery}\ [1]\ -\ 12:3\\ \textbf{Redfield}\ [2]\ -\ 5:1,\ 25:5\\ \textbf{reference}\ [1]\ -\ 23:2\\ \textbf{refined}\ [9]\ -\ 29:2,\\ 29:4,\ 29:12,\ 29:14,\\ 30:13,\ 30:17,\ 30:22,\\ 30:23,\ 31:1\\ \textbf{refineries}\ [5]\ -\ 14:4,\\ 29:1,\ 29:21,\ 30:2,\\ 31:12\\ \textbf{refinery}\ [3]\ -\ 29:22,\\ 29:23,\ 30:18\\ \textbf{refining}\ [3]\ -\ 12:5,\\ 30:7,\ 30:12\\ \textbf{refresher}\ [1]\ -\ 26:24\\ \textbf{refuge}\ [2]\ -\ 58:6,\\ 58:24\\ \textbf{refuses}\ [1]\ -\ 41:17\\ \textbf{regard}\ [2]\ -\ 73:10,\\ 73:16\\ \textbf{regarding}\ [1]\ -\ 5:16\\ \textbf{regards}\ [3]\ -\ 36:2,\\ 65:18,\ 65:19\\ \textbf{region}\ [5]\ -\ 7:14,\ 16:2,\\ \end{array}$	renter [1] - 64:15 repair [1] - 53:15 repairing [1] - 53:24 repairs [1] - 36:16 replanted [2] - 76:22 report [1] - 54:17 Reported [1] - 1:24 reported [1] - 54:2 reporter [4] - 7:24, 25:15, 63:5, 80:9 Reporter [4] - 80:6, 80:19, 80:19 representation [1] - 21:2 representatives [2] - 8:10, 26:15 representing [2] - 9:19, 32:4 represents [1] - 25:23 require [2] - 58:22, 58:23 required [7] - 23:6, 26:12, 53:23, 54:8,	$\begin{array}{c} \textbf{Response [3] - 23:19,} \\ 40:23, 52:22 \\ \textbf{responsibility [6] -} \\ 9:22, 9:25, 53:9, \\ 53:13, 53:24, 77:4 \\ \textbf{responsible [2] -} \\ 51:13, 53:4 \\ \textbf{rest [2] - 19:18, 24:20} \\ \textbf{restoration [5] - 21:9,} \\ 59:19, 66:18, 69:2, \\ 69:15 \\ \textbf{restore [2] - 21:15,} \\ 66:19 \\ \textbf{restored [1] - 69:24} \\ \textbf{restructuring [1] -} \\ 76:5 \\ \textbf{result [1] - 43:12} \\ \textbf{result [1] - 43:12} \\ \textbf{result [1] - 16:19} \\ \textbf{reverses [1] - 44:21} \\ \textbf{Revised [4] - 3:21,} \\ 4:1, 5:3, 5:16 \\ \textbf{Rick [1] - 3:6} \\ \textbf{rid [1] - 60:12} \\ \end{array}$	

11 57:2 rising [1] - 27:12 risk [7] - 27:8, 27:23, 27:24, 28:4, 41:7, 41:9, 41:11 Rislov [1] - 1:17 River [7] - 4:18, 4:22, 54:8, 60:9, 66:2, 66:3, 66:6 rivers [3] - 18:12, 20:2, 41:15 road [17] - 15:1, 53:16, 53:17, 54:23, 55:2, 61:25, 62:3, 62:4, 62:6, 62:9, 67:9, 70:14, 70:25, 71:3, 71:4, 71:9 roads [9] - 20:2, 53:5, 53:14, 53:24, 65:20, 68:20, 70:11, 70:20 roadway [1] - 71:7 roadways [1] - 70:18 Rocky [1] - 32:14 role [1] - 39:20 Ron [1] - 70:2 room [5] - 15:3, 26:6, 42:25, 43:5, 69:20 root [1] - 44:13 RORIE [1] - 65:6 Rorie [2] - 10:6, 65:5 Roscoe [1] - 53:1 rough [2] - 16:13, 78:24 roughly [12] - 12:11, 12:15, 12:23, 13:20, 13:21, 16:3, 16:18, 17:7, 18:3, 39:18, 55:21, 63:20 Rounds [2] - 1:17, 8:4 route [3] - 18:9, 19:1, 19:2 routed [2] - 57:11, 79:5 routes [1] - 28:5 routing [1] - 18:19 RPR [1] - 1:24 rubber [1] - 14:5 rule [1] - 55:16 rules [3] - 7:8, 55:18, 66:14 run [5] - 26:19, 36:6, 50:7, 50:8, 50:11 running [2] - 22:16, 33:18 **runs** [1] - 48:23 rural [3] - 48:1, 48:3, 50:2 Ryan [1] - 8:20

S	send [1] - 35:22	simply [3] - 14:24,	Sonia [1] - 73:8	5:2, 16:9 1
	Senior [3] - 9:21, 9:24,	18:24, 37:17	SONIA [1] - 73:8	spokesman [1] - 9:8
safer [3] - 14:24, 28:2,	10:22	Sioux [3] - 3:25, 4:22,	soon [1] - 39:25	spot [1] - 17:19
78:9	sense [1] - 78:16	4:23	sophistication [1] -	spring [1] - 53:4
safest [7] - 14:19,	sensitive [3] - 19:16,	sister [1] - 3:11	62:18	SS [1] - 80:2
27:3, 27:5, 28:9,	47:17, 63:4	sister-in-law [1] - 3:11	sorry [2] - 61:16,	stack [1] - 20:20
33:5, 60:15, 60:24	sensitivity [1] - 41:13	sit [1] - 62:22	78:20	STAFF [1] - 1:15
safety [16] - 7:12,	separate [1] - 73:24	site [2] - 21:4, 21:13	sounds [1] - 45:6	Staff [10] - 5:20, 7:3,
10:3, 14:18, 14:25,	serious [1] - 7:9	site-specific [2] -	source [4] - 14:4,	8:5, 9:15, 17:14,
22:1, 23:1, 23:17,	seriously [1] - 73:2	21:4, 21:13	14:10, 41:14, 49:5	51:21, 69:2, 69:3,
27:8, 27:11, 27:23,	serves [1] - 48:1	sited [1] - 40:25	sourcing [2] - 63:25,	71:14
32:16, 35:9, 49:12,	service [4] - 17:23,	siting [3] - 7:11, 41:3,	64:4	staff [1] - 8:21
51:13, 51:17, 52:15	46:23, 57:24, 64:4	54:23	SOUTH [2] - 1:2, 80:1	stand [1] - 28:11
sagging [1] - 67:15	Services [1] - 21:18	sits [1] - 26:9	south [1] - 4:23	standpoint [2] - 37:23,
sale [1] - 20:6	services [3] - 51:16,	sitting [1] - 69:4	South [48] - 2:3, 3:3,	76:3
	58:23	situation [4] - 24:5,	4:8, 4:15, 4:17, 4:25,	STAPEL [5] - 69:25,
sat [1] - 32:5	serving [1] - 3:7	42:22, 56:19, 68:9	5:20, 5:25, 10:5,	70:16, 70:19, 71:16
satisfied [2] - 54:18,	set [2] - 58:20, 62:8	situations [6] - 39:3,	10:7, 12:23, 12:25,	Stapel [1] - 69:25
77:1	settings [1] - 51:1	41:25, 58:22, 65:9,	13:6, 13:22, 14:1,	start [12] - 13:19,
Sattgast [4] - 3:6, 3:7,	settling [1] - 69:16	68:2, 69:7	15:9, 15:23, 16:1,	17:21, 18:10, 18:11,
3:12, 78:3	shallow [1] - 39:11	six [6] - 12:20, 32:3,	16:5, 16:8, 16:11,	18:12, 18:16, 18:17,
SCADA [2] - 22:11,	shape [1] - 50:4	32:4, 59:10, 76:19,	17:6, 17:11, 25:22,	18:19, 20:16, 53:14,
35:21	sheets [1] - 8:17	78:22	26:2, 28:10, 32:3,	64:4
scare [1] - 72:4	Sheila [2] - 37:21,	size [1] - 26:4	32:4, 32:5, 37:3,	started [4] - 8:15,
scheduled [1] - 24:17	71:17	skilled [1] - 15:21	44:25, 48:2, 48:4,	17:13, 51:20, 55:23
school [1] - 8:20	ship [1] - 78:15	slides [1] - 22:6	48:18, 49:13, 50:3,	starting [2] - 12:12,
School [1] - 2:2	shipments [1] - 27:14	sloppy [1] - 60:4	54:22, 55:14, 55:19,	20:8
schools [1] - 18:13	shipped [2] - 32:19,	slow [1] - 13:12	56:3, 58:21, 63:18,	State [7] - 3:6, 13:6,
scope [3] - 11:22,	78:11	sluffing [1] - 67:15	63:21, 74:3, 78:12,	13:22, 13:25, 48:18,
12:17, 55:25	shipping [1] - 32:21	small [4] - 51:15,	79:5, 80:7, 80:13	63:18, 80:7
screen [2] - 9:2, 9:5	shoes [1] - 43:7	57:23, 57:25, 58:5	southeast [4] - 4:7,	STATE [2] - 1:2, 80:1
scroll [1] - 5:10	short [2] - 10:13, 38:2	smaller [3] - 12:19,	4:19, 5:1, 13:1	state [18] - 4:16, 13:7,
se [2] - 62:2, 66:24	shorthand [2] - 80:9	30:1, 51:11	southeasterly [1] -	15:10, 15:23, 16:19,
search [1] - 74:21	show [2] - 7:7, 10:24	SMITH [2] - 54:20,	4:24	28:18, 30:24, 44:25,
season [1] - 59:21	shows [2] - 13:2, 37:2	68:17	southern [1] - 30:24	48:4, 49:17, 49:19,
seasons [2] - 59:22,	shuttle [1] - 37:15	Smith [4] - 1:16,	spaced [1] - 40:13	50:2, 54:7, 54:12,
59:24	side [11] - 9:2, 13:6,	54:19, 65:19, 68:17	spacing [3] - 61:9,	59:11, 62:3, 72:12,
seated [1] - 9:4	15:8, 25:10, 25:11,	snowy [1] - 9:15	61:15, 61:24	73:23
second [8] - 11:9,	54:7, 55:7, 71:2,	social [1] - 7:10	span [1] - 11:16	statement [2] - 54:21,
11:12, 44:3, 47:4,	71:6, 75:23, 75:24	society [1] - 12:8	speaking [2] - 40:15,	70:15
61:10, 61:17, 61:18,	sides [1] - 70:10	soil [11] - 20:20,	49:7	States [6] - 11:18,
73:19		20:24, 20:25, 38:23,	special [1] - 35:23	14:20, 30:4, 42:25,
secondary [1] - 59:2	sight [5] - 27:16, 34:7,	43:22, 44:21, 44:22,	specific [8] - 21:4,	43:3, 48:5
secondly [1] - 44:13	61:24, 62:9, 62:10	45:1, 60:5, 66:1,	21:13, 26:13, 26:14,	states [1] - 74:1
seconds [2] - 40:1,	sign [6] - 8:17, 42:5,	67:15	26:17, 26:19, 36:14,	station [5] - 4:25,
40:10	56:1, 63:10, 69:23,	solar [1] - 32:9	62:7	12:24, 16:10, 35:13,
section [9] - 39:7,	76:25	soles [1] - 43:6	specifically [1] - 66:11	62:13
40:6, 70:5, 70:9,	sign-in [1] - 8:17	solution [2] - 34:9,	specifies [1] - 66:18	statistics [1] - 14:20
70:10, 70:13, 70:16,	signatory [2] - 26:3,	42:9	spell [2] - 8:1, 25:14	status [4] - 5:22, 6:3,
71:7, 71:8	27:1	someone [3] - 56:7,	spelled [2] - 47:22,	6:8, 6:20
see [11] - 9:2, 11:19,	signed [1] - 66:17	64:10, 72:3	65:11	Status [1] - 6:6
23:1, 24:16, 33:23,	significant [1] - 54:1	someplace [1] - 10:11	spells [2] - 21:8, 67:6	statute [3] - 54:22,
35:12, 53:20, 59:13,	signs [1] - 62:14	sometime [1] - 17:23	spend [2] - 24:17,	73:24, 74:6
62:24, 63:6, 76:20	Siguaw [3] - 9:24,		59:1	statutory [1] - 68:19
seeing [1] - 63:8	61:22, 61:23	sometimes [1] - 59:21	spent [1] - 13:25	stay [1] - 63:16
seek [2] - 8:6, 41:22	SIGUAW [1] - 61:23	somewhat [1] - 65:17	Spill [1] - 40:23	steel [1] - 50:11
seem [1] - 76:9	similar [2] - 45:21,	somewhere [10] -	spill [5] - 24:5, 49:23,	step [5] - 53:12, 67:25,
seldom [1] - 36:3	50:11	11:8, 13:24, 15:19,	52:5, 67:22, 67:25	68:3, 68:8, 68:10
Semmler [3] - 1:20,	simple [3] - 29:20,	15:24, 16:7, 16:18,	spills [1] - 46:18	
10:11, 69:4	42:1, 56:24	29:13, 59:9, 59:18,	•	steps [1] - 68:5
10.11, 00.7	1	62:25	Spink [4] - 3:22, 4:20,	Steve [1] - 47:21

steve [1] - 65:15	62:21	terms [8] - 7:19, 35:8,	today's [1] - 78:24	30:16, 30:23, 60:17, 13
STEVE [1] - 65:15	surveyed [1] - 62:20	60:5, 65:2, 69:7,	together [6] - 20:24,	60:22
still [6] - 19:10, 30:10,	sustainable [1] -	75:3, 75:4	21:7, 21:22, 49:25,	transported [1] -
41:3, 60:15, 60:23,	15:16	terror [1] - 72:13	52:19, 77:25	27:20
76:23	swing [1] - 14:14	terrorism [1] - 72:1	Tom [4] - 9:24, 61:13,	transporting [3] -
stopping [1] - 5:11	switching [1] - 41:16	terroristic [1] - 72:9	61:22, 61:23	28:9, 28:25, 34:7
straight [2] - 13:4	system [18] - 3:23,	test [1] - 46:20	tonight [2] - 5:18,	trash [2] - 59:4, 64:5
stranded [1] - 15:5	18:2, 22:16, 23:5,	testimony [1] - 6:22	25:20	travel [1] - 4:7
streams [1] - 20:2	28:13, 35:21, 48:1,	testing [2] - 36:5,	took [3] - 20:5, 24:18,	traverse [1] - 19:21
Street [1] - 34:4	48:3, 50:9, 50:12,	48:20	80:9	traverses [1] - 13:10
stretch [2] - 34:23,	50:16, 51:7, 55:14,	Texas [4] - 10:10,	tool [1] - 41:23	Treasurer [1] - 3:6
71:23	55:16, 55:18, 56:2,	11:17, 29:24, 39:16	tools [2] - 36:6, 36:9	treat [1] - 56:24
	56:17, 74:7	THE [6] - 1:1, 1:2, 1:4,	top [6] - 11:8, 11:12,	treated [2] - 56:25,
strongly [1] - 8:13	systems [7] - 22:11,	1:5, 1:11	19:25, 44:5, 47:5,	77:5
structure [2] - 44:8,	49:20, 50:2, 50:15,		63:1	
68:14	50:20, 50:24, 71:25	theory [2] - 37:12,		treating [2] - 57:4,
structures [2] - 44:5,	30.20, 30.24, 71.25	37:19	topsoil [3] - 20:21,	57:9
47:5		therefore [1] - 3:12	21:1, 66:22	trees [4] - 47:6, 47:9,
stuck [1] - 15:5	Т	they've [3] - 49:19,	tore [1] - 53:5	47:12, 47:16
studied [1] - 43:17		55:20, 73:4	total [1] - 13:24	tremendous [1] -
studies [2] - 48:16,	table [11] - 38:11,	thickness [1] - 36:10	totalling [1] - 54:6	15:12
74:22	38:16, 38:18, 38:19,	thinking [1] - 58:15	touch [1] - 70:2	trenched [1] - 70:7
study [1] - 20:5	38:20, 38:21, 38:24,	third [9] - 11:25, 12:3,	towards [1] - 53:24	trenching [1] - 70:5
stuff [1] - 46:21	39:10, 69:4, 73:10,	12:15, 17:17, 21:22,	towns [2] - 34:6, 51:12	triggers [1] - 22:19
style [1] - 18:6	79:9	23:13, 43:11, 68:6,	township [1] - 53:5	truck [2] - 27:7, 32:22
subject [2] - 55:15,	tailored [1] - 26:13	78:24	track [2] - 41:23, 54:15	trucking [2] - 60:8,
57:15	tank [1] - 12:20	third-party [2] - 12:3,	tractor [1] - 16:22	60:10
submitted [1] - 7:4	tanker [2] - 27:7,	23:13	tractors [1] - 12:10	trucks [2] - 14:24,
subscription [1] -	27:22	thoroughly [1] - 7:4	trading [2] - 11:10,	27:22
12:14		thousands [3] - 26:1,	11:11	true [2] - 70:14, 80:11
subset [1] - 22:25	tankers [1] - 28:1	28:10, 28:17	traffic [1] - 27:9	try [10] - 18:23, 19:9,
substantially [1] -	tanks [1] - 31:1	threat [3] - 7:9, 57:5,	train [4] - 26:10,	19:17, 39:9, 42:19,
7:12	tasks [2] - 26:12,	72:18	31:18, 46:20, 79:3	63:9, 64:18, 66:13,
suffered [1] - 37:3	26:17	threats [1] - 72:9	trained [2] - 15:21,	75:21, 77:4
suggestions [2] -	tax [4] - 16:12, 16:18,	Three [1] - 4:4	26:8	trying [1] - 19:4
24:22, 74:15	16:20, 16:24	three [9] - 16:9, 20:13,	training [5] - 26:9,	turn [2] - 10:12, 55:19
SULLY [1] - 80:3	taxes [1] - 16:23	24:16, 48:2, 55:22,	26:13, 26:16, 26:20,	turned [1] - 23:24
sum [1] - 65:5	teach [2] - 26:15,	63:8, 69:17, 76:16,	26:22	Turner [1] - 4:21
summer [1] - 53:4	26:21	76:24	trains [3] - 34:5,	two [20] - 20:13, 32:6,
summing [2] - 13:10,	team [1] - 24:11	three-quarters [1] -	37:15, 78:22	33:19, 35:7, 43:15,
34:17	technical [1] - 19:8	16:9	TransCanada [1] -	46:4, 50:13, 50:14,
super [1] - 55:4	technicians [1] -	three-year [2] - 69:17,	53:3	50:15, 50:23, 53:23,
superintendent [2] -	35:22	76:24	Transcript [1] - 1:7	54:8, 54:11, 55:22,
•	techniques [2] - 21:9,	throughout [6] - 8:8,	TRANSCRIPT [1] - 2:1	59:17, 59:22, 59:23,
8:19, 70:1	21:10	20:23, 21:1, 22:17,		59:24, 67:1, 76:16
supplement [1] -	technology [1] - 46:12	38:6	transcription [1] -	two-person [1] - 35:7
52:11	telephone [1] - 62:8		80:12	
supplies [1] - 58:24	temperature [6] -	tied [2] - 62:5, 62:7	Transfer [5] - 10:23,	type [2] - 18:22, 50:11
supply [6] - 33:8,	43:18, 44:18, 44:20,	timely [1] - 32:18	10:24, 11:1, 11:4,	types [1] - 69:12
39:5, 41:14, 49:1,	44:22, 44:25, 45:2	tires [1] - 43:7	26:14	typically [6] - 35:16,
49:13	temperatures [2] -	Title [1] - 23:2	transferring [1] - 30:9	38:19, 45:14, 45:22,
support [4] - 16:3,	22:12, 43:17	TO [1] - 1:5	translate [2] - 30:18,	47:9, 64:20
37:19, 51:23, 54:14	temporary [7] - 15:13,	today [27] - 3:2, 5:18,	31:13	••
supposed [1] - 23:4	15:15, 19:23, 65:4,	8:18, 8:23, 11:3,	transmission [1] - 7:7	U
Supreme [3] - 55:19,	67:4	12:16, 19:10, 19:11,	transport [6] - 4:10,	
55:21, 57:6	tenant [4] - 64:14,	23:22, 29:21, 30:2,	15:4, 15:6, 18:5,	II S [1] = 13.21
surface [5] - 35:1,	64:23, 64:25, 65:2	31:13, 32:2, 32:19,	27:6, 29:1	U.S [1] - 13:21
38:16, 38:22, 44:11,		33:6, 33:23, 34:1,	Transportation [3] -	ultimate [1] - 16:16
71:3	term [8] - 15:16, 16:7,	34:3, 34:10, 35:5,	5:21, 22:24, 23:25	ultimately [3] - 18:25,
surrounding [2] -	16:20, 33:14, 67:6,	44:7, 45:16, 45:17,	transportation [10] -	42:24, 66:7
15:22, 16:6	67:12, 67:14, 67:18	63:7, 64:5, 75:4,	12:4, 14:19, 14:21,	under [4] - 5:8, 5:25,
- ,	terminate [1] - 4:8	77:12		33:7, 59:8
survey [3] - 18:18,		11.12	27:13, 27:19, 28:2,	

unfair [1] - 19:4versus [1] - 39:20wellunion [5] - 15:20,via [1] - 31:11west16:2, 58:16, 58:18,via [1] - 31:11westunion-based [3] -ViCe [1] - 10:1wett15:20, 58:16, 58:18Vice [1] - 11:3wettunit [2] - 78:22, 79:3Vice [1] - 11:3wettUnited [6] - 11:18,views [3] - 5:15, 7:15,whi14:20, 30:4, 42:25,8:14si43:3, 48:5virtual [1] - 34:6widtunits [1] - 7:16virtual [1] - 34:6widtunits [1] - 7:16visual [1] - 34:19wirrunits [1] - 14:11visual [1] - 34:19wirruness [3] - 33:2,visual [2] - 46:18,witt35:20, 69:23visual [2] - 29:2,wittunreliable [1] - 14:11voice [1] - 6:13visual [2] - 29:2,unreliable [1] - 14:11voice [1] - 6:13worvisual [2] - 29:2,wittsitting [1] - 15:657:22, 58:5, 58:21,walk [2] - 9:3, 18:4wor61:7, 61:9, 62:8,walk [2] - 9:3, 18:4wor78:15walk [2] - 9:3, 18:4worupdated [1] - 79:12walk [1] - 36:9worwill [1] - 38:15walk [1] - 38:14,siupgrades [1] - 25:25waste [1] - 57:21woruppref [1] - 29:14watching [1] - 71:22worutilize [2] - 1:1,47:23,witt11:1112:438:19, 38:20, 38:11,wittutilize [2] - 1:1,47:23,si:14,updated [1] - 78:12watching	25 65:12, 69:12 are [1] - 7:13 yesterday [2] - 49:10, t[1] - 54:7 61:4 t[1] - 54:8 yields [1] - 76:20 2] - 53:4 yourself [1] - 8:1
union $[5] - 15:20$, $16:2, 58:16, 58:18$, $63:20$ via $[1] - 31:11$ west $16:2, 58:16, 58:18$, $via [1] - 46:14Westvice [1] - 10:1Westvice [1] - 10:1Westvice [1] - 11:315:20, 58:16, 58:18unit [2] - 78:22, 79:312:20, 58:16, 58:18unit [2] - 78:22, 79:314:20, 30:4, 42:25,43:3, 48:5ViCE [1] - 11:3westvice [1] - 9:16wint11 - 34:6windvitual [1] - 34:19wintvisual [1] - 32:19wintvisual [1] - 27:15wintvisual [1] - 32:19wintvisual [1] - 32:19wintvisual [1] - 32:14Withvisual [1] - 36:9Wovotice [1] - 15:6worvotice [1] - 15:6worvotice [1] - 16:4worvotice [1] - 16:4worvotice [1] - 16:29, 72:2, 58:5, 58:21, 74:19, 78:13, 76:19Wovotice [1] - 18:4%orvotice [1] - 36:9worvotice [1] - 36:9worvotice [1] - 36:9worvotice [1] - 36:9worvotice [1] - 36:19, 72:2, 78:5, 75:7, 78:19, 73:10, 73$	t [1] - 54:7 61:4 t [1] - 54:8 yields [1] - 76:20
16:2, 58:16, 58:18, 63:20viable $(1) - 46:14$ West set vice $(1) - 10:1$ West 	t [1] - 54:8 yields [1] - 76:20
63:20vice $[1] - 10:1$ wetunion-based $[3] -$ Vice $[1] - 10:1$ wet15:20, 58:16, 58:18Vice $[2] - 9:21, 10:22$ 47unitg $[2] - 78:22, 79:3$ view $[3] - 5:15, 7:15,$ whtUnited $[6] - 11:18,$ view $[3] - 5:15, 7:15,$ wht43:3, 48:5virtual $[1] - 34:6$ widunits $[1] - 7:16$ virtual $[1] - 27:15$ winUniversity $[2] - 26:22,$ visit $[1] - 9:16$ win48:18visual $[1] - 34:6$ widunless $[3] - 33:2,$ yisual $[1] - 34:19$ wiryisual $[1] - 34:19$ vice $[1] - 6:13$ witunreliable $[1] - 14:11$ voice $[1] - 6:13$ witup $[36] - 4:12, 6:18,$ volume $[2] - 29:2,$ witt11:17, 11:19, 11:20,37:12Wit15:4, 15:6, 18:4,Wworvisual $[1] - 36:3$ walk $[2] - 9:3, 18:4$ worvisual $[1] - 15:6$ yikyik57:22, 58:5, 58:21,walk $[2] - 9:3, 18:4$ wor61:7, 61:9, 62:8,walk $[2] - 9:3, 18:4$ worvalded $[1] - 79:12$ walk $[2] - 35:19,$ youupgrades $[1] - 28:15$ Wall $[1] - 36:9$ youupgrades $[1] - 28:15$ Wall $[1] - 36:9$ youutilizing $[1] - 28:15$ Walt $[1] - 36:9$ youutilizing $[1] - 18:6$ 38:24, 39:5, 39:10,withutilizing $[1] - 18:6$ 38:24, 39:5, 39:10,withutilizing $[1] - 16:22, 17:4,$ 38:14, 38:16, 38:18,53value $[6] - 16:22, 17:4,$ 38:14, 38:1	
union-based [3] - 15:20, 58:16, 58:18VICE [1] - 1:13wet 15:20, 58:16, 58:18unit [2] - 78:22, 79:3Vice [2] - 9:21, 10:2247United [6] - 11:18, 14:20, 30:4, 42:25, 48:18views [3] - 5:15, 7:15, 8:14whiunits [1] - 7:16virtual [1] - 34:6widUniversity [2] - 26:22, 48:18virtual [1] - 34:6widunits [1] - 7:16virtual [1] - 34:6winunits [1] - 7:16visual [1] - 34:19wiruness [3] - 33:2, 35:20, 69:23visual [1] - 34:19wirunreliable [1] - 14:11voice [1] - 6:13visual [1] - 34:19up [36] - 4:12, 6:18, 11:17, 11:19, 11:20, 11:23, 12:13, 13:10, 15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 55:5, 56:15, 57:9, 57:22, 58:5, 58:21, 61:7, 61:9, 62:8, walk [2] - 9:3, 18:4Woword 72:3, 74:19, 78:13, 76:19walking [2] - 35:19, word 78:15Wall [1] - 34:4word word word word r11]updated [1] - 79:12 upgrades [1] - 25:25 upper [1] - 29:14Walt [1] - 34:4word word word watching [1] - 71:22word word word word watching [1] - 71:22word word word word watching [1] - 71:22word word word word word watching [1] - 71:22word word word word word watching [1] - 72:20word 	2] - 53:4 yourself [1] - 8:1
union-based [3] - 15:20, 58:16, 58:18VICE [1] - 1:13wet 15:20, 58:16, 58:18unit [2] - 78:22, 79:3Vice [2] - 9:21, 10:2247United [6] - 11:18, 14:20, 30:4, 42:25, 48:18views [3] - 5:15, 7:15, 8:14whiunits [1] - 7:16virtual [1] - 34:6widUniversity [2] - 26:22, 48:18virtual [1] - 34:6widunits [1] - 7:16virtual [1] - 34:6winunits [1] - 7:16visual [1] - 34:19wiruness [3] - 33:2, 35:20, 69:23visual [1] - 34:19wirunreliable [1] - 14:11voice [1] - 6:13visual [1] - 34:19up [36] - 4:12, 6:18, 11:17, 11:19, 11:20, 11:23, 12:13, 13:10, 15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 55:5, 56:15, 57:9, 57:22, 58:5, 58:21, 61:7, 61:9, 62:8, walk [2] - 9:3, 18:4Woword 72:3, 74:19, 78:13, 76:19walking [2] - 35:19, word 78:15Wall [1] - 34:4word word word word r11]updated [1] - 79:12 upgrades [1] - 25:25 upper [1] - 29:14Walt [1] - 34:4word word word watching [1] - 71:22word word word word watching [1] - 71:22word word word word watching [1] - 71:22word word word word word watching [1] - 71:22word word word word word watching [1] - 72:20word 	
unit $[2] - 78:22, 79:3$ view $[1 - 9:4$ whiUnited $[6] - 11:18,$ view $[1 - 9:4$ whi14:20, 30:4, 42:25,8:14view $[3] - 5:15, 7:15,$ 14:20, 30:4, 42:25,8:14view $[3] - 34:6$ widunits $[1] - 7:16$ virtual $[1] - 34:6$ widUniversity $[2] - 26:22,$ visual $[1] - 34:6$ widunless $[3] - 33:2,$ visual $[1] - 34:19$ wirr35:20, 69:2347:15withunreliable $[1] - 14:11$ visual $[1] - 34:19$ wirrup $[36] - 4:12, 6:18,$ volume $[2] - 29:2,$ with11:23, 12:13, 13:10,15:4, 15:6, 18:4,W15:4, 15:6, 18:4,Wwor16:4, 48:7, 48:12, $37:12$ With53:5, 56:15, 57:9,walk $[2] - 9:3, 18:4$ wor57:22, 58:5, 58:21,walk $[2] - 9:3, 18:4$ wor61:7, 61:9, 62:8,walk $[2] - 9:3, 18:4$ wor72:3, 74:19, 78:13,76:19wor78:15Wall $[1] - 36:9$ 32upgrades $[1] - 25:25$ watching $[1] - 71:22$ worupgrades $[1] - 25:25$ watching $[1] - 71:22$ worupgrades $[1] - 25:25$ water $[3] - 38:10,$ withutilizing $[1] - 18:6$ 38:14, 38:16, 38:18,38utilize $[2] - 14:6, 43:8$ 38:24, 39:5, 39:10,41:14, 48:1, 48:3,48:6, 48:9, 48:22,48:23, 48:25, 49:1,48:24, 49:5, 49:13, 49:20,50:2, 58:24, 64:5,66:4, 66:5, 66:6,73:10,value $[6] - 16:22, 17:4,$ 38:14, 38:16, 38:18,53:24, 59:25, 60:	ands [3] - 41:15,
United [6] - 11:18, 14:20, 30:4, 42:25, 43:3, 48:5Virtual (1) - 5:15, 7:15, 8:14who 5114:20, 30:4, 42:25, 43:3, 48:5virtual (1) - 34:6wid witual (1) - 27:15wid wid wid witual (1) - 34:19University [2] - 26:22, 48:18visual (1) - 34:19win visual (1) - 34:19witt witt visual (1) - 34:19unless [3] - 33:2, 35:20, 69:2347:15witt visual (1) - 6:13visual (1) - 6:13unreliable (1) - 14:11 up [36] - 4:12, 6:18, 11:17, 11:19, 11:20, 11:23, 12:13, 13:10, 15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 53:5, 56:15, 57:9, 57:22, 58:5, 58:21, 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 76:19WWo wor vor 	18, 66:2 Z
United [6] - 11:18, 14:20, 30:4, 42:25, 43:3, 48:5views $[3] - 5:15, 7:15,$ 8:14who 5114:20, 30:4, 42:25, 43:3, 48:5virtual $[1] - 34:6$ virtual $[1] - 34:6$ wid wid wid visual $[1] - 27:15$ wid wid wid with 13:20, 69:23unless $[3] - 33:2,$ 35:20, 69:23yisual $[1] - 34:19$ visual $[1] - 34:19$ visual $[1] - 34:19$ visual $[1] - 34:19$ visual $[1] - 6:13$ voice $[1] - 6:13$ voith $37:12$ With with with with $37:12$ 11:23, 12:13, 13:10, 15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 53:5, 56:15, 57:9, 57:22, 58:5, 58:21, 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 76:19Walk $[2] - 9:3, 18:4$ walk $[2] - 35:19,$ 76:19Wol wor void wor void wathing $[1] - 71:22$ wor wate $[1] - 75:21$ walte $[1] - 75:21$ wate $[1] - 77:21$ wate $[1] - 77:22$ wate $[1] - 77:21$ wate $[1] - 77:22$ wate $[1] - 77:23, 77:10$ wate $[2] - 34:9, 73:10$ wate $[3] - 34:25, 49:11, 49:20, 50:2, 58:24, 64:5, 66:6, 73:10wate [3] - 34:22, 74:25, 50:13, 49:20, 50:2, 58:24, 64:5, 66:6, 73:10, 73:10wate [3] - 37:10, 73:10, 73:10, 73:10, 73:10, 73:10, 73:10, 73:10, 73:10, 73:10, 73:10, 73:$	ns [1] - 14:15
14:20, 30:4, 42:25, 43:3, 48:58:1451units $[1] - 7:16$ virtual $[1] - 34:6$ vidUniversity $[2] - 26:22,$ 48:18visual $[1] - 34:19$ virtual $[1] - 34:19$ unless $[3] - 33:2,$ 35:20, 69:23visual $[1] - 34:19$ virtual $[1] - 34:19$ unreliable $[1] - 14:11$ voice $[1] - 6:13$ voitme $[2] - 29:2,$ unreliable $[1] - 14:11$ voice $[1] - 6:13$ voitme $[2] - 29:2,$ unreliable $[1] - 14:11$ voice $[1] - 6:13$ voitme $[2] - 29:2,$ 11:17, 11:19, 11:20, 11:23, 12:13, 13:10, $37:12$ Witt15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 53:5, 56:15, 57:9, 55:22, 58:5, 58:21, 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 76:19Walk $[2] - 9:3, 18:4$ walking $[2] - 35:19,$ 76:19Wovalue de $[1] - 79:12$ upgrades $[1] - 25:25$ upgrades $[1] - 25:5, 75:7, 75:7, 75:7]water [3] - 38:11,utilizing [1] - 58:15water [3] - 38:12,usith [3] - 39:10,water [3] - 38:24, 39:5, 39:10,utilizing [1] - 16:20,value [6] - 16:22, 17:4,32:22, 75:5, 75:7,73:10,water [3] - 35:13,40:3, 40:25, 7$	le [3] - 19:2, 34:2,
43:3, 48:5virtual [1] - 34:6widunits [n] - 7:16virtually [n] - 27:15winUniversity [2] - 26:22, 48:18visual [1] - 34:19wireunless [3] - 33:2, 35:20, 69:2347:15wittunreliable [1] - 14:11visual [1] - 34:19wireup [36] - 4:12, 6:18, 11:17, 11:19, 11:20, 15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 55:5, 56:15, 57:9, 57:22, 58:5, 58:21, 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 78:15Walk $[2] - 9:3, 18:4$ word walk $[2] - 9:3, 18:4$ walk $[2] - 35:19,$ 76:19Word word vord <td>7006 [1] - 44.13</td>	7006 [1] - 44.13
units [1] - 7:16virtually [1] - 27:15winUniversity [2] - 26:22, 48:18visual [1] - 34:19virtually [2] - 47:15winunless [3] - 33:2, 35:20, 69:23visual [1] - 34:19visual [1] - 34:19virtually [2] - 46:18, 47:15vittunreliable [1] - 14:11voice [1] - 6:13voiume [2] - 29:2, 	h [1] - 21:2
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	I [1] - 32:9
48:18visual $[1] - 34:19$ virunless $[3] - 33:2$, $35:20, 69:23$ visual $[1] - 34:19$ visual $[1] - 34:19$ visual $[1] - 34:19$ unreliable $[1] - 14:11$ up $[36] - 4:12, 6:18$, $11:17, 11:19, 11:20$, $11:23, 12:13, 13:10$, $15:4, 15:6, 18:4,$ $18:8, 21:23, 23:2,$ $25:12, 25:16, 34:17,$ $46:4, 48:7, 48:12,$ $53:5, 56:15, 57:9,$ $57:22, 58:5, 58:21,$ $61:7, 61:9, 62:8,$ $62:12, 65:5, 66:10,$ $72:3, 74:19, 78:13,$ $78:15$ Wages $[1] - 28:11$ word waiting $[1] - 15:6$ walk $[2] - 9:3, 18:4$ word $72:3, 74:19, 78:13,$ $76:19$ Word word word waiting $[2] - 35:19,$ $76:19$ Word word word waiting $[2] - 35:19,$ $76:19$ Word word word word word waiting $[1] - 71:22$ Word word word word word word $72:3, 74:19, 78:13,$ $76:19$ Word word word $72:3, 74:19, 78:13,$ $76:19$ Word word word $72:3, 74:19, 78:13,$ $76:19$ Word word word $72:3, 74:19, 78:13,$ $76:19$ Word word word $72:3, 74:19, 78:13,$ $76:19$ Word word word $74:10, -79:12$ Wall $[1] - 34:4, -27, -27, -27, -27, -27, -27, -27, -27$	[1] - 45:13
Intersection (1) of other section (1) of ot	less [1] - 25:9
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ess [1] - 75:19
unreliable $[1] - 14:11$ voice $[1] - 6:13$ 53up $[36] - 4:12, 6:18,$ $37:12$ witt11:17, 11:19, 11:20, $37:12$ Witt11:23, 12:13, 13:10, $37:12$ Witt15:4, 15:6, 18:4, M 8015:4, 15:6, 18:4, M 8015:4, 15:6, 18:4, M 8016:7, 61:9, 62:8,walking $[1] - 28:11$ wor57:22, 58:5, 58:21,walk $[2] - 9:3, 18:4$ wor61:7, 61:9, 62:8,walkup $[1] - 18:6$ 5662:12, 65:5, 66:10,76:19wor78:15walking $[2] - 35:19,$ worupdated $[1] - 79:12$ watching $[1] - 71:22$ worupgrades $[1] - 25:25$ watching $[1] - 71:22$ worupgrades $[1] - 25:25$ watching $[1] - 71:22$ woruptilities $[2] - 3:4, 9:20$ watching $[1] - 71:22$ worutilizing $[1] - 29:14$ Water $[3] - 38:11,$ worutilizing $[1] - 58:15$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ V48:23, 48:25, 49:1, $41:14, 48:1, 48:3,$ utilizing $[1] - 58:15$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ value $[6] - 16:22, 17:4,$ $38:14, 38:16, 38:18,$ $50:2, 58:24, 64:5,$ value $[6] - 16:22, 17:4,$ $32:22, 75:5, 75:7,$ $73:10$ waterways $[1] - 62:6$ value $[6] - 16:22, 17:4,$ $32:22, 75:5, 75:7,$ $73:10$ waterways $[1] - 62:6,$ value $[6] - 16:22, 17:4,$ $32:22, 75:5, 75:7,$ $73:10, 60:18, 60:19, 65:16,$ 20 value $[6] - 16:22, 17:4,$ $32:22, 75:5, $	essed [2] - 53:2,
up [36] - 4:12, 6:18, 11:17, 11:19, 11:20, 11:23, 12:13, 13:10, 15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 53:5, 56:15, 57:9, 57:22, 58:5, 58:21, 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 78:15 W 80 walk-up [1] - 15:6 walk [2] - 9:3, 18:4 walking [2] - 35:19, 76:19 word word word word word word model word solution word word solution word solution 01:7, 61:9, 62:8, 62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 78:15 walk-up [1] - 18:4 word walking [2] - 35:19, 76:19 word word word word word word word word	
11:17 11:19 11:20 11:123 12:13 13:10 15:4 15:6 18:4 18:8 21:23 23:2 25:12 25:16 34:17 46:4 48:7 48:12 53:5 56:15 57:9 57:22 58:5 58:21 61:7 61:9 62:8 62:12 65:5 66:10 72:3 74:19 78:13 78:15 walking [2] - 35:19 wor updated [1] - 79:12 walking [1] - 57:21 wor upgrades [1] - 25:25 Waste [1] - 57:21 wor upgrades [1] - 29:14 Water [3] - 38:11 with Utilities [2] - 3:4 9:20 water [3] - 38:11 with utilization [1] - 12:4 38:14 38:19 38:20 38:14 utilize [2] - 14:6 43:8 38:24 39:5 39:10 utilize [2] - 14:6 43:8 48:6 48:9 48:2 48:6 48:2 Utilities [2] - 16:22 75:9 75:7 75:7 75:7 75:7 <	esses [1] - 6:23
11:23, 12:13, 13:10, 15:4, 15:6, 18:4, 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, wages [1] - 28:11 53:5, 56:15, 57:9, waiting [1] - 15:6 57:22, 58:5, 58:21, walk.[2] - 9:3, 18:4 61:7, 61:9, 62:8, walk-up [1] - 18:4 62:12, 65:5, 66:10, 76:19 72:3, 74:19, 78:13, 76:19 ypgrades [1] - 25:25 wall [1] - 34:4 upgrades [1] - 25:25 watching [1] - 71:22 upgrades [1] - 25:25 water [4] - 47:23, upgrades [1] - 25:25 water [4] - 47:23, upgrades [1] - 25:45 water [3] - 38:11, utilize [2] - 1:1, 1:14 Utilities [2] - 3:4, 9:20 water [3] - 38:11, utilize [2] - 14:6, 43:8 38:14, 38:16, 38:18, utilizing [1] - 58:15 48:6, 48:9, 48:22, V 48:6, 48:9, 48:22, valorem [1] - 16:20 48:6, 48:9, 48:22, value [6] - 16:22, 17:4, 38:24, 39:5, 39:10, 32:22, 75:5, 75:7, 75:9 values [5] - 20:5, 73:10 vaterways [1] - 62:6 weather [4] - 22:22, yaives [8] - 35:13, web [1] - 6:9	FLER [1] - 80:5
15:4, 15:6, 18:4, IW 80 18:8, 21:23, 23:2, 25:12, 25:16, 34:17, wages [1] - 28:11 word 46:4, 48:7, 48:12, saiting [1] - 15:6 word word 53:5, 56:15, 57:9, saiting [1] - 15:6 word word 61:7, 61:9, 62:8, walk [2] - 9:3, 18:4 word word 62:12, 65:5, 66:10, r8:15 walking [2] - 35:19, r6:19 word 78:15 wall [1] - 34:4 27 word word updated [1] - 79:12 wall [1] - 36:9 32 word word upgrades [1] - 25:25 watching [1] - 71:22 word word word Utilities [2] - 3:4, 9:20 water [4] - 47:23, writh 38:14, 38:16, 38:18, 5:8 utilization [1] - 12:4 water [32] - 38:11, word 38:14, 38:16, 38:18, 5:8 utilizing [1] - 58:15 44:14, 48:3, 44:3, 44:6, 48:9, 48:22, 48:23, 48:25, 49:1, 44:6, 48:9, 48:22, value [6] - 16:22, 17:4, 32:22, 75:5, 75:7, 73:10 59:21, 59:25, 60:3 yard value [6] - 20:5, 73:10, 72:3 waterways [1] - 62:6 wether [4] - 22:22, <td< td=""><td></td></td<>	
18:8, 21:23, 23:2, 25:12, 25:16, 34:17, 46:4, 48:7, 48:12, 53:5, 56:15, 57:9, 57:22, 58:5, 58:21, 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 78:15wages $[1] - 28:11$ waiting $[1] - 15:6$ walk $[2] - 9:3, 18:4$ wor 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 78:15walk $[2] - 9:3, 18:4$ wor 78:15waiting $[1] - 15:6$ walk $[2] - 35:19,$ 76:19wor vor 76:19updated $[1] - 79:12$ upper $[1] - 25:25$ upper $[1] - 29:14$ UTILITIES $[2] - 1:1,$ $1:11$ utilize $[2] - 3:4, 9:20$ utilize $[2] - 3:4, 9:20$ utilize $[2] - 3:4, 9:20$ utilize $[2] - 14:6, 43:8$ utilize $[2] - 14:6, 43:8$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:1,$ $49:5, 49:13, 49:20,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $73:10$ water $[4] - 22:22,$ $59:21, 59:25, 60:3$ web $[1] - 62:6$ weather $[4] - 22:22,$ $59:21, 59:25, 60:3$ web $[1] - 6:9$ WEB $[5] - 47:23, 50:1,$ $60:18, 60:19, 65:16$ 20 Web $[1] - 47:25$ web $[1] - 47:25$ web $[1] - 47:25$ web $[1] - 47:25, 50:1,$ $60:18, 60:19, 65:1620Web [1] - 47:25, 50:1,60:18, 60:19, 65:1620Web [1] - 47:25, 50:1,60:18, 60:19, 65:1620Web [1] - 47:25, 50:1,40:8, 40:25, 71:19,79:12weakligh - 41:2, 49:7,Web [3] - 41:2, 49:7,$	ler [3] - 1:24, 7:24,
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
46:4, 48:7, 48:12, 53:5, 56:15, 57:9, 7:22, 58:5, 58:21, 61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 78:15waiting [1] - 15:6 walk [2] - 9:3, 18:4 wor 62:12, 65:5, 66:10, 78:15waiting [2] - 35:19, wor 76:19wor 76:1978:15Wall [1] - 34:4 updated [1] - 79:12 upgrades [1] - 25:25Wall [1] - 34:4 watching [1] - 71:22wor wor wor wor matching [1] - 71:22upgrades [1] - 25:25Waste [1] - 57:21 wor watching [1] - 71:22wor wor wor wor wor matching [1] - 71:22UTILITIES [2] - 1:1, utility [1] - 18:6 utilization [1] - 12:4 utilizing [1] - 58:15Water [3] - 38:11, wor water [32] - 38:14, 38:16, 38:18, 5:8 water [32] - 38:14, 38:16, 38:18, size, 38:20, 38:21, utilizing [1] - 58:15XL [V48:23, 48:25, 49:1, 49:5, 49:13, 49:20, 50:2, 58:24, 64:5, 66:4, 66:5, 66:6, 75:9 values [6] - 16:22, 17:4, 32:10XL [valorem [1] - 16:20 value [6] - 16:22, 17:4, 32:1066:4, 66:5, 66:6, 50:2, 58:24, 64:5, 59:21, 59:25, 60:3 web [1] - 62:6values [6] - 20:5, 75:9 values [6] - 20:5, 73:18, 74:9, 74:22, 74:25web [1] - 62:6 web [1] - 62:9valve [2] - 40:13, 72:3 40:3, 40:4, 40:6, 40:8, 40:25, 71:19web [1] - 47:25 79:12vandalism [1] - 27:10week [3] - 41:2, 49:7,	sey [1] - 31:2
1011, 1	nen [1] - 28:20
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	dering [4] - 53:2,
61:7, 61:9, 62:8, 62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 78:15walk-up $[1] - 18:4$ walking $[2] - 35:19$, 76:19wor 65 wor wor 72:3, 74:19, 78:13, 76:19updated $[1] - 79:12$ upgrades $[1] - 25:25$ upper $[1] - 29:14$ UTILITIES $[2] - 1:1$, $1:11$ $1:11$ $47:25, 50:1, 65:16$ utilization $[1] - 12:4$ utilize $[2] - 3:4, 9:20$ utilize $[2] - 3:4, 9:20$ utilize $[2] - 14:6, 43:8$ utilize $[2] - 14:6, 43:8$ utilize $[1] - 58:15$ water $[3] - 38:11,$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:10,$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:10,$ $41:14, 48:1, 48:3,$ $48:6, 66:5, 66:6,$ $75:9$ values $[6] - 20:5,$ $73:18, 74:9, 74:22,$ $74:25$ XL [$60:18, 60:19, 65:16$ Web $[1] - 6:9$ WEB $[5] - 47:23, 50:1,$ $60:18, 60:19, 65:16,$ 20 $20:3, 40:4, 40:6,$ $40:8, 40:25, 71:19,$ $79:12$ weaklig] $- 41:2, 49:7,$	13, 56:19, 73:15
62:12, 65:5, 66:10, 72:3, 74:19, 78:13, 78:15walking $[2] - 35:19$, 76:19wor wor wor wor 32updated $[1] - 79:12$ upgrades $[1] - 25:25$ Wall $[1] - 34:4$ wall $[1] - 36:9$ wor wor 32upgrades $[1] - 25:25$ upper $[1] - 29:14$ UTILITIES $[2] - 1:1$, $1:11$ Water $[4] - 47:23$, water $[32] - 38:11$, writi $47:25, 50:1, 65:16$ 79 Utilities $[2] - 3:4, 9:20$ utility $[1] - 18:6$ utilization $[1] - 12:4$ utilizing $[1] - 58:15$ water $[32] - 38:11$, writi $38:14, 38:16, 38:18,$ $38:20, 38:21,$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:1,$ $49:5, 49:13, 49:20,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $66:4, 66:5, 66:6,$ $75:9$ values $[6] - 16:22, 17:4,$ $32:22, 75:5, 75:7,$ $73:18, 74:9, 74:22,$ $74:25$ WEB $[5] - 47:23, 50:1,$ $60:18, 60:19, 65:16valve [2] - 40:13, 72:340:3, 40:4, 40:6,40:8, 40:25, 71:19Web [1] - 47:2579:12vandalism [1] - 27:10weekk [3] - 41:2, 49:7,$	ds [2] - 48:22,
72:3, 74:19, 78:13, 78:1576:19wor vol $yeqades [1] - 79:12$ $wall [1] - 34:4$ 27 $updated [1] - 79:12$ $wall [1] - 36:9$ 32 $upgrades [1] - 25:25$ $waching [1] - 77:22$ wor $upper [1] - 29:14$ $watching [1] - 71:22$ wor $UTILITIES [2] - 1:1,$ $47:25, 50:1, 65:16$ 79 $utilites [2] - 3:4, 9:20$ $water [32] - 38:11,$ wwr $utility [1] - 18:6$ $38:14, 38:16, 38:18,$ 5:3 $utilization [1] - 12:4$ $38:19, 38:20, 38:21,$ witilize [2] - 14:6, 43:8 $utilize [2] - 14:6, 43:8$ $38:24, 39:5, 39:10,$ 41:14, 48:1, 48:3, $utilize [1] - 58:15$ $41:14, 48:1, 48:3,$ 5:3 $valorem [1] - 16:20$ $48:23, 48:25, 49:1,$ $XL [$ $value [6] - 16:22, 17:4,$ $32:22, 75:5, 75:7,$ $59:21, 59:25, 60:3$ yea $value [6] - 20:5,$ $59:21, 59:25, 60:3$ yea $values [5] - 20:5,$ $59:21, 59:25, 60:3$ yea $valves [8] - 35:13,$ $web [1] - 6:9$ yea $valves [8] - 35:13,$ $web [1] - 47:25$ 37 $40:3, 40:4, 40:6,$ $website [2] - 5:8, 79:16$ 37 $40:8, 40:25, 71:19$ $79:12$ $9ea$ $vandalism [1] - 27:10$ $week [3] - 41:2, 49:7, 99:7.5$	
78:15Wall [1] - 34:4Wolupdated [1] - 79:12wall [1] - 36:932upgrades [1] - 25:25Waste [1] - 57:21worupper [1] - 29:14watching [1] - 71:22writiUTILITIES [2] - 1:1,47:25, 50:1, 65:1679Utilities [2] - 3:4, 9:20water [32] - 38:11,writiutilization [1] - 12:438:14, 38:16, 38:18,5:8utilization [1] - 12:438:19, 38:20, 38:21,writiutilizing [1] - 58:1541:14, 48:1, 48:3,48:6, 48:9, 48:22,V49:5, 49:13, 49:20,68valorem [1] - 16:2050:2, 58:24, 64:5,50:2, 58:24, 64:5,value [6] - 16:22, 17:4,32:1050:2, 58:24, 64:5,32:22, 75:5, 75:7,59:21, 59:25, 60:3yarvalues [5] - 20:5,59:21, 59:25, 60:3yarvalues [5] - 20:5,59:21, 59:25, 60:3yarvalues [6] - 16:22, 17:4,30:18, 60:19, 65:1620values [6] - 20:5,59:21, 59:25, 60:3yarvalues [6] - 35:13,Web [1] - 62:9WEB [5] - 47:23, 50:1,valves [8] - 35:13,Web [1] - 47:2522valves [8] - 35:13,Yeb [1] - 47:253740:3, 40:4, 40:6,Web [1] - 47:253740:3, 40:4, 40:6,Web [1] - 47:2, 49:7,Yeavandalism [1] - 27:10week [3] - 41:2, 49:7,Yea	(space [1] - 19:23
updated $[1] - 79:12$ upgrades $[1] - 25:25$ wall $[1] - 36:9$ 32upgrades $[1] - 25:25$ Waste $[1] - 57:21$ watching $[1] - 71:22$ wor writi urility $[1] - 29:14$ Water $[4] - 47:23$, writi 47:25, 50:1, 65:16wor writi writi urility $[1] - 18:6$ utilization $[1] - 12:4$ utilizing $[1] - 58:15$ Water $[3] - 38:11$, $38:14, 38:16, 38:18,$ $38:20, 38:21,$ $38:20, 38:20,$ $38:20, 38:21,$ $38:19, 38:20, 38:21,$ $38:19, 38:20, 38:21,$ $38:19, 38:20, 38:21,$ $38:19, 38:20, 38:21,$ $38:19, 38:20, 38:21,$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:1,$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:1,$ $49:5, 49:13, 49:20,$ $50:2, 58:24, 64:5,$ $50:2, 58:25, 60:3$ $73:18, 74:9, 74:22,$ $74:25$ $74:26$ $74:25$ $74:3, 40:3, 40:4, 40:6,$ $40:8, 40:25, 71:19$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:12$ $79:1$	d [7] - 18:8, 26:9,
upgrades [1] - 25:25 upper [1] - 29:14Wate [1] - 57:21 watching [1] - 71:22Wor writh writh writh uritizes [2] - 3:4, 9:20 utility [1] - 18:6 utilization [1] - 12:4 utilizes [2] - 14:6, 43:8 utilizing [1] - 58:15Water [3] - 38:11, 38:14, 38:16, 38:18, 38:20, 38:21, at:14, 48:1, 48:3, 48:6, 48:9, 48:22, 48:23, 48:25, 49:1, 49:5, 49:13, 49:20, 50:2, 58:24, 64:5, 50:2, 58:24, 64:5, 59:21, 59:25, 60:3 web [1] - 6:9Water wether [4] - 22:22, yalues [5] - 20:5, 59:21, 59:25, 60:3 yard web [1] - 6:9Yard yea mether [4] - 22:22, 59:21, 59:25, 60:3 yard web [1] - 6:9valve [2] - 40:13, 72:3 valves [8] - 35:13, 40:3, 40:4, 40:6, 40:8, 40:25, 71:19Web [1] - 47:25 values [2] - 5:8, 79:12Yard yea	4, 32:14, 32:16,
upper [1] - 29:14watching [1] - 71:22writUTILITIES [2] - 1:1,"Water [4] - 47:23,writ1:1147:25, 50:1, 65:16"WitUtilities [2] - 3:4, 9:20water [32] - 38:11,"writutility [1] - 18:638:14, 38:16, 38:18,5:8utilization [1] - 12:438:19, 38:20, 38:21,"writutilize [2] - 14:6, 43:838:24, 39:5, 39:10,"utilizing [1] - 58:15utilizing [1] - 58:1541:14, 48:1, 48:3,"utilizing [1] - 58:15v49:5, 49:13, 49:20,68valorem [1] - 16:2066:4, 66:5, 66:6,73:10value [6] - 16:22, 17:4,32:22, 75:5, 75:7,"waterways [1] - 62:6values [5] - 20:5,59:21, 59:25, 60:3yard73:18, 74:9, 74:22,59:21, 59:25, 60:3yardvalve [2] - 40:13, 72:360:18, 60:19, 65:1620valves [8] - 35:13,Web [1] - 47:252240:3, 40:4, 40:6,Website [2] - 5:8,3740:8, 40:25, 71:1979:1298vandalism [1] - 27:10weeki3] - 41:2, 49:7,	18, 71:21
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	ied [1] - 57:14
1:1147:25, 50:1, 65:1679Utilities $[2] - 3:4, 9:20$ utilization $[1] - 18:6$ utilization $[1] - 12:4$ utilize $[2] - 14:6, 43:8$ utilizing $[1] - 58:15$ 38:14, 38:16, 38:18, 38:24, 39:5, 39:10, 41:14, 48:1, 48:3, 48:6, 48:9, 48:22, 48:23, 48:25, 49:1, 49:5, 49:13, 49:20, 50:2, 58:24, 64:5, 73:1070V49:5, 49:13, 49:20, 50:2, 58:24, 64:5, 73:10XL [valorem $[1] - 16:20$ value $[6] - 16:22, 17:4,32:22, 75:5, 75:7,75:9waterways [1] - 62:6weather [4] - 22:22,59:21, 59:25, 60:3web [1] - 62:6web [1] - 6:9yareyareyareweb [1] - 6:9values [5] - 20:5,73:18, 74:9, 74:22,74:25WEB [5] - 47:23, 50:1,60:18, 60:19, 65:162090valve [2] - 40:13, 72:340:3, 40:4, 40:6,40:8, 40:25, 71:1970:12yea90values [6] - 35:13,40:8, 40:25, 71:19Week [3] - 41:2, 49:7,90$	ng [1] - 5:11
Utilities $[2] - 3:4, 9:20$ utility $[1] - 18:6$ utilization $[1] - 12:4$ utilize $[2] - 14:6, 43:8$ utilizing $[1] - 58:15$ water $[32] - 38:11,$ $38:14, 38:16, 38:18,$ $38:12, 38:20, 38:21,$ $38:24, 39:5, 39:10,$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:1,$ $49:5, 49:13, 49:20,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $73:10$ XL [$49:5, 49:13, 49:20,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $73:10$ valorem $[1] - 16:20$ value $[6] - 16:22, 17:4,$ $32:22, 75:5, 75:7,$ $75:9$ waterways $[1] - 62:6$ weather $[4] - 22:22,$ $59:21, 59:25, 60:3$ web $[1] - 62:9$ values $[5] - 20:5,$ $73:18, 74:9, 74:22,$ $74:25$ WEB $[5] - 47:23, 50:1,$ $60:18, 60:19, 65:16$ 20 valve $[2] - 40:13, 72:3$ $40:3, 40:4, 40:6,$ $40:8, 40:25, 71:19$ Web $[1] - 47:25$ $79:12$ vandalism $[1] - 27:10$ week $[3] - 41:2, 49:7,$	en [3] - 6:4, 6:16,
utility [1] - 18:6 38:14, 38:16, 38:18, 5:8 utilization [1] - 12:4 38:19, 38:20, 38:21, 5:8 utilize [2] - 14:6, 43:8 38:24, 39:5, 39:10, 41:14, 48:3, utilizing [1] - 58:15 41:14, 48:1, 48:3, 48:6, 48:9, 48:22, V 49:5, 49:13, 49:20, 68 valorem [1] - 16:20 50:2, 58:24, 64:5, Xs [value [6] - 16:22, 17:4, 73:10 59:21, 59:25, 60:3 values [5] - 20:5, 59:21, 59:25, 60:3 yard 73:18, 74:9, 74:22, 59:21, 59:25, 60:3 yard valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 20 valves [8] - 35:13, Web [1] - 47:25 37 40:3, 40:4, 40:6, website [2] - 5:8, 37 40:8, 40:25, 71:19 79:12 9e vandalism [1] - 27:10 week [3] - 41:2, 49:7, 9e	
utilization [1] - 12:4 38:19, 38:20, 38:21, 38:19, 38:20, 38:21, utilize [2] - 14:6, 43:8 38:24, 39:5, 39:10, 41:14, 48:1, 48:3, utilizing [1] - 58:15 41:14, 48:1, 48:3, 48:6, 48:9, 48:22, V 48:23, 48:25, 49:1, XL [valorem [1] - 16:20 66:4, 66:5, 66:6, 66:4, 66:5, 66:6, value [6] - 16:22, 17:4, 73:10 50:2, 58:24, 64:5, 32:22, 75:5, 75:7, waterways [1] - 62:6 yare values [5] - 20:5, 59:21, 59:25, 60:3 yare 74:25 WEB [5] - 47:23, 50:1, 16 valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 20 valves [8] - 35:13, Web [1] - 47:25 37 40:3, 40:4, 40:6, website [2] - 5:8, 37 40:8, 40:25, 71:19 79:12 9e vandalism [1] - 27:10 week [3] - 41:2, 49:7, 9ea	15
utilize $[2] - 14:6, 43:8$ utilizing $[1] - 58:15$ $38:24, 39:5, 39:10,$ $41:14, 48:1, 48:3,$ $48:6, 48:9, 48:22,$ $48:23, 48:25, 49:1,$ $49:5, 49:13, 49:20,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $50:2, 58:24, 64:5,$ $73:10$ XL [68 $50:2, 58:24, 64:5,$ $73:10$ valorem $[1] - 16:20$ value $[6] - 16:22, 17:4,$ $32:22, 75:5, 75:7,$ $73:18, 74:9, 74:22,$ $74:25$ waterways $[1] - 62:6$ weather $[4] - 22:22,$ $59:21, 59:25, 60:3$ web $[1] - 6:9$ values $[5] - 20:5,$ $73:18, 74:9, 74:22,$ $74:25$ S9:21, 59:25, 60:3 WEB $[5] - 47:23, 50:1,$ $60:18, 60:19, 65:16$ 20 valves $[8] - 35:13,$ $40:8, 40:25, 71:19$ Web $[1] - 47:25$ $79:12$ vandalism $[1] - 27:10$ week $[3] - 41:2, 49:7,$	
utilizing [1] - 58:15 41:14, 48:1, 48:3, 48:6, 48:9, 48:22, 48:23, 48:25, 49:1, 49:5, 49:13, 49:20, 50:2, 58:24, 64:5, value [6] - 16:22, 17:4, 32:22, 75:5, 75:7, values [5] - 20:5, 75:9 XL [49:5, 49:13, 49:20, 66:4, 66:5, 66:6, 73:10 value [6] - 16:22, 17:4, 75:9 73:10 Xs [value [6] - 16:22, 17:4, 75:9 73:10 Yaterways [1] - 62:6 values [5] - 20:5, 73:18, 74:9, 74:22, 74:25 59:21, 59:25, 60:3 Yaterways [1] - 62:6 valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 20 valves [8] - 35:13, 40:3, 40:4, 40:6, 40:8, 40:25, 71:19 Web [1] - 47:25 37 40:8, 40:25, 71:19 79:12 69 vandalism [1] - 27:10 week [3] - 41:2, 49:7, Yea	15 /.puc.sd.gov [1] -
V 48:6, 48:9, 48:22, 48:23, 48:25, 49:1, 49:5, 49:13, 49:20, 50:2, 58:24, 64:5, value [6] - 16:22, 17:4, 32:22, 75:5, 75:7, values [5] - 20:5, 73:18, 74:9, 74:22, 74:25 XL [68 valorem [1] - 16:20 66:4, 66:5, 66:6, 73:10 50:2, 58:24, 64:5, 66:4, 66:5, 66:6, 73:10 Xs [values [5] - 20:5, 73:18, 74:9, 74:22, 74:25 59:21, 59:25, 60:3 92:21, 59:25, 60:3 yard yea valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 92:13, 40:4, 40:6, 40:3, 40:4, 40:6, 40:8, 40:25, 71:19 Web [1] - 47:25 79:12 37 vandalism [1] - 27:10 week [3] - 41:2, 49:7, yea	15 /.puc.sd.gov [1] -
V 48:23, 48:25, 49:1, 49:5, 49:13, 49:20, 50:2, 58:24, 64:5, 66:4, 66:5, 66:6, 73:10 XL [68 valorem [1] - 16:20 66:4, 66:5, 66:6, 73:10 50:2, 58:24, 64:5, 66:4, 66:5, 66:6, 73:10 50:2, 58:24, 64:5, 73:10 value [6] - 16:22, 17:4, 75:9 73:10 vaterways [1] - 62:6 vaterways [1] - 62:6 values [5] - 20:5, 73:18, 74:9, 74:22, 74:25 59:21, 59:25, 60:3 yard WEB [5] - 47:23, 50:1, 60:18, 60:19, 65:16 yard 20 valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 20 valves [8] - 35:13, 40:3, 40:4, 40:6, 40:8, 40:25, 71:19 Web [1] - 47:25 37 vandalism [1] - 27:10 week [3] - 41:2, 49:7, yea	15 /.puc.sd.gov [1] -
valorem [1] - 16:20 49:5, 49:13, 49:20, 50:2, 58:24, 64:5, 66:6, 73:10 50:2, 58:24, 64:5, 66:6, 73:10 value [6] - 16:22, 17:4, 75:9 66:4, 66:5, 66:6, 73:10 waterways [1] - 62:6 values [5] - 20:5, 75:7, 73:18, 74:9, 74:22, 74:25 59:21, 59:25, 60:3 yar valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 20 valves [8] - 35:13, 40:4, 40:6, 40:8, 40:25, 71:19 Website [2] - 5:8, 79:12 37 vandalism [1] - 27:10 week [3] - 41:2, 49:7, 97 98	15 /.puc.sd.gov [1] -
valorem [1] - 16:20 50:2, 58:24, 64:5, 66:6, 73:10 value [6] - 16:22, 17:4, 32:22, 75:5, 75:7, 75:9 waterways [1] - 62:6 values [5] - 20:5, 73:18, 74:9, 74:22, 74:25 59:21, 59:25, 60:3 valves [6] - 35:13, 40:3, 40:4, 40:6, 40:8, 40:25, 71:19 Web [1] - 47:25 valves [8] - 35:13, 40:8, 40:25, 71:19 Website [2] - 5:8, 79:12 vandalism [1] - 27:10 week [3] - 41:2, 49:7, 99:7	15 v.puc.sd.gov [1] - X
valorem [1] - 16:20 66:4, 66:5, 66:6, value [6] - 16:22, 17:4, 73:10 32:22, 75:5, 75:7, waterways [1] - 62:6 75:9 weather [4] - 22:22, values [5] - 20:5, 59:21, 59:25, 60:3 73:18, 74:9, 74:22, web [1] - 6:9 74:25 WEB [5] - 47:23, 50:1, valves [8] - 35:13, Web [1] - 47:25 40:3, 40:4, 40:6, website [2] - 5:8, 40:8, 40:25, 71:19 79:12 vandalism [1] - 27:10 week [3] - 41:2, 49:7,	15 7.puc.sd.gov [1] - X] - 54:7, 58:2,
value [6] - 16:22, 17:4, 73:10 32:22, 75:5, 75:7, waterways [1] - 62:6 75:9 weather [4] - 22:22, values [5] - 20:5, 59:21, 59:25, 60:3 73:18, 74:9, 74:22, web [1] - 6:9 74:25 WEB [5] - 47:23, 50:1, valves [8] - 35:13, 60:18, 60:19, 65:16 valves [8] - 35:13, Web [1] - 47:25 40:3, 40:4, 40:6, website [2] - 5:8, 40:8, 40:25, 71:19 79:12 vandalism [1] - 27:10 week [3] - 41:2, 49:7,	15 7.puc.sd.gov [1] - X] - 54:7, 58:2, 23
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	15 7.puc.sd.gov [1] - X] - 54:7, 58:2,
75:9weather $[4] - 22:22$, $59:21, 59:25, 60:3$ yard yea73:18, 74:9, 74:22, 74:25web $[1] - 6:9$ yea74:25WEB $[5] - 47:23, 50:1,$ $60:18, 60:19, 65:16$ 16valves $[8] - 35:13,$ $40:8, 40:25, 71:19$ Web $[1] - 47:25$ $79:12$ 22vandalism $[1] - 27:10$ week $[3] - 41:2, 49:7,$ 98	15 y.puc.sd.gov [1] - X] - 54:7, 58:2, 23] - 46:21
values $[5] - 20:5$, $73:18, 74:9, 74:22$, $74:25$ for the figure 21, 59:25, 60:3 $99:21, 59:25, 60:3$ $99:25, 60:3$ yard yea $74:25$ $Web [1] - 6:9$ $WEB [5] - 47:23, 50:1,$ $60:18, 60:19, 65:16$ 20	15 7.puc.sd.gov [1] - X] - 54:7, 58:2, 23
73:18, 74:9, 74:22, web [1] - 6:9 yea 74:25 WEB [5] - 47:23, 50:1, 16 valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 20 valves [8] - 35:13, Web [1] - 47:25 22 40:3, 40:4, 40:6, website [2] - 5:8, 37 40:8, 40:25, 71:19 79:12 69 vandalism [1] - 27:10 week [3] - 41:2, 49:7, yea	15 y.puc.sd.gov [1] - X] - 54:7, 58:2, 23] - 46:21
74:25 Web [1] - 0.3 16 valve [2] - 40:13, 72:3 60:18, 60:19, 65:16 20 valves [8] - 35:13, Web [1] - 47:25 22 40:3, 40:4, 40:6, website [2] - 5:8, 37 40:8, 40:25, 71:19 79:12 69 vandalism [1] - 27:10 week [3] - 41:2, 49:7, yea	15 y.puc.sd.gov [1] - X] - 54:7, 58:2, 23] - 46:21 Y
valve [2] - 40:13, 72:3 valve [3] - 47.22, 300.1, 20 valves [8] - 35:13, 60:18, 60:19, 65:16 22 40:3, 40:4, 40:6, website [2] - 5:8, 37 40:8, 40:25, 71:19 79:12 69 vandalism [1] - 27:10 week [3] - 41:2, 49:7, yea	15 y.puc.sd.gov [1] - X] - 54:7, 58:2, 23] - 46:21 Y [1] - 33:19
valves [8] - 35:13, Web [1] - 47:25 22 40:3, 40:4, 40:6, website [2] - 5:8, 37 40:8, 40:25, 71:19 79:12 69 vandalism [1] - 27:10 week [3] - 41:2, 49:7, yea	15 x.puc.sd.gov [1] - X] - 54:7, 58:2, 23] - 46:21 Y [1] - 33:19 [19] - 16:21,
40:3, 40:4, 40:6, website [2] - 5:8, 37 40:8, 40:25, 71:19 79:12 69 vandalism [1] - 27:10 week [3] - 41:2, 49:7, yea	15 X] - 54:7, 58:2, 23] - 46:21 Y [1] - 33:19 [19] - 16:21, 25, 17:18, 20:13,
40:8, 40:25, 71:19 79:12 69 vandalism [1] - 27:10 week [3] - 41:2, 49:7. yea	15 X X X 3 5 4 5 4 5 1 1 1 1 1 1 1 1
vandalism [1] - 27:10 week [3] - 41:2, 49:7. yea	15 X X X X 3 5 4 5 4 5 1 1 1 1 1 1 1 1
week 3 - 4 . 2. 49.7.	15 X X X X 3 5 4 5 4 5 1 1 1 1 1 1 1 1
	15 X X X X 3 5 4 5 4 5 1 1 1 1 1 1 1 1
Varios [2] 21.0, 40.17 51.20	15 X X X X 3 5 4 5 4 5 1 1 1 1 1 1 1 1
weicome [2] - 3:2,	15 X X X 3 5 4 5 4 5 5 5 5 1 1 1 1 1 1 1 1
8.77	15 X X X X 3 5 4 5 4 5 1 1 1 1 1 1 1 1
varying [1] - 38:20 welding [2] - 59:16, 60	15 X X X X X X 1 - 54:7, 58:2, 23 1 - 46:21 Y 1 - 33:19 1 - 46:21 Y 1 - 16:21, 25, 17:18, 20:13, 14, 20:16, 22:8, 22, 34:20, 34:22, 4, 37:5, 59:8, 17, 76:24, 77:21 s [16] - 32:3, 32:6, 16, 34:1, 34:3, 8, 44:12, 55:22, 24, 60:8, 60:11,
-	15 X X X X 3 5 4 5 4 5 1 1 1 1 1 1 1 1