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 Redfield, 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 Redfield Auditorium,
3	Redfield, South Dakota, on the 21st day of January, 2015,
4	commencing at 6 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 evening, everybody. I want to welcome all of you here tonight. My name is Chris Nelson, Chairman of the South Dakota Public Utilities Commission.

1

2

3

4

5 With me here this evening are Commissioner 6 Gary Hanson and Acting Commissioner, our State Treasurer, 7 Rich Sattqast. Mr. Sattqast is acting as Commissioner 8 for 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, has appointed Mr. Sattgast to act as 13 Commissioner in place of Commissioner Fiegen.

Also at the head table we have Commission Counsel, John Smith, and Commission Advisor, Greg Rislov.

17 Our purpose here this evening is to hold a 18 public hearing in Docket HP14-002 entitled In the Matter 19 of the Application of Dakota Access, LLC for an Energy 20 Facility Permit to Construct the Dakota Access Pipeline. 21 On December 15, 2014, Dakota Access, LLC filed 22 an Application for an energy facility permit for the 2.3 proposed Dakota Access Pipeline Project. 2.4 On December 23, 2014, Dakota Access filed a 25 Revised Application that relocates the line in

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

1 approximately 14 miles south of Sioux Falls and continue 2 in a southeasterly direction through Iowa. One pump 3 station will be located in South Dakota approximately 4 7 miles southeast of Redfield in Spink County.

5 A copy of the Revised Application is on file 6 with the county auditors of each of the 13 counties 7 crossed by the project. You can access the Application 8 and all other nonconfidential documents in the official 9 file on the Commission's website at www.puc.sd.gov under 10 Commission Actions, Commission Dockets, 2014 Hydrocarbon 11 Pipeline Dockets, and scrolling down to HP14-002, or by calling or writing or stopping by the Commission 12 13 office.

14 The purpose of this hearing this evening is to 15 provide information to the public about the proposed 16 project and to hear public comments about the project. 17 Interested persons have the right to present their views 18 and comments regarding the Revised Application, and we 19 want to encourage you to do that. No decisions are being 20 made tonight or in the near future.

The parties in this proceeding at this time are Dakota Access and the Commission Staff. The South Dakota Department of Transportation and Lake County have filed applications for party status, but the Commission hasn't acted on those yet.

Under South Dakota Law each municipality, county, and governmental agency in the area where the facility is proposed to be constructed or any interested person or organization may be granted party status in this proceeding by making written application to the Commission on or before February 13, 2015.

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

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

We will also be accepting comments in writing
from anyone, either by mail, e-mail, personal delivery,
and the Commission's e-mail address for those comments is
puc@state.sd.gov.

We'll take those comments right up until the time of the decision. So you only need to apply for party status if you want to participate formally in the case by putting on actual testimony or other factual evidence, conducting discovery, cross-examining

1 witnesses, making legal arguments, et cetera, and to preserve your right to appeal to the courts if you don't 2 3 believe our decision was legally correct. 4 I also want you to know that each of the 5 Commissioners and all the Staff assigned to this docket 6 thoroughly read all of the comments submitted by the 7 public, and they are also filed in the docket file. 8 For the permit to be approved our law says that 9 Dakota Access must show that the proposed transmission 10 facility will comply with all applicable laws and rules, 11 will not pose a threat of serious injury to the environment or to the social and economic condition of 12 13 inhabitants or expected inhabitants of the siting area, 14 will not substantially impair the health, safety, or 15 welfare of the inhabitants, and will not unduly interfere 16 with the orderly development of the region, with due 17 consideration given to the views of governing bodies of 18 affected local units of government. Based on these factors the Commission will 19 20 decide whether the project should be granted, denied, or 21 granted upon such terms and conditions or modifications 22 of the construction, operation, or maintenance of the 2.3 facilities as the Commission finds appropriate.

I'd like to point out to everyone that we have our court reporter, Cheri Wittler, here with us this

1 evening. So I'd ask that you please use the microphone 2 and introduce yourself and spell your name when you speak 3 so we get it on the record. 4 I'd also like to point out that we have 5 Brian Rounds, Darren Kearney up in the back, and Kristen 6 Edwards, who is at the front desk, of the Commission 7 Staff here this evening. And we want you to feel free to 8 seek them out if you have questions or need help with 9 anything, either here this evening or as we go throughout 10 this process. 11 We will begin this evening by having Dakota 12 Access representatives make a presentation to explain 13 their proposed project. Following that presentation we 14 will take comments from any interested persons or 15 organizations, and we want to strongly encourage members

17 Before we get started, I'd like to ask all of 18 you to make sure to put your information on the sign-in 19 sheets so we have a record of who attended the hearing. 20 And I'd also like to just take a moment to thank 21 Marilyn Hodges, the business manager, and the custodial 22 Staff here who did a great job of allowing us, first of 2.3 all, into the building and organizing things for us. 24 With that, Brett Koenecke, attorney for 25 Dakota Access, will be the introductory spokesman for

of the public to present your views.

16

Dakota Access this evening.

1

Brett, would you please introduce the folks that 2 3 you have here with you and go ahead and begin your 4 presentation. MR. KOENECKE: Thank you, Commissioner and good 5 6 evening. 7 My name is Brett Koenecke. I'm a lawyer from 8 Pierre, and I'm representing Dakota Access in these 9 proceedings. We are extremely glad to be here tonight 10 and be interacting with the Commission and the public 11 about the project. And thank you all for your 12 attendance. 13 Seated alongside of me and behind me are 14 Joey Mahmoud, Senior Vice President of Engineering, with 15 responsibility for development and execution of the 16 project. To my right is Tom Siguaw, Senior Director, with responsibility for the entire project. 17 18 To his right is Chuck Frey, Vice President of 19 Liquid Engineering and Chief Engineer for Design and 20 Safety. Seated behind me is Jack Edwards, Project 21 Manager for Iowa and South Dakota and overall 22 construction manager. 23 Micah Rorie is the right-of-way manager for 24 North Dakota and South Dakota. Monica Howard is the 25 environmental manager for the project. And Keegan Pieper

1 is the Associate General Counsel and project counsel from 2 Texas. With that, I will turn it over to Joey who will 3 4 take us through the presentation. 5 Thank you, Mr. Chairman. 6 MR. MAHMOUD: Good evening, and thank you for 7 having us here in Redfield. And we're very happy to be 8 able to present our project. 9 My name is Joey Mahmoud. I'm with Dakota Access 10 Pipeline. It's a -- you'll hear me say Energy Transfer 11 and Dakota Access. Those are interchangeable. Energy 12 Transfer is the parent company that owns Dakota Access 13 Pipeline. 14 And so tonight I'll try to explain who we are, 15 go through the presentation, and then at the end we'll 16 have a chance to go over some questions and comments to 17 the Commission Staff, which we hope to be able to provide 18 answers to those. 19 So Energy Transfer, we're a pretty large 20 company, a Fortune 500. Actually we're in the top 100 in 21 the United States. Our principal business is the 22 transportation of carbon-based products, crude oil, for 2.3 example. That's what we're moving on this project. 24 Natural gas, natural gas liquids. 25 We operate as a company somewhere around 71,000

1 miles of pipe. If you compare that to the rest of the industry, that makes us the second largest transporter or 2 3 pipeline company in North America. 4 Depending on the commodities trading that day, 5 we are either the first or second largest in 6 transporting, again, of those carbon-based energy 7 products in the United States. 8 So this map shows who we are. We span from the 9 border of California and Arizona all the way to Florida, 10 and then our footprint extends from Texas up to kind of 11 the Sunbelt, the Midwest part and the central part of the 12 United States to ending up around Detroit and then to the 13 northeast. And then our footprint is now extending to 14 the Dakotas, as you can see on this map, extending up 15 through Iowa and South Dakota and North Dakota. 16 Just kind of quickly on the project. And I'm 17 not going to -- I'll go through this kind of quick 18 because the Commissioner already went through what the 19 scope of the project is. 20 But the project is pretty -- the purpose and the 21 project objective is really pretty basic. It's to move 22 crude oil that's being produced in the Bakken in 2.3 northwest North Dakota from the Bakken and Three Forks 24 Plays, move that crude oil from that area to a 25 redistribution point in Illinois called the Patoka or

1 around Vernon, Illinois, the Patoka Hub where it 2 interconnects with other parties, other pipelines for 3 redistribution of that crude oil to the Midwest and 4 Gulf Coast areas for consumption in refineries and also 5 to produce crude derivative type products.

6 The project scope, as the Commissioner pointed 7 out, it extends 1,134 miles. It's a combination of 8 mostly 30-inch diameter pipe. It also has some 12-inch 9 and 24-inch up in the North Dakota area. But in 10 South Dakota it's roughly 274 miles of 30-inch diameter 11 pipe extending again overall from North Dakota to Patoka, 12 crossing the northeasterly or easterly part of 13 South Dakota.

14 So you can see in this map it basically shows 15 the orientation of the project, running from North Dakota 16 to Illinois.

And then this slide kind of gives you the orientation of the project where it enters into South Dakota and where it goes into Iowa in that southeastern portion of South Dakota.

Overall as we've mentioned, the project's about 22 274 miles. It lists the miles of each county traversed 23 so you can kind of get an idea of how many miles that 24 we're actually building on a per county basis and what it 25 would be here in Spink County.

1 So overall the project benefits, and really, you 2 know, what does this project mean to us as a country and 3 as well as to you as individuals or to the State of South Dakota? 4 5 The project is roughly a 3.8 billion dollar 6 investment into the U.S. economy. That's the actual cost 7 of the project from a materials standpoint, right of 8 ways, easements, labor to actually build the project. 9 In South Dakota that's about 820 million 10 dollars. So that's a direct infusion of the capital that 11 would be spent in the state for those materials and 12 resources to execute this project. 13 Probably the biggest benefit of this project, 14 and a lot of people ask us this, is how does this benefit 15 me or how does it benefit the State of South Dakota. The 16 true benefit is that it provides a direct link to 17 U.S.-produced crude oil that we're all dependent on in 18 our everyday lives. It provides a critical link from the Dakotas 19 20 where it's being produced to those refineries along the 21 Gulf Coast as well as the midpart of the United States, Chicago, Ohio, where those refining centers are. 22 23 Some of the other benefits that you may not 24 think of is that pipelines are truly the number one or 25 safest forms of transportation in the United States. So

1 by far they are the safest mode of transportation that we 2 have. So when we look at it from a safety standpoint 3 4 to the public, by moving the crude oil -- which this 5 pipeline when we talk about 450,000 barrels up to 6 570,000, that's roughly one-third of the oil being 7 produced in the Bakken. 8 By taking that crude oil and actually moving it 9 via this pipeline we reduce the amount of trains that are 10 carrying crude oil. We also reduce the amount of trucks 11 carrying that crude oil. That results in a positive 12 impact to the public. 13 The other benefit that you all would probably 14 benefit more than other people in the country is it frees 15 up rail cars. And we're not talking about a tremendous 16 amount of rail cars that it frees up. But four to six 17 unit trains that would normally be occupied by crude oil 18 transportation, that capacity now becomes available for 19 commodity crop transportation that directly affects this 20 part of our country for moving your grain from this area 21 to other parts of the U.S. 22 Some of the other benefits that we'll see as a 2.3 result of this project is this project would generate 24 somewhere between 10 and 12,000 construction-related 25 jobs. So that's the number of people that it will

1 actually take to build this pipeline from North Dakota 2 down to the Patoka area. Of that, roughly 4,000 will be here in 3 4 South Dakota that will be building this pipeline. And of those 4,000 folks, we've committed to build this pipeline 5 6 utilizing union-based labor staff. They're highest 7 trained, technically capable, and they have the available 8 resources to build this pipeline in a safe manner and in 9 a time frame that we need. 10 Of that 4,000 people, roughly half of those will 11 be sourced from the local union halls. That means half 12 of those 4,000 people or 2,000 folks will benefit 13 directly from this project with jobs that they may not 14 otherwise have that are either here in South Dakota or 15 the immediate region, whatever union hall that they call 16 out of. So that's a direct benefit to the state. 17 Some of the other benefits are long-term 18 employment opportunities for along the project. 19 Somewhere between 40 and 50 folks will work on this 20 thing. Up to 12 will be here in the State of South 21 Dakota. And roughly eight of those will probably be 22 right here in Spink County because that's where our pump 2.3 station is located. 24 So we'll have somewhere around eight permanent 25 positions located right here in this county that will be

1	working and will live and become your neighbors. So
2	that's a pretty good benefit to this region.
3	Some of the other big impacts on a state level
4	when we look at this project are the direct benefits from
5	a sales tax perspective. When we look at it, it's over
6	all somewhere around 36 million dollars. That's a rough
7	estimate based on the taxing of the materials and the
8	goods and services that will be employed or utilized or
o 9	
	purchased in the State of South Dakota.
10	When we bring our pipe into the state we
11	actually pay sales tax on that pipe in the state no
12	matter where it's produced. It's where it's consumed,
13	and that's here in South Dakota. That's where the
14	majority of that tax benefit comes from.
15	The other form of benefit to South Dakota on a
16	state level are the ad valorem or property taxes. So
17	this estimate, the 13 million dollars that we've proposed
18	up here, that's an estimate based on current tax laws
19	that's subject to change. And just like anything of real
20	property, it depreciates over time. So this represents
21	year one of tax value during operation that we anticipate
22	paying through the state.
23	So as we move through the process of the
24	project, we introduced the project to the PUC Staff last
25	July. We had our open houses, which some of you may have

Г

1 attended last October. We made our filing in December of 2 this year. We're hoping for -- to have our certificate 3 sometime in the latter part of this year. And then we 4 hope to start construction the first part of '16 and then 5 go into service in the latter part of '16.

6 So over all this is about a two-year project 7 that we anticipate from start -- about two and a half 8 years from when we started to when we go into service.

9 A lot of people ask, well, how long is this 10 going to affect me as an individual? That's kind of a 11 tough question to answer today. However, in general 12 terms we believe that construction will last one growing 13 season. So we should be in and out in that one-year 14 period in 2016.

15 Restoration could extend longer. So it could go 16 into year two, potentially even year three, depending on 17 the weather conditions. And hard core construction, when 18 you're going to see the tractors and the backhoes, 19 somewhere between 30 and 90 days, maybe a little longer, 20 maybe a little less, depending on weather.

21 Some of the other questions we get is, you know, 22 how did we end up with this pipeline where it's located 23 or sited, and why is it on my property? That's a pretty 24 common question that we get.

25

And when we go through and part of the siting

r	
1	analysis that we have to present to the PUC Staff we
2	start at a very high level, where we're going to start,
3	where we're going to end, and we draw a straight line.
4	So if you noticed on the map, it's pretty
5	straight. And then we go through what's called a macro
6	routing analysis. And that analysis takes into
7	consideration environmental resources. It takes into
8	consideration communities, the town of Redfield. It
9	could be Sioux Falls.
10	So we take all of those constraints. And
11	there's a lot. I can't go over all of them. But there's
12	a lot of constraints. We factor all of those in
13	together, and then we come up with a route that impacts
14	the least amount of resources along the route.
15	As some of you have seen, we've been out in the
16	field. We've been surveying with our civil crews,
17	environmental and cultural resources. We call that micro
18	routing. So when we come up to a house or a particular
19	sensitive area we may shift that pipeline a couple
20	hundred feet or a mile in one direction. Or maybe a
21	couple feet, 40 feet. And that's to avoid that
22	constraint.
23	But at the end of the day we have to have a
24	pipeline that's contiguous from point A to point B and
25	minimizing the impacts to the vast majority of the

1 resources and people that we can. And so it's very 2 technical in approach. It's nothing personal. And so 3 when people ask us, well, why can't you reroute, there's 4 typically a pretty good reason. Because it may appear to 5 make sense at that one piece of property, but if you look 6 upstream and downstream, it may not work.

So as far as right of way, you know, how does this affect me as a landowner, some of the things we're asking for is a 50-foot permanent easement. That means we will -- we will compensate and try to purchase a strip of land across your farms or your property 50 foot wide. So that piece of property, anything can typically happen on that 50 foot except for permanent structures.

14 So when I say permanent structures, that could 15 be a tree, or it could be a barn or something that's 16 That's not allowed on that easement. fixed. But 17 everything else is. You can still farm it. You can 18 still have cattle on it, sheep. Anything else that you 19 would normally do with that property except for putting a 20 permanent structure or trees, then that's okay. And 21 that's a typical use that we would allow.

The other thing we're asking for is anything between 25 and 100 feet of temporary construction workspace to actually build the pipeline. Once installed, and this is not on the slide, but our proposal 1 is to bury the pipeline in non-ag areas somewhere no
2 less than 36 inches and agricultural areas no less than
3 48 inches, and then roadways, ditches, water bodies no
4 less than 60 inches or 5 feet.

As far as the easements go, once we approach you to purchase that easement, we've conducted what's called a market study to determine the base value. And we're not saying that's the absolute value. The base value based on sales of comparable property in the area, just like a market appraisal you would do if you were selling your home or your property.

We take that data. We apply it on a per acre basis, and then we will make a formal offer for that permanent easement, as well as a temporary easement. And in addition to those payments, we also pay for damages to the property or loss of crops or commodities or whatever the damages could be to your property.

So this slide, it shows you the right-of-way configuration of what the construction and the right of way would actually look like.

And if you look up here on the right-hand side, you'll see that pile of soil. That soil is actual topsoil. So one of the most important things that we hear from a lot of landowners is how are you going to protect my farm? How are you going to protect my 1 livelihood?

2	So we've gone through and I'll present here
3	in a second. We're developing and have developed a
4	Agricultural Mitigation Plan that will spell out how
5	we're going to cross those ag fields, how we're going to
6	restore them, what our plans are short term and long
7	term.
8	One of the important parts of this slide is if
9	you look closely where you see where the pipe is and if
10	you have a drain tile or drain feature on your property,
11	our plan is to be at least 2 foot of separation between
12	that drain tile and our pipe to minimize interference
13	with any farming or implements or activities when you're
14	actually working in those fields.
15	So our pipe will be deep, no less than 4 feet,
16	and then if there's a drain tile, we'll be 2 foot in
17	addition to that 48 inches, depending on the depth of
18	that drain tile itself.
19	So the plan is to present that ag plan to the
20	farmers or to the tenants of those farms and to go over
21	those ideas or concepts in specific terms on an
22	individual basis to work out those details. So we can
23	only be generic at this point, and then when we're
24	working with you for an easement we'll get into those
25	site-specific conditions to make sure that we're dealing

1 with whatever's on your property and we'll put those into the ag plan, into the easement, and incorporate our 2 construction in that method. 3 4 So this kind of spells out what's in that aq 5 And I won't reiterate everything, but this is a plan. 6 very important document, in our minds, to kind of detail 7 and spell out what those conditions are for how we're 8 going to do business together. So our proposal to you, 9 your concerns articulated in writing, so there's no 10 misunderstanding when we get into construction or 11 restoration. 12 All right. Some of the other parts of this that 13 I kind of saved to the last because I think they're some 14 of the most important are our pipeline operations and 15 safety. And we only have a couple more slides. But some 16 of the things -- and, again, we get these guestions, you 17 know, how do we protect the public? How are we 18 monitoring our pipeline? You know, what are the steps that we take? 19 20 And I can tell you we monitor and evaluate and operate and have somebody looking at this pipeline 24/7, 21 22 365 days a year. And at no time are we not evaluating 23 this pipeline. We either have people on the ground or we 24 have people monitoring via remote control stations back 25 at our control centers.

1 We communicate with the pipeline and the 2 facilities along that pipeline via what's called SCADA 3 systems that are -- could be communicating via cell 4 signals or satellite that we can actually operate the 5 pipeline and communicate with the pipeline for its 6 pressure and temperature and flow rates. 7 We also have what are called CPMs, or 8 computational models, that actually are modeling the 9 operations of the pipe to facilitate what that pipe 10 should be doing under those design conditions. And if 11 there's anything abnormal based on that model, it gives 12 us a signal and says, hey, you have a problem, you need 13 to go investigate. 14 So at all times -- and there's never a second 15 that goes by that we're not evaluating this pipe. That's

16 pretty common in the industry. And on these new 17 pipelines that we're building and the industry's building 18 this type of stuff is very common and is the high end 19 technology to improve the safety to the public and to the 20 environment.

Some of the other aspects of our safety systems is that we have aerial patrol. We fly our pipelines no less than every 10 days, depending on weather. So if it's bad weather, we may not be able to, but we strive to do it every 10 days. No more than every 26 days. The

1 federal requirement's every 26 days, but we try to 2 improve on that and do it every 10 days. That's via a 3 fixed wing airplane that we're flying somewhere around 4 500 foot above the ground.

5 We participate in the One-Call System. For all 6 of you that operate a farm up in this area or a business 7 where you're actually excavating, I'm sure you're 8 familiar with that where you call 811. We come out, and 9 we mark our pipes to ensure that you don't hit your pipe 10 during excavation. It's a safety program.

11 The other thing we do is we train and we communicate with the emergency responders in the 12 13 communities where we operate. We do that on an annual 14 basis. It's open to all the emergency responders as well 15 as to the general public for whoever's interested where 16 we train, and we go over what our plans are, how we 17 operate, and what those emergency procedures are, should 18 we have an event.

Lastly, we do develop what's called an Emergency Response Plan. This plan is required by the Federal Government under what's called Department of Transportation or Pipeline Hazardous Materials Safety Administration or PHMSA. We turn that plan in to the PHMSA as well as to the emergency responding organizations.

1 That plan details out all the safety systems, 2 all of our safety plans that we employ on this pipeline. We actually train against that plan so should we have an 3 4 event, our employees are trained and know how to respond. 5 They work with the emergency responders in the community 6 to have mock drills. So at any time that we should have 7 an event our plans are in place to mitigate and to 8 minimize those impacts. 9 So that's kind of a general overview. Ι 10 really appreciate your time. And if you have any 11 questions, we'll be happy to try to answer those. 12 Thank you. 13 CHAIRMAN NELSON: Thank you. 14 We've allocated up to three hours tonight for 15 this hearing. We've taken a few minutes to explain to 16 you the process. The company has taken some time to 17 explain the project. The rest of the time is yours. 18 This is your time to ask questions, make 19 comments, have discussion with the company to get your 20 questions answered. 21 A couple of things before we open the floor. 22 And we do have microphones for you. Someone will bring a 2.3 wireless mic. to you. 24 First of all, we have our court reporter. She 25 would greatly appreciate you not talk like an auctioneer

1 and that when you begin you give very clearly your name and spell your name so we have that accurately for the 2 3 record. 4 Secondly, we've got plenty of time, but we also 5 want you to be respectful of each other's time to make 6 sure that everybody that's here tonight that wants to 7 speak has an opportunity to speak. And so just be 8 respectful of others with the amount of time that you're 9 taking. 10 With that, the floor is open. Darren's got a 11 mic. here. And I don't know if Kristen's got a mic., but 12 who wants to be first up? 13 MR. WYATT: I'm Joseph Wyatt, W-Y-A-T-T. I'm a 14 landowner along the proposed pipeline route. 15 I've had a chance to look through all of the 16 appropriate information. A couple fairly minor concerns. 17 The agricultural mitigation process plan, I did not see 18 anything in there as far as access across divided 19 property where there's a very large trench dug as far as 20 what the plan to mitigate access is when you've divided a 21 property where there's not access. That's a pretty minor 22 point. 2.3 My largest concern is directed primarily to the 24 Commissioners. When you take the long view of land, as 25 we all do, most of us here I'm sure are multigeneration

1 families tied to the land. None of this ends in five, 2 10 or 20 years, and yet when you read through the plan 3 there's nothing about end of project life or mitigation. 4 It only says it's not -- or remediation. It only says 5 it's not necessary.

And the reality is nothing goes on forever in this world. Buildings we thought would stand our lifetime, they might, but our children or children's children will still have this pipeline in the ground. And there are a couple of things there's not a plan about.

Does it get filled with concrete? Does it get washed out? What happens when one day Bakken oil is no longer flowing? We'd like to think that will go on for 500 years, but it probably won't.

16 So the reality is there has to be some sort of 17 plan. Does it just sit in the ground empty?

18 And the next thing is where does the money come 19 from for that remediation when there's no longer, you 20 know, great sums of wealth being generated? And what is 21 the Commission doing to protect that public interest so 22 that ultimately the landowner or the people of 2.3 South Dakota, once this thing is no longer functional, 24 sold off to three LLC companies throughout various parts 25 of the world where there's no jurisdiction, what

1 protective measures -- I'd like to hear you tell me the 2 amount of bond you're going to make them put up so that 3 we're not ultimately on the hook 150 years later when the 4 pipeline is either decommissioned, not used, poorly 5 maintained and either is sitting there unused or an event 6 happens then.

7 CHAIRMAN NELSON: I'm going to turn to the
8 Applicant to answer those questions from the Applicant's
9 perspective.

10 MR. MAHMOUD: Well, I guess first off -- and 11 thank you for your question. I will not sit here and try 12 to predict what happens 150 years or 500 years from 13 today. I mean, that's impossible.

I will tell you, though, that the project is being designed, and the reason we don't broadcast a plan, is that we do design the project to last for as long as -- it's infinity. We add cathodic protection to it. We manage the pipeline such that it doesn't degrade like you would think a piece of metal in the ground would, exposed to the atmosphere, exposed to the soil.

There's actually mechanisms and techniques to minimize that degradation of that pipe. So we can operate it forever, as long as we maintain it. If we were to abandon the pipe for whatever reason, there are plans in place so we do purge and clean

the line from any hydrocarbon products. In most cases when we do abandon a pipeline, and that does occur, we do clean it, and then we purge it with nitrogen. We inert the pipeline, making it a nonhazardous pipeline at that point, and it sits there in place.

At some point if you actually do officially abandon the project or pipeline and you remove those protection mechanisms like the cathodic protection, it actually will deteriorate. Now that takes hundreds of years. But at some point it will -- the earth, Mother Earth, will take it back, I promise, because it does happen.

And we operate pipes that, you know, date back to the early 1930s, 1920s up through the '50s. So there are techniques to prevent the degradation to make it last forever. And we do have plans to mitigate or abandon a pipe.

18 This pipe's not being proposed for 19 abandonment. But, again, I can't predict what's going to 20 happen 100 years from now so I hope that helps with 21 understanding.

22 CHAIRMAN NELSON: You have to wait for the mic.
23 MR. WYATT: I understand the science of how
24 things can be maintained long term, but when not used,
25 the real question, because you won't be employed by the

1 company anymore. They'll have potentially sold the asset 2 off. I mean, that's the way a declining oil field works, 3 and there are examples around the globe of when an oil 4 field goes into decline. 5 And in particular to the Commission then the 6 funding mechanism becomes the key thing when that's no 7 longer generating revenue. Where does the money come 8 from? 9 Which it sounds like a great plan which was not 10 in the proposal, unless I missed it, as far as the 11 filling it with nitrogen, making it inert, making it 12 safe. 13 There's a way to do a cost analysis to say, 14 well, what does it cost per mile of pipeline, and is that 15 money being set aside to hold both the landowner and the 16 State of South Dakota harmless in that event? 17 CHAIRMAN NELSON: Any further response? Or 18 we'll respond --19 MR. MAHMOUD: In the normal industry standard 20 across the United States -- and, like I said, we operate 21 more than 71,000 miles of pipe -- I can tell you we don't 22 put bonds up for that event. I'm not aware of anywhere 2.3 in the United States that that is occurring. 24 We as the owner of the pipe, we maintain 25 ownership. It doesn't matter if it's abandoned or not.

1 Our liability never goes away.

2	If we do sell it, the next owner takes that
3	liability and the next owner after that. So somebody is
4	ultimately on the hook for it. Now I know that may not
5	be comforting to you that you've got to chase down
6	whoever that is at some point 200 years from now.
7	And if I'm still around in 200 years, I've done
8	something very odd; right? But I don't know what's going
9	to happen at that time. But that's not a very common
10	occurrence.
11	And I don't know what the PUC has to say.
12	CHAIRMAN NELSON: Commissioner Hanson, do you
13	want to speak next?
14	COMMISSIONER HANSON: Mr. Wyatt, that's an
15	excellent question. And, frankly, I don't believe that
16	the Applicant's answer to you was sufficient.
17	We in the Public Utilities Commission, we are
18	required to look out for the interests of the citizens.
19	Understand we're at the very front end of this and just
20	going through the process right now with the public
21	input, but that, in fact, your concern for remediation
22	excuse me for decommissioning is remediation and
23	mitigation is a part of the plan, but decommissioning
24	needs to be a part of the plan, at least from our
25	perspective, and that is going to be one of the items

1 that we will be examining.

I cannot say what we're going to do because I cannot speak for the Commission. The Commission will speak for itself when we actually vote on this. And to give you a background, we had some 98 different conditions on the XL -- the Keystone XL Pipeline when that was passed.

8 However, the three of us cannot even talk to 9 each other about this or any other docket except in an 10 open meeting such as this one. So none of us can speak, 11 and I have to be very careful how I speak because I don't 12 want to imply that the Commission has reached any 13 decision on this because we're right at the very, very 14 front end. But that's an excellent concern.

We examined that as well when we're looking at wind turbines, for instance, and putting very large projects up. We want to be certain that the citizens are protected.

But thank you for bringing that up. I'm sorry I cannot give you specifics because I don't know anything in law pertaining to that.

CHAIRMAN NELSON: I would just like to echo Commissioner Hanson's comment. That is exactly the kind of input we are looking for tonight, those things that are of specific concern to you that we need to take into

1	account as we move through this process. So thank you.
2	Other comments, questions?
3	Question.
4	MR. WYATT: I'd like to thank the fact that
5	you're, you know, listening to this concern. And just as
6	you go forward, you know, encourage you to look at that
7	long-term defense of the public and the state's, you
8	know, real asset that this company is asking to use for a
9	small amount of public good but a large amount of private
10	shareholder good.
11	And that's good. I'm not pipelines are a
12	good thing. They're better than rail. It's not a bad
13	idea. But it needs to be done hopefully you looking out
14	for, you know, the public's very real long-sided
15	interest, which sometimes the short-sided shareholder
16	doesn't think of at the time.
17	CHAIRMAN NELSON: Who's next?
18	MR. TSCHETTER: Brad Tschetter,
19	T-S-C-H-E-T-T-E-R. If you're not from around here, you
20	aren't going to know it. Thank you.
21	A couple of questions. I'll do it one at a
22	time. What are you doing for townships and counties as
23	well in construction? Some of our roads aren't up to
24	that type of equipment.
25	Do you have any plans to help townships and

1 counties out on any road damage during construction? MR. MAHMOUD: I didn't hear you 100 percent. 2 Maybe you can talk a little louder. 3 4 MR. TSCHETTER: I was afraid I was talking too 5 loud. Okay. 6 I was wondering if you have any plans in place 7 for helping out counties and townships with roads. Some 8 of our roads, and especially some of the areas you're 9 going, the roads are marginal. And the type of equipment 10 you're hauling and the traffic is going to cause damage. 11 I'm just wondering what you have in place to help us out on that. I'm on a township where it's going 12 13 through on the township board of supervisors so it is a 14 concern for us. 15 MR. MAHMOUD: Sure. Thank you for repeating 16 that question. 17 We do have plans in place. I think the 18 Commission will tell you that they will probably require 19 some bonds of us to make sure that the roads are repaired 20 back to satisfaction, of not only the townships but the 21 Commission. We have plans in place where we require our 22 2.3 contractors who we hire to restore the roads back to 24 preconstruction conditions. We document them up front. 25 We document them after construction. And if there is a

1 problem, we require our contractor to fix it. 2 We hold a certain amount of retainage back from 3 the contractor exactly for this issue so if there is an 4 impact, the contractor doesn't fix it to everyone's 5 satisfaction, we have the fund to actually go in and fix 6 those roads. 7 And if for some reason there's not enough money, 8 our company picks up that tab. We will repair and fix 9 those roads back to their original condition, either like 10 or better than we're done constructing the pipe. 11 Before you go to your next CHAIRMAN NELSON: 12 question, I'd like Commissioner Hanson to weigh in on 13 your question also. 14 COMMISSIONER HANSON: Thank you, Mr. Chairman. 15 The bonding that we required -- the reason I'm 16 speaking to some of these is because I was on the 17 Commission and the other two gentlemen were not when we 18 gave the conditional permits to Keystone and the 19 Keystone XL. 20 With the Keystone Pipeline we provided for a 21 13 million dollar and a 2 million dollar -- might have 22 been a 12 million and a 3 million. But it was 23 15 million dollar worth of bonds. And with Keystone XL 24 we had two bonds. Each were 15.6 million dollars. 25 And we had townships, counties, signing off with

1 the Commission letting us know -- and we also required an 2 individual to be available 24/7 from the Applicant to 3 work with the townships and counties, landowners, and with the Public Utilities Commission so that we were 4 assured that the roads were rebuilt to the satisfaction 5 6 of the counties and townships. And that is part of 7 statute as well. 8 Does that answer your question? 9 MR. TSCHETTER: Yes. Thank you. 10 I do have a couple others, if I may. I was wondering about if you have this easement 11 12 for this pipeline, you actually -- obviously, have the 13 ability to maintain it. 14 Would it allow you to put another pipeline next 15 to it or to replace this one with a larger one or 16 anything like that? 17 MR. MAHMOUD: So the answer is no. We have our 18 easement and our approval is for a single 30-inch 19 pipeline. If we did propose to replace that pipe for 20 some reason with a larger diameter and/or put a second 21 pipeline, we would have to go right back through a process like this. So it's a single 30-inch pipe. 22 23 MR. TSCHETTER: Okay. That answers my question. 24 Thank you. 25 One more question. As a farmer where it's going
1 through my land, if you put that 36-inch pipeline and put 2 all the dirt back in, I will have a hump there. Are you 3 removing that dirt where necessary, or what's the process 4 there? 5 MR. MAHMOUD: That's actually a great question. 6 It is hard to believe, but it is true that in most -- I 7 can't think of a case. Or there may be some. Almost all 8 of that dirt goes back. 9 And it's amazing to think it. And it's a 10 30-inch pipe, but that dirt will go back. If we don't 11 have enough dirt, which sometimes happens, we will 12 actually bring in dirt or soil to repair that right of 13 way. 14 But typically if we do, we do like to crown the 15 So over time as that ditch settles and compacts ditch. 16 and restores itself that that crown will fall back to its 17 original contour. If we do have sluffing or settlement, 18 then we will back in and work with you to restore that 19 right of way to make sure that that preconstruction 20 contouring elevation is met. 21 And that's our obligation to you, by the way. 22 So it may be something that we work together to do. If 23 it's your land, you may want to do that, but we'll work 24 that out on an individual basis. 25 MR. TSCHETTER: That's all I have. Thank you

1	very much.
2	MR. MAHMOUD: Thank you.
3	CHAIRMAN NELSON: Other questions?
4	MR. JANDEL: My name is Joe Jandel, J-A-N-D-E-L.
5	I have a couple of questions on your page 15.
6	One is what does re-vegetation of untiled [sic] land
7	mean?
8	MR. MAHMOUD: What we're talking about here
9	and Monica's our environmental person by the way.
10	Re-vegetation of untilled land is basically
11	where we restore it back to as close to whatever that
12	vegetative cover was. So if it's grassland, then we will
13	restore it back to, we hope, a native seed mix, if we can
14	find and buy a native seed mix, or an approved seed mix
15	with either the NRCS or the landowner.
16	Monica, anything to add?
17	MS. HOWARD: No.
18	MR. MAHMOUD: What she was saying is that we do
19	not re-vegetate in agricultural fields. So if it's a
20	planted field or commodity crop field, corn, wheat, we
21	would typically not replant that with any type of
22	vegetation other than what you would prescribe as the
23	landowner.
24	MR. JANDEL: So on my farm ground you'll go
25	through there and the next year we'll just replant it and

1 we'll be fine. But on my grass that you're going through you are going to replant the grass? 2 3 MR. MAHMOUD: Yes, sir. 4 MR. JANDEL: Okay. When you replant grass and 5 you've got cattle out there you're going to have to keep 6 them off of it for a year at least to maintain it, keep the weeds down. 7 8 Are you going to fence it also? 9 That's a great question. MR. MAHMOUD: And I 10 don't know your land so I'm not going to try to make up 11 an answer. 12 MR. JANDEL: Well, you cut two of my quarters in 13 half that are grass. So it's going to have to be 14 replanted. And then, you know, grass you just can't 15 plant it and start to graze it right away or you won't 16 have anything. 17 So that's my question. How do you handle that? 18 MR. MAHMOUD: It varies depending on what 19 your -- I don't know if you have a grazing rotation 20 program, if they're all out there. We will actually work 21 with you with the right-of-way agent one on one to come 22 up with a plan to -- one, to restore the property with a 23 proper seed mix, between us what that agreement is. 24 We'll spell that out in no uncertain terms, this is what 25 we're going to do.

1 If we need to fence off that right of way 2 because of your cattle, then we will. If we don't, then 3 we'll figure out another method. But at the same time 4 that's on a per track basis. And, again, because I 5 don't know your land but our right-of-way agents that 6 we've hired to come out and work with you, we will work 7 with you specifically and anyone else that owns property 8 or properties to identify what that technique needs to 9 be. 10 MR. JANDEL: Okay. I've got one more question. 11 When you're running that pipe you're going to cross 12 township roads all over. Are you going to put an 13 approach in to that pipe where you cross the roads? 14 MR. MAHMOUD: Typically we would, in accordance 15 with whatever the road crossing permit is. We would have 16 an approach onto or off of that, an apron onto or off of 17 that road. I'm not -- I don't know if we're going to 18 have one at every location. But they will be temporary 19 in nature. 20 MR. JANDEL: The ones that you do put in, will 21 there be culverts in every one of them? 22 We may, if it's necessary. MR. MAHMOUD: But 23 they're temporary, and we'll pull those out. I'm pretty sure -- hold on one second. 24 25 So they're all temporary. I was asking our

1 construction manager, Jack Edwards. All the temporary access points would have a culvert or crossings to 2 3 facilitate flow in that ditch. 4 MR. JANDEL: Okay. So if you're going to take 5 them out when you're done and you're going to physically 6 inspect that pipe, how are you going to get back in there 7 if you don't have an approach? 8 MR. MAHMOUD: During operations? 9 MR. JANDEL: No. After. You said you're going 10 to inspect these pipes frequently. You're going to fly 11 them, but you're also going to drive them; correct? MR. MAHMOUD: We typically do not drive 12 13 pipelines during normal operation. I think I understand 14 your question now. 15 During that operating period if we need 16 re-access to that pipeline -- I mean, normally the pipe's 17 buried underneath the ground so you physically cannot see 18 it unless there's an above ground valve or the pump station that we have. 19 20 So you do not evaluate the pipe by visually 21 looking at it. We have other techniques, and, Chuck, 22 we'll ask you to give a description of those. But 2.3 generally what we do if we needed to get back to that 24 pipeline for whatever reason, we have agreements with 25 various landowners for permanent access roads to our

1 easement where we would access that pipeline on somebody's piece of property or we would ask the 2 3 landowner can we drive on your property to get to our 4 pipe? 5 Or if we needed to approach the pipe off of that 6 road again, we would go back to the county and ask for 7 another temporary approach to access that pipe. 8 And, Chuck, do you want to talk real quick about 9 evaluation of the pipe? 10 MR. FREY: Yes. The inspection program we have 11 generally we don't need direct access to your land. The primary tool we use is an instrumented tool that we run 12 13 through the pipeline on generally an every-five-year 14 basis. The tool can look for any metal loss. It can 15 look for any deformation in the pipe. 16 So if we find any area that needs to be 17 investigated, we can come specifically to that area. 18 Before we would do anything, obviously, we would contact 19 the landowner. We would work out a plan that would allow 20 us to expose the pipeline in the particular area that 21 needed investigation. 22 And in all likelihood we would never have to 2.3 come back to your land to dig anything up. 24 MR. JANDEL: Well, I understand you may not have 25 to dig anything up. But the question was, you know, if

1 you have somewhere where you put this pipe in and, you 2 know, it may sink and you might have to haul a load of dirt in there, you're going to have to access it again. 3 4 And that may or may not happen on somebody's 5 land. But if you take the approaches out, some way 6 you've got to get back there. 7 MR. MAHMOUD: And we would put those back in or 8 find an alternate means of access. 9 MR. JANDEL: Thank you. 10 MR. MAHMOUD: Yes, sir. 11 COMMISSIONER HANSON: Mr. Chairman. 12 CHAIRMAN NELSON: Commissioner Hanson. 13 COMMISSIONER HANSON: Sir, I believe your name 14 is Joe Jandel; is that correct? 15 MR. JANDEL: Jandel. 16 COMMISSIONER HANSON: Jandel. We had approximately 98 different conditions for 17 18 Keystone XL. And with Keystone that ran through the 19 eastern part of the state we did require that the 20 Applicant, TransCanada, work with the landowners on the 21 replanting of grasses, for instance, and to use native 22 grasses. 23 In a couple of instances the seed that they 24 applied was not native and it was not the type that 25 cattle would consume, and so we are actually still

1 working with two of the landowners. It was an accidental slip because they had somehow gotten the wrong 2 3 seed. 4 However, with the cattle we also required that 5 TransCanada isolate the cattle from the trench area 6 during construction to make certain -- and work with the 7 landowners certainly to make certain cattle didn't wander 8 over. Obviously, they didn't want them in the 9 construction area. 10 Additionally, we also provided a requirement 11 that an area -- in some areas where there was a need for 12 it, a specific proven need, that there was the ability 13 for the property owner to be able to have the cattle 14 cross the trench area. 15 So they had to construct a -- it was basically 16 just a berm that was placed there temporarily so that 17 cattle could cross. So that is an -- excellent questions here 18 19 tonight, and that is part of the process for it. 20 MR. SCHLEY: Thank you, Commissioner. My name 21 is Doug Schley, representing some of my dad's grassland. 22 And you just answered part of the question I was 2.3 going to ask because I think I know exactly who you're 24 talking about. Some places where they planted Crested 25 Wheatgrass back in there in the native grass, and the

1 cattle just won't eat it. And that's part of my concern 2 on dad's land, that we get some of the native grasses back in there. 3 4 And the second question I had was I also worked in the area where the wind turbines were built down 5 6 there. And when they did a lot of road reconstruction 7 down there they used some very large crushed rock and the 8 farmers down there and I myself have experienced flat 9 tires from driving over the large crushed rock. 10 They got very sharp edges on them, and the 11 farmers in that area are experiencing a lot of flat tires now that they never had before. So a concern about what 12 13 type of fill they put back on the road. 14 CHAIRMAN NELSON: Any response? 15 MR. MAHMOUD: Great points. And we certainly 16 will take that into consideration and as part of our 17 planning. 18 And we certainly don't want to have a bunch of 19 flat tires to buy and fix so we will work with the local 20 county road commissions and make sure we put on the right 21 size rock so we don't have that issue. We certainly 22 understand that. 23 MR. TSCHETTER: Larry Tschetter, Hitchcock, 2.4 South Dakota. T-S-C-H-E-T-T-E-R. 25 Will you be removing the rocks from the pipeline

1 area? Because I quarantee you, you will find rocks on my 2 route. And where will you dispose of them? 3 MR. MAHMOUD: We will remove the rocks. Our 4 construction spec. requires us to move any rock 3 inches 5 or larger from the surface of the ground. If we unearth 6 it, we remove it. 7 We also -- if there is rock on your surface now, 8 we will match -- the right of way will look like the 9 adjacent property. So you won't have anymore rock than 10 what you would normally have. And if we do bring a bunch 11 of rock to the surface, we will remove it. That's part 12 of our construction techniques and plan. 13 And I quess to answer the second part, some 14 landowners want the rock. If you do not want the rock, 15 then we will haul it off and dispose of it. 16 My second question, will MR. TSCHETTER: 17 Energy Transfer Partners provide a parent company 18 guarantee related to Dakota Access and any subcontractors 19 for liabilities associated with the pipeline? 20 MR. MAHMOUD: The first part of the answer is 21 no. But that doesn't mean that we're not going to honor 22 our obligations to you. 23 An easement is a contract. The contract is enforceable by law. If we don't live up to our 24 25 obligation -- I hope this doesn't happen, and I would be

very disappointed if it did -- that you would have to 1 2 call an attorney or call the PUC Staff to say we're not 3 living up to our obligation. 4 But we do provide compensation for those 5 easements. We sign an easement. Those are the governing 6 documents that we live by and, of course, with whatever 7 the certificate says. But we do not provide parent 8 guarantees to individual landowners. 9 MR. TSCHETTER: You may be aware that LLCs like 10 Dakota Access are formed to avoid liabilities. And 11 Energy Transfer Partners has the ability to just pull the 12 plug any time then and walk away with no responsibility 13 for clean-ups or spills. 14 So what's your comment? 15 MR. MAHMOUD: Well, that's not true. So I don't 16 want anybody in here to think that that's true because 17 it's not. 18 We as a company, an LLC that was formed for this 19 project, this is a joint venture project. There's two 20 business partners. There's Energy Transfer Partners and Phillips 66, both Fortune 500 companies, actually both in 21 22 the top 100. Giant companies with a lot of resources. 23 We form a company for an LLC simply to isolate 24 that company for a business management perspective. It's 25 not to dodge the bullet to limit our liability from any

1 potential impacts to your property or anyone else's. Ιf 2 we had an impact, we absolutely would stand behind 3 whatever our word is. 4 We're actually obligated. Just because we have 5 LLC, our parent companies are still liable if we had an 6 impact. We just don't get to walk away just because it's 7 an LLC. That's a false statement and is not accurate at 8 all. 9 MR. TSCHETTER: I guess that's what I wanted 10 know, if the parent company was going to be backing up 11 Dakota Access? You just don't know what's going to 12 happen in the future. There's no guarantees about 13 anything so that was my --14 MR. MAHMOUD: Sure. I appreciate that. 15 Keegan or Brett, do you want to add anything to 16 that? Okay. 17 No. 18 MR. FREY: As Joey said, the federal law 19 obligates the parent corporation in events of spills. 20 But in addition to what money we bring to the 21 table, there's a federal fund. There's an 8 cent fee that's charged on every barrel of crude oil that's moved 22 23 that goes into a federal fund so that if any company is 24 unable or not doing the right work per the Federal 25 Government, they will come in and clean up using that

1 fund and then bill the company that was responsible. So there's an extra layer of protection even 2 3 behind the money that the company has. 4 MR. TSCHETTER: One more question. 5 Will the State be getting any revenue off of 6 this pipeline possibly for cleanup or some other 7 costs? 8 MR. MAHMOUD: The State does not receive revenue 9 off the project. South Dakota doesn't have a commodity 10 charge. They do receive -- just like you pay property 11 12 taxes for your property, we pay property taxes for the 13 asset that's in the ground. It's 13 or so million 14 dollars. 15 If there is a spill, I think that's what you're 16 referring to, the State does not have a fee that they 17 charge in the event of a reclamation or to clean up. 18 But as Chuck was just mentioning, we do pay a 19 fee, an 8 cent per barrel fee, to the Federal Government 20 that the Federal Government actually holds that money. 21 And in the event there is a spill that we failed to live 22 up to our obligation, they utilize that money to pay for 2.3 that cleanup in the state. 24 So the State is being protected by the Federal 25 Government that once that cleanup is done, then the

1 government actually comes back to the company. In this 2 case it would be Dakota Access or the parents, and we 3 would have to repay the Federal Government for that 4 money. If not, the government would go through their 5 legal processes to get their money. 6 So when you've seen big spills out there where 7 the government has come in, the EPA or one of those 8 agencies that takes over that spill response, they're 9 going back to the company to recover the money. So the 10 public is not out any money. It may perceive to be up 11 front, but at the end of the day they're recovering those 12 dollars that were spent. 13 MR. TSCHETTER: Okay. Thank you. 14 MR. MAHMOUD: Thank you. 15 MR. NIELSON: Larry Nielson, N-I-E-L-S-O-N. 16 Can you quantify what the local property tax 17 mill or value might be to the school districts and stuff? 18 19 MR. MAHMOUD: I cannot. I know we can, and if 20 that's something you're specifically interested in, we can talk afterwards. I can get your name and phone 21 number, and I'll be happy to talk, but I just do not have 22 2.3 that information memorized. I apologize. 24 MR. RATHJEN: My name is Richard Rathjen, 25 R-A-T-H-J-E-N.

1 It crosses the center pivot of mine. And I 2 asked the field man if the well went bad and I had to 3 drill my well like test holes on the other side, and he 4 said that they would pay to bury underneath or through 5 the -- underneath the pipeline because it would have to 6 be 6 feet deep so it would have to go underneath. Is that correct? 7 8 MR. MAHMOUD: I'm going to try to restate what I 9 think I heard. If you relocate your center pivot, would 10 we pay for the relocation? 11 MR. RATHJEN: No. The well. If the well went bad and it cuts the field in half and I had to drill on 12 13 the other side of the pipeline, I would have to bury 14 the line through the center pivot through the pipeline 15 area. 16 MR. MAHMOUD: Okay. Certainly now I understand. 17 Thank you. 18 Typically, no. But that's something that we 19 would actually work together on. If we -- our pipeline 20 resulted in an adverse impact to you today or 10 years 21 from now in a situation like that, it would depend on the 22 If we resulted in causing you more harm or circumstance. 2.3 money that you would normally not pay but for that pipe, 24 we probably would pay for that damage. 25 I just can't say for certain that we would

1 because I don't understand or have the specific 2 circumstance or situation. But we're pretty good neighbors. 3 And most times we take care of our business. CHAIRMAN NELSON: 4 If I could ask a follow-up 5 question, I'm an agy, but I'm not an irrigator. 6 How deep would you typically bury that pipe? 7 MR. RATHJEN: It has to be below frost line so 8 you go -- mine is 6 feet or a little under. Now it's 9 going to be going underneath of their pipeline. 10 MR. MAHMOUD: So let me -- typically we are, as 11 I mentioned earlier, at least 48 inches. So one of the 12 things I would suggest -- and I don't know if this is 13 just a hypothetical or something you're dealing with 14 today. 15 If you have an area that you know you're going 16 to relocate that water line, if you'll work with our land 17 agent, then we can actually make those accommodations for 18 you now as opposed to having that additional expense later on. 19 20 It's just we can't predict everything. But if 21 you work with us, we probably can do something. 22 MR. RATHJEN: But I can't predict that either. 2.3 If that well goes bad and the test hole is better on the 24 other side, there's three-quarters of a mile length 25 there. How am I to know where you should bury deeper?

1 MR. MAHMOUD: I agree. The hypotheticals are 2 endless. But I give you our word and our commitment that 3 4 the right-of-way agents today are construction 5 right-of-way agents. When we go into operations they 6 will typically be company employees. And those 7 individuals will work with you to try to mitigate or 8 minimize those impacts. 9 MR. RATHJEN: You could pick a point, but say it 10 was in the middle and the well was in the south end. 11 That would put a lot more cost on me to bury that clear 12 over to the middle than to get to my center pivot. 13 MR. MAHMOUD: Right. Yeah. 14 MR. KUEHN: My name is Randy Kuehn, K-U-E-H-N. 15 On your presentation you talked about the 16 pipeline, but you never talked about the pump station. Ι 17 live within a mile of this proposed pump station, and 18 there is a family that lives within 100 or 200 yards of 19 this pump station. And I'd like to know what the effects 20 of this pump, noise, what it entails, size, motors, and 21 why that site was chosen. 22 It looks like on your map you made almost a 23 90-degree angle to go to that location, and all the 24 sudden you turn 45 degrees and go back south again. I'd 25 like to know why this location was chosen. And I think

there's probably a better location for this station 1 2 further away from families and farms. 3 MR. MAHMOUD: That's a two-person answer. And 4 I'm going to ask Tom or Jack to answer the siting location. 5 6 MR. EDWARDS: The pump station was located there 7 because the power's there. 8 MR. RATHJEN: I can't hear you. 9 MR. EDWARDS: The pump station was located there 10 because there's power lines there. And the electric 11 motors that run the pumps, that's where the pump station 12 is, for the -- the power lines are in that location. 13 I didn't understand the second part of your 14 question. 15 MR. RATHJEN: Explain a pump station. How many 16 motors does it take? What's the decibel rating? How 17 loud is it? It's in my backyard. I don't appreciate it 18 being there. 19 MR. MAHMOUD: I appreciate that. That was 20 Jack Edwards speaking, by the way. 21 Chuck, can you go over the pump station 22 specifics for us? 2.3 MR. FREY: The pump station will consist of, I 24 think, two pumping units here, either two or three 25 pumping units. They are electric motor driven, and so

1 they are not nearly as loud as an engine driven location 2 would be. I don't know the exact decibel level. I know we 3 have pump stations much closer than that in other 4 5 locations to residences. We will work with the landowner 6 on any noise issues. But I don't have specifics of 7 exactly what the decibel level would be at your home 8 coming from that specific pump station. 9 MR. MAHMOUD: I think to add a little bit of 10 clarity, our normal design criteria is 55 decibels. 11 That's less than a lawn mower. At 200 yards away you 12 probably wouldn't be able to hear much of that lawn 13 mower. 14 So they're electric driven so they're very 15 It's not like a tractor engine or a big pump that quiet. 16 you may be envisioning. They are big, but they're electric driven. It's more of a hum than an engine 17 18 sound. 19 I don't know if that helps clarify that at all 20 for you. 21 CHAIRMAN NELSON: If I could ask a follow-up 22 question, the location of pump station, is that property 2.3 that you plan to purchase? 24 MR. MAHMOUD: Yes, sir. It is. 25 CHAIRMAN NELSON: Thank you.

1 MR. WAGNER: My name is Jeff Wagner, 2 W-A-G-N-E-R. I have two questions. One, it's going to be 3 4 pure crude coming through this pipeline; am I correct? MR. MAHMOUD: Yes, sir. Crude oil. 5 6 MR. WAGNER: There are no chemicals in that? MR. MAHMOUD: Well, that's kind of a trick 7 8 question. There are chemicals that are part of the crude 9 We're not adding -- we could add -- we're not oil, yes. 10 adding -- I don't know what chemical you're referring to. However, we could add a drag-reducing agent to 11 help the flow efficiency of the pipe, of the crude oil in 12 13 the pipe. 14 MR. WAGNER: In other words, the crude that 15 comes out of the Bakken, whatever chemical is in that 16 crude will be coming through the pipeline; correct? 17 MR. MAHMOUD: That's correct. With the 18 potential addition of what's called a drag-reducing agent 19 to reduce the friction of that crude moving through the 20 pipe. 21 MR. WAGNER: Second question. If God forbid 22 there would be a problem that you would have a break in 2.3 the pipe, what if it was caused by, let's say, a 24 lightening strike? I've heard of that causing a hole in 25 a pipeline.

1	You will be responsible for that? Or would that
2	be just because it's on your land, it's your problem?
3	MR. MAHMOUD: We are 100 percent 1,000
4	percent owners of that pipe and responsible for the
5	material that is transported in that pipe.
6	The landowner has no accountability or
7	responsibility for that pipeline, nor that product. So
8	we would clean it. We would be responsible for the
9	remediation. The landowner would not be.
10	MR. WAGNER: Could I ask one more question?
11	MR. MAHMOUD: Sure.
12	MR. WAGNER: All right. Let's say, worse case
13	scenario, the Access company would go bankrupt. Then
14	what happens?
15	MR. MAHMOUD: Well, that's a great question.
16	The hypotheticals are hard.
17	I'll tell you when Enron went bankrupt, and I
18	think most of you probably have heard that story when
19	they went bankrupt, those assets just don't sit idle.
20	They're valuable assets. So when they went bankrupt our
21	company my company actually bought a lot of those
22	assets.
23	So just because one outfit, if we were ever to
24	go bankrupt which I can't imagine, but I can't predict
25	everything. If we did, I can't imagine this valuable,

1 nearly 3.8 billion dollar asset would sit in that ground 2 underutilized or not utilized and somebody wouldn't buy 3 it out of bankruptcy. 4 CHAIRMAN NELSON: Others? 5 MS. HOLT: My name is Shirley Holt, H-O-L-T, 6 landowner. I have a couple two or three questions to ask 7 actually. 8 I had heard up at the Bakken where they're doing 9 all of this fracking that it is causing salt issues in 10 the residential's drinking water up there. I didn't know 11 if that was going to be -- when that oil is coming down 12 through our pipeline and running adjacent -- this is a 13 two-part question, running adjacent to the WEB Water 14 lines also too, we don't have to worry about the salt I 15 know that, but if there happens to be a leak, is that 16 going to go into our WEB Water? 17 Are we going to ever have trouble with our 18 drinking water? 19 MR. MAHMOUD: I cannot comment on what's 20 happening up in the Bakken on the drilling side. That's 21 not what we do for a living. I don't know if those are 22 true or untrue accusations. 23 As far as the WEB county water at our last 24 meeting there was actually somebody there that brought up 25 a similar question. And I quess there is a study out

there that shows that over time if crude oil sat next to 1 a PVC pipe, that there's a potential of crude oil being 2 3 able to migrate into that water line. 4 That happens in a stagnant environment over a 5 long period of time in a controlled atmosphere. So the 6 reality of that really happening is very low. 7 I'll tell you we are working with the water 8 districts to lower and move their pipes and to actually 9 case those pipes to add added mitigation and protection 10 just to ensure that if there was a situation, that we 11 would not contaminate the water supply. 12 We're doing that. We're committing to do that 13 with the water district to protect those assets. Even 14 though we think it's a very, very, very remote 15 possibility, it's not even worth the chance so we're just 16 committing to do it and working with them to employ those 17 mitigation measures. 18 CHAIRMAN NELSON: I'd like to just follow up on 19 that. In our meeting at Bowdle today, Steve Harper, the 20 general manager of WEB was there and asked some very specific questions based on his obvious understanding of 21 22 his system and the interaction with the proposed system 2.3 and how that would all work. They were great questions. 24 He indicated that he or WEB intends to become a 25 party to this case so they can follow all of this very

1	closely and be at the table as this progresses.
2	MS. HOLT: Thank you. I was also just one
3	more question. If there happens to be a leak and it does
4	get into our water, drinking water, like what is going
5	on at the Yellowstone River say it happens in the
6	James River, in a frozen river, what does that cleanup
7	entail, and how do you get that oil out of our drinking
8	water, our bathing water, our cattle's tanks?
9	How is cleanup actually done?
10	MR. MAHMOUD: There's many techniques to clean
11	up a spill. And if it did happen, there's one, you
12	can collect the oil. You use booms. You use absorbent
13	materials that actually absorb the crude oil from the
14	ground or from the water.
15	You can apply different bacteria or not
16	bacteria. What are they called? Bugs, basically, that
17	eat the oil. Sorry. I don't have the exact name. But
18	they basically eat the oil. So they eat it. They
19	decompose it. So that's one way or one technique.
20	You can collect the dirt and burn it off and
21	bring the dirt back. There's just a number of ways to
22	mitigate impacts to the environment. I'm not saying any
23	of them are pretty or great or don't take time.
24	If we were to contaminate the water supply, we
25	as the company would be obligated to replace that water

ľ

1 supply. It's that simple. We are 100 percent liable and 2 responsible. We have a lot of resources at our disposal. 3 We 4 have insurance to -- if we can't afford it for whatever 5 reason, which we can, we have insurance that would kick 6 in to help pay for that cleanup. 7 The Federal Government has a program to step in 8 in the event we don't live up to that obligation, and 9 they would come back after us. 10 So there's a lot of protection mechanisms in 11 place, should that event occur, which is very unlikely. But we understand your concern. And there are lots of 12 13 techniques to do it. I just can't tell you which one 14 would be employed when and how because each spill is 15 individual. It's different. And you employ the 16 technique for that given situation. 17 So if it's in water, you use certain techniques. If it's on land, you use certain techniques. If it hits 18 19 your farm pond, you use different techniques. So I don't 20 know how to answer it 100 percent other than we're liable 21 and we will do our best to clean it up and if we can't, 22 the government will and they'll come back after us. 23 Go ahead, Chuck. 24 MR. FREY: I'll add one thing. Part of our 25 Emergency Response Plan, we will have identified all

1 downstream intakes for water supply that could be 2 affected by a release like into a river. And so one of the first contacts that's made is to the manager of that 3 4 water resource so that they can take steps to protect 5 their intake from any oil being able to get into the 6 system. 7 That's one of the first protection things that 8 goes into practice in response to a release, if it 9 occurs. So our first step if a release occurs, is to try 10 and make sure it does not get into the water system at 11 all. 12 MS. HOLT: Thank you. 13 COMMISSIONER HANSON: Mr. Chairman. 14 CHAIRMAN NELSON: Commissioner Hanson. 15 COMMISSIONER HANSON: If I could add a little 16 bit to that, I was the Utilities Commissioner for the 17 City of Sioux Falls during a period of time when a 18 pipeline did rupture north of the City. Also during that 19 time a tank farm leaked, and the gasoline mitigated --20 crossed an area into -- I should say migrated, not 21 mitigated. Migrated into an area that caused the closing 22 of a grade school. We also had a Super Fund site during 2.3 that period of time. 24 So I have experience in dealing with these type 25 of situations. And actually the pipeline rupture was the

1 easiest of all the challenges we had during that time to 2 mitigate because the soils were simply -- the soaked 3 soils were removed to another location by the owner of 4 the pipeline, and other soils were just simply turned 5 over. 6 We have to remember that oil comes from the 7 ground, and a lot of oil is leaked. And I don't mean to 8 be giving testimony on behalf of the Applicant, but from

9 my practical experience in that and as Chairman of 10 Governor Rounds' Underground Pipeline Task Force, I'm 11 aware that there are fundings available when an 12 Applicant -- when an owner of a pipeline does not take 13 care of the challenge.

Although, ultimately the pipeline owner is responsible. The soils were simply overexposed and eventually they were able to be used again, but the owner of the pipeline was responsible for all of the costs and did have to compensate the landowners for those costs.

MS. HOLT: Just one more question.

20 How deep are you putting this pipeline in the 21 ground? Is it below the frost line?

19

22 MR. MAHMOUD: Typically it is. You know, the 23 frost line varies based on the winter. Our standard 24 burial depth is 36 inches in non-ag areas, 48 inches in 25 agricultural areas. So that includes commodity crop --

1 row crops. It includes hay pastures. Anything that's 2 farmed will be a minimum of 48 inches to the top. 3 And then across roads or ditches, a minimum of 4 60 inches. Typically that's below the frost line but not 5 always. And certainly below the roots of most of the 6 plants that grow up in this area. 7 MS. HOLT: Thank you. 8 MR. RATHJEN: Rich Rathjen, R-A-T-H-J-E-N. Ι 9 have another question. 10 Once this is in place and that easement is 11 permanent, can we tile all of that ground above that 12 pipeline in the easement area? 13 MR. MAHMOUD: That's another good and difficult 14 question to answer. 15 And the answer is yes. So when we put in our 16 pipeline, our proposal -- right now if there's existing tiles, our standard separation is 2 feet. So if the tile 17 18 sits at -- if you're -- I don't know what your depth is 19 at the A B Horizon. If you're at 2 and a half feet, our 20 pipe would be another 2 feet below that. So 4 and a half 21 feet below that tile. If for some reason you put in a tile later on 22 2.3 and -- you know, we will have to work together to figure 24 out how to get that tile across that pipeline. We'll 25 mark it and work with you. If we know where the -- where

1 your potential for your drain tiles are now -- and I'm not talking about just sketching it out on a piece of 2 3 paper and saying, hey, one day we think we're going to do 4 it. But if you have an engineered plan or a tile plan 5 that you're working on with a tile contractor, if you 6 will get that to us we will accommodate that depth now. 7 It's very difficult to do it after the fact 8 because the pipe's already in the ground. 9 MR. RATHJEN: That's my question. There's so 10 much tiling going on in our state now, and people may want to tile most all of their ground above it in the 11 12 next 10 years. 13 Can they tile that? 14 They can. It just may not be MR. MAHMOUD: 15 2 foot of separation like we would prefer if we knew 16 where the tile was today or what the plan was. So it 17 could be that there's less than 2 foot of separation. 18 But they absolutely could put tiles above or below. 19 MR. RATHJEN: So if it's 48 inches down, you 20 could run tile 2 and a half feet down and still be two 21 feet above your pipeline through that easement area. 22 MR. MAHMOUD: It would be a foot and a half. 23 And, yes, sir, you could. 24 MR. MILLER: I'm Kevin Miller, K-E-V-I-N, 25 Miller, M-I-L-E-R.

1 Thank you and I appreciate the time to speak 2 here today. Kevin Miller, I'm a special pipeline 3 4 representative with the International Union of Operating 5 Engineers. We represent over 400,000 people here in the 6 United States and Canada and, to be more specific, in the 7 State of South Dakota approximately 1,000 members. 8 I do have a couple of questions, but first the 9 whole basis, just like many of our members throughout the 10 country are -- including myself, we're hunters, 11 fishermen, outdoor enthusiasts, and any project no matter whether it be a big heavy highway job or a power plant or 12 13 this pipeline, if we ever thought that there would be 14 something that could potentially endanger something that 15 we loved in a pastime, we would never ever support a 16 project like this. 17 However, we do feel that energy has gone way, 18 way out and beyond others in this industry, in this 19 country to show that they're not going to do things the 20 cheap way. 21 I do have a couple of questions, and if you 22 guys could just clarify some for me. Dust mitigation 23 program, do you guys have one written for this for road crossings around businesses, especially homes, et cetera, 24 25 et cetera?

1 MR. MAHMOUD: We control the dust. Our dust 2 mitigation plan is basically just spraying water on to 3 the ground to avoid that dust from being, you know, 4 promulgated off the right of way. 5 I don't know that we've put that in writing 6 anywhere, but it will be in our contracts that we have to 7 control dust when we're constructing the pipeline with 8 our contractors. 9 MR. MILLER: Okay. And I assume -- and I'm not 10 supposed to assume, but I am in this situation -- access 11 yes, access no signs for temporary access roads or in our 12 industry we call them shoe flies, will they be 13 specifically marked, the red and the green type signs so 14 that people aren't making mistakes heading down, you 15 know, landowner driveways and stuff or places they're not 16 supposed to be so we don't have any issues? 17 MR. MAHMOUD: Absolutely, yes. We will mark all 18 of our access points. 19 MR. MILLER: Okay. All right. Well, on behalf 20 of the International Union of Operating Engineers, I'll 21 just make this short. We are in support of this pipeline 22 fully. 23 CHAIRMAN NELSON: Out of respect for the 24 endurance capabilities of our court reporter, could I

25 just see how many more folks want to visit with us

1 tonight? 2 Maybe four, five, six. Okay. She's saying let's roll forth, and you 3 4 give me the high sign if you need to take a short 5 break. 6 MR. OVERBY: My name is Glenn Overby, O-V-E-R-B-Y. 7 8 And these projects are promoted on the economic 9 benefits that they shall give to the United States and 10 all other areas. Do these pipeline companies, 11 specifically this one, use 100 percent American steel and 12 pipe production in their pipelines? 13 MR. MAHMOUD: I love this question, and I wish I 14 could say yes. 15 The simple fact is that we tried. We are buying 16 57 percent of our steel from here in the United States, 17 being rolled in Arkansas as well as -- well, most of it's 18 in Arkansas. We tried to buy it. The remainder --19 almost the remainder, about 95 percent is either being 20 produced here in the U.S. or in Canada. 21 Those mills that we contracted with, that was 22 the most they could make. So we tried to buy it. They 2.3 couldn't make it. So we had to go outside the country. 24 Our next stop was our border states, which in this case 25 was Canada. And then what they could not produce, we

1 actually had to go outside of Canada to procure. 2 MR. OVERBY: Okay. You say we tried. But you 3 advertise this is economic development to the 4 United States. I think you should cease to advertise in 5 that false manner because you admit that you don't buy 6 all the material in the United States. 7 And I would suggest to the Public Utilities 8 Commission that they seriously consider this. And you 9 can require that U.S. steel and products be used before 10 they approve of a pipeline as such. 11 Now I'm not talking for or against the project. 12 I'm talking economic development to the United States. 13 And I think it would be a good idea to use American steel 14 in building these pipes that benefit our country. 15 So give that a thought. 16 And how close to buildings, houses, and barns 17 and feedlots can these lines be put in, these oil lines? 18 19 MR. MAHMOUD: Another good question. And I'll 20 say we tried to buy all the steel from the United States. 21 We could not produce it as a country, unfortunately. 22 We don't have a set standard for offsets. We 2.3 try to be 200 feet away from a residence. As far as a 24 feedlot or a barn or a nonhuman occupied structure, we 25 could be pretty close, meaning that we would not have

1 anything within the permanent easement. And typically it wouldn't even be within the 2 3 temporary easement. So that alone would be about 150 4 feet. And we try to be more than that when possible. I can't think of a circumstance when we're 5 6 closer, but there may be. 7 MR. OVERBY: Okay. I don't like the word "try." 8 We should have a definite policy. A few years ago we 9 talked to the Spink County Commissioners wanting them to 10 pass an ordinance on protection to the farm property in 11 Spink County, and it failed to pass there because of 12 several items. 13 It wasn't because a number of the people didn't 14 want it. But I think we should have a regulation too on 15 the pipeline that we allow to go through our country --16 our area that most of this gas, if not all of it, or fuel be used in South Dakota or states nearby, the 17 United States at least. 18 19 I understand that some of this goes down to 20 Texas and is exported, and that does not bring cheaper 21 fuel to us. 22 But anyway I thank you for allowing me to make 2.3 comments. 24 MR. BUSHONG: My name is Todd Bushong, 25 B-U-S-H-O-N-G.

I see by PowerPoint that part of your ownership
and the people you deal with on both ends of the pipeline
are members of the American Petroleum Institute.
The American Petroleum Institute has been

The American Petroleum Institute has been relentless and ruthless and most of the time untruthful on what they say about ethanol.

7 I'm not necessarily against this project. We 8 have land that is affected by this project. Our economy 9 and agriculture in general is energy driven. But at some 10 point the right thing to do is for your people to quit 11 disparaging and talking down our product, which is just an additive which has proven itself time and time again 12 13 for it's environmental benefits and do the right thing 14 and do the right thing to these agriculture producers 15 here tonight and quit your daily attacks on the Renewable 16 Fuel Standard and trying to get the Renewable Fuel 17 Standard repealed.

And I can't speak for the other ag producers here today, but the chances of us signing an easement if the Renewable Fuel Standard gets repealed because of the lobbying effort of the American Petroleum Institute, which is your people, the chances of us signing an easement is just about zero.

And to the Commission, agriculture is the number one industry in this state. This town has an ethanol

1	plant that has three to four times the number of full
2	time jobs in Spink County that their project promises to
3	deliver to this county.
4	The economic multiplier of that ethanol plant is
5	about 7.2. The front side capital intensive investment
6	projects like this pipeline have an economic multiplier
7	of less than 3. Because once they're built there's no
8	money coming.
9	So my thoughts to the Commission and to the
10	board is do the right thing. Quit attacking our product.
11	If you want us to support your product and your projects,
12	the right thing to do is to support our product.
13	CHAIRMAN NELSON: Others.
14	MR. ALBRECHT: My name is Dave Albrecht,
15	A-L-B-R-E-C-H-T. I want to thank the DAPL for coming,
16	and I want to thank the PUC for coming. You guys got a
17	tough job, and we appreciate it.
18	Here in Spink County we have a superintendent
19	and he's been talking to other superintendents along the
20	proposed pipeline and the intention is to have uniform
21	agreements along the pipeline so when and if your
22	company your pipeline comes through, each county
23	doesn't have to go through the same process over and
24	over.
25	So are you people part of the agreements that

Г
1 are coming out of this group of counties? MR. MAHMOUD: Are you referring to road 2 3 agreements? 4 MR. ALBRECHT: Road use agreements and such. 5 MR. MAHMOUD: We're trying to be, absolutely. 6 And the more consistent, the better for us and for the 7 counties. 8 MR. ALBRECHT: Okay. That's all I needed to 9 know. Thank you. 10 MR. BINDENAGEL: Curt Bindenagel, 11 B-I-N-D-E-N-A-G-E-L. 12 The question I had tonight was the path that your pipeline -- the route that it goes you're going to 13 14 have to cross the James River. I'm just wondering 15 what -- how are you planning on getting the pipeline 16 across the James River? 17 And is there going to be any effect on the level 18 of the water during construction and afterwards? Ιs 19 there going to be any effect on that? 20 And also what size leak can you actually detect 21 as far as gallons? If there was a leak, at what point 22 can you actually detect it? 23 So kind of a couple of questions for you. 24 MR. MAHMOUD: Okay. I'll see if I can remember 25 all of them.

1 First of all, when we cross the James River 2 we'll do it by what's called a horizontal directional 3 drill. So as we approach that crossing we will actually 4 set back a certain distance, and we will drill underneath 5 the river. That depth beneath the river will be no less 6 than 25, 50 foot below the bottom of the river bed. 7 So when we approach it we will have no impact to 8 the river whatsoever. So we won't drain it. We won't affect it. 9 We won't do anything to it, other than we 10 will cross underneath it. So there's no impact. 11 As far as a detectable leak, Chuck, can you help 12 me with that? 13 MR. FREY: Yes. As was mentioned in the 14 presentation, we do have a computational model program 15 and what that's doing is doing hydraulic models of the 16 pipeline as it's operating with the live data input, and 17 it's looking at the numbers it sees and comparing it to 18 the model and seeing if it sees anything that is at 19 variance with that that doesn't look right, gives us a 20 warning. 21 If we get an alarm to the control point 22 operator, he checks and can immediately shut the pipeline 2.3 down, block in areas. 24 I can't give you a specific size leak that can 25 be found because it varies depending on the flow rate of

1 the pipeline, the type of crude oil that's in the pipeline. Larger leaks are much easier to find than a 2 small leak. 3 4 But the model is pretty detailed, and it -- if 5 it sees anything that's a deviation with what it should 6 be seeing, it gives us a warning and gives us an 7 opportunity to go out and do an onside investigation with 8 our operating personnel. 9 MR. MAHMOUD: Did that answer your questions? 10 MR. BINDENAGEL: Yeah. 11 CHAIRMAN NELSON: Others. 12 MR. TSCHETTER: I have a couple more, please. 13 Brad Tschetter. Just a couple of questions. 14 Do you bore all improved roads, bore underneath 15 them rather than disturb them? 16 MR. MAHMOUD: Our general practice is to bore. 17 If it's a public road, yes, we bore roads. 18 MR. TSCHETTER: My second question is, and this 19 would be more in the grasslands there are Native American 20 artifacts. 21 Do you do archaeological surveys ahead of time? 22 MR. MAHMOUD: We do, yes, sir. 23 MR. TSCHETTER: Thank you. 24 MR. CHRISTENSEN: My name is Doug Christensen, 25 C-H-R-I-S-T-E-N-S-E-N. And the pipeline is going through

1 my CRP contracts.

How do you do the government contracts with the 2 CRP acres? 3 4 MR. MAHMOUD: How do we cross your CRP land? 5 MR. CHRISTENSEN: No. We've got contracts with 6 the government on this. What happens to our contracts 7 when you guys bore the lines across the CRPs? 8 MR. MAHMOUD: Nothing. 9 I don't know your particular contract, but in 10 general when we cross a CRP property a crossing with a 11 pipeline is typically a permitted use. I'm not aware of 12 any that say you cannot. 13 The key is how we restore that property. So we 14 usually do the topsoil segregation. We will always 15 use -- if we can get the seed. So I need to be 16 careful -- a native seed mix that is similar to or the 17 same as the species that are growing on that CRP 18 property. Those are usually the requirements. 19 We have to cross it in accordance with, you 20 know, normal construction procedures but also to restore 21 the land back to its prior condition. And if we do that, 22 we've never seen an impact to a CRP property. 2.3 MR. CHRISTENSEN: So how would we do our 24 easements then? We have to sign an easement away from 25 the CRP contracts.

1 MR. MAHMOUD: No. You should not. I mean, the 2 pipeline easement does not take away from the area or the 3 contribution to your CRP land. 4 MR. CHRISTENSEN: Okay. So you just resume 5 your -- the way the CRP was the first time? MR. MAHMOUD: Yes, sir. 6 7 MR. CHRISTENSEN: Okay. That's all I wanted to 8 know. 9 Thank you. 10 MR. MAHMOUD: You bet. 11 MR. BUCHHOLZ: Roy Buchholz, B-U-C-H-H-O-L-Z. 12 On the depth of the pipeline you said on 13 tillable ground you're going 48 inches and on pastureland 14 3 foot? 15 Can you work with each landowner if he wanted 16 to -- on his pasture if he wanted it being down the same 17 depth as a tillable ground? 18 MR. MAHMOUD: Yes, sir. And some people want us 19 to be deeper, and some do not. Our typical is minimum 20 36 inches. So when you're working with our right-of-way 21 agents if you will specify and talk about that with our 22 agents, that's typically something we can do, yes, sir. 23 MR. BUCHHOLZ: One quick question. What's the pressure running through that pipeline? 24 25 The pressure? 1,440 pounds. MR. MAHMOUD:

1 CHAIRMAN NELSON: Any other questions? 2 Okay. 3 MS. HOLT: I'm Shirley Holt again. H-O-L-T. 4 The pressure of that oil going through that 5 pipeline, if there is a leak, will that shoot up in the 6 air? 7 MR. MAHMOUD: In theory it could. If the leak 8 was at the top of the pipe and it moved the dirt to the side, sure. 9 10 MS. HOLT: How far, and how wide of an area 11 would that take in? 12 MR. MAHMOUD: I could not even guess. There's 13 so many environmental factors that come into play; wind, 14 temperature, pressure of the pipe, amount of cover. Ι 15 couldn't answer that. 16 MS. HOLT: I was just going to ask one more 17 quick question, if I could. 18 For us landowners who do not want the pipeline 19 on our land why -- why can't that be respected, and why 20 can't that pipeline be moved to either side? 21 MR. MAHMOUD: Sure. And we get that a lot, and so we're very respectful of your land and your feelings. 22 2.3 And I tried to explain that earlier. 24 When we do our routing analysis we actually go 25 through a very detailed analysis of not just your

1 property but your neighbors upstream and downstream. 2 And, unfortunately, upstream and downstream means up 3 north or south or east or west but where your property is 4 in each direction that approaches your property. 5 We look at all the constraints that lead up to 6 that point along the entire route. And in certain 7 circumstances and at this point where we've done our 8 routing studies and we've done our micro analysis the 9 route was selected based on the least amount of impacts 10 to the most amount of people and resources. So, unfortunately, by moving the pipeline it 11 12 could lead to increased impacts to someone else. So 13 that's called transference of impacts. 14 Now I know that doesn't found fair and I know 15 you probably don't like this answer, but we do it in a 16 way that is supposed to and we think and we work real 17 hard to minimize impacts to the least amount of 18 resources, environmental, people, houses, and the various 19 stakeholders that we can. And that sometimes results in 20 placing that pipe onto property where the landowner may 21 or may not want that pipeline. 22 MS. HOLT: Thank you. 23 CHAIRMAN NELSON: Question up here. 24 MR. TOMSHA: Thomas Tomsha, T-O-M-S-H-A. 25 How often do you daylight it to -- I believe you

1 have to daylight it to shut it off if you did happen to 2 have a leak. MR. MAHMOUD: How long from the time we notice 3 4 the leak until we can turn it off? 5 MR. TOMSHA: How many miles in between day 6 light? 7 MR. MAHMOUD: Okay. Between valves. 8 It varies. We go through an analysis. 9 Depending on what's in between. High consequence areas 10 where mostly that's centered around water, intakes for 11 drinking water, wetlands, streams. 12 So the valve placement is dependent upon the 13 geographic features or the physical constraints on the 14 So it varies. I can't give you an exact number. ground. 15 We know where our valves are located. So 16 depending on what the constraints are, it could be a 17 mile, five miles, or 10 miles in between along that pipe. 18 And, again, it's very variable based on the site-specific 19 conditions. 20 MR. TOMSHA: But what would be the longest 21 you've ever seen? MR. MAHMOUD: Well, I would say our longest is 22 2.3 probably no more than 10 miles in any -- maybe 15 in any 24 event? 25 Do you know, Tom?

1 MR. FREY: This is from memory from an adjacent 2 state, but that was approximately 18 miles was the 3 longest spacing. 4 One thing to note is that at every river 5 crossing there will be valves on both sides of the river 6 to help provide additional protection, safeguards, at areas of additional concern. 7 8 MR. TOMSHA: And I'd like to ask, is this pump 9 station or where it pumps, is that set in stone right 10 now? 11 MR. MAHMOUD: So we're in negotiations to buy 12 the piece of property. It's 99 percent certain. 13 MR. TOMSHA: Can you tell me where the closest 14 one of these is that is in operation right now? 15 MR. MAHMOUD: I cannot. Do you all know? 16 Go ahead. 17 MR. KOENECKE: I'm Brett Koenecke. 18 There's a pump station on the Keystone Pipeline 19 over by Carpenter. That would be the closest that I 20 could think of. And it's not like a compressor station 21 like you'd find on a natural gas pipeline. That's a 22 completely different kind of facility. The nearest pump 2.3 station is at Carpenter, that I know of. 24 MR. KEARNEY: This is Darren Kearney for 25 Commission Staff.

1 And I sent this information to another 2 landowner, and so I can forward it to you. Just give us 3 a call, and I can give you the township and range where 4 that pump station is located. 5 MR. TOMSHA: All right. Thank you. 6 MR. KUEHN: Randy Kuehn. I talked earlier. 7 K - U - E - H - N. 8 Is that pump station in Carpenter going to be 9 familiar -- or similar to yours that's going to be going, 10 or is it smaller, bigger? MR. MAHMOUD: All I know is it's electrically 11 12 driven. I can't tell you the size, what it looks like. 13 We don't own it. We don't operate it. So I 14 don't know. 15 MR. FRANKENSTEIN: Jim Frankenstein, 16 F-R-A-N-K-E-N-S-T-E-I-N. 17 Your pipeline goes through two of my center 18 pivots. And my well driller's log shows that I have 19 water-bearing sand at 12 foot, and it's pretty much 20 throughout the whole field. 21 If you're going to have a pipeline 4 to 5 foot 22 deep and then another 36 inches, you're only going to be 2.3 3 to 4 to 5 feet away from water-bearing sand. 24 My question is with 1,000 pounds pressure you 25 ain't going to have a clue that you're losing oil. And

1 how would you ever possibly clean that oil spill up in an 2 aquifer? MR. MAHMOUD: Unfortunately, I couldn't 3 4 understand everything that you were saying. If I 5 understood some of it, though, you're saying there's sand 6 lands or a sand layer? 7 MR. FRANKENSTEIN: No. Water-bearing sand 8 starts at 12 feet. That's according to well driller's 9 logs. 10 So I'm saying that if you have a pipeline 4 to 11 5 foot deep and then another 36 inches deep, there's only 12 going to be 3 to 4 foot of clay between the pipeline and 13 water-bearing sand. 14 If you've got 1,000 pounds of pressure and 15 13,000 gallons a minute flowing through that pipeline, 16 how are you going to clean up my aquifer if there is a 17 small leak? 18 MR. MAHMOUD: Okay. Thank you for clarifying. If we do have a leak, if we do have -- and I 19 20 can't tell you whatever the leak size is going to be. 21 But in the event we did, if there is a clay layer in 22 between the sand lands that's where that water is 2.3 located. And the clay layer, typically the oil or crude does not penetrate that clay, number one. 24 25 But say it did and it did get into that water

1 table. We would have to figure out a way. And there are techniques to pump that water table and to try to 2 3 remediate that water. I can't possibly even think about 4 explaining and getting into that exact situation because 5 it's too variable to know. 6 But you're right. If there was an impact or a leak, there could be a negative impact that we would have 7 8 to mitigate and clean up. 9 MR. FRANKENSTEIN: I guess I would like to see 10 you go to an area where you have maybe 10 to 15 foot of 11 clay in between the pipeline and the water-bearing 12 sand. 13 CHAIRMAN NELSON: Any others tonight? 14 If not, ladies and gentlemen, I want to just say 15 on behalf of the Commission, thank you for coming out 16 Thank you for your very, very good questions, tonight. 17 questions that are going to be very helpful to us as we 18 proceed throughout this docket. Before we close I'd like to ask, Commissioner 19 20 Hanson, any questions? 21 Acting Commissioner Sattgast, questions? 22 If not, again, all of the information on this docket is available on our website. You can track it as 23 24 new documents are filed. 25 And, as I said at the beginning, we will take

1	comments on this docket right up to the very end. Those
2	comments do have to be submitted in writing so that we
3	can post them to the file and that all of the
4	Commissioners have access to that, and you can do that
5	either by sending us a letter or sending an e-mail to the
6	Public Utilities Commission.
7	With that, I declare the hearing adjourned.
8	(The hearing is adjourned at 8 o'clock p.m.)
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
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

	23 [1] - 3:24	60 [2] - 20:4, 64:4	3:19, 3:20, 3:21,	19:8, 74:9
	24-inch [1] - 12:9	66 [1] - 47:21	3:23, 3:24, 5:22, 7:9,	affected [3] - 7:18,
	24/7 [2] - 22:21, 36:2	•••[:]	8:12, 8:25, 9:1, 9:8,	62:2, 71:8
'16 [2] - 17:4, 17:5	25 [2] - 19:23, 74:6	7	10:9, 10:11, 10:12,	affects [1] - 14:19
'50s [1] - 29:14		1	46:18, 47:10, 48:11,	
	26 [2] - 23:25, 24:1			afford [1] - 61:4
4	272.3 [1] - 4:17	7 [1] - 5:4	50:2	afraid [1] - 34:4
1	274 [2] - 12:10, 12:22		accidental [1] - 44:2	afterwards [2] - 50:21,
		7.2 [1] - 72:5	accommodate [2] -	73:18
1 000	3	71,000 [2] - 10:25,	4:2, 65:6	ag [7] - 20:1, 21:5,
1,000 [4] - 57:3, 66:7,	•	30:21	accommodations [1]	21:19, 22:2, 22:4,
82:24, 83:14			- 52:17	63:24, 71:18
1,134 [1] - 12:7	3 [6] - 35:22, 46:4,	8	accordance [2] -	
1,134-mile [1] - 4:6	72:7, 77:14, 82:23,	0		agencies [1] - 50:8
1,134-mile-long [1] -	83:12		40:14, 76:19	agency [1] - 6:2
4:17		8 [3] - 48:21, 49:19,	according [1] - 83:8	agent [4] - 39:21,
	3.8 [2] - 13:5, 58:1	85:8	account [1] - 33:1	52:17, 56:11, 56:18
1,440 [1] - 77:25	30 [1] - 17:19		accountability [1] -	agents [5] - 40:5,
10 [10] - 14:24, 23:23,	30-inch [6] - 4:6, 12:8,	811 [1] - 24:8	57:6	53:4, 53:5, 77:21,
23:25, 24:2, 27:2,	12:10, 36:18, 36:22,	820 [1] - 13:9	accurate [1] - 48:7	77:22
51:20, 65:12, 80:17,	37:10			
80:23, 84:10	36 [6] - 16:6, 20:2,	9	accurately [1] - 26:2	ago [1] - 70:8
100 [10] - 10:20, 19:23,		-	accusations [1] -	agree [1] - 53:1
29:20, 34:2, 47:22,	63:24, 77:20, 82:22,		58:22	agreement [1] - 39:23
, , ,	83:11	90 [1] - 17:19	acre [1] - 20:12	agreements [5] -
53:18, 57:3, 61:1,	36-inch [1] - 37:1	90-degree [1] - 53:23	acres [1] - 76:3	41:24, 72:21, 72:25,
61:20, 68:11	365 [1] - 22:22	95 [1] - 68:19	act [1] - 3:12	73:3, 73:4
12 [4] - 15:20, 35:22,				
82:19, 83:8	4	98 [2] - 32:5, 43:17	acted [1] - 5:25	agricultural [5] - 20:2,
12,000 [1] - 14:24	4	99 [1] - 81:12	Acting [2] - 3:6, 84:21	21:4, 26:17, 38:19,
12-inch [2] - 4:6, 12:8			acting [1] - 3:7	63:25
	A rol 21:15 64:20	Α	actions [1] - 5:10	agriculture [3] - 71:9,
13 [6] - 4:19, 5:6, 6:6,	4 [6] - 21:15, 64:20,		activities [1] - 21:13	71:14, 71:24
16:17, 35:21, 49:13	82:21, 82:23, 83:10,			agy [1] - 52:5
13,000 [1] - 83:15	83:12	A-L-B-R-E-C-H-T [1] -	actual [3] - 6:24, 13:6,	
13th [1] - 86:13	4,000 [4] - 15:3, 15:5,	72:15	20:22	ahead [4] - 9:3, 61:23,
14 [1] - 5:1	15:10, 15:12	abandon [4] - 28:24,	ad [1] - 16:16	75:21, 81:16
15 [5] - 3:21, 35:23,	40 [2] - 15:19, 18:21		add [9] - 28:17, 38:16,	ain't [1] - 82:25
	400,000 [1] - 66:5	29:2, 29:7, 29:16	48:15, 55:9, 56:9,	air [1] - 78:6
38:5, 80:23, 84:10		abandoned [1] - 30:25	56:11, 59:9, 61:24,	airplane [1] - 24:3
15.6 [1] - 35:24	45 [1] - 53:24	abandonment [1] -	62:15	alarm [1] - 74:21
150 [3] - 28:3, 28:12,	450,000 [2] - 4:15,	29:19		
70:3	14:5	ability [3] - 36:13,	added [1] - 59:9	ALBRECHT [3] -
17 [1] - 4:21	48 [7] - 20:3, 21:17,	44:12, 47:11	adding [2] - 56:9,	72:14, 73:4, 73:8
18 [1] - 81:2	52:11, 63:24, 64:2,		56:10	Albrecht [1] - 72:14
	65:19, 77:13	able [8] - 10:8, 10:17,	addition [4] - 20:15,	allocated [1] - 25:14
1920s [1] - 29:14	00.19, 77.15	23:24, 44:13, 55:12,	21:17, 48:20, 56:18	allow [4] - 19:21,
1930s [1] - 29:14		59:3, 62:5, 63:16	additional [3] - 52:18,	36:14, 42:19, 70:15
	5	abnormal [1] - 23:11		
2		above-entitled [2] -	81:6, 81:7	allowed [1] - 19:16
-		2:2, 86:10	additionally [1] -	allowing [2] - 8:22,
	5 [4] - 20:4, 82:21,		44:10	70:22
2 [9] - 21:11, 21:16,	82:23, 83:11	absolute [1] - 20:8	additive [1] - 71:12	almost [3] - 37:7,
35:21, 64:17, 64:19,	50 [4] - 15:19, 19:11,	absolutely [4] - 48:2,	address [1] - 6:19	53:22, 68:19
64:20, 65:15, 65:17,	19:13, 74:6	65:18, 67:17, 73:5	adjacent [4] - 46:9,	alone [1] - 70:3
	50-foot [1] - 19:9	absorb [1] - 60:13		
65:20		absorbent [1] - 60:12	58:12, 58:13, 81:1	alongside [1] - 9:13
2,000 [1] - 15:12	500 [5] - 10:20, 24:4,	accepting [1] - 6:17	adjourned [2] - 85:7,	alternate [1] - 43:8
20 [1] - 27:2	27:15, 28:12, 47:21	ACCESS [2] - 1:4, 1:5	85:8	amazing [1] - 37:9
200 [5] - 31:6, 31:7,	55 [1] - 55:10	•••	Administration [1] -	America [1] - 11:3
	57 [1] - 68:16	access [18] - 5:7,	24:23	American [6] - 68:11,
53:18, 55:11, 69:23	570,000 [2] - 4:16,	26:18, 26:20, 26:21,	admit [1] - 69:5	69:13, 71:3, 71:4,
53:18, 55:11, 69:23		41:2, 41:16, 41:25,		
2014 [3] - 3:21, 3:24,			adverse [1] - 51:20	71:21, 75:19
2014 [3] - 3:21, 3:24, 5:10	14:6			
2014 [3] - 3:21, 3:24, 5:10 2015 [5] - 1:9, 2:3, 6:6,	14:6	42:1, 42:7, 42:11,	advertise [2] - 69:3,	amount [13] - 14:9,
2014 [3] - 3:21, 3:24, 5:10		42:1, 42:7, 42:11, 43:3, 43:8, 57:13,		amount [13] - 14:9, 14:10, 14:16, 18:14,
2014 [3] - 3:21, 3:24, 5:10 2015 [5] - 1:9, 2:3, 6:6, 86:11, 86:14	14:6	42:1, 42:7, 42:11, 43:3, 43:8, 57:13, 67:10, 67:11, 67:18,	advertise [2] - 69:3,	
2014 [3] - 3:21, 3:24, 5:10 2015 [5] - 1:9, 2:3, 6:6, 86:11, 86:14 2016 [1] - 17:14	14:6 6	42:1, 42:7, 42:11, 43:3, 43:8, 57:13, 67:10, 67:11, 67:18, 85:4	advertise [2] - 69:3, 69:4 Advisor [1] - 3:15	14:10, 14:16, 18:14, 26:8, 28:2, 33:9,
2014 [3] - 3:21, 3:24, 5:10 2015 [5] - 1:9, 2:3, 6:6, 86:11, 86:14	14:6	42:1, 42:7, 42:11, 43:3, 43:8, 57:13, 67:10, 67:11, 67:18,	advertise [2] - 69:3, 69:4	14:10, 14:16, 18:14,

AN [1] - 1:4 analysis [8] - 18:1, 18:6, 30:13, 78:24, 78:25, 79:8, 80:8 angle [1] - 53:23 annual [1] - 24:13 answer [17] - 17:11, 25:11, 28:8, 31:16, 36:8, 36:17, 39:11, 46:13, 46:20, 54:3, 54:4, 61:20, 64:14, 64:15, 75:9, 78:15, 79:15 answered [2] - 25:20, 44:22 answers [2] - 10:18, 36:23 anticipate [2] - 16:21, 17:7 anticipated [1] - 4:16 anyway [1] - 70:22 apologize [1] - 50:23 appeal [1] - 7:2 appear [1] - 19:4 **APPEARANCES** [1] -1.20 applicable [1] - 7:10 Applicant [5] - 28:8, 36:2, 43:20, 63:8, 63:12 Applicant's [2] - 28:8, 31:16 **Application** [8] - 3:19, 3:22, 3:25, 4:5, 5:5, 5:7, 5:18, 6:7 application [1] - 6:5 APPLICATION [1] -1:4 applications [1] - 5:24 applied [1] - 43:24 apply [4] - 6:8, 6:22, 20:12, 60:15 appointed [2] - 3:12, 86.98 appraisal [1] - 20:10 appreciate [7] - 25:10, 25:25, 48:14, 54:17, 54:19, 66:1, 72:17 approach [9] - 19:2, 20:5, 40:13, 40:16, 41:7, 42:5, 42:7, 74:3, 74:7 approaches [2] - 43:5, 79·4 appropriate [2] - 7:23, 26:16 approval [2] - 4:5, 36:18 approve [1] - 69:10 approved [2] - 7:8,

38:14 apron [1] - 40:16 aquifer [2] - 83:2, 83:16 archaeological [1] -75.21 area [30] - 6:2, 7:13, 11:24, 12:9, 14:20, 15:2, 18:19, 20:9, 24:6, 42:16, 42:17, 42:20, 44:5, 44:9, 44:11, 44:14, 45:5, 45:11, 46:1, 51:15, 52:15, 62:20, 62:21, 64:6, 64:12, 65:21, 70:16, 77:2, 78:10, 84:10 areas [13] - 4:4, 4:8, 12:4, 20:1, 20:2, 34:8, 44:11, 63:24, 63:25, 68:10, 74:23, 80:9, 81:7 arguments [1] - 7:1 Arizona [1] - 11:9 Arkansas [2] - 68:17, 68:18 articulated [1] - 22:9 artifacts [1] - 75:20 aside [1] - 30:15 aspects [1] - 23:21 asset [4] - 30:1, 33:8, 49:13, 58:1 assets [4] - 57:19, 57:20, 57:22, 59:13 assigned [1] - 7:5 Associate [1] - 10:1 associated [1] - 46:19 assume [2] - 67:9, 67:10 assured [1] - 36:5 atmosphere [2] -28:20, 59:5 attached [1] - 86:11 attacking [1] - 72:10 attacks [1] - 71:15 attendance [1] - 9:12 attended [2] - 8:19, 17:1 attorney [2] - 8:24, 47:2 auctioneer [1] - 25:25 Auditorium [1] - 2:2 auditors [1] - 5:6 available [7] - 6:8, 6:9, 14:18, 15:7, 36:2, 63:11, 84:23 avoid [5] - 4:1, 4:3, 18:21, 47:10, 67:3 aware [4] - 30:22, 47:9, 63:11, 76:11

В B-I-N-D-E-N-A-G-E-L [1] - 73:11 B-U-C-H-H-O-L-Z [1] -77:11 B-U-S-H-O-N-G [1] -70:25 background [1] - 32:5 backhoes [1] - 17:18 backing [1] - 48:10 backyard [1] - 54:17 bacteria [2] - 60:15, 60:16 bad [5] - 23:24, 33:12, 51:2, 51:12, 52:23 Bakken [8] - 4:7, 11:22, 11:23, 14:7, 27:13, 56:15, 58:8, 58:20 bankrupt [5] - 57:13, 57:17, 57:19, 57:20, 57:24 **bankruptcy** [1] - 58:3 barn [2] - 19:15, 69:24 barns [1] - 69:16 barrel [2] - 48:22, 49:19 barrels [3] - 4:15, 4:16, 14:5 base [2] - 20:7, 20:8 based [12] - 7:19, 10:22, 11:6, 15:6, 16:7, 16:18, 20:9, 23:11, 59:21, 63:23, 79:9, 80:18 basic [1] - 11:21 basis [8] - 12:24, 20:13, 21:22, 24:14, 37:24, 40:4, 42:14, 66:9 bathing [1] - 60:8 Beadle [1] - 4:23 bearing [5] - 82:19, 82:23, 83:7, 83:13, 84.11 become [3] - 6:13, 16:1, 59:24 becomes [2] - 14:18, 30:6 bed [1] - 74:6 BEFORE [1] - 1:12 begin [3] - 8:11, 9:3, 26.1beginning [1] - 84:25 **behalf** [3] - 63:8, 67:19, 84:15 behind [4] - 9:13, 9:20, 48:2, 49:3

below [8] - 52:7, 63:21, 64:4, 64:5, 64:20, 64:21, 65:18, 74:6 beneath [1] - 74:5 benefit [12] - 13:13, 13:14, 13:15, 13:16, 14:13, 14:14, 15:12, 15:16, 16:2, 16:14, 16:15, 69:14 benefits [7] - 13:1, 13:23, 14:22, 15:17, 16:4, 68:9, 71:13 berm [1] - 44:16 best [1] - 61:21 bet [1] - 77:10 better [5] - 33:12, 35:10, 52:23, 54:1, 73:6 between [13] - 14:24, 15:19, 17:19, 19:23, 21:11, 39:23, 80:5, 80:7, 80:9, 80:17, 83:12, 83:22, 84:11 beyond [1] - 66:18 Big [1] - 4:25 big [5] - 16:3, 50:6, 55:15, 55:16, 66:12 bigger [1] - 82:10 biggest [1] - 13:13 **bill** [1] - 49:1 billion [2] - 13:5, 58:1 BINDENAGEL [2] -73:10, 75:10 Bindenagel [1] - 73:10 **bit** [2] - 55:9, 62:16 block [1] - 74:23 board [2] - 34:13, 72:10 bodies [2] - 7:17, 20:3 **bond** [1] - 28:2 bonding [1] - 35:15 bonds [4] - 30:22, 34:19, 35:23, 35:24 **booms** [1] - 60:12 border [2] - 11:9, 68:24 bore [5] - 75:14, 75:16, 75:17, 76:7 bottom [1] - 74:6 bought [1] - 57:21 Bowdle [1] - 59:19 Brad [2] - 33:18, 75:13 break [2] - 56:22, 68:5 Brett [6] - 1:21, 8:24, 9:2, 9:7, 48:15, 81:17 Brian [2] - 1:18, 8:5 bring [7] - 16:10, 25:22, 37:12, 46:10,

48:20, 60:21, 70:20 2 bringing [1] - 32:19 broadcast [1] - 28:15 brother [1] - 3:11 brother-in-law [1] -3:11 brought [1] - 58:24 BUCHHOLZ [2] -77:11, 77:23 Buchholz [1] - 77:11 bugs [1] - 60:16 **build** [5] - 13:8, 15:1, 15:5, 15:8, 19:24 building [6] - 8:23, 12:24, 15:4, 23:17, 69:14 buildings [2] - 27:7, 69:16 built [2] - 45:5, 72:7 bullet [1] - 47:25 bunch [2] - 45:18, 46:10 burial [1] - 63:24 buried [1] - 41:17 burn [1] - 60:20 bury [6] - 20:1, 51:4, 51:13, 52:6, 52:25, 53:11 BUSHONG [1] - 70:24 Bushong [1] - 70:24 business [7] - 8:21, 10:21, 22:8, 24:6, 47:20, 47:24, 52:3 businesses [1] -66[.]24 **buy** [8] - 38:14, 45:19, 58:2. 68:18. 68:22. 69:5, 69:20, 81:11 buying [1] - 68:15

С

C-H-R-I-S-T-E-N-S-E-N [1] - 75:25 California [1] - 11:9 Campbell [1] - 4:21 Canada [4] - 66:6, 68:20, 68:25, 69:1 cannot [9] - 32:2, 32:3, 32:8, 32:20, 41:17, 50:19, 58:19, 76:12, 81:15 capabilities [1] -67:24 capable [1] - 15:7 capacity [2] - 4:16, 14.18 capital [2] - 13:10, 72:5

cerbon np. 1022, 15 93:16, 62:14, 67:23, 29:3, 47:13, 48:25, 27: 17:15, 75, 26:24, 70:9, 17:17, 12:25, 27: 17:15, 72:3, 28:18, 27: 17:15, 72:3, 28:18, 27: 17:15, 72:3, 28:18, 27: 17:15, 72: 26: 27: 17:15, 75, 26:24, 70:9, 17:17, 12:25, 27: 17:15, 75, 26:24, 70:9, 17:17, 17:17, 22:25, 27: 17:15, 75, 26:24, 70:9, 17:17, 17:17, 22:25, 27: 17:17, 17:15, 17:15, 27: 17:1					
carbon-based pi- (1022, 116 79.22, 84:13 6127, 83:1, 83:16, 8 75, 26:24, 70:9, 75, 26:24, 70:9, 71, 10:1, 2	carbon [2] - 10:22,			84:21	conditional [1] - 35:18 3
10.22, 11:6 Chairman (n. 3.3, care (p. 52.3, 631, 4, 431, 1, careful (p. 32:1), chailenges (p. 631, 8123, 828 84.8 86.4 23:10, 226, 34.24, commissions (p. 43:17, 80:19 careful (p. 32:1), statistics, 14:10 62:13, 63:9 chailenges (p. 63:1) commissions (p. 43:23, 828, 60, 60, committed (p. 10, 53: committed (p. 11, 53) carrying (p. 14:10, 14:11 chailenges (p. 63:1) cohailenge (p. 63:1) committed (p. 14:3) 14:11 chailenge (p. 63:1) colse (p. 43, 38:1), commotility (p. 20:1) commotility (p. 39:1, 59:16) commotility (p. 39:1, 59:16) commotility (p. 39:1, 59:16) commotility (p. 39:1, 59:16) commotility (p. 39:1, 59:21, 69:16) conseq(p. 63:20, 64:24, 64:14) conseq(p. 63:20, 64:24, 64:14) conseq(p. 63:20, 64:24, 64:14) conseq(p. 63:20, 64:24, 64:14) consider(p. 69:8) consider(p. 69:8) <td>11:6</td> <td></td> <td></td> <td></td> <td>conditions [9] - 7:21,</td>	11:6				conditions [9] - 7:21,
care pr. 62:3, 63:13 105:5, 53:14, 23:11, crarful (p. 32:11, crarful (p. 14:22, crarful	carbon-based [2] -	79:23, 84:13	61:21, 83:1, 83:16,	7:5, 26:24, 70:9,	17:17, 21:25, 22:7,
caretuly - 32-11, 76:16 62:13, 63:9 clearup = 4:96, 4923, 4925, 60.6, 60:0mitment [1-65:5 conducting [1-205 Carpontery - 81:19, 61:23, 82:9 challenges [1-63:1 60:0mitment [1-65:5 conducting [1-62:5 Carpontery - 81:19, 61:23, 82:9 chalcery [1-26:1 committing [1-11, 2, 20:16 committing [1-11, 2, 20:16 Carpontery - 81:19, 61:23, 82:1 challenges [1-11, 63:11 commoting [1-11, 2, 20:16 commoting [1-205 Carpontery - 81:19, 61:29, 82:15, 82:1 change [1-16:19 cleary [1-26:1 commoting [1-12, 20:17 Carse [1-14:15, 14:16 71:22 cleary [1-26:1 commoting [1-12, 20:16 commoting [1-12, 20:16 Carse [1-21:24, 122] cleary [1-22:1 commoting [1-12, 20:17 considert [1-69:8] considert [1-69:8] Carse [1-21:24, 122] cleary [1-62:21 commoting [1-72:4 considert [1-54:23 consistent [1-54:23 Cathelling - 150:10 colleg [1-22, 12, 12:21 colleg [1-23:1, 22:35, 24:12 constraints [1-54:23 comstraints [1-54:23 Cathelling - 150:10 colleg [1-55:10 colleg [1-3:15 cleary [1-3:15 cleary [1-3:15 cleary [1-3:15 cleary [1-3:15 cleary [1-3:15 cleary [1-3:15	10:22, 11:6	Chairman [6] - 3:3,	84:8		23:10, 32:6, 34:24,
Total challenge (n = 63:13) de 23, 422, 422, 50, 60, committed (n = 63:3) commodite (n = 63:2) communities (n = 73:1) commodite (n = 63:2) committed (n = 73:1) commodite (n = 73:1) committed (n = 73:1)	care [2] - 52:3, 63:13	10:5, 35:14, 43:11,	clean-ups [1] - 47:13	commissions [1] -	43:17, 80:19
Carpentry 1, 91:19, 81/23, 829 challenges (n) - 63:1 committing (n) - 15:5 committing (n) - 16:5 committing (n) - 16:7 committing (n) - 16:7 committing (n) - 16:7 committing (n) - 16:7 commod (n) - 17:7 <	careful [2] - 32:11,	62:13, 63:9	cleanup [6] - 49:6,	45:20	conducted [1] - 20:6
af 123, 82.8 chance [n = 10:16], carrying [n = 14:10] chances [n = 71:19], chances [n = 71:19], chances [n = 71:19], chances [n = 71:19], cars [n = 16:16, 82.4 chances [n = 71:19], chances [n = 71:19], chance	76:16	challenge [1] - 63:13	49:23, 49:25, 60:6,	commitment [1] - 53:3	conducting [1] - 6:25
carrying [2] 26:15, 59:16 clearly [1] - 26:1 59:12, 59:16 conflict [1] - 3:9 cars [2] - 14:15, 14:16 71:22 69:16, 69:25, 84:19 11:4, 20:16 consequence [1] - 4.7 cars [2] - 61:3, 6:24, 71:22 69:16, 69:25, 84:19 11:4, 20:16 consequence [1] - 8.9 377, 50:2, 57:12, charge [1] - 61:19 closer[2] - 21:9, 60:1 consider[1] - 69:8 consider[1] - 69:8 cases [1] - 28:17, chase [1] - 31:5 closer[2] - 21:1, 24:13, 22:1 23:10, 23:18, 31:9 consider[1] - 69:8 cath offic [2] - 28:17, chase [1] - 31:5 closer[1] - 62:2 communicating [1] - consist [1] - 54:23 cattle [1] - 10:18, cheaper [1] - 70:20 coast [2] - 12:4, 13:21 23:1, 23:5, 24:12 consist [1] - 54:23 cattle [1] - 10:8, chemicat [2] - 56:10, 60:12 communicating [1] - construct [1] - 32:2 construct [1] - 32:3	Carpenter [3] - 81:19,	challenges [1] - 63:1	60:9, 61:6	committed [1] - 15:5	configuration [1] -
	81:23, 82:8	chance [3] - 10:16,	clear [1] - 53:11	committing [2] -	20:19
	carrying [2] - 14:10,	26:15, 59:15	clearly [1] - 26:1	59:12, 59:16	conflict [1] - 3:9
case gin - 6:13, 6:24, 377, 502, 57:12, 399, 592, 602, 492, 502, 492, 102, 102, 102, 102, 102, 102, 102, 10	14:11	chances [2] - 71:19,	close [5] - 4:3, 38:11,	commodities [2] -	
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	cars [2] - 14:15, 14:16	71:22	69:16, 69:25, 84:19	11:4, 20:16	consequence [1] -
599, 5925, 6824 $49:17$ closest(p) -81:13, closes(p) -81:13, closes(p) -29:1closes(p) -81:13, chase(p) -91:15, closing(p) -62:21 $52:25$ consideration(p) - common[q) -17:24, 23:16, 23:16, 23:16, 31:9, 23:16, 23:16, 23:16, 31:9, 23:16,	case [8] - 6:13, 6:24,	change [1] - 16:19	closely [2] - 21:9, 60:1	commodity [4] -	80:9
	37:7, 50:2, 57:12,	charge [2] - 49:10,	closer [2] - 55:4, 70:6	14:19, 38:20, 49:9,	consider [1] - 69:8
	59:9, 59:25, 68:24	49:17	closest [2] - 81:13,	63:25	consideration [4] -
288 cheap (n) - 66:20 clue (n) - 82:25 communicate (n) - 30:35 consist (n) - 54:23 cattle (n) - 19:18, 32:5, checks (n) - 74:22 collect (n) - 62:24 constant (n) - 73:6 consist (n) - 73:6 44:3, 44:7, 45:1 checks (n) - 74:22 collect (n) - 60:30 23:1, 23:5, 24:12 constant (n) - 73:6 cattle (n) - 60:8 chemicals (n) - 56:15 combination (n) - 12:7 constant (n) - 73:6 constant (n) - 73:6 cattle (n) - 60:20 56:15 comforting (n) - 31:5 communities (n) - 30:15 constant (n) - 18:22 constant (n) - 18:22 cattle (n) - 60:20 56:4 66:15 comforting (n) - 31:5 communities (n) - 37:15 construct (n) - 30:3 construct		charged [1] - 48:22	81:19	common [4] - 17:24,	7:17, 18:7, 18:8,
	cathodic [2] - 28:17,	chase [1] - 31:5	closing [1] - 62:21	23:16, 23:18, 31:9	45:16
	••		-	communicate [3] -	consist [1] - 54:23
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	cattle [10] - 19:18,	cheaper [1] - 70:20	Coast [2] - 12:4, 13:21	23:1, 23:5, 24:12	
	39:5, 40:2, 43:25,			communicating [1] -	
				communities [2] -	
caused [2] - 56:23, 62:21 56:8 coming [9] - 55:8, 65:4, 56:16, 56:11, 56:4, 56:16, 56:11, 51:9, 51:14, 53:12, center [9] - 41, 51:1, 51:9, 51:14, 53:12, centers [9] - 10:20, 10:25, 11:3, 53:26, 51:7, 53:26, 51:7, 51:8, 61:5, 61:7, 53:26, 51:1, 51:10, 52:10, 33:2, 52:50, 52:1, 52:10, 52:10, 50:10, 50:10, 52:20, 29:22, 14:24, 48:10, 48:23, 49:1, 19:23, 20:19, 22:3, centers [9] - 13:22, centers [9] - 13:22, central [1] - 11:11 central [1] - 11:11 central [1] - 11:11 central [1] - 31:20, central [1] - 32:17, 53:24, 76:5, 76:23, 51:25, 52:2, 52:4, 66, 61:16, 61:4, 47:19, 51:25, 61:17, 61:18, 51:25, 52:2, 52:4, 66, circumstance [1] - 32:27, 75:24, 76:5, 76:23, 51:25, 52:2, 52:4, 56:4, 56:21, 51:25, 52:2, 52:2, 52:4, 56:4, 56:21, 61:16, 64:5, 51:25, 52:2, 52:2, 50:5, 56:23, 51:16, 64:5, 51:25, 52:2, 52:2, 50:5, 56:23, 51:16, 64:5, 51:25, 52:2, 52:2, 70:5, 51:14, 51:14, 51:14, 51:14, 51:14, 51:14, 51:16, 64:25, 62:14, 50:44, 52:14, 51					
		••	-	community [1] - 25:5	
	62:21	Cheri [3] - 1:24, 7:25,	•••	compacts [1] - 37:15	••
56:24, 58:9CHERI [n] - 86:573:1, 84:1527:24, 47:21, 47:22, 48:5, 68:10constructed [s]- 3:10, 4:18, 6:3cease (i) - 69:4Chicago [n] - 13:22commenting [n] - 2:448:5, 68:103:10, 4:18, 6:3cent [z] - 48:21, 49:19children [z] - 27:8, children [z] - 27:8,commenting [n] - 32:23, comments [n] - 5:16, 25:16, 25:19, 30:1,constructing [z] - 35:10, 6:17,constructing [z] - 35:10, 6:17,cent [z] - 48:21, 49:19children [z] - 27:8, chosen [z] - 53:25consent [d] - 6:16, chosen [z] - 53:25constructing [z] - 33:8, 35:8, 46:17,constructing [z] - 33:8, 35:8, 46:17,constructing [z] - 33:8, 35:8, 46:17,centered [n] - 80:1053:2510:16, 25:19, 33:2, centers [z] - 13:22,CHRIS [n] - 1:1370:23, 86:1, 86:2, commission [s] - 35:2, 44:6, 44:7,75:24, 76:5, 76:20, compare [n] - 11:1construction [z] - compare [n] - 11:1central [n] - 11:11CHRISTENSEN [5] - 75:24, 76:5, 76:20, 35:2, 44:6, 44:7, 75:24, 76:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:7, 77:4, 77:7, 77:7, 77:4, 77:7, 77:7, 77:4, 77:7, 77:4, 77:7, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:7, 77:7, 77:4, 77:7, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:7, 77:4, 77:4, 79:0, 82:1, 72:0, 32:1, 72:0, 32:1, 32:1, 32:1, 72:0, 32:1, 32:1, 32:1,	causing [3] - 51:22,		72:8, 72:15, 72:16,	companies [5] -	
cease (I) - 69:4 Chicago (I) - 13:22 commenting (I) - 2:4 48:5, 68:10 3:10, 4:18, 6:3 cell (I) - 23:3 Chief (I) - 9:19 comment (I) - 32:23 company (I) - 10:12, 10:20, 10:25, 11:3, 35:10, 67:7 center (I) - 43:21, 49:19 children (I) - 27:8 47:14, 58:19 10:20, 10:25, 11:3, 35:10, 67:7 center (I) - 41:1, 51:	56:24, 58:9	CHERI [1] - 86:5		27:24, 47:21, 47:22,	constructed [3] -
				48:5, 68:10	
$\begin{array}{c} \mbox{centr} [g] - 48:21, 49:19 \\ \mbox{centr} [g] - 44:21, 49:19 \\ \mbox{centr} [g] - 44:1, 51:1, \\ 51:9, 51:14, 53:12, \\ 51:9, 51:14, 53:12, \\ 51:9, 51:14, 53:12, \\ centered [n] - 80:10 \\ centers [n] - 13:22, \\ centers [n] - 13:22, \\ central [n] - 11:13 \\ central [n] - 11:13 \\ central [n] - 11:11 \\ central [n] - 11:11 \\ central [n] - 11:12 \\ central [n] - 11:12 \\ central [n] - 11:11 \\ central [n] - 11:11 \\ central [n] - 11:12 \\ central [n] - 62:13 \\ circumstances [n] - 70:7 \\ central [n] - 62:13 \\ contract [n] - 62:14 \\ cont$		-	-	company [25] - 10:12,	
$\begin{array}{c} \textbf{center} [0] - 4:1, 51:1, \\ 51:9, 51:14, 53:12, \\ 82:17 \\ \textbf{chosen} [2] - 53:21, \\ centered [1] - 80:10 \\ \textbf{canters} [1] - 53:21, \\ centered [1] - 80:10 \\ \textbf{canters} [2] - 13:22, \\ \textbf{chosen} [2] - 53:21, \\ centered [1] - 80:10 \\ \textbf{canters} [2] - 13:22, \\ centered [1] - 80:10 \\ \textbf{canters} [2] - 13:22, \\ centers [2] - 13:22, \\ centers [1] - 11:11 \\ \textbf{chr}[S] = 1:13 \\ \textbf{chosen} [2] - 53:21, \\ centers [1] - 11:11 \\ \textbf{chr}[S] = 1:13 \\ \textbf{chosen} [3] - 33 \\ \textbf{commission} [3] - 53:6, 57:13, 57:21, \\ 60:25, 72:22 \\ certain [10] - 32:17, \\ 75:24, 76:5, 76:23, \\ 51:12, 52:2, 52:2, 6:6, \\ comparing [1] - 77:24, 77:7 \\ 77:4, 77:7 \\ 77:4, 77:7 \\ 77:4, 77:7 \\ 75:24, 76:5, 76:23, \\ 51:12, 52:2, 52:4 \\ certain [1] - 75:24, 76:5, 76:23, \\ 51:12, 52:2, 52:4 \\ certain [1] - 75:24 \\ certain [1] - 75:24, 75:24, 72:1, 30:5, \\ comparing [1] - 74:17 \\ circumstance [3] - \\ 51:26, 64:17, 64:12 \\ 75:24 \\ certain [1] - 75:24, 72:21, 30:5, \\ compariate [2] - \\ consume [1] - 81:22 \\ certain [1] - 81:22 \\ certain [1] - 14:21, 42:8, 49:18, \\ 51:16, 64:5 \\ 54:21, 61:23, 74:11 \\ 51:16, 64:5 \\ 54:22, 52:2, 70:5 \\ 84:15, 85:6 \\ completely [1] - 81:22 \\ completely [1] - 81:22 \\ completely [1] - 81:22 \\ consume [1] - 81:22 \\ contact [1] - 81:22 \\ contact [1] - 81:24 \\ contact [1] - 81:26 \\ contact [1] - 37:17 \\ contact [1] - 37:17 \\ contact [1] - 37:17 \\ contact [2] - 46:23 \\ contact [2] - 46:23 \\ contact [1] - 37:17 \\ contact [2] - 46:23 \\ contact [1] - 37:1$			• •		• • •
51:9, 51:14, 53:12, 82:17children's [1] - 27:8 chosen [2] - 53:21, chosen [2] - 53:21, centers [2] - 13:22, centers [1] - 11:11 CHRISTENSEN [5] - centar [1] - 11:12 comparable [1] - 20:9 comparable [1] - 20:9 comparable [1] - 20:9 comparable [1] - 20:9 construction-related comparable [1] - 20:9 construction-related construction-related consume [1] - 14:24 consume [1] - 14:24 cons				25:16, 25:19, 30:1,	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	51:9, 51:14, 53:12,	children's [1] - 27:8	5:18, 6:15, 6:17,	33:8, 35:8, 46:17,	
$\begin{array}{c} \textbf{centered} [1] - 80:10 \\ \textbf{centers} [2] - 13:22, \\ \textbf{centers} [2] - 13:22, \\ \textbf{centrs} [1] - 3:3 \\ \textbf{central} [1] - 1:13 \\ \textbf{central} [1] - 11:11 \\ \textbf{central} [1] - 175:24, 76:5, 76:23, \\ 35:2, 44:6, 44:7, \\ 77:4, 77:7, \\ 77:4, 77:7 \\ 77:4, 77:7 \\ 77:4, 77:7 \\ 77:4, 77:7 \\ \textbf{central} [1] - 11:12 \\ \textbf{comparable} [1] - 20:9 \\ \textbf{consume} [1] - 43:25 \\ \textbf{comparable} [1] - 20:9 \\ \textbf{comsume} [1] - 43:25 \\ \textbf{comsume} [1] - 43:25 \\ \textbf{comsume} [1] - 43:25 \\ \textbf{consume} [1] - 42:18 \\ \textbf{contact} [1] - 62:13 \\ 47:7 \\ \textbf{fill} - 51:2, 52:2, 70:5 \\ \textbf{cetral} [2] - 17:2 \\ \textbf{city} [1] - 62:17 \\ \textbf{contact} [1] - 61:12 \\ \textbf{contact} [1] - 18:24 \\ \textbf{contact} [1] -$			6:19, 6:21, 7:6, 8:14,	47:18, 47:23, 47:24,	17:4, 17:12, 17:17,
$\begin{array}{c} \mbox{centers} [2] - 13:22, \\ 22:25 \\ Chris [1] - 1:13 \\ 22:25 \\ Chris [1] - 3:3 \\ Commission [3] - \\ 3:4, 3:14, 3:15, 5:10 \\ 3:4, 3:14, 3:15, 5:10 \\ 3:4, 3:14, 3:15, 5:10 \\ 3:5, 4:6, 44:7, \\ 74:4, 79:6, 81:12 \\ 75:24 \\ certain [1] - 77:7, 7 \\ christensen [1] - \\ 75:24 \\ certain [1] - 75:24 \\ certain [1] - 75:24 \\ christensen [1] - \\ 75:24 \\ certain [1] - 75:24 \\ certain [1] - 75:24 \\ christensen [1] - \\ 75:24 \\ certain [1] - 75:24 \\ certain [1] - 75:24 \\ christensen [1] - \\ 75:24 \\ certain [1] - 75:24 \\ christensen [1] - \\ 75:24 \\ certain [1] - 75:24 \\ certain [1] - 75:24 \\ christensen [1] - \\ 75:24 \\ certain [1] - 72:3, 8:6, 9:10 \\ comparable [1] - 74:17 \\ christensen [1] - \\ 75:24 \\ certain [1] - 72:3, 3:21, 3:517 \\ compensatie [2] - \\ consumet [1] - 43:25 \\ consumet [1] - 16:12 \\ consumet [1] - 16:12 \\ consumption [1] - \\ 12:4 \\ consumet [1] - 16:12 \\ contact [1] - 22:4 \\ contact [1] - 42:18 \\ contact [1] - 22:4 \\ contact [1] - 62:3 \\ etrain [2] - 17:2 \\ certain [2] - 17:2 \\ certain [2] - 31:18 \\ 32:17 \\ certain [3] - 7:1, 66:24 \\ etrai [3] - 7:1, 66:24 \\ clarify [2] - 55:19 \\ etrai [3] - 7:1, 66:24 \\ clarify [2] - 55:10 \\ clarify [1] - 55:10 \\ clarify [1$	centered [1] - 80:10			48:10, 48:23, 49:1,	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	centers [2] - 13:22,		70:23, 85:1, 85:2	49:3, 50:1, 50:9,	22:10, 33:23, 34:1,
$\begin{array}{c} \textbf{central} [n] - 11:11 \\ \textbf{central} [n] - 32:17, \\ 35:2, 44:6, 44:7, \\ 77:4, 77:7, \\ 75:24, 76:5, 76:23, \\ 35:2, 44:6, 44:7, \\ 77:4, 77:7, \\ 75:24, 76:5, 76:23, \\ 77:4, 77:7, \\ 75:24, 76:5, 76:23, \\ 77:4, 77:7, \\ 75:24, 76:5, 76:23, \\ 77:4, 77:7, \\ 77:4, 77:7, \\ 77:4, 77:7, \\ 75:24, 76:5, 76:23, \\ 77:4, 77:7, \\ 75:24, 76:7, 77:4, 77:7, \\ 6:11, 6:14, 7:19, \\ 77:23, 8:6, 9:10, \\ \textbf{comparable} [n] - 11:1, \\ \textbf{comparing} [n] - 74:17, \\ \textbf{comparing} [n] - 81:20, \\ \textbf{comparing} [n] - 81:22, \\ \textbf{contact} [n] - 81:20, \\ \textbf{contact} [n] - 81:20, \\ \textbf{contact} [n] - 81:20, \\ \textbf{contact} [n] - 62:13, \\ 6:19, 6:10, 6:19, \\ \textbf{contact} [n] - 62:13, \\ 6:19, 6:10, 6:19, \\ \textbf{contact} [n] - 62:13, \\ 6:10, 6:19, \\ \textbf{contact} [n] - 62:14, \\ 6:10, 6:19, \\ \textbf{contact} [n] - 63:14, \\ 6:10, 6:22, \\ \textbf{contact} [n] - 63:14, \\ 6:10, 6:19, \\ \textbf{contact} [n] - 63:14, \\ 6:10, 6:24, \\ 6:10, 6:25, 72:22, \\ \textbf{contact} [n] - 63:18, \\ 6:10, 6:19, \\ \textbf{contact} [n] - 63:14, \\ 6:11, 63:14, 53:14, 43:14, 33:14, \\ 31:21, 32:$			Commission [33] -	53:6, 57:13, 57:21,	
$\begin{array}{c} \textbf{certain} [10] - 32:17, \\ 35:2, 44:6, 44:7, \\ 35:2, 44:6, 44:7, \\ 51:25, 61:17, 61:18, \\ 74:4, 79:6, 81:12 \\ certainly [6] - 44:7, \\ 75:24 \\ circumstance [3] - 51:2, 52:2, 70:5 \\ circumstance [3] - \\ 71:24, 72:9, 81:25, \\ 79:7 \\ certainly [6] - 83:6, \\ citzens [2] - 31:18, \\ 86:19 \\ 32:17 \\ certains [3] - \\ 79:7 \\ certains [3] - \\ 79:7 \\ certains [3] - \\ 32:17 \\ certains [3] - \\ 32:17 \\ certains [3] - \\ 51:1, 66:24 \\ city [1] - 62:18 \\ city [1] - 18:16 \\ dit 13, 62:15 \\ concerns [3] - 61:6, \\ 76:9 \\ contour [1] - 37:17 \\ contracted [1] - 68:21 $	central [1] - 11:11		3:4, 3:14, 3:15, 5:10,	60:25, 72:22	44:9, 46:4, 46:12,
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			5:12, 5:22, 5:24, 6:6,	comparable [1] - 20:9	53:4, 73:18, 76:20
51:25, 61:17, 61:18, 74:4, 79:6, 81:12Christensen [1] - 75:247:23, 8:6, 9:10, 10:17, 27:21, 30:5,comparing [1] - 74:17 compensate [2] -[1] - 14:2474:4, 79:6, 81:1275:2410:17, 27:21, 30:5, 10:17, 27:21, 30:5,19:10, 63:18consume [1] - 43:25certainly [6] - 44:7,Chuck [7] - 9:18, 44:121, 42:8, 49:18,31:17, 32:3, 32:12, 34:18, 34:21, 35:17,19:10, 63:18consume [1] - 16:1245:15, 45:18, 45:21,41:21, 42:8, 49:18, 54:21, 61:23, 74:1136:1, 36:4, 69:8, 74:24, 72:9, 81:25,47:412:4certificate [2] - 17:2, certified [2] - 86:6,circumstance [3] - 51:22, 52:2, 70:571:24, 72:9, 81:25, 84:15, 85:6completiy [1] - 81:22 completiy [1] - 81:22contacts [1] - 62:3 contacts [1] - 62:3CERTIFICATE [1] - 86:2circumstances [1] - 79:7fi:1, 1:12, 1:1581:20contacts [1] - 62:3 contacts [1] - 62:386:1932:17COMMISSION [3] - 5:9, 6:10, 6:19concepts [1] - 21:21 concepts [1] - 21:21 containate [2] - 59:11, 60:24contauting [1] - 37:17 contour [1] - 37:17CERTIFIY [1] - 86:8City [1] - 62:18 city [1] - 62:1811:4, 31:14, 35:14, 31:1, 33:14, 36:14, 66:25city [1] - 18:16 containe [2] - 55:19, 66:22concepts [1] - 21:21 contaur [1] - 37:17 contour [1] - 37:17 contour [1] - 37:17 contour [1] - 37:20 conture [1] - 37:20 conture [1] - 37:20 conture [3] - 6:16, 76:9CHAIRMAN [26] - 30:17, 31:12, 32:22, 30:17, 35:11, 38:3, clarify [1] - 55:103:5, 3:6, 3:7, 3:8, concerns [3] - 6:16, contracted [1] - 68:21 contracted [1] - 68:21 contracted [1] - 68:21 <b< td=""><td>35:2, 44:6, 44:7,</td><td></td><td>6:11, 6:14, 7:19,</td><td>compare [1] - 11:1</td><td>construction-related</td></b<>	35:2, 44:6, 44:7,		6:11, 6:14, 7:19,	compare [1] - 11:1	construction-related
74:4, 79:6, 81:12 $75:24$ $10:17, 27:21, 30:5,$ compensate $[2]$ -consume $[1] - 43:25$ certainly $[6] - 44:7,$ Chuck $[7] - 9:18,$ $31:17, 32:3, 32:12,$ $19:10, 63:18$ consume $[1] - 43:25$ $45:15, 45:18, 45:21,$ $41:21, 42:8, 49:18,$ $34:18, 34:21, 35:17,$ compensation $[1]$ - $12:4$ certificate $[2] - 17:2,$ circumstance $[3]$ - $71:24, 72:9, 81:25,$ completely $[1] - 81:22$ contact $[1] - 42:18$ $47:7$ $51:22, 52:2, 70:5$ $84:15, 85:6$ completely $[1] - 81:22$ contact $[1] - 6:10$ CERTIFICATE $[1]$ -circumstances $[1]$ - $79:7$ $11:1, 1:12, 1:15$ $81:20$ contacts $[1] - 62:3$ Certified $[2] - 86:6,$ citizens $[2] - 31:18,$ $23:8, 74:14$ contiguous $[1] - 18:24$ Certified $[2] - 86:8$ city $[1] - 62:17$ Commission's $[3]$ -concepts $[1] - 21:21$ continue $[2] - 59:11, 60:24$ cetera $[3] - 7:1, 66:24,$ city $[1] - 62:18$ $11:14, 31:14, 35:14,$ concepts $[1] - 21:21$ continue $[2] - 42:2,$ city $[1] - 62:18$ city $[1] - 62:18$ $11:14, 31:14, 35:14,$ concepts $[1] - 21:21$ contour $[1] - 37:17$ chaired $[2] -$ city $[1] - 63:18$ city $[1] - 63:18$ contact $[1] - 27:12,$ contact $[1] - 37:17$ chaired $[2] -$ city $[1] - 55:19,$ contart $[1] - 12:12, 32:25,$ contact $[3] - 46:23,$ 76:9contract $[3] - 46:22,$ contract $[3] - 66:16,$ $31:3, 9:5, 11:18,$ $22:9, 26:16$ contract $[1] - 68:21$ contract $[1] - 55:10,$ clarify $[6] - 83:12, 83:21,$ $35:12, 43:12,$			7:23, 8:6, 9:10,	comparing [1] - 74:17	[1] - 14:24
$\begin{array}{cccc} \textbf{certainly} [6] - 44:7, \\ 45:15, 45:18, 45:21, \\ 41:21, 42:8, 49:18, \\ 54:21, 61:23, 74:11 \\ \textbf{certificate} [2] - 17:2, \\ \textbf{circumstance} [3] - \\ 51:22, 52:2, 70:5 \\ \textbf{certificate} [2] - 17:2, \\ \textbf{circumstances} [1] - \\ \textbf{circumstances} [1] - \\ \textbf{circumstances} [1] - \\ \textbf{certified} [2] - 86:6, \\ \textbf{circumstances} [1] - \\ \textbf{certified} [2] - 86:6, \\ \textbf{citzens} [2] - 31:18, \\ 36:11, 36:14, 35:14, \\ \textbf{certified} [2] - 86:6, \\ \textbf{citzens} [2] - 31:18, \\ 32:17 \\ \textbf{certified} [2] - 86:6, \\ \textbf{citzens} [2] - 31:18, \\ 32:17 \\ \textbf{certified} [3] - 7:1, 66:24, \\ \textbf{city} [1] - 62:17 \\ \textbf{city} [1] - 62:18 \\ \textbf{city} [1] - 62:18 \\ \textbf{city} [1] - 81:16 \\ \textbf{city} [1] - 55:10 \\ \textbf{citig} [1] - 83:18 \\ 31:3, 9:5, 11:18, \\ 32:17, 33:17, 35:11, 38:3, \\ 25:13, 28:7, 29:22, \\ 30:17, 31:12, 32:22, \\ 33:17, 35:11, 38:3, \\ 31:17, 35:11, 38:3, \\ 31:24, 33:24, 84:11 \\ 33:23, 83:24, 84:11 \\ 33:12, 43:12, 43:12, 43:12, \\ 35:12, 43:12, 43:12, 43:12, \\ 35:12, 43:12, 43:12, 43:12, \\ 05:10 \\ \textbf{contexts} [1] - 27:12 \\ \textbf{contacts} [1] - 61:10 \\ \textbf{contacts} [1] - 18:12 \\ \textbf{contexts} [1] - 21:21 \\ \textbf{contexts} [1] - 18:12 \\ \textbf{contexts} [1] - 18:12 \\ \textbf{contexts} [1] - 18:12 \\ \textbf{contexts} [1] - 21:21 \\ \textbf{contourly} [1] - 18:24 \\ \textbf{contourly} [1] - 37:17 \\ \textbf{contourly} [1] - 37:17 \\ \textbf{contourly} [1] - 37:20 \\ \textbf{contourly} [1] - 37:20 \\ \textbf{contract} [3] - 61:6, \\ 76:9 \\ \textbf{contract} [1] - 68:21 \\ \textbf{contract} [1] - 27:12 \\ \textbf{contract} [1] - 35:1, \\ 35:3, 35:4, 65:5$					consume [1] - 43:25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			31:17, 32:3, 32:12,	19:10, 63:18	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-		34:18, 34:21, 35:17,	compensation [1] -	consumption [1] -
$\begin{array}{cccc} \textbf{certificate} [2] - 17:2, \\ 47:7 \\ 51:22, 52:2, 70:5 \\ 61:2 \\ 62:2 \\ 62:2 \\ 62:2 \\ 63:2 \\ 63:2 \\ 63:2 \\ 63:2 \\ 63:2 \\ 79:7 \\ \hline \textbf{certified} [2] - 86:6, \\ 86:19 \\ \textbf{citizens} [2] - 31:18, \\ 86:19 \\ \textbf{certified} [2] - 86:8, \\ 61:9 \\ \textbf{citizens} [2] - 31:18, \\ 32:17 \\ \textbf{cetera} [3] - 7:1, 66:24, \\ 61:25 \\ citiy [1] - 62:17 \\ citiy [1] - 62:18 \\ 61:2 \\ citiy [1] - 62:18 \\ 61:2 \\ citiy [1] - 18:16 \\ 61:25 \\ citii [1] - 18:16 \\ 61:25 \\ citii [1] - 18:16 \\ 61:25 \\ citii [1] - 18:16 \\ 61:22 \\ citii [1] - 18:16 \\ citii [1] - 18:17 \\ contact [1] - 37:17 \\ contact [1] - 37:17 \\ contact [1] - 37:20 \\ contract [1] - 46:23 \\ 76:9 \\ contract [1] - 46:23 \\ 76:9 \\ contract [1] - 68:21 \\ contract [1] - 27:12 \\ contract [1] - 27:12 \\ contract [1] - 27:12 \\ contract [1] - 35:1 \\ contract [1] - 35:1 \\ ci$			36:1, 36:4, 69:8,	47:4	• • • •
47:7 $51:22, 52:2, 70:5$ $84:15, 85:6$ $comply [1] - 7:10$ $contacting [1] - 6:10$ $CERTIFICATE [1] circumstances [1] 79:7$ $COMMISSION [3] compressor [1] contacts [1] - 62:3$ $86:2$ $79:7$ $citizens [2] - 31:18,$ $Commission's [3] computational [2] 59:11, 60:24$ $86:19$ $32:17$ $Commission's [3] computational [2] 59:11, 60:24$ $CERTIFY [1] - 86:8$ $city [1] - 62:17$ $COMMISSIONER [8] concepts [1] - 21:21$ $continue [2] - 4:22,$ $cetera [3] - 7:1, 66:24,$ $city [1] - 62:18$ $1:14, 31:14, 35:14,$ $concern [10] - 26:23,$ $5:1$ $66:25$ $civil [1] - 18:16$ $43:11, 43:13, 43:16,$ $31:21, 32:14, 32:25,$ $contour [1] - 37:17$ $CHAIRMAN [26] clarify [2] - 55:19,$ $66:22$ $Commissioner [19] 45:12, 61:12, 81:7$ $contract [3] - 46:23,$ $30:17, 31:12, 32:22,$ $clarify [1] - 83:18$ $3:13, 9:5, 11:18,$ $22:9, 26:16$ $contract [1] - 68:21$ $30:17, 35:11, 38:3,$ $clay [5] - 83:12, 83:21,$ $3:512, 43:12, 44:20,$ $concerte [1] - 27:12,$ $contractor [4] - 35:1,$ $33:17, 35:14, 45:14,$ $53:4, 44:20,$ $concerte [1] - 27:12,$ $contractor [4] - 35:1,$ $33:17, 35:14, 45:24,$ $83:23, 83:24, 84:11$ $62:14, 62:16, 84:10,$ $concerte [1] - 27:12,$ $35:3, 35:4, 65:5$			71:24, 72:9, 81:25,	completely [1] - 81:22	contact [1] - 42:18
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			84:15, 85:6	comply [1] - 7:10	
86:2 $79:7$ $1:1, 1:12, 1:15$ $81:20$ $contaminate [2] - 59:11, 60:24$ Certified [2] - 86:6, 86:19citizens [2] - 31:18, 32:17 $Commission's [3] - 5:9, 6:10, 6:19$ $computational [2] - 59:11, 60:24$ CERTIFY [1] - 86:8City [1] - 62:17COMMISSIONER [8] - 5:9, 6:10, 6:19 $23:8, 74:14$ $contiguous [1] - 18:24$ Cetera [3] - 7:1, 66:24, 66:25city [1] - 62:18 $1:14, 31:14, 35:14,$ $concepts [1] - 21:21$ $contum [2] - 4:22,$ CHAIRMAN [26] - 1:13, 1:13, 3:1, 2:5:13, 28:7, 29:22,clarify [2] - 55:19, 66:22 $62:13, 62:15$ $33:5, 34:14, 45:1,$ $contouring [1] - 37:20$ Commissioner [19] - 1:13, 1:12, 32:22, 3:13, 9:5, 11:18, 3:17, 35:11, 38:3, 4:31:2, 45:14, 52:4, 4:12, 45:14, 52:4, 4:12, 45:14, 52:4, 8:23, 8:24, 84:11 $3:12, 32:23,$ 3:511, 28:7, 29:24, clarify [1] - 55:10 $3:5, 3:6, 3:7, 3:8,$ 3:13, 9:5, 11:18, 1:26, 31:12, 32:23, 25:12, 43:12, 44:20, contert [1] - 27:12 $contracted [1] - 68:21$ contract [4] - 35:1, 35:3, 35:4, 65:5	CERTIFICATE [1] -			compressor [1] -	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			1:1, 1:12, 1:15	81:20	contaminate [2] -
86:19 $32:17$ $5:9, 6:10, 6:19$ $23:8, 74:14$ contiguous [1] - 18:24 CERTIFY [1] - 86:8 City [1] - 62:17 COMMISSIONER [8] - 1:14, 31:14, 35:14, 66:25 City [1] - 62:18 $concepts$ [1] - 21:21continue [2] - 4:22, 5:1 CHAIRMAN [26] - 1:13, 1:13, 3:1, 25:13, 28:7, 29:22, 30:17, 31:12, 32:22, 33:17, 35:11, 38:3, 43:12, 45:14, 52:4, Commissioner [19] - 33:12, 32:23, 83:24, 84:11 $5:1$ contour [1] - 37:17 Commissioner [19] - 1:13, 1:13, 3:1, 25:13, 28:7, 29:22, 30:17, 31:12, 32:24, 31:12, 32:24, 31:12, 32:24, Commissioner [19] - 31:12, 32:23, 31:12, 32:23, 31:12, 32:24, 31:12, 32:23, 31:12, 32:24, 31:12, 32:24, 31:12, 32:24, 31:12, 32:24, 31:12, 32:23, 31:12, 32:24, 31:12, 32:23, 31:12, 32:24, 31:12, 32:23, 31:12, 32:23, 31:12, 32:24, 31:12, 32:23, 31:12, 32:23, 31:12, 32:23, 31:12, 32:24, 31:12, 32:23, 31:12, 32:23, 31:12, 32:24, 33:14, 43:11, 31:12, 32:23, 31:12, 32:23, 31:12, 32:23, 31:12, 32:24, 33:14, 43:11, 33:14, 43:14, 43:14, 43:14, 43:14, 43:14, 43:14, 43:14, 43:14, 43:14, 43:1	Certified [2] - 86:6,		Commission's [3] -	computational [2] -	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			COMMISSIONER [8] -	concepts [1] - 21:21	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		• • • •	1:14, 31:14, 35:14,	concern [10] - 26:23,	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		-	43:11, 43:13, 43:16,	31:21, 32:14, 32:25,	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	CHAIRMAN [26] -		62:13, 62:15	33:5, 34:14, 45:1,	
25:13, 28:7, 29:22, clarifying [1] - 83:18 3:5, 3:6, 3:7, 3:8, concerns [3] - 6:16, 76:9 30:17, 31:12, 32:22, clarity [1] - 55:10 3:13, 9:5, 11:18, 22:9, 26:16 contracted [1] - 68:21 33:17, 35:11, 38:3, clay [5] - 83:12, 83:21, 35:12, 43:12, 44:20, concrete [1] - 27:12 contractor [4] - 35:1, 43:12, 45:14, 52:4, 83:23, 83:24, 84:11 62:14, 62:16, 84:19 condition [3] - 7:12, 35:3, 35:4, 65:5			Commissioner [19] -	45:12, 61:12, 81:7	
30:17, 31:12, 32:22, clarity [1] - 55:10 3:13, 9:5, 11:18, 22:9, 26:16 contracted [1] - 68:21 33:17, 35:11, 38:3, clay [5] - 83:12, 83:21, 35:12, 43:12, 44:20, concrete [1] - 27:12 contractor [4] - 35:1, 43:12, 45:14, 52:4, 83:23, 83:24, 84:11 52:14, 62:16, 84:19 condition [3] - 7:12, 35:3, 35:4, 65:5			3:5, 3:6, 3:7, 3:8,	concerns [3] - 6:16,	••
33:17, 35:11, 38:3, clay [5] - 83:12, 83:21, 43:12, 45:14, 52:4, 83:23, 83:24, 84:11 12:6, 31:12, 32:23, concrete [1] - 27:12 contractor [4] - 35:1, 35:12, 45:14, 52:4, 83:23, 83:24, 84:11 62:14, 62:16, 84:19 62:14, 62:16, 84:19			3:13, 9:5, 11:18,	22:9, 26:16	
43:12, 45:14, 52:4, 83:23, 83:24, 84:11 55:04 55		-		concrete [1] - 27:12	
E-04 E-05 50.4 62:14 62:16 84:19 05:0 70:04		• • •	35:12, 43:12, 44:20,	condition [3] - 7:12,	
	55:21, 55:25, 58:4,		62:14, 62:16, 84:19,	35:9, 76:21	

critical [1] - 13:19	9:8, 9:21, 9:24, 10:9,	42:15	15:13 Director [1] - 9:16	65:1, 74:8
crews [1] - 18:16 criteria [1] - 55:10	7:9, 8:11, 8:25, 9:1,	definite [1] - 70:8 deformation [1] -	directly [2] - 14:19,	drain [7] - 21:10, 21:12, 21:16, 21:18,
crested [1] - 44:24	4:20, 5:3, 5:22, 6:1,	defense [1] - 33:7	directional [1] - 74:2	56:11, 56:18
CPMs [1] - 23:7	3:21, 3:23, 3:24, 4:8, 4:11, 4:12, 4:18,	77:19	18:20, 79:4	drag-reducing [2] -
78:14	2:3, 3:3, 3:19, 3:20,	deeper [2] - 52:25,	direction [3] - 5:2,	drag [2] - 56:11, 56:18
cover [2] - 38:12,	Dakota [61] - 1:9, 1:21,	83:11	directed [1] - 26:23	79:2
courts [1] - 7:2	1:5, 86:1	52:6, 63:20, 82:22,	42:11	19:6, 62:1, 79:1,
67:24	DAKOTA [4] - 1:2, 1:4,	deep [7] - 21:15, 51:6,	direct [5] - 13:10, 13:16, 15:16, 16:4,	downstream [4] -
court [3] - 7:25, 25:24,	daily [1] - 71:15	60:19	dig [2] - 42:23, 42:25	70.19, 71.11, 74.23, 77:16
course [1] - 47:6	dad's [2] - 44:21, 45:2	- 51.22, 51.25 decompose [1] -	65:7	65:19, 65:20, 67:14, 70:19, 71:11, 74:23,
73:23, 75:12, 75:13		- 31:22, 31:23	difficult [2] - 64:13,	45:7, 45:8, 58:11, 65:19, 65:20, 67:14
58:6, 66:8, 66:21,		decommissioning [2]	61:19, 81:22	
36:10, 38:5, 43:23,	D	28:4	43:17, 60:15, 61:15,	down [15] - 5:11, 15:2, 31:5, 39:7, 45:5,
26:16, 27:10, 33:21,		decommissioned [1] -	different [6] - 32:5,	75:24
18:21, 22:15, 25:21,	cut [1] - 59.12 cuts [1] - 51:12	declining [1] - 30:2	12:8, 12:10, 36:20	Doug [2] - 44:21,
couple [16] - 18:19,	custoliar [1] - 8.21 cut [1] - 39:12	declare [1] - 85:7 decline [1] - 30:4	diameter [4] - 4:7,	60:9, 79:7, 79:8
42.0, 45.20, 56.23, 72:3, 72:22	custodial [1] - 8:21		deviation [1] - 75:5	35:10, 41:5, 49:25,
42:6, 45:20, 58:23,	Current [1] - 10:18	decisions [1] - 5:19	69:12	done [8] - 31:7, 33:13,
12:22, 12:24, 15:25,	current [1] - 16:18	7:3, 32:13	7:16, 9:15, 69:3,	49:14, 50:12
county [10] - 5:6, 6:2,	culvert [1] - 41.2 culverts [1] - 40:21	decide [1] - 7:20 decision [3] - 6:22,	development [5] - 4:4,	16:6, 16:17, 35:24,
12:25, 15:22, 70:9, 70:11, 72:2, 72:18	cultural [1] - 18.17 culvert [1] - 41:2	decibels [1] - 55:10 decide [1] - 7:20	developing [1] - 21:3	dollars [6] - 13:10,
4:21, 5:4, 5:23,	45:9 cultural [1] - 18:17	55:3, 55:7	developed [1] - 21:3	35:21, 35:23, 58:1
County [11] - 4:1, 4:3,	crushed [2] - 45:7, 45:9	decibel [3] - 54:16,	develop [1] - 24:19	dollar [5] - 13:5,
COUNTY [1] - 86:3	75:1, 83:23	3:24, 17:1	Detroit [1] - 11:12	dodge [1] - 47:25
69:21, 70:15	59:1, 59:2, 60:13,	December [3] - 3:21,	determine [1] - 20:7	47:6, 84:24
66:19, 68:23, 69:14,	56:14, 56:16, 56:19,	52:13, 62:24	3:9	documents [3] - 5:8,
14:14, 14:20, 66:10,	56:5, 56:8, 56:12,	dealing [3] - 21:25,	determination [1] -	34:24, 34:25
country [9] - 13:2,	14:17, 48:22, 56:4,	deal [1] - 71:2	deteriorate [1] - 29:9	document [3] - 22:6,
73:7	14:8, 14:10, 14:11,	24:1, 24:2	detectable [1] - 74:11	Dockets [1] - 5:11
36:3, 36:6, 73:1,	12:5, 13:17, 14:4,	22:22, 23:23, 23:25,	73:22	dockets [1] - 5:10
34:1, 34:7, 35:25,	11:22, 11:24, 12:3,	days [7] - 17:19,	detect [2] - 73:20,	Docket [1] - 3:18
4:24, 5:6, 33:22,	crude [25] - 4:8, 10:22,	80:1	25:1	84:23, 85:1
counties [11] - 4:19,	CRR [1] - 1:24	daylight [2] - 79:25,	details [2] - 21:22,	7:7, 32:9, 84:18,
Counsel [1] - 10:1	CRPs [1] - 76:7	Dave [1] - 72:14	78:25	docket [7] - 6:10, 7:5,
10:1	77:5	Dated [1] - 86:13	detailed [2] - 75:4,	DO [1] - 86:8
counsel [2] - 3:15,	76:22, 76:25, 77:3,	date [1] - 29:13	detail [1] - 22:6	26:20
63:18	76:4, 76:10, 76:17,	data [2] - 20:12, 74:16	desk [1] - 8:6	divided [2] - 26:18,
costs [3] - 49:7, 63:17,	CRP [9] - 76:1, 76:3,	Darren's [1] - 26:10	designed [1] - 28:15	64:3
30:14, 53:11	37:16	81:24	23:10, 28:16, 55:10	ditches [2] - 20:3,
cost [4] - 13:6, 30:13,	crown [2] - 37:14,	Darren [3] - 1:18, 8:5,	design [4] - 9:19,	ditch [3] - 37:15, 41:3
86:12	66:24	DAPL [1] - 72:15	description [1] - 41:22	disturb [1] - 75:15
56:4, 56:16, 56:17,	crossings [2] - 41:2,	20:17	derivative [1] - 12:5	59:8
41:11, 43:14, 51:7,	76:10, 81:5	damages [2] - 20:15,	74:5, 77:12, 77:17	districts [2] - 50:17,
correct [8] - 7:3,	12:12, 40:15, 74:3,	34:10, 51:24	63:24, 64:18, 65:6,	district [1] - 59:13
48:19	crossing [6] - 4:19,	damage [3] - 34:1,	depth [7] - 21:17,	distance [1] - 74:4
corporation [1] -	crosses [1] - 51:1	13:19	16:20	46:15
corn [1] - 38:20	62:20	Dakotas [2] - 11:14,	depreciates [1] -	dispose [2] - 46:2,
core [1] - 17:17	crossed [2] - 5:7,	70:17, 86:7, 86:13	80:12	disposal [1] - 61:3
copy [1] - 5:5	6:25	49:9, 50:2, 66:7,	dependent [2] - 13:17,	71:11
controlled [1] - 59:5	cross-examining [1] -	46:18, 47:10, 48:11,	24:21	disparaging [1] -
74:21	76:4, 76:10, 76:19	27:23, 30:16, 45:24,	Department [2] - 5:23,	discussion [1] - 25:19
22:25, 67:1, 67:7,	73:14, 74:1, 74:10,	16:9, 16:13, 16:15,	denied [1] - 7:20	discovery [1] - 6:25
control [5] - 22:24,	40:13, 44:14, 44:17,	15:4, 15:14, 15:21,	delivery [1] - 6:18	47:1
contribution [1] - 77:3	6:25, 21:5, 40:11,	13:9, 13:15, 15:1,	deliver [1] - 72:3	disappointed [1] -
76:6, 76:25	cross [14] - 3:10, 4:25,	12:19, 12:20, 13:4,	degrees [1] - 53:24	60:21, 78:8
76:1, 76:2, 76:5,	crops [2] - 20:16, 64:1	12:11, 12:13, 12:15,	degrade [1] - 28:18	37:12, 43:3, 60:20,
contracts [6] - 67:6,	38:20, 63:25	11:23, 12:9, 12:10,	28:22, 29:15	37:8, 37:10, 37:11,

draw [1] - 18:3	economy [2] - 13:6,	46:24	evidence [1] - 6:25	factual [1] - 6:24 5
drill [4] - 51:3, 51:12,	71:8	engine [3] - 55:1,	exact [4] - 55:3, 60:17,	failed [2] - 49:21,
74:3, 74:4	edges [1] - 45:10	55:15, 55:17	80:14, 84:4	70:11
driller's [2] - 82:18,	Edmunds [1] - 4:23	Engineer [1] - 9:19	exactly [4] - 32:23,	fair [1] - 79:14
83:8	Edwards [5] - 1:17,	engineered [1] - 65:4	35:3, 44:23, 55:7	fairly [1] - 26:16
drilling [1] - 58:20	8:6, 9:20, 41:1,	Engineering [1] - 9:14	examined [1] - 32:15	fall [1] - 37:16
drills [1] - 25:6	54:20	engineering [1] - 9:19	examining [2] - 6:25,	Falls [4] - 4:4, 5:1,
drinking [5] - 58:10,	EDWARDS [2] - 54:6,	Engineers [2] - 66:5,	32:1	18:9, 62:17
58:18, 60:4, 60:7,	54:9	67:20	example [1] - 10:23	false [2] - 48:7, 69:5
80:11	effect [2] - 73:17,	Enron [1] - 57:17	examples [1] - 30:3	familiar [2] - 24:8,
drive [3] - 41:11,	73:19	ensure [2] - 24:9,	excavating [1] - 24:7	82:9
41:12, 42:3	effects [1] - 53:19	59:10	excavation [1] - 24:10	families [2] - 27:1,
driven [6] - 54:25,	efficiency [1] - 56:12	entail [1] - 60:7	excellent [3] - 31:15,	54:2
55:1, 55:14, 55:17,	effort [1] - 71:21	entails [1] - 53:20	32:14, 44:18	family [1] - 53:18
71:9, 82:12	eight [2] - 15:21,	enter [1] - 4:20	except [3] - 19:13,	far [11] - 14:1, 19:7,
driveways [1] - 67:15	15:24	enters [1] - 12:18	19:19, 32:9	20:5, 26:18, 26:19,
driving [1] - 45:9	either [14] - 6:18, 8:9,	enthusiasts [1] -	excuse [1] - 31:22	30:10, 58:23, 69:23,
due [2] - 3:8, 7:16	11:5, 15:14, 22:23,	66:11	execute [1] - 13:12	73:21, 74:11, 78:10
dug [1] - 26:19	28:4, 28:5, 35:9,	entire [2] - 9:17, 79:6	execution [1] - 9:15	farm [7] - 19:17,
duly [1] - 86:8	38:15, 52:22, 54:24,	entitled [3] - 2:2, 3:18,	existing [3] - 4:9,	20:25, 24:6, 38:24,
duly-appointed [1] -	68:19, 78:20, 85:5	86:10	4:13, 64:16	61:19, 62:19, 70:10
86:8	electric [4] - 54:10,	environment [4] -	expected [1] - 7:13	farmed [1] - 64:2
during [12] - 16:21,	54:25, 55:14, 55:17 electrically [1] - 82:11	7:12, 23:20, 59:4,	expense [1] - 52:18	farmer [1] - 36:25
24:10, 34:1, 41:8, 41:13, 41:15, 44:6,	elevation [1] - 37:20	60:22	experience [2] -	farmers [3] - 21:20,
62:17, 62:18, 62:22,	emergency [5] -	environmental [7] -	62:24, 63:9	45:8, 45:11 farming [1] - 21:13
63:1, 73:18	24:12, 24:14, 24:17,	9:25, 18:7, 18:17, 38:9, 71:13, 78:13,	experienced [1] - 45:8	farms [3] - 19:11,
dust [5] - 66:22, 67:1,	24:24, 25:5	79:18	experiencing [1] - 45:11	21:20, 54:2
67:3, 67:7	Emergency [2] -	envisioning [1] -	explain [6] - 8:12,	Faulk [1] - 4:23
	24:20, 61:25	55:16		feature [1] - 21:10
	Z4.Z0, 01.ZJ	55.10	10 14 25 15 25 17	
E			10:14, 25:15, 25:17, 54:15, 78:23	
E	emphasize [1] - 6:12 employ [3] - 25:2,	EPA [1] - 50:7	54:15, 78:23	features [1] - 80:13 February [2] - 6:6,
	emphasize [1] - 6:12			features [1] - 80:13
e-mail [3] - 6:18, 6:19,	emphasize [1] - 6:12 employ [3] - 25:2,	EPA [1] - 50:7 equipment [2] - 33:24,	54:15, 78:23 explaining [1] - 84:4	features [1] - 80:13 February [2] - 6:6,
e-mail [3] - 6:18, 6:19, 85:5	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14	EPA _[1] - 50:7 equipment _[2] - 33:24, 34:9	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20	features [1] - 80:13 February [2] - 6:6, 86:14
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4,	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8,	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1,
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] -	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24,	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21,
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24, 66:25	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13,	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16,
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24, 66:25 ethanol [3] - 71:6,	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16, 49:19
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19,	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24, 66:25 ethanol [3] - 71:6, 71:25, 72:4	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10,	$\begin{array}{l} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \end{array}$
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11, 36:18, 42:1, 46:23,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24, 66:25 ethanol [3] - 71:6, 71:25, 72:4 evaluate [2] - 22:20,	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7	$\begin{array}{l} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \end{array}$
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6 end [11] - 10:15,	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24, 66:25 ethanol [3] - 71:6, 71:25, 72:4 evaluate [2] - 22:20, 41:20	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9	$\begin{array}{l} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \end{array}$
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11, 36:18, 42:1, 46:23, 47:5, 64:10, 64:12,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6 end [11] - 10:15, 17:22, 18:3, 18:23,	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24, 66:25 ethanol [3] - 71:6, 71:25, 72:4 evaluate [2] - 22:20, 41:20 evaluating [2] - 22:22,	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ \end{array}$
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11, 36:18, 42:1, 46:23, 47:5, 64:10, 64:12, 65:21, 70:1, 70:3,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6 end [11] - 10:15, 17:22, 18:3, 18:23, 23:18, 27:3, 31:19,	EPA [1] - 50:7 equipment [2] - 33:24, 34:9 especially [2] - 34:8, 66:24 estimate [3] - 16:7, 16:17, 16:18 et [3] - 7:1, 66:24, 66:25 ethanol [3] - 71:6, 71:25, 72:4 evaluate [2] - 22:20, 41:20 evaluating [2] - 22:22, 23:15	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ \end{array}$
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11, 36:18, 42:1, 46:23, 47:5, 64:10, 64:12, 65:21, 70:1, 70:3, 71:19, 71:23, 76:24,	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6 end [11] - 10:15, 17:22, 18:3, 18:23, 23:18, 27:3, 31:19, 32:14, 50:11, 53:10,	$\begin{array}{l} \textbf{EPA}[1] - 50:7\\ \textbf{equipment}[2] - 33:24,\\ 34:9\\ \textbf{especially}[2] - 34:8,\\ 66:24\\ \textbf{estimate}[3] - 16:7,\\ 16:17,16:18\\ \textbf{et}[3] - 7:1,66:24,\\ 66:25\\ \textbf{ethanol}[3] - 71:6,\\ 71:25,72:4\\ \textbf{evaluate}[2] - 22:20,\\ 41:20\\ \textbf{evaluating}[2] - 22:22,\\ 23:15\\ \textbf{evaluation}[1] - 42:9\\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16, 49:19 feedlot [1] - 69:24 feedlots [1] - 69:17 feelings [1] - 78:22 feet [18] - 18:20, 18:21, 19:23, 20:4, 21:15, 51:6, 52:8,
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11, 36:18, 42:1, 46:23, 47:5, 64:10, 64:12, 65:21, 70:1, 70:3, 71:19, 71:23, 76:24, 77:2	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6 end [11] - 10:15, 17:22, 18:3, 18:23, 23:18, 27:3, 31:19, 32:14, 50:11, 53:10, 85:1	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ \end{array}$
e-mail [3] - 6:18, 6:19, 85:5 early [1] - 29:14 earth [1] - 29:10 Earth [1] - 29:11 easement [21] - 19:9, 19:16, 20:6, 20:14, 21:24, 22:2, 36:11, 36:18, 42:1, 46:23, 47:5, 64:10, 64:12, 65:21, 70:1, 70:3, 71:19, 71:23, 76:24, 77:2 easements [4] - 13:8, 20:5, 47:5, 76:24 easier [1] - 75:2	$\begin{array}{c} \mbox{emphasize [1] - 6:12} \\ \mbox{employ [3] - 25:2,} \\ \mbox{59:16, 61:15} \\ \mbox{employed [3] - 16:8,} \\ \mbox{29:25, 61:14} \\ \mbox{employees [2] - 25:4,} \\ \mbox{53:6} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{empty [1] - 27:17} \\ \mbox{encourage [3] - 5:19,} \\ \mbox{8:15, 33:6} \\ \mbox{end [11] - 10:15,} \\ \mbox{17:22, 18:3, 18:23,} \\ \mbox{23:18, 27:3, 31:19,} \\ \mbox{32:14, 50:11, 53:10,} \\ \mbox{85:1} \\ \mbox{endanger [1] - 66:14} \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ 3:17, 5:14, 6:8, 6:15, \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ 64:21, 65:20, 65:21, \\ \end{array}$
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \end{array}$	$\begin{array}{c} \mbox{emphasize [1] - 6:12} \\ \mbox{employ [3] - 25:2,} \\ \mbox{59:16, 61:15} \\ \mbox{employed [3] - 16:8,} \\ \mbox{29:25, 61:14} \\ \mbox{employees [2] - 25:4,} \\ \mbox{53:6} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{employment [1] -} \\ \mbox{27:17} \\ \mbox{encourage [3] - 5:19,} \\ \mbox{8:15, 33:6} \\ \mbox{end [11] - 10:15,} \\ \mbox{17:22, 18:3, 18:23,} \\ \mbox{23:18, 27:3, 31:19,} \\ \mbox{32:14, 50:11, 53:10,} \\ \mbox{85:1} \\ \mbox{endanger [1] - 66:14} \\ \mbox{ending [1] - 11:12} \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ 3:17, 5:14, 6:8, 6:15, \\ 8:1, 8:7, 8:9, 8:11, \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ 64:21, 65:20, 65:21, \\ 69:23, 70:4, 82:23, \\ \end{array}$
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \end{array}$	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6 end [11] - 10:15, 17:22, 18:3, 18:23, 23:18, 27:3, 31:19, 32:14, 50:11, 53:10, 85:1 endanger [1] - 66:14	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ 3:17, 5:14, 6:8, 6:15, \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9,	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:24 \\ \textbf{feedlots} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ 64:21, 65:20, 65:21, \\ 69:23, 70:4, 82:23, \\ 83:8 \\ \end{array}$
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easterly} [1] - 12:12\\ \end{array}$	$\begin{array}{c} \mbox{emphasize [1] - 6:12} \\ \mbox{employ [3] - 25:2,} \\ \mbox{59:16, 61:15} \\ \mbox{employed [3] - 16:8,} \\ \mbox{29:25, 61:14} \\ \mbox{employees [2] - 25:4,} \\ \mbox{53:6} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{employment [1] -} \\ \mbox{27:17} \\ \mbox{encourage [3] - 5:19,} \\ \mbox{8:15, 33:6} \\ \mbox{end [11] - 10:15,} \\ \mbox{17:22, 18:3, 18:23,} \\ \mbox{23:18, 27:3, 31:19,} \\ \mbox{32:14, 50:11, 53:10,} \\ \mbox{85:1} \\ \mbox{endanger [1] - 66:14} \\ \mbox{ending [1] - 11:12} \\ \mbox{endless [1] - 53:2} \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7\\ \textbf{equipment} [2] - 33:24,\\ 34:9\\ \textbf{especially} [2] - 34:8,\\ 66:24\\ \textbf{estimate} [3] - 16:7,\\ 16:17, 16:18\\ \textbf{et} [3] - 7:1, 66:24,\\ 66:25\\ \textbf{ethanol} [3] - 71:6,\\ 71:25, 72:4\\ \textbf{evaluate} [2] - 22:20,\\ 41:20\\ \textbf{evaluating} [2] - 22:22,\\ 23:15\\ \textbf{evaluation} [1] - 42:9\\ \textbf{evening} [13] - 3:1, 3:5,\\ 3:17, 5:14, 6:8, 6:15,\\ 8:1, 8:7, 8:9, 8:11,\\ 9:1, 9:6, 10:6\\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ 64:21, 65:20, 65:21, \\ 69:23, 70:4, 82:23, \\ \end{array}$
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easternly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ \end{array}$	$\begin{array}{c} \mbox{emphasize [1] - 6:12} \\ \mbox{employ [3] - 25:2,} \\ \mbox{59:16, 61:15} \\ \mbox{employed [3] - 16:8,} \\ \mbox{29:25, 61:14} \\ \mbox{employees [2] - 25:4,} \\ \mbox{53:6} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{empty [1] - 27:17} \\ \mbox{encourage [3] - 5:19,} \\ \mbox{8:15, 33:6} \\ \mbox{end [11] - 10:15,} \\ \mbox{17:22, 18:3, 18:23,} \\ \mbox{23:18, 27:3, 31:19,} \\ \mbox{32:14, 50:11, 53:10,} \\ \mbox{85:1} \\ \mbox{endanger [1] - 66:14} \\ \mbox{ending [1] - 11:12} \\ \mbox{endes [1] - 53:2} \\ \mbox{ends [2] - 27:1, 71:2} \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ 3:17, 5:14, 6:8, 6:15, \\ 8:1, 8:7, 8:9, 8:11, \\ 9:1, 9:6, 10:6 \\ \textbf{event} [12] - 24:18, \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23,	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:24 \\ \textbf{feedlots} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ 64:21, 65:20, 65:21, \\ 69:23, 70:4, 82:23, \\ 83:8 \\ \textbf{fence} [2] - 39:8, 40:1 \\ \end{array}$
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easternly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ 43:19\\ \end{array}$	$\begin{array}{c} \text{emphasize [1] - 6:12} \\ \text{employ [3] - 25:2,} \\ 59:16, 61:15 \\ \text{employed [3] - 16:8,} \\ 29:25, 61:14 \\ \text{employees [2] - 25:4,} \\ 53:6 \\ \text{employment [1] -} \\ 15:18 \\ \text{empty [1] - 27:17} \\ \text{encourage [3] - 5:19,} \\ 8:15, 33:6 \\ \text{end [11] - 10:15,} \\ 17:22, 18:3, 18:23, \\ 23:18, 27:3, 31:19, \\ 32:14, 50:11, 53:10, \\ 85:1 \\ \text{endanger [1] - 66:14} \\ \text{ending [1] - 11:12} \\ \text{endless [1] - 53:2} \\ \text{ends [2] - 27:1, 71:2} \\ \text{endurance [1] - 67:24} \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ 3:17, 5:14, 6:8, 6:15, \\ 8:1, 8:7, 8:9, 8:11, \\ 9:1, 9:6, 10:6 \\ \textbf{event} [12] - 24:18, \\ 25:4, 25:7, 28:5, \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 exposed [2] - 28:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23, 23:2	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:17 \\ \textbf{feelings} [1] - 78:22 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ 64:21, 65:20, 65:21, \\ 69:23, 70:4, 82:23, \\ 83:8 \\ \textbf{fence} [2] - 39:8, 40:1 \\ \textbf{few} [2] - 25:15, 70:8 \\ \end{array}$
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easterly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ 43:19\\ \textbf{eat} [4] - 45:1, 60:17, \end{array}$	$\begin{array}{c} \text{emphasize [1] - 6:12} \\ \text{employ [3] - 25:2,} \\ 59:16, 61:15 \\ \text{employed [3] - 16:8,} \\ 29:25, 61:14 \\ \text{employees [2] - 25:4,} \\ 53:6 \\ \text{employment [1] -} \\ 15:18 \\ \text{empty [1] - 27:17} \\ \text{encourage [3] - 5:19,} \\ 8:15, 33:6 \\ \text{end [11] - 10:15,} \\ 17:22, 18:3, 18:23, \\ 23:18, 27:3, 31:19, \\ 32:14, 50:11, 53:10, \\ 85:1 \\ \text{endanger [1] - 66:14} \\ \text{ending [1] - 11:12} \\ \text{endless [1] - 53:2} \\ \text{ends [2] - 27:1, 71:2} \\ \text{endurance [1] - 67:24} \\ \text{energy [5] - 3:19, \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ 3:17, 5:14, 6:8, 6:15, \\ 8:1, 8:7, 8:9, 8:11, \\ 9:1, 9:6, 10:6 \\ \textbf{event} [12] - 24:18, \\ 25:4, 25:7, 28:5, \\ 30:16, 30:22, 49:17, \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23, 23:2 facility [5] - 3:20, 3:22, 6:3, 7:10, 81:22 FACILITY [1] - 1:5	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16, 49:19 feedlot [1] - 69:24 feedlots [1] - 69:24 feet [18] - 18:20, 18:21, 19:23, 20:4, 21:15, 51:6, 52:8, 64:17, 64:19, 64:20, 64:21, 65:20, 65:21, 69:23, 70:4, 82:23, 83:8 fence [2] - 39:8, 40:1 few [2] - 25:15, 70:8 FIEGEN [1] - 1:13
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easterly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ 43:19\\ \textbf{eat} [4] - 45:1, 60:17, \\ 60:18\\ \end{array}$	$\begin{array}{c} \mbox{emphasize [1] - 6:12} \\ \mbox{employ [3] - 25:2,} \\ \mbox{59:16, 61:15} \\ \mbox{employed [3] - 16:8,} \\ \mbox{29:25, 61:14} \\ \mbox{employees [2] - 25:4,} \\ \mbox{53:6} \\ \mbox{employment [1] -} \\ \mbox{15:18} \\ \mbox{empty [1] - 27:17} \\ \mbox{empty [1] - 10:15,} \\ \mbox{17:22, 18:3, 18:23,} \\ \mbox{23:18, 27:3, 31:19,} \\ \mbox{32:14, 50:11, 53:10,} \\ \mbox{85:1} \\ \mbox{endager [1] - 66:14} \\ \mbox{ending [1] - 11:12} \\ \mbox{endager [1] - 66:14} \\ \mbox{ending [2] - 27:1, 71:2} \\ \mbox{endurance [1] - 67:24} \\ \mbox{energy [5] - 3:19,} \\ \mbox{3:22, 11:6, 66:17,} \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7\\ \textbf{equipment} [2] - 33:24,\\ 34:9\\ \textbf{especially} [2] - 34:8,\\ 66:24\\ \textbf{estimate} [3] - 16:7,\\ 16:17, 16:18\\ \textbf{et} [3] - 7:1, 66:24,\\ 66:25\\ \textbf{ethanol} [3] - 71:6,\\ 71:25, 72:4\\ \textbf{evaluate} [2] - 22:20,\\ 41:20\\ \textbf{evaluating} [2] - 22:22,\\ 23:15\\ \textbf{evaluation} [1] - 42:9\\ \textbf{evening} [13] - 3:1, 3:5,\\ 3:17, 5:14, 6:8, 6:15,\\ 8:1, 8:7, 8:9, 8:11,\\ 9:1, 9:6, 10:6\\ \textbf{event} [12] - 24:18,\\ 25:4, 25:7, 28:5,\\ 30:16, 30:22, 49:17,\\ 49:21, 61:8, 61:11,\\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23, 23:2 facility [5] - 3:20, 3:22, 6:3, 7:10, 81:22 FACILITY [1] - 1:5 fact [4] - 31:21, 33:4,	$\begin{array}{c} \textbf{features} [1] - 80:13 \\ \textbf{February} [2] - 6:6, \\ 86:14 \\ \textbf{federal} [4] - 24:1, \\ 48:18, 48:21, 48:23 \\ \textbf{Federal} [7] - 24:21, \\ 48:24, 49:19, 49:20, \\ 49:24, 50:3, 61:7 \\ \textbf{fee} [4] - 48:21, 49:16, \\ 49:19 \\ \textbf{feedlot} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:24 \\ \textbf{feedlots} [1] - 69:27 \\ \textbf{feet} [18] - 18:20, \\ 18:21, 19:23, 20:4, \\ 21:15, 51:6, 52:8, \\ 64:17, 64:19, 64:20, \\ 64:21, 65:20, 65:21, \\ 69:23, 70:4, 82:23, \\ 83:8 \\ \textbf{fence} [2] - 39:8, 40:1 \\ \textbf{few} [2] - 25:15, 70:8 \\ \textbf{FIEGEN} [1] - 11:3 \\ \textbf{Fiegen} [2] - 3:8, 3:13 \\ \end{array}$
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easterly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ 43:19\\ \textbf{eat} [4] - 45:1, 60:17, \\ 60:18\\ \textbf{echo} [1] - 32:22\\ \end{array}$	emphasize [1] - $6:12$ employ [3] - $25:2$, 59:16, $61:15employed [3] - 16:8,29:25$, $61:14employees [2] - 25:4,53:6employment [1] -15:18empty [1] - 27:17encourage [3] - 5:19,8:15$, $33:6end [11] - 10:15,17:22$, $18:3$, $18:23$, 23:18, $27:3$, $31:19$, 32:14, $50:11$, $53:10$, 85:1 endanger [1] - $66:14$ ending [1] - $11:12$ endless [1] - $53:2$ ends [2] - $27:1$, $71:2$ endurance [1] - $67:24$ energy [5] - $3:19$, 3:22, $11:6$, $66:17$, 71:9	$\begin{array}{l} \textbf{EPA} [1] - 50:7\\ \textbf{equipment} [2] - 33:24,\\ 34:9\\ \textbf{especially} [2] - 34:8,\\ 66:24\\ \textbf{estimate} [3] - 16:7,\\ 16:17, 16:18\\ \textbf{et} [3] - 7:1, 66:24,\\ 66:25\\ \textbf{ethanol} [3] - 71:6,\\ 71:25, 72:4\\ \textbf{evaluate} [2] - 22:20,\\ 41:20\\ \textbf{evaluating} [2] - 22:22,\\ 23:15\\ \textbf{evaluation} [1] - 42:9\\ \textbf{evening} [13] - 3:1, 3:5,\\ 3:17, 5:14, 6:8, 6:15,\\ 8:1, 8:7, 8:9, 8:11,\\ 9:1, 9:6, 10:6\\ \textbf{event} [12] - 24:18,\\ 25:4, 25:7, 28:5,\\ 30:16, 30:22, 49:17,\\ 49:21, 61:8, 61:11,\\ 80:24, 83:21\\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23, 23:2 facility [5] - 3:20, 3:22, 6:3, 7:10, 81:22 FACILITY [1] - 1:5 fact [4] - 31:21, 33:4, 65:7, 68:15	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16, 49:19 feedlot [1] - 69:24 feedlots [1] - 69:27 feet [18] - 18:20, 18:21, 19:23, 20:4, 21:15, 51:6, 52:8, 64:17, 64:19, 64:20, 64:21, 65:20, 65:21, 69:23, 70:4, 82:23, 83:8 fence [2] - 39:8, 40:1 few [2] - 25:15, 70:8 FIEGEN [1] - 1:13 Fiegen [2] - 3:8, 3:13 Fiegen's [1] - 3:8
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easterly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ 43:19\\ \textbf{eat} [4] - 45:1, 60:17, \\ 60:18\\ \textbf{echo} [1] - 32:22\\ \textbf{economic} [6] - 7:12, \\ \end{array}$	$\begin{array}{c} \mbox{emphasize} [1] - 6:12 \\ \mbox{employ} [3] - 25:2, \\ 59:16, 61:15 \\ \mbox{employed} [3] - 16:8, \\ 29:25, 61:14 \\ \mbox{employees} [2] - 25:4, \\ 53:6 \\ \mbox{employment} [1] - \\ 15:18 \\ \mbox{employment} [1] - \\ 15:18 \\ \mbox{empty} [1] - 27:17 \\ \mbox{empty} [1] - 27:17 \\ \mbox{empty} [3] - 5:19, \\ 8:15, 33:6 \\ \mbox{emd} [11] - 10:15, \\ 17:22, 18:3, 18:23, \\ 23:18, 27:3, 31:19, \\ 32:14, 50:11, 53:10, \\ 85:1 \\ \mbox{endager} [1] - 66:14 \\ \mbox{ending} [1] - 11:12 \\ \mbox{endess} [1] - 53:2 \\ \mbox{ends} [2] - 27:1, 71:2 \\ \mbox{endurance} [1] - 67:24 \\ \mbox{energy} [5] - 3:19, \\ 3:22, 11:6, 66:17, \\ 71:9 \\ \mbox{Energy} [6] - 10:10, \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7\\ \textbf{equipment} [2] - 33:24,\\ 34:9\\ \textbf{especially} [2] - 34:8,\\ 66:24\\ \textbf{estimate} [3] - 16:7,\\ 16:17, 16:18\\ \textbf{et} [3] - 7:1, 66:24,\\ 66:25\\ \textbf{ethanol} [3] - 71:6,\\ 71:25, 72:4\\ \textbf{evaluate} [2] - 22:20,\\ 41:20\\ \textbf{evaluating} [2] - 22:22,\\ 23:15\\ \textbf{evaluation} [1] - 42:9\\ \textbf{evening} [13] - 3:1, 3:5,\\ 3:17, 5:14, 6:8, 6:15,\\ 8:1, 8:7, 8:9, 8:11,\\ 9:1, 9:6, 10:6\\ \textbf{event} [12] - 24:18,\\ 25:4, 25:7, 28:5,\\ 30:16, 30:22, 49:17,\\ 49:21, 61:8, 61:11,\\ 80:24, 83:21\\ \textbf{events} [1] - 48:19\\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23, 23:2 facility [5] - 3:20, 3:22, 6:3, 7:10, 81:22 FACILITY [1] - 1:5 fact [4] - 31:21, 33:4, 65:7, 68:15 factor [1] - 18:12	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16, 49:19 feedlot [1] - 69:24 feedlots [1] - 69:24 feet [18] - 18:20, 18:21, 19:23, 20:4, 21:15, 51:6, 52:8, 64:17, 64:19, 64:20, 64:21, 65:20, 65:21, 69:23, 70:4, 82:23, 83:8 fence [2] - 39:8, 40:1 few [2] - 25:15, 70:8 FIEGEN [1] - 1:13 Fiegen [2] - 3:8, 3:13 Fiegen's [1] - 3:8 field [8] - 18:16, 30:2,
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easterly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ 43:19\\ \textbf{eat} [4] - 45:1, 60:17, \\ 60:18\\ \textbf{echo} [1] - 32:22\\ \textbf{economic} [6] - 7:12, \\ 68:8, 69:3, 69:12, \\ \end{array}$	$\begin{array}{c} \mbox{emphasize} [1] - 6:12 \\ \mbox{employ} [3] - 25:2, \\ 59:16, 61:15 \\ \mbox{employed} [3] - 16:8, \\ 29:25, 61:14 \\ \mbox{employees} [2] - 25:4, \\ 53:6 \\ \mbox{employment} [1] - \\ 15:18 \\ \mbox{employment} [1] - \\ 15:18 \\ \mbox{empty} [1] - 27:17 \\ \mbox{empty} [1] - 27:17 \\ \mbox{empty} [3] - 5:19, \\ 8:15, 33:6 \\ \mbox{emd} [11] - 10:15, \\ 17:22, 18:3, 18:23, \\ 23:18, 27:3, 31:19, \\ 32:14, 50:11, 53:10, \\ 85:1 \\ \mbox{endager} [1] - 66:14 \\ \mbox{ending} [1] - 11:12 \\ \mbox{ends} [1] - 53:2 \\ \mbox{ends} [2] - 27:1, 71:2 \\ \mbox{endurance} [1] - 67:24 \\ \mbox{energy} [5] - 3:19, \\ 3:22, 11:6, 66:17, \\ 71:9 \\ \mbox{Energy} [6] - 10:10, \\ 10:11, 10:19, 46:17, \\ \end{array}$	$\begin{array}{l} \textbf{EPA} [1] - 50:7\\ \textbf{equipment} [2] - 33:24,\\ 34:9\\ \textbf{especially} [2] - 34:8,\\ 66:24\\ \textbf{estimate} [3] - 16:7,\\ 16:17, 16:18\\ \textbf{et} [3] - 7:1, 66:24,\\ 66:25\\ \textbf{ethanol} [3] - 71:6,\\ 71:25, 72:4\\ \textbf{evaluate} [2] - 22:20,\\ 41:20\\ \textbf{evaluating} [2] - 22:22,\\ 23:15\\ \textbf{evaluation} [1] - 42:9\\ \textbf{evening} [13] - 3:1, 3:5,\\ 3:17, 5:14, 6:8, 6:15,\\ 8:1, 8:7, 8:9, 8:11,\\ 9:1, 9:6, 10:6\\ \textbf{event} [12] - 24:18,\\ 25:4, 25:7, 28:5,\\ 30:16, 30:22, 49:17,\\ 49:21, 61:8, 61:11,\\ 80:24, 83:21\\ \textbf{eventually} [1] - 63:16\\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23, 23:2 facility [5] - 3:20, 3:22, 6:3, 7:10, 81:22 FACILITY [1] - 1:5 fact [4] - 31:21, 33:4, 65:7, 68:15 factor [1] - 18:12 factors [2] - 7:19,	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16, 49:19 feedlot [1] - 69:24 feedlots [1] - 69:27 feet [18] - 18:20, 18:21, 19:23, 20:4, 21:15, 51:6, 52:8, 64:17, 64:19, 64:20, 64:21, 65:20, 65:21, 69:23, 70:4, 82:23, 83:8 fence [2] - 39:8, 40:1 few [2] - 25:15, 70:8 FIEGEN [1] - 1:13 Fiegen [2] - 3:8, 3:13 Fiegen's [1] - 3:8 field [8] - 18:16, 30:2, 30:4, 38:20, 51:2,
$\begin{array}{c} \textbf{e-mail} [3] - 6:18, 6:19, \\ 85:5\\ \textbf{early} [1] - 29:14\\ \textbf{earth} [1] - 29:10\\ \textbf{Earth} [1] - 29:11\\ \textbf{easement} [21] - 19:9, \\ 19:16, 20:6, 20:14, \\ 21:24, 22:2, 36:11, \\ 36:18, 42:1, 46:23, \\ 47:5, 64:10, 64:12, \\ 65:21, 70:1, 70:3, \\ 71:19, 71:23, 76:24, \\ 77:2\\ \textbf{easements} [4] - 13:8, \\ 20:5, 47:5, 76:24\\ \textbf{easier} [1] - 75:2\\ \textbf{easiest} [1] - 63:1\\ \textbf{east} [2] - 4:21, 79:3\\ \textbf{easterly} [1] - 12:12\\ \textbf{eastern} [2] - 4:19, \\ 43:19\\ \textbf{eat} [4] - 45:1, 60:17, \\ 60:18\\ \textbf{echo} [1] - 32:22\\ \textbf{economic} [6] - 7:12, \\ \end{array}$	emphasize [1] - 6:12 employ [3] - 25:2, 59:16, 61:15 employed [3] - 16:8, 29:25, 61:14 employees [2] - 25:4, 53:6 employment [1] - 15:18 empty [1] - 27:17 encourage [3] - 5:19, 8:15, 33:6 end [11] - 10:15, 17:22, 18:3, 18:23, 23:18, 27:3, 31:19, 32:14, 50:11, 53:10, 85:1 endanger [1] - 66:14 ending [1] - 11:12 endless [1] - 53:2 ends [2] - 27:1, 71:2 endurance [1] - 67:24 energy [5] - 3:19, 3:22, 11:6, 66:17, 71:9 Energy [6] - 10:10, 10:11, 10:19, 46:17, 47:11, 47:20	$\begin{array}{l} \textbf{EPA} [1] - 50:7 \\ \textbf{equipment} [2] - 33:24, \\ 34:9 \\ \textbf{especially} [2] - 34:8, \\ 66:24 \\ \textbf{estimate} [3] - 16:7, \\ 16:17, 16:18 \\ \textbf{et} [3] - 7:1, 66:24, \\ 66:25 \\ \textbf{ethanol} [3] - 71:6, \\ 71:25, 72:4 \\ \textbf{evaluate} [2] - 22:20, \\ 41:20 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluating} [2] - 22:22, \\ 23:15 \\ \textbf{evaluation} [1] - 42:9 \\ \textbf{evening} [13] - 3:1, 3:5, \\ 3:17, 5:14, 6:8, 6:15, \\ 8:1, 8:7, 8:9, 8:11, \\ 9:1, 9:6, 10:6 \\ \textbf{event} [12] - 24:18, \\ 25:4, 25:7, 28:5, \\ 30:16, 30:22, 49:17, \\ 49:21, 61:8, 61:11, \\ 80:24, 83:21 \\ \textbf{eventually} [1] - 63:16 \\ \textbf{every-five-year} [1] - \\ \end{array}$	54:15, 78:23 explaining [1] - 84:4 exported [1] - 70:20 expose [1] - 42:20 extend [1] - 17:15 extending [3] - 11:13, 11:14, 12:11 extends [2] - 11:10, 12:7 extra [1] - 49:2 extremely [1] - 9:9 F F-R-A-N-K-E-N-S-T-E -I-N [1] - 82:16 facilitate [2] - 23:9, 41:3 facilities [2] - 7:23, 23:2 facility [5] - 3:20, 3:22, 6:3, 7:10, 81:22 FACILITY [1] - 1:5 fact [4] - 31:21, 33:4, 65:7, 68:15 factor [1] - 18:12	features [1] - 80:13 February [2] - 6:6, 86:14 federal [4] - 24:1, 48:18, 48:21, 48:23 Federal [7] - 24:21, 48:24, 49:19, 49:20, 49:24, 50:3, 61:7 fee [4] - 48:21, 49:16, 49:19 feedlot [1] - 69:24 feedlots [1] - 69:24 feedlots [1] - 69:17 feelings [1] - 78:22 feet [18] - 18:20, 18:21, 19:23, 20:4, 21:15, 51:6, 52:8, 64:17, 64:19, 64:20, 64:21, 65:20, 65:21, 69:23, 70:4, 82:23, 83:8 fence [2] - 39:8, 40:1 few [2] - 25:15, 70:8 FIEGEN [1] - 1:13 Fiegen [2] - 3:8, 3:13 Fiegen's [1] - 3:8 field [8] - 18:16, 30:2, 30:4, 38:20, 51:2, 51:12, 82:20

figure [3] - 40:3,	forms [2] - 6:7, 13:25	generating [1] - 30:7	48:12	HEREBY [1] - 86:8 6
64:23, 84:1	forth [1] - 68:3	generic [1] - 21:23	guess [6] - 28:10,	high [4] - 18:2, 23:18,
file [4] - 5:5, 5:9, 7:7,	Fortune [2] - 10:20,	gentlemen [2] - 35:17,	46:13, 48:9, 58:25,	68:4, 80:9
85:3	47:21	84:14	78:12, 84:9	highest [1] - 15:6
filed [5] - 3:21, 3:24,	forward [2] - 33:6,	geographic [1] - 80:13	Gulf [2] - 12:4, 13:21	highway [1] - 66:12
5:23, 7:7, 84:24	82:2	giant [1] - 47:22	guys [4] - 66:22,	hire [1] - 34:23
filing [1] - 17:1	four [3] - 14:16, 68:2,	given [2] - 7:17, 61:16	66:23, 72:16, 76:7	hired [1] - 40:6
fill [1] - 45:13	72:1	glad [1] - 9:9		hit [1] - 24:9
filled [1] - 27:12	fracking [1] - 58:9	Glenn [1] - 68:6	Н	Hitchcock [1] - 45:23
filling [1] - 30:11	frame [1] - 15:9	globe [1] - 30:3		hits [1] - 61:18
fine [1] - 39:1	FRANKENSTEIN [3] -	•		
		God [1] - 56:21	H-O-L-T [1] - 78:3	Hodges [1] - 8:21
first [13] - 8:22, 11:5, 17:4, 25:24, 26:12,	82:15, 83:7, 84:9 Frankenstein [1] -	goods [1] - 16:8	half [10] - 4:19, 15:10,	hold [4] - 3:17, 30:15,
	82:15	governing [2] - 7:17,	15:11, 17:7, 39:13,	35:2, 40:24
28:10, 46:20, 62:3,		47:5	51:12, 64:19, 64:20,	holds [1] - 49:20
62:7, 62:9, 66:8,	frankly [1] - 31:15	Government [7] -	65:20, 65:22	hole [2] - 52:23, 56:24
74:1, 77:5	free [1] - 8:7	24:21, 48:25, 49:19,	hall [1] - 15:15	holes [1] - 51:3
fishermen [1] - 66:11	frees [2] - 14:14, 14:16	49:20, 49:25, 50:3,	halls [1] - 15:11	HOLT [10] - 58:5, 60:2,
five [4] - 27:1, 42:13,	frequently [1] - 41:10	61:7	hand [1] - 20:21	62:12, 63:19, 64:7,
68:2, 80:17	Frey [1] - 9:18	government [7] - 7:18,	handle [1] - 39:17	78:3, 78:10, 78:16,
fix [5] - 35:1, 35:4,	FREY [6] - 42:10,	50:1, 50:4, 50:7,	Hanson [6] - 3:6,	79:22
35:5, 35:8, 45:19	48:18, 54:23, 61:24,	61:22, 76:2, 76:6	31:12, 35:12, 43:12,	Holt [2] - 58:5, 78:3
fixed [2] - 19:16, 24:3	74:13, 81:1	governmental [1] - 6:2	62:14, 84:20	home [2] - 20:11, 55:7
flat [3] - 45:8, 45:11,	friction [1] - 56:19	Governor [2] - 3:11,	HANSON [8] - 1:14,	homes [1] - 66:24
45:19	front [6] - 8:6, 31:19,	63:10	31:14, 35:14, 43:11,	honor [1] - 46:21
flies [1] - 67:12	32:14, 34:24, 50:11,	grade [1] - 62:22	43:13, 43:16, 62:13,	hook [2] - 28:3, 31:4
floor [2] - 25:21, 26:10	72:5	grain [1] - 14:20	62:15	hope [5] - 10:17, 17:4,
Florida [1] - 11:9	frost [4] - 52:7, 63:21,	granted [3] - 6:4, 7:20,	Hanson's [1] - 32:23	29:20, 38:13, 46:25
flow [4] - 23:6, 41:3,	63:23, 64:4	7:21	happy [3] - 10:7,	hopefully [1] - 33:13
56:12, 74:25	frozen [1] - 60:6	grass [6] - 39:1, 39:2,	25:11, 50:22	hoping [1] - 17:2
flowing [2] - 27:14,	fuel [4] - 70:16, 70:21,	39:4, 39:13, 39:14,	hard [4] - 17:17, 37:6,	horizon [1] - 64:19
83:15	71:16	44:25	57:16, 79:17	horizontal [1] - 74:2
fly [2] - 23:22, 41:10	Fuel [1] - 71:20	grasses [3] - 43:21,		hours [1] - 25:14
flying [1] - 24:3	full [1] - 72:1	43:22, 45:2	harm [1] - 51:22	house [1] - 18:18
folks [5] - 9:2, 15:5,	fully [1] - 67:22	grassland [2] - 38:12,	harmless [1] - 30:16	houses [3] - 16:25,
15:12, 15:19, 67:25	functional [1] - 27:23	44:21	Harper [1] - 59:19	69:16, 79:18
follow [4] - 52:4,	fund [4] - 35:5, 48:21,	grasslands [1] - 75:19	haul [2] - 43:2, 46:15	Howard [1] - 9:24
55:21, 59:18, 59:25	48:23, 49:1	graze [1] - 39:15	hauling [1] - 34:10	HOWARD [1] - 38:17
follow-up [2] - 52:4,	Fund [1] - 62:22	grazing [1] - 39:19	hay [1] - 64:1	HP14-002 [3] - 1:4,
55:21	funding [1] - 30:6	great [9] - 8:22, 27:20,	Hazardous [1] - 24:22	3:18, 5:11
following [1] - 8:13	fundings [1] - 63:11	30:9, 37:5, 39:9,	head [1] - 3:14	Hub [2] - 4:13, 12:1
foot [15] - 19:11,	future [2] - 5:20, 48:12	45:15, 57:15, 59:23,	heading [1] - 67:14	hum [1] - 55:17
19:13, 21:11, 21:16,		60:23	health [1] - 7:14	hump [1] - 37:2
24:4, 65:15, 65:17,	G	greatly [1] - 25:25	hear [8] - 5:16, 6:15,	hundred [1] - 18:20
65:22, 74:6, 77:14,	<u> </u>	green [1] - 67:13	10:10, 20:24, 28:1,	
82:19, 82:21, 83:11,		Greg [2] - 1:17, 3:16	34:2, 54:8, 55:12	hundreds [1] - 29:9 hunters [1] - 66:10
83:12, 84:10	gallons [2] - 73:21,	ground [21] - 22:23,	heard [4] - 51:9,	
footprint [2] - 11:10,	83:15	24:4, 27:9, 27:17,	56:24, 57:18, 58:8	hydraulic [1] - 74:15
11:13	Gary [1] - 3:6	28:19, 38:24, 41:17,	hearing [6] - 3:18,	hydrocarbon [1] -
FOR [1] - 1:4	GARY [1] - 1:14	41:18, 46:5, 49:13,	5:14, 8:19, 25:15,	29:1
forbid [1] - 56:21	gas [4] - 10:24, 70:16,	58:1, 60:14, 63:7,	85:7, 85:8	Hydrocarbon [1] -
Force [1] - 63:10	81:21	63:21, 64:11, 65:8,	Hearing [1] - 1:8	5:10
forever [3] - 27:6,	gasoline [1] - 62:19	65:11, 67:3, 77:13,	heavy [1] - 66:12	hypothetical [1] -
28:23, 29:16	general [7] - 17:11,	77:17, 80:14	held [1] - 2:1	52:13
Forks [2] - 4:8, 11:23	24:15, 25:9, 59:20,	group [1] - 73:1	help [7] - 8:8, 33:25,	hypotheticals [2] -
form [3] - 6:9, 16:15,	71:9, 75:16, 76:10	grow [1] - 64:6	34:12, 56:12, 61:6,	53:1, 57:16
47:23	General [1] - 10:1	grow [1] - 64.6 growing [2] - 17:12,	74:11, 81:6	
47.23 formal [1] - 20:13	generally [3] - 41:23,	76:17	helpful [1] - 84:17	I
	42:11, 42:13		helping [1] - 34:7	
formally [1] - 6:23	generate [1] - 14:23	guarantee [2] - 46:1, 46:18	helps [2] - 29:20,	idea [3] - 12:23, 33:13,
formed [2] - 47:10,	generated [1] - 27:20		55:19	69:13
47:18	301101 and a [1] 21.20	guarantees [2] - 47:8,		03.10
			1	1

ideas [1] - 21:21	inhabitants [3] - 7:13,	67:16	22:6, 22:13, 25:9,	Law [1] - 6:1
identified [1] - 61:25	7:15	items [2] - 31:25,	32:23, 56:7, 73:23,	lawn [2] - 55:11, 55:12
identify [1] - 40:8	injury [1] - 7:11	70:12	81:22	laws [2] - 7:10, 16:18
idle [1] - 57:19	Input [1] - 1:8	itself [4] - 21:18, 32:4,	Kingsbury [1] - 4:23	lawyer [1] - 9:7
Illinois [6] - 4:9, 4:12,	input [3] - 31:21,	37:16, 71:12	known [1] - 6:14	layer [4] - 49:2, 83:6,
4:13, 11:25, 12:1,	32:24, 74:16		KOENECKE [2] - 9:5,	83:21, 83:23
12:16	inspect [2] - 41:6,	J	81:17	lead [2] - 79:5, 79:12
imagine [2] - 57:24,	41:10	-	Koenecke [4] - 1:21,	leak [15] - 58:15, 60:3,
57:25	inspection [1] - 42:10		8:24, 9:7, 81:17	73:20, 73:21, 74:11,
immediate [1] - 15:15	installed [1] - 19:25	J-A-N-D-E-L [1] - 38:4	Kristen [2] - 1:17, 8:5	74:24, 75:3, 78:5,
immediately [1] -	instance [2] - 32:16,	Jack [4] - 9:20, 41:1,	Kristen's [1] - 26:11	78:7, 80:2, 80:4,
74:22	,	54:4, 54:20	KRISTIE [1] - 1:13	
	43:21	James [4] - 60:6,		83:17, 83:19, 83:20,
impact [10] - 14:12,	instances [1] - 43:23	73:14, 73:16, 74:1	KUEHN [2] - 53:14,	84:7
35:4, 48:2, 48:6,	Institute [3] - 71:3,	JANDEL [11] - 38:4,	82:6	leaked [2] - 62:19,
51:20, 74:7, 74:10,	71:4, 71:21	38:24, 39:4, 39:12,	Kuehn [2] - 53:14,	63:7
76:22, 84:6, 84:7	instrumented [1] -	40:10, 40:20, 41:4,	82:6	leaks [1] - 75:2
impacts [11] - 16:3,	42:12	40:10, 40:20, 41:4, 41:9, 42:24, 43:9,		least [8] - 18:14,
18:13, 18:25, 25:8,	insurance [2] - 61:4,	43:15	L L	21:11, 31:24, 39:6,
48:1, 53:8, 60:22,	61:5			52:11, 70:18, 79:9,
79:9, 79:12, 79:13,	intake [1] - 62:5	Jandel [4] - 38:4,		79:17
79:17	intakes [2] - 62:1,	43:14, 43:15, 43:16	labor [2] - 13:8, 15:6	legal [2] - 7:1, 50:5
impair [1] - 7:14	80:10	January [3] - 1:9, 2:3,	ladies [1] - 84:14	legally [1] - 7:3
implements [1] -	intends [1] - 59:24	86:11	Lake [2] - 4:23, 5:23	length [1] - 52:24
21:13	intensive [1] - 72:5	Jeff [1] - 56:1	land [23] - 3:10, 19:11,	less [10] - 17:20, 20:2,
imply [1] - 32:12	intensive [1] - 72:20	Jim [1] - 82:15	26:24, 27:1, 37:1,	20:4, 21:15, 23:23,
important [4] - 20:23,	• •	job [3] - 8:22, 66:12,	37:23, 38:6, 38:10,	55:11, 65:17, 72:7,
	interacting [1] - 9:10	72:17	39:10, 40:5, 42:11,	
21:8, 22:6, 22:14	interaction [1] - 59:22	jobs [3] - 14:25, 15:13,	42:23, 43:5, 45:2,	74:5
impossible [1] - 28:13	interchangeable [1] -	72:2	52:16, 57:2, 61:18,	letter [1] - 85:5
improve [2] - 23:19,	10:11	Joe [2] - 38:4, 43:14	71:8, 76:4, 76:21,	letting [1] - 36:1
24:2	interconnects [1] -	Joey [4] - 9:14, 10:3,	77:3, 78:19, 78:22	level [6] - 16:3, 16:16,
improved [1] - 75:14	12:2	10:9, 48:18	landowner [17] - 4:2,	18:2, 55:3, 55:7,
IN [1] - 1:4	interest [3] - 3:9,		19:8, 26:14, 27:22,	73:17
inches [15] - 20:2,	27:21, 33:15	John [2] - 1:16, 3:15		liabilities [2] - 46:19,
20:3, 20:4, 21:17,	interested [5] - 5:17,	joint [1] - 47:19	30:15, 38:15, 38:23,	47:10
46:4, 52:11, 63:24,	6:3, 8:14, 24:15,	Joseph [1] - 26:13	42:3, 42:19, 55:5,	liability [3] - 31:1,
64:2, 64:4, 65:19,	50:20	July [1] - 16:25	57:6, 57:9, 58:6,	31:3, 47:25
77:13, 77:20, 82:22,	interests [1] - 31:18	jurisdiction [1] - 27:25	67:15, 77:15, 79:20,	liable [3] - 48:5, 61:1,
83:11			82:2	61:20
includes [2] - 63:25,	interfere [1] - 7:15	K	landowners [10] -	life [1] - 27:3
64:1	interference [1] -		20:24, 36:3, 41:25,	
	21:12		43:20, 44:1, 44:7,	lifetime [1] - 27:8
including [1] - 66:10	International [2] -	K-U-E-H-N [2] - 53:14,	46:14, 47:8, 63:18,	light [1] - 80:6
incorporate [1] - 22:2	66:4, 67:20	82:7	78:18	lightening [1] - 56:24
increased [1] - 79:12	introduce [2] - 8:2, 9:2	Kara [1] - 1:21	lands [2] - 83:6, 83:22	likelihood [1] - 42:22
indicated [1] - 59:24	introduced [1] - 16:24	KEARNEY [1] - 81:24	large [6] - 10:19,	limit [1] - 47:25
individual [6] - 17:10,	introductory [1] - 8:25	Kearney [3] - 1:18,	26:19, 32:16, 33:9,	Lincoln [2] - 4:2, 4:24
21:22, 36:2, 37:24,	investigate [1] - 23:13	8:5, 81:24	45:7, 45:9	line [10] - 3:25, 18:3,
47:8, 61:15	investigated [1] -	Keegan [2] - 9:25,	larger [4] - 36:15,	29:1, 51:14, 52:7,
individuals [2] - 13:3,	42:17	48:15	• • • •	52:16, 59:3, 63:21,
53:7	investigation [2] -	keep [2] - 39:5, 39:6	36:20, 46:5, 75:2	63:23, 64:4
industry [6] - 11:2,	42:21, 75:7	• • • •	largest [3] - 11:2,	lines [6] - 54:10,
23:16, 30:19, 66:18,		Kevin [2] - 65:24, 66:3	11:5, 26:23	54:12, 58:14, 69:17,
67:12, 71:25	investment [2] - 13:6,	KEVIN [1] - 65:24	Larry [2] - 45:23,	69:18, 76:7
	72:5	key [2] - 30:6, 76:13	50:15	
industry's [1] - 23:17	lowa [5] - 4:12, 5:2,	Keystone [8] - 32:6,	last [7] - 16:24, 17:1,	link [2] - 13:16, 13:19
inert [2] - 29:3, 30:11	9:21, 11:15, 12:19	35:18, 35:19, 35:20,	17:12, 22:13, 28:16,	liquid [1] - 9:19
infinity [1] - 28:17	irrigation [1] - 4:1	35:23, 43:18, 81:18	29:15, 58:23	liquids [1] - 10:24
information [6] - 5:15,	irrigator [1] - 52:5	kick [1] - 61:5	lastly [1] - 24:19	listening [1] - 33:5
8:18, 26:16, 50:23,	isolate [2] - 44:5,	kind [14] - 11:10,	latter [2] - 17:3, 17:5	lists [1] - 12:22
82:1, 84:22	47:23	11:16, 11:17, 12:17,	law [6] - 3:11, 7:8,	live [7] - 16:1, 46:24,
				47:6, 49:21, 53:17,
infrastructure [1] - 4:9	ISSUE [2] - 35:3. 45:21	12.23 17.10 22.4	22.21 16.21 10.10	11.0, 10. <u> </u> 1, 00.11,
infrastructure [1] - 4:9 infusion [1] - 13:10	issue [2] - 35:3, 45:21 issues [3] - 55:6, 58:9,	12:23, 17:10, 22:4,	32:21, 46:24, 48:18	61:8, 74:16

livelihood [1] - 21:1	45:15, 46:3, 46:20,	MCCOMSEY [1] - 86:5	16:6, 16:17, 35:21,	68:22, 70:16, 71:5, 8
lives [2] - 13:18, 53:18	47:15, 48:14, 49:8,	McComsey [2] - 1:24,	35:22, 35:23, 35:24,	79:10
living [2] - 47:3, 58:21	50:14, 50:19, 51:8,	86:18	49:13	mostly [2] - 12:8,
LLC [8] - 1:4, 3:19,	51:16, 52:10, 53:1,	McCook [1] - 4:24	mills [1] - 68:21	80:10
3:21, 27:24, 47:18,	53:13, 54:3, 54:19,	McPherson [1] - 4:22	minds [1] - 22:6	Mother [1] - 29:10
47:23, 48:5, 48:7	55:9, 55:24, 56:5,	mean [8] - 13:2, 28:13,	mine [2] - 51:1, 52:8	motor [1] - 54:25
LLCs [1] - 47:9	56:7, 56:17, 57:3,	30:2, 38:7, 41:16,	Miner [1] - 4:23	motors [3] - 53:20,
load [1] - 43:2	57:11, 57:15, 58:19,	46:21, 63:7, 77:1	minimize [5] - 21:12,	54:11, 54:16
lobbying [1] - 71:21	60:10, 63:22, 64:13,	meaning [1] - 69:25	25:8, 28:22, 53:8,	move [6] - 11:21,
local [4] - 7:18, 15:11,	65:14, 65:22, 67:1,	means [4] - 15:11,	79:17	11:24, 16:23, 33:1,
45:19, 50:16	67:17, 68:13, 69:19,	19:9, 43:8, 79:2	minimizing [1] - 18:25	46:4, 59:8
located [9] - 5:3,	73:2, 73:5, 73:24,	measures [2] - 28:1,	minimum [3] - 64:2,	moved [3] - 48:22,
15:23, 15:25, 17:22,	75:9, 75:16, 75:22,	59:17	64:3, 77:19	78:8, 78:20
54:6, 54:9, 80:15,	76:4, 76:8, 77:1,	mechanism [1] - 30:6	Minnehaha [1] - 4:24	moving [6] - 10:23,
82:4, 83:23	77:6, 77:10, 77:18,	mechanisms [3] -	minor [2] - 26:16,	14:4, 14:8, 14:20,
location [9] - 40:18,	77:25, 78:7, 78:12,	28:21, 29:8, 61:10	26:21	56:19, 79:11
53:23, 53:25, 54:1,	78:21, 80:3, 80:7,	meeting [3] - 32:10,	minute [1] - 83:15	mower [2] - 55:11,
54:5, 54:12, 55:1,	80:22, 81:11, 81:15,	58:24, 59:19	minutes [1] - 25:15	55:13
55:22, 63:3	82:11, 83:3, 83:18	members [4] - 8:15,	missed [1] - 30:10	MR [163] - 9:5, 10:6,
locations [1] - 55:5	Mahmoud [2] - 9:14,	66:7, 66:9, 71:3	Missed [1] - 30.10 Missouri [1] - 4:22	26:13, 28:10, 29:23,
	10:9			30:19, 33:4, 33:18,
log [1] - 82:18	mail [4] - 6:18, 6:19,	memorized [1] - 50:23	mistakes [1] - 67:14	34:2, 34:4, 34:15,
logs [1] - 83:9	85:5	memory [1] - 81:1	misunderstanding [1]	36:9, 36:17, 36:23,
long-sided [1] - 33:14	maintain [4] - 28:23,	mentioned [3] - 12:21,	- 22:10	37:5, 37:25, 38:2,
long-term [2] - 15:17,	30:24, 36:13, 39:6	52:11, 74:13	mitigate [7] - 25:7,	38:4, 38:8, 38:18,
33:7	maintained [2] - 28:5,	mentioning [1] - 49:18	26:20, 29:16, 53:7,	38:24, 39:3, 39:4,
longest [3] - 80:20,	29:24	met [1] - 37:20	60:22, 63:2, 84:8	39:9, 39:12, 39:18,
80:22, 81:3	maintenance [1] -	metal [2] - 28:19,	mitigated [2] - 62:19,	40:10, 40:14, 40:20,
look [15] - 14:3, 16:4,	7:22	42:14	62:21	40:22, 41:4, 41:8,
16:5, 19:5, 20:20,	majority [2] - 16:14,	method [2] - 22:3,	mitigation [8] - 21:4,	41:9, 41:12, 42:10,
20:21, 21:9, 26:15,	18:25	40:3	26:17, 27:3, 31:23,	42:24, 43:7, 43:9,
31:18, 33:6, 42:14,	man [1] - 51:2	mic [1] - 25:23	59:9, 59:17, 66:22,	43:10, 43:15, 44:20,
42:15, 46:8, 74:19,	manage [1] - 28:18	mic. [3] - 26:11, 29:22	67:2	45:15, 45:23, 46:3,
79:5	management [1] -	Micah [1] - 9:23	mix [5] - 38:13, 38:14,	46:16, 46:20, 47:9,
looking [6] - 22:21,	47:24	micro [2] - 18:17, 79:8	39:23, 76:16	47:15, 48:9, 48:14,
32:15, 32:24, 33:13,	manager [8] - 8:21,	microphone [1] - 8:1	mock [1] - 25:6	48:18, 49:4, 49:8,
41:21, 74:17	9:21, 9:22, 9:23,	microphones [1] -	mode [1] - 14:1	50:13, 50:14, 50:15,
looks [2] - 53:22,	9:25, 41:1, 59:20,	25:22	model [4] - 23:11,	50:19, 50:24, 51:8,
82:12	62:3	middle [2] - 53:10,	74:14, 74:18, 75:4	51:11, 51:16, 52:7,
losing [1] - 82:25	manner [2] - 15:8,	53:12	modeling [1] - 23:8	52:10, 52:22, 53:1,
loss [2] - 20:16, 42:14	69:5	midpart [1] - 13:21	models [2] - 23:8,	53:9, 53:13, 53:14,
loud [3] - 34:5, 54:17,	map [5] - 11:8, 11:14,	Midwest [2] - 11:11,	74:15	54:3, 54:6, 54:8,
55:1	• • •	12:3	modifications [1] -	54:9, 54:15, 54:19,
louder [1] - 34:3	12:14, 18:4, 53:22	might [4] - 27:8,	7:21	54:23, 55:9, 55:24,
love [1] - 68:13	marginal [1] - 34:9	35:21, 43:2, 50:17	moment [1] - 8:20	56:1, 56:5, 56:6,
loved [1] - 66:15	Marilyn [1] - 8:21	migrate [1] - 59:3	money [14] - 27:18,	56:7, 56:14, 56:17,
low [1] - 59:6	mark [3] - 24:9, 64:25,	migrated [2] - 62:20,	30:7, 30:15, 35:7,	56:21, 57:3, 57:10,
lower [1] - 59:8	67:17	62:21	48:20, 49:3, 49:20,	57:11, 57:12, 57:15,
	marked [1] - 67:13	mile [5] - 18:20, 30:14,	49:22, 50:4, 50:5,	58:19, 60:10, 61:24,
Μ	market [2] - 20:7,	52:24, 53:17, 80:17	50:9, 50:10, 51:23,	63:22, 64:8, 64:13,
	20:10	miles [16] - 4:17, 4:21,	72:8	65:9, 65:14, 65:19,
	match [1] - 46:8	5:1, 5:4, 11:1, 12:7,	Monica [2] - 9:24,	65:22, 65:24, 67:1,
M-I-L-L-E-R [1] - 65:25	material [2] - 57:5,	12:10, 12:22, 12:23,	38:16	67:9, 67:17, 67:19,
macro [1] - 18:5	69:6	30:21, 80:5, 80:17,	Monica's [1] - 38:9	68:6, 68:13, 69:2,
MAHMOUD [76] - 10:6,	materials [4] - 13:7,	80:23, 81:2	monitor [1] - 22:20	69:19, 70:7, 70:24,
28:10, 30:19, 34:2,	13:11, 16:7, 60:13	mill [1] - 50:17	monitoring [2] -	72:14, 73:2, 73:4,
34:15, 36:17, 37:5,	Materials [1] - 24:22	MILLER [3] - 65:24,	22:18, 22:24	73:5, 73:8, 73:10,
38:2, 38:8, 38:18,	MATTER [1] - 1:4	67:9, 67:19	most [14] - 20:23,	73:24, 74:13, 75:9,
39:3, 39:9, 39:18,	matter [6] - 2:2, 3:18,	Miller [3] - 65:24,	22:14, 26:25, 29:1,	
40:14, 40:22, 41:8,	16:12, 30:25, 66:11,	65:25, 66:3	37:6, 52:3, 57:18,	75:10, 75:12, 75:16,
41:12, 43:7, 43:10,	86:10	million [10] - 13:9,	64:5, 65:11, 68:17,	75:18, 75:22, 75:23,
		,		
l	1			

		T		
75:24, 76:4, 76:5,	negotiations [1] -	14:25, 50:22, 60:21,	36:15, 36:25, 38:6,	63:15 9
76:8, 76:23, 77:1,	81:11	70:13, 71:24, 72:1,	39:21, 39:22, 40:10,	overview [1] - 25:9
77:4, 77:6, 77:7,	neighbors [3] - 16:1,	80:14, 83:24	40:18, 40:21, 40:24,	own [1] - 82:13
77:10, 77:11, 77:18,	52:3, 79:1	numbers [1] - 74:17	49:4, 50:7, 52:11,	owned [1] - 3:10
77:23, 77:25, 78:7,	NELSON [25] - 1:13,		56:3, 57:10, 57:23,	owner [8] - 30:24,
78:12, 78:21, 79:24,	3:1, 25:13, 28:7,	0	60:2, 60:11, 60:19,	31:2, 31:3, 44:13,
80:3, 80:5, 80:7,	29:22, 30:17, 31:12,		61:13, 61:24, 62:2,	63:3, 63:12, 63:14,
80:20, 80:22, 81:1,	32:22, 33:17, 35:11,		62:7, 63:19, 65:3,	63:16
81:8, 81:11, 81:13,	38:3, 43:12, 45:14,	o'clock [2] - 2:4, 85:8	66:23, 68:11, 71:25,	owners [1] - 57:4
81:15, 81:17, 81:24,	52:4, 55:21, 55:25,	O-V-E-R-B-Y [1] - 68:7	77:23, 78:16, 81:4,	ownership [2] - 30:25,
82:5, 82:6, 82:11,	58:4, 59:18, 62:14,	objective [1] - 11:21	81:14, 83:24	71:1
82:15, 83:3, 83:7,	67:23, 72:13, 75:11,	obligated [2] - 48:4,	One-Call [1] - 24:5	owns [2] - 10:12, 40:7
83:18, 84:9	78:1, 79:23, 84:13	60:25	one-third [1] - 14:6	
MS [10] - 38:17, 58:5,	Nelson [1] - 3:3	obligates [1] - 48:19	one-year [1] - 17:13	Р
60:2, 62:12, 63:19,	never [7] - 23:14, 31:1,	obligation [5] - 37:21,	ones [1] - 40:20	
64:7, 78:3, 78:10,	42:22, 45:12, 53:16,	46:25, 47:3, 49:22,	Onida [1] - 86:13	0.4.05.0
78:16, 79:22	66:15, 76:22	61:8	onside [1] - 75:7	p.m [2] - 2:4, 85:8
multigeneration [1] -	new [2] - 23:16, 84:24	obligations [1] - 46:22	open [5] - 16:25,	page [2] - 6:10, 38:5
26:25	next [11] - 27:18, 31:2,	obvious [1] - 59:21	24:14, 25:21, 26:10,	paper [1] - 65:3
multiplier [2] - 72:4,	31:3, 31:13, 33:17,	obviously [3] - 36:12,	32:10	parent [6] - 10:12,
72:6	35:11, 36:14, 38:25,	42:18, 44:8	operate [10] - 10:25,	46:17, 47:7, 48:5,
municipality [1] - 6:1	59:1, 65:12, 68:24	occupied [2] - 14:17,	22:21, 23:4, 24:6,	48:10, 48:19
must [1] - 7:9	NIELSON [1] - 50:15	69:24	24:13, 24:17, 28:23,	parents [1] - 50:2
	Nielson [1] - 50:15	occur [2] - 29:2, 61:11	29:13, 30:20, 82:13	part [25] - 11:11,
N	nitrogen [2] - 29:3,	occurrence [1] - 31:10	Operating [2] - 66:4,	12:12, 14:20, 17:3,
	30:11	occurring [1] - 30:23	67:20	17:4, 17:5, 17:25,
N-I-E-L-S-O-N [1] -	noise [2] - 53:20, 55:6	occurs [2] - 62:9	operating [3] - 41:15,	31:23, 31:24, 36:6,
50:15	non [2] - 20:1, 63:24	October [1] - 17:1	74:16, 75:8	43:19, 44:19, 44:22,
name [19] - 3:2, 8:2,	non-ag [2] - 20:1,	odd [1] - 31:8	operation [4] - 7:22,	45:1, 45:16, 46:11,
9:7, 10:9, 26:1, 26:2,	63:24	OF [7] - 1:2, 1:4, 1:4,	16:21, 41:13, 81:14	46:13, 46:20, 54:13,
38:4, 43:13, 44:20,	nonconfidential [1] -	2:1, 86:1, 86:3	operations [4] - 22:14,	56:8, 58:13, 61:24, 71:1, 72:25
50:21, 50:24, 53:14,	5:8	offer [1] - 20:13	23:9, 41:8, 53:5	
56:1, 58:5, 60:17,	none [2] - 27:1, 32:10	office [1] - 5:13	operator [1] - 74:22	participate [2] - 6:23, 24:5
68:6, 70:24, 72:14,	nonhazardous [1] -	official [1] - 5:8	opportunities [1] -	particular [4] - 18:18,
75:24	29:4	officially [1] - 29:6	15:18	30:5, 42:20, 76:9
native [7] - 38:13,	nonhuman [1] - 69:24	offsets [1] - 69:22	opportunity [2] - 26:7,	parties [2] - 5:21, 12:2
38:14, 43:21, 43:24,	normal [4] - 30:19,	often [1] - 79:25	75:7	Partners [3] - 46:17,
44:25, 45:2, 76:16	41:13, 55:10, 76:20	Ohio [1] - 13:22	opposed [1] - 52:18	47:11, 47:20
Native [1] - 75:19	normally [5] - 14:17,	oil [36] - 4:8, 10:22,	orderly [1] - 7:16	partners [1] - 47:20
natural [3] - 10:24,	19:19, 41:16, 46:10,	11:22, 11:24, 12:3,	ordinance [1] - 70:10	parts [4] - 14:21, 21:8,
81:21	51:23	13:17, 14:4, 14:6,	organization [1] - 6:4	22:12, 27:24
nature [1] - 40:19	north [2] - 62:18, 79:3	14:8, 14:10, 14:11,	organizations [2] -	party [7] - 5:24, 6:4,
near [2] - 4:4, 5:20	North [10] - 4:8, 4:11,	14:17, 27:13, 30:2,	8:15, 24:25	6:7, 6:9, 6:13, 6:23,
nearby [1] - 70:17	9:24, 11:3, 11:15,	30:3, 48:22, 56:5,	organizing [1] - 8:23	59:25
nearest [1] - 81:22	11:23, 12:9, 12:11,	56:9, 56:12, 58:11,	orientation [2] -	pass [2] - 70:10, 70:11
nearly [2] - 55:1, 58:1	12:15, 15:1	59:1, 59:2, 60:7,	12:15, 12:18	• • • •
necessarily [1] - 71:7	northeast [1] - 11:13	60:12, 60:13, 60:17,	original [2] - 35:9,	passed [1] - 32:7 pastime [1] - 66:15
necessary [3] - 27:5,	northeasterly [1] -	60:18, 62:5, 63:6, 63:7, 60:17, 75:1	37:17	pasture [1] - 77:16
37:3, 40:22	12:12	63:7, 69:17, 75:1, 78:4, 82:25, 83:1,	originate [1] - 4:10	pasture [1] - 77.16
need [13] - 6:13, 6:22,	northwest [2] - 4:10,	83:23	otherwise [1] - 15:14	77:13
8:8, 15:9, 23:12,	11:23	once [6] - 19:24, 20:5,	outdoor [1] - 66:11	pastures [1] - 64:1
32:25, 40:1, 41:15,	Notary [2] - 86:7,		outfit [1] - 57:23	• • • •
42:11, 44:11, 44:12,	86:18	27:23, 49:25, 64:10, 72:7	outside [2] - 68:23,	path [1] - 73:12
68:4, 76:15	note [1] - 81:4		69:1	Patoka [5] - 4:13, 11:25, 12:1, 12:11
needed [4] - 41:23,	nothing [4] - 19:2,	One [1] - 24:5	overall [4] - 9:21,	11:25, 12:1, 12:11,
42:5, 42:21, 73:8	27:3, 27:6, 76:8	one [49] - 5:2, 13:24,	12:11, 12:21, 13:1	15:2
needs [4] - 31:24,	notice [1] - 80:3	14:6, 16:21, 17:12,	OVERBY [3] - 68:6,	patrol [1] - 23:22 pay [11] - 16:11,
33:13, 40:8, 42:16	noticed [1] - 18:4	17:13, 18:20, 19:5, 20:23, 21:8, 27:13,	69:2, 70:7	20:15, 49:11, 49:12,
	NRCS [1] - 38:15		Overby [1] - 68:6	
	number [9] - 13:24,	J1.23, J2.10, J3.21,	overexposed [1] -	73.10, 73.22, 31.4,
negative [1] - 84:7		31:25, 32:10, 33:21,	• • •	49:18, 49:22, 51:4,

51:10, 51:23, 51:24,	pipe [46] - 11:1, 12:8,	33:11, 41:13, 68:12	possibly [3] - 49:6,	16:23, 25:16, 26:17, 1 (
61:6	12:11, 16:10, 16:11,	pipes [6] - 24:9, 29:13,	83:1, 84:3	31:20, 33:1, 36:22,
paying [1] - 16:22	21:9, 21:12, 21:15,	41:10, 59:8, 59:9,	post [1] - 85:3	37:3, 44:19, 72:23
payments [1] - 20:15	23:9, 23:15, 24:9,	69:14	potential [4] - 48:1,	processes [1] - 50:5
penetrate [1] - 83:24	28:22, 28:24, 29:17,	pivot [5] - 4:1, 51:1,	56:18, 59:2, 65:1	procure [1] - 69:1
people [22] - 13:14,	30:21, 30:24, 35:10,	51:9, 51:14, 53:12	potentially [3] - 17:16,	produce [3] - 12:5,
14:14, 14:25, 15:10,	36:19, 36:22, 37:10,	pivots [1] - 82:18	30:1, 66:14	68:25, 69:21
15:12, 17:9, 19:1,	40:11, 40:13, 41:6,	place [10] - 3:13, 25:7,	pounds [3] - 77:25,	produced [5] - 11:22,
19:3, 22:23, 22:24,	41:20, 42:4, 42:5,	28:25, 29:5, 34:6,	82:24, 83:14	13:20, 14:7, 16:12,
27:22, 65:10, 66:5,	42:7, 42:9, 42:15,	34:11, 34:17, 34:22,	power [3] - 54:10,	68:20
67:14, 70:13, 71:2,	43:1, 51:23, 52:6,	61:11, 64:10	54:12, 66:12	producers [2] - 71:14,
71:10, 71:22, 72:25,	56:12, 56:13, 56:20,	placed [1] - 44:16	power's [1] - 54:7	71:18
77:18, 79:10, 79:18	56:23, 57:4, 57:5,	placement [1] - 80:12	PowerPoint [1] - 71:1	product [5] - 57:7,
per [8] - 4:15, 4:16,	59:2, 64:20, 68:12,	places [2] - 44:24,	practical [1] - 63:9	71:11, 72:10, 72:11,
12:24, 20:12, 30:14,	78:8, 78:14, 79:20,	67:15	practice [2] - 62:8,	72:12
40:4, 48:24, 49:19	80:17	placing [1] - 79:20	75:16	production [2] - 4:8,
perceive [1] - 50:10	pipe's [3] - 29:18,	plan [27] - 21:4, 21:11,	preconstruction [2] -	68:12
percent [9] - 34:2,	41:16, 65:8	21:19, 22:2, 22:5,	34:24, 37:19	products [5] - 10:22,
57:3, 57:4, 61:1,	PIPELINE [1] - 1:5	24:20, 24:23, 25:1,	predict [5] - 28:12,	11:7, 12:5, 29:1,
61:20, 68:11, 68:16,	pipeline [106] - 3:10,	25:3, 26:17, 26:20,	29:19, 52:20, 52:22,	69:9
68:19, 81:12	4:7, 4:9, 4:14, 4:18,	27:2, 27:10, 27:17,	57:24	Professional [2] -
period [5] - 17:14,	11:3, 14:5, 14:9,	28:15, 30:9, 31:23,	prefer [1] - 65:15	86:6, 86:19
41:15, 59:5, 62:17,	15:1, 15:4, 15:5,	31:24, 39:22, 42:19,	preferences [1] - 4:2	program [6] - 24:10,
62:23	15:8, 17:22, 18:19,	46:12, 55:23, 65:4,	prescribe [1] - 38:22	39:20, 42:10, 61:7,
permanent [9] - 15:24,	18:24, 19:24, 20:1,	65:16, 67:2	present [6] - 5:17,	66:23, 74:14
19:9, 19:13, 19:14,	22:14, 22:18, 22:21,	Plan [2] - 24:20, 61:25	8:16, 10:8, 18:1,	progresses [1] - 60:1
19:20, 20:14, 41:25,	22:23, 23:1, 23:2,	planning [2] - 45:17,	21:2, 21:19	Project [1] - 3:23
64:11, 70:1	23:5, 25:2, 26:14,	73:15	presentation [7] -	project [53] - 4:10,
permit [5] - 3:20, 3:22,	27:9, 28:4, 28:18,	plans [10] - 21:6,	8:12, 8:13, 9:4, 10:4,	4:20, 4:25, 5:7, 5:16,
4:6, 7:8, 40:15	29:2, 29:4, 29:7,	24:16, 25:2, 25:7,	10:15, 53:15, 74:14	6:16, 7:20, 8:13,
PERMIT [1] - 1:5	30:14, 36:12, 36:14,	28:25, 29:16, 33:25,	preserve [1] - 7:2	9:11, 9:16, 9:17,
permits [1] - 35:18	36:19, 36:21, 37:1,	34:6, 34:17, 34:22	President [2] - 9:14,	9:20, 9:25, 10:1,
permitted [1] - 76:11	41:16, 41:24, 42:1,	plant [4] - 39:15,	9:18	10:8, 10:23, 11:16,
person [3] - 6:4, 38:9,	42:13, 42:20, 45:25,	66:12, 72:1, 72:4	pressure [7] - 23:6,	11:19, 11:20, 11:21,
54:3	46:19, 49:6, 51:5,	planted [2] - 38:20,	77:24, 77:25, 78:4,	12:6, 12:15, 12:18,
personal [2] - 6:18,	51:13, 51:14, 51:19,	44:24	78:14, 82:24, 83:14	13:1, 13:2, 13:5,
19:2	52:9, 53:16, 56:4,	plants [1] - 64:6	pretty [15] - 10:19,	13:7, 13:8, 13:12,
personnel [1] - 75:8	56:16, 56:25, 57:7,	play [1] - 78:13	11:20, 11:21, 16:2,	13:13, 14:23, 15:13,
persons [2] - 5:17,	58:12, 62:18, 62:25,	Plays [1] - 11:24	17:23, 18:4, 19:4,	15:18, 16:4, 16:24,
8:14	63:4, 63:10, 63:12,	plenty [1] - 26:4	23:16, 26:21, 40:23,	17:6, 25:17, 27:3,
perspective [4] - 16:5,	63:14, 63:17, 63:20,	plug [1] - 47:12	52:2, 60:23, 69:25,	28:14, 28:16, 29:7,
28:9, 31:25, 47:24	64:12, 64:16, 64:24,	point [17] - 7:24, 8:4,	75:4, 82:19	47:19, 49:9, 66:11,
pertaining [1] - 32:21	65:21, 66:3, 66:13,	11:25, 18:24, 21:23,	prevent [1] - 29:15	66:16, 69:11, 71:7,
Petroleum [3] - 71:3,	67:7, 67:21, 68:10,	26:22, 29:5, 29:6,	primarily [1] - 26:23	71:8, 72:2
71:4, 71:21	69:10, 70:15, 71:2,	29:10, 31:6, 53:9,	primary [1] - 42:12	project's [1] - 12:21
Phillips [1] - 47:21	72:6, 72:20, 72:21,	71:10, 73:21, 74:21,	principal [1] - 10:21	projects [4] - 32:17,
PHMSA [2] - 24:23,	72:22, 73:13, 73:15,	79:6, 79:7	private [1] - 33:9	68:8, 72:6, 72:11
24:24	74:16, 74:22, 75:1,	pointed [1] - 12:6	problem [4] - 23:12,	promise [1] - 29:11
phone [1] - 50:21	75:2, 75:25, 76:11,	points [3] - 41:2,	35:1, 56:22, 57:2	promises [1] - 72:2
physical [1] - 80:13	77:2, 77:12, 77:24,	45:15, 67:18	procedures [2] -	promoted [1] - 68:8
physically [2] - 41:5,	78:5, 78:18, 78:20,	policy [1] - 70:8	24:17, 76:20	promulgated [1] -
41:17	79:11, 79:21, 81:21,	pond [1] - 61:19	proceed [1] - 84:18	67:4
pick [1] - 53:9	82:17, 82:21, 83:10, 83:12, 83:15, 84:11	poorly [1] - 28:4	proceeding [2] - 5:21,	proper [1] - 39:23
	83:12, 83:15, 84:11	portion [2] - 4:11,	6:5	properties [1] - 40:8
picks [1] - 33.0				property [38] - 4:3,
• • • •	Pipeline [10] - 1:21,	12:20	PROCEEDINGS M -	property [36] - 4.3,
piece [6] - 19:5, 19:12,	3:20, 3:23, 5:11,		PROCEEDINGS [1] - 2:1	16:16, 16:20, 17:23,
•	3:20, 3:23, 5:11, 10:10, 10:13, 24:22,	pose [1] - 7:11	2:1	
piece [6] - 19:5, 19:12, 28:19, 42:2, 65:2, 81:12	3:20, 3:23, 5:11, 10:10, 10:13, 24:22, 32:6, 35:20, 81:18	pose [1] - 7:11 positions [1] - 15:25	2:1 proceedings [3] - 9:9,	16:16, 16:20, 17:23,
81:12 Pieper [1] - 9:25	3:20, 3:23, 5:11, 10:10, 10:13, 24:22, 32:6, 35:20, 81:18 pipelines [7] - 12:2,	pose [1] - 7:11 positions [1] - 15:25 positive [1] - 14:11	2:1 proceedings [3] - 9:9, 86:9, 86:12	16:16, 16:20, 17:23, 19:5, 19:11, 19:12,
piece [6] - 19:5, 19:12, 28:19, 42:2, 65:2, 81:12	3:20, 3:23, 5:11, 10:10, 10:13, 24:22, 32:6, 35:20, 81:18	pose [1] - 7:11 positions [1] - 15:25	2:1 proceedings [3] - 9:9,	16:16, 16:20, 17:23, 19:5, 19:11, 19:12, 19:19, 20:9, 20:11,

39:22, 40:7, 42:2,	pumps [2] - 54:11,	Rathjen [2] - 50:24,	relentless [1] - 71:5	requires [1] - 46:4 11
42:3, 44:13, 46:9,	81:9	64:8	relocate [2] - 51:9,	reroute [1] - 19:3
48:1, 49:11, 49:12,	purchase [3] - 19:10,	rating [1] - 54:16	52:16	residence [1] - 69:23
50:16, 55:22, 70:10,	20:6, 55:23	re [4] - 38:6, 38:10,	relocates [1] - 3:25	residences [1] - 55:5
76:10, 76:13, 76:18,	purchased [1] - 16:9	38:19, 41:16	relocation [1] - 51:10	residential's [1] -
76:22, 79:1, 79:3,	pure [1] - 56:4	re-access [1] - 41:16	remainder [2] - 68:18,	58:10
79:4, 79:20, 81:12	purge [2] - 28:25, 29:3	re-vegetate [1] - 38:19	68:19	resource [1] - 62:4
proposal [4] - 19:25,	purpose [3] - 3:17,	re-vegetation [2] -	remediate [1] - 84:3	resources [10] -
22:8, 30:10, 64:16	• • •	• · ·		
propose [1] - 36:19	5:14, 11:20	38:6, 38:10	remediation [5] - 27:4,	13:12, 15:8, 18:7,
proposed [12] - 3:23,	put [20] - 8:18, 22:1,	reached [1] - 32:12	27:19, 31:21, 31:22,	18:14, 18:17, 19:1,
• • • • •	28:2, 30:22, 36:14,	read [2] - 7:6, 27:2	57:9	47:22, 61:3, 79:10,
4:14, 5:15, 6:3, 7:9,	36:20, 37:1, 40:12,	real [6] - 16:19, 29:25,	remember [2] - 63:6,	79:18
8:13, 16:17, 26:14,	40:20, 43:1, 43:7,	33:8, 33:14, 42:8,	73:24	respect [1] - 67:23
29:18, 53:17, 59:22,	45:13, 45:20, 53:11,	79:16	remote [2] - 22:24,	respected [1] - 78:19
72:20	64:15, 64:22, 65:18,	reality [3] - 27:6,	59:14	respectful [3] - 26:5,
protect [6] - 20:25,	67:5, 69:17	27:16, 59:6	remove [4] - 29:7,	26:8, 78:22
22:17, 27:21, 59:13,	putting [4] - 6:24,	really [4] - 11:21, 13:1,	46:3, 46:6, 46:11	respond [2] - 25:4,
62:4	19:19, 32:16, 63:20	25:10, 59:6	removed [1] - 63:3	30:18
protected [2] - 32:18,	PVC [1] - 59:2	Realtime [2] - 86:6,	removing [2] - 37:3,	responders [3] -
49:24		86:19	45:25	24:12, 24:14, 25:5
protection [9] - 28:17,	Q	reason [10] - 6:14,	renewable [2] - 71:15,	responding [1] -
29:8, 49:2, 59:9,		19:4, 28:15, 28:25,	71:16	24:24
61:10, 62:7, 70:10,		35:7, 35:15, 36:20,	Renewable [1] - 71:20	response [4] - 30:17,
81:6	quantify [1] - 50:16	41:24, 61:5, 64:22	repair [2] - 35:8, 37:12	45:14, 50:8, 62:8
protective [1] - 28:1	quarters [2] - 39:12,	rebuilt [1] - 36:5	repaired [1] - 34:19	Response [2] - 24:20,
proven [2] - 44:12,	52:24	receive [2] - 49:8,	repay [1] - 50:3	61:25
71:12	questions [27] - 8:8,	49:11	repealed [2] - 71:17,	responsibility [4] -
provide [6] - 5:15,	10:16, 17:21, 22:16,	reclamation [1] -	71:20	9:15, 9:17, 47:12,
10:17, 46:17, 47:4,	25:11, 25:18, 25:20,	49:17		57:7
47:7, 81:6	28:8, 33:2, 33:21,		repeating [1] - 34:15	
provided [2] - 35:20,	38:3, 38:5, 44:18,	reconstruction [1] -	replace [3] - 36:15,	responsible [7] - 49:1,
44:10	56:3, 58:6, 59:21,	45:6	36:19, 60:25	57:1, 57:4, 57:8,
provides [2] - 13:16,	59:23, 66:8, 66:21,	record [3] - 8:3, 8:19,	replant [4] - 38:21,	61:2, 63:15, 63:17
13:19	73:23, 75:9, 75:13,	26:3	38:25, 39:2, 39:4	rest [2] - 11:1, 25:17
	78:1, 84:16, 84:17,	recover [1] - 50:9	replanted [1] - 39:14	restate [1] - 51:8
public [17] - 3:18,	84:20, 84:21	recovering [1] - 50:11	replanting [1] - 43:21	restoration [2] -
5:15, 5:16, 7:7, 8:16,	quick [4] - 11:17, 42:8,	red [1] - 67:13	Reported [1] - 1:24	17:15, 22:11
9:10, 14:4, 14:12,	77:23, 78:17	Redfield [6] - 1:9, 2:2,	reporter [4] - 7:25,	restore [8] - 21:6,
22:17, 23:19, 24:15,	quickly [1] - 11:16	2:3, 5:4, 10:7, 18:8	25:24, 67:24, 86:9	34:23, 37:18, 38:11,
27:21, 31:20, 33:7,	quiet [1] - 55:15	redistribution [2] -	Reporter [4] - 86:6,	38:13, 39:22, 76:13,
33:9, 50:10, 75:17	-	11:25, 12:3	86:19, 86:19	76:20
PUBLIC [2] - 1:1, 1:12	quit [3] - 71:10, 71:15,	reduce [3] - 14:9,	represent [1] - 66:5	restores [1] - 37:16
Public [8] - 1:8, 3:3,	72:10	14:10, 56:19	representative [1] -	result [1] - 14:23
31:17, 36:4, 69:7,		reducing [2] - 56:11,	66:4	resulted [2] - 51:20,
85:6, 86:7, 86:18	R	56:18	representatives [1] -	51:22
public's [1] - 33:14		referring [3] - 49:16,	8:12	results [2] - 14:11,
PUC [5] - 16:24, 18:1,	R-A-T-H-J-E-N [2] -	56:10, 73:2	representing [2] - 9:8,	79:19
31:11, 47:2, 72:16	50:25, 64:8	refineries [2] - 12:4,	44:21	resume [1] - 77:4
puc@state.sd.gov [1]	rail [3] - 14:15, 14:16,	13:20		retainage [1] - 35:2
- 6:20	••	refining [1] - 13:22	represents [1] - 16:20	revenue [3] - 30:7,
pull [2] - 40:23, 47:11	33:12	••••	require [5] - 34:18,	
pump [23] - 5:2, 15:22,	ran [1] - 43:18	regarding [1] - 5:18	34:22, 35:1, 43:19,	49:5, 49:8 Poviced (4) - 2:25
41:18, 53:16, 53:17,	Randy [2] - 53:14,	region [3] - 7:16,	69:9	Revised [4] - 3:25,
53:19, 53:20, 54:6,	82:6	15:15, 16:2	required [5] - 24:20,	4:5, 5:5, 5:18
54:9, 54:11, 54:15,	range [1] - 82:3	Registered [2] - 86:5,	31:18, 35:15, 36:1,	Rich [2] - 3:7, 64:8
54:9, 54:11, 54:13, 54:21, 54:23, 55:4,	rate [1] - 74:25	86:19	44:4	Richard [1] - 50:24
	rates [1] - 23:6	regulation [1] - 70:14	requirement [1] -	right-hand [1] - 20:21
55:8, 55:15, 55:22,	rather [1] - 75:15	reiterate [1] - 22:5	44:10	right-of-way [7] -
81:8, 81:18, 81:22,	RATHJEN [10] - 50:24,	related [2] - 14:24,	requirement's [1] -	9:23, 20:18, 39:21,
82:4, 82:8, 84:2	51:11, 52:7, 52:22,	46:18	24:1	40:5, 53:4, 53:5,
	, , , ,	1	1	
pumping [2] - 54:24,	53:9, 54:8. 54:15.	release [3] - 62:2,	requirements [1] -	77:20
pumping [2] - 54:24, 54:25	53:9, 54:8, 54:15, 64:8, 65:9, 65:19	release [3] - 62:2, 62:8, 62:9	requirements [1] - 76:18	77:20 Rislov [2] - 1:17, 3:16

16:9, 16:13, 16:15, 1
27:23, 30:16, 45:24,
49:9, 66:7, 70:17,
86:7, 86:13
southeast [3] - 4:11,
4:22, 5:4
southeasterly [1] - 5:2
southeastern [1] -
12:20 spacing [1] - 81:3
span [1] - 11:8
speaking [2] - 35:16,
54:20
spec [1] - 46:4
special [1] - 66:3
species [1] - 76:17
specific [10] - 21:21,
21:25, 32:25, 44:12,
52:1, 55:8, 59:21,
66:6, 74:24, 80:18
specifically [5] - 40:7,
42:17, 50:20, 67:13,
68:11
specifics [3] - 32:20,
54:22, 55:6
specify [1] - 77:21
spell [5] - 8:2, 21:4,
22:7, 26:2, 39:24
spells [1] - 22:4
spent [2] - 13:11,
50:12
spill [6] - 49:15, 49:21,
50:8, 60:11, 61:14,
83:1
spills [3] - 47:13,
48:19, 50:6
Spink [9] - 4:1, 4:23,
5:4, 12:25, 15:22,
70:9, 70:11, 72:2,
72:18
spokesman [1] - 8:25
spraying [1] - 67:2 SS [1] - 86:2
staff [1] - 15:6
STAFF [1] - 1:15
Staff [9] - 5:22, 7:5,
8:7, 8:22, 10:17,
16:24, 18:1, 47:2,
81:25
stagnant [1] - 59:4
stakeholders [1] -
79:19
stand [2] - 27:7, 48:2
Standard [1] - 71:20
standard [6] - 30:19,
63:23, 64:17, 69:22,
71:16, 71:17
standpoint [2] - 13:7,
14:3
start [5] - 17:4, 17:7,
,

10.2 20.15	10.14	toxing (4) 16:7	tires [3] - 45:9, 45:11,	transportation (5)
18:2, 39:15 started [2] - 8:17, 17:8	19:14 studies [1] - 79:8	taxing [1] - 16:7 technical [1] - 19:2	45:19	transportation [5] - 1 10:22, 13:25, 14:1,
starts [1] - 83:8	study [2] - 20:7, 58:25	technically [1] - 15:7	TO [1] - 1:5	14:18, 14:19
state [15] - 4:19,	stuff [3] - 23:18,	technique [3] - 40:8,	today [9] - 17:11,	transported [1] - 57:5
13:11, 15:16, 16:3,	50:18, 67:15	60:19, 61:16	28:13, 51:20, 52:14,	transporter [1] - 11:2
16:10, 16:11, 16:16,	subcontractors [1] -	techniques [10] -	53:4, 59:19, 65:16,	transporting [1] - 11:6
16:22, 43:19, 49:16,	46:18	28:21, 29:15, 41:21,	66:2, 71:19	travel [1] - 4:11
49:23, 49:24, 65:10,	subject [1] - 16:19	46:12, 60:10, 61:13,	Todd [1] - 70:24	traversed [1] - 12:22
71:25, 81:2	submitted [2] - 7:6,	61:17, 61:18, 61:19,	together [5] - 18:13,	Treasurer [1] - 3:6
State [10] - 3:6, 13:3,	85:2	84:2	22:8, 37:22, 51:19,	tree [1] - 19:15
13:15, 15:20, 16:9,	substantially [1] -	technology [1] - 23:19	64:23	trees [1] - 19:20
30:16, 49:5, 49:8,	7:14	temperature [2] -	Tom [3] - 9:16, 54:4,	tremendous [1] -
66:7, 86:7	sudden [1] - 53:24	23:6, 78:14	80:25	14:15
STATE [2] - 1:2, 86:1	sufficient [1] - 31:16	temporarily [1] - 44:16	TOMSHA [6] - 79:24,	trench [3] - 26:19,
state's [1] - 33:7	suggest [2] - 52:12,	temporary [9] - 19:23,	80:5, 80:20, 81:8,	44:5, 44:14
statement [1] - 48:7	69:7	20:14, 40:18, 40:23,	81:13, 82:5	trick [1] - 56:7
states [2] - 68:24,		40:25, 41:1, 42:7,	Tomsha [1] - 79:24	
70:17	SULLY [1] - 86:3		tonight [13] - 3:2,	tried [6] - 68:15,
States [15] - 10:21,	sums [1] - 27:20	67:11, 70:3 tenants [1] - 21:20	5:20, 9:9, 10:14,	68:18, 68:22, 69:2,
11:7, 11:12, 13:21,	Sunbelt [1] - 11:11	term [5] - 15:17, 21:6,	25:14, 26:6, 32:24,	69:20, 78:23
13:25, 30:20, 30:23,	Super [1] - 62:22	,	44:19, 68:1, 71:15,	trouble [1] - 58:17
13:25, 30:20, 30:23, 66:6, 68:9, 68:16,	superintendent [1] -	21:7, 29:24, 33:7	73:12, 84:13, 84:16	trucks [1] - 14:10
	72:18	terminate [1] - 4:12		true [6] - 13:16, 37:6,
69:4, 69:6, 69:12, 69:20, 70:18	superintendents [1] -	terms [4] - 7:21,	took [1] - 86:9 tool [3] - 42:12, 42:14	47:15, 47:16, 58:22,
station [21] - 5:3,	72:19	17:12, 21:21, 39:24		86:11
15:23, 41:19, 53:16,	supervisors [1] -	test [2] - 51:3, 52:23	top [4] - 10:20, 47:22,	truly [1] - 13:24
	34:13	testimony [2] - 6:24,	64:2, 78:8	try [13] - 10:14, 19:10,
53:17, 53:19, 54:1,	supply [4] - 59:11,	63:8	topsoil [2] - 20:23,	24:1, 25:11, 28:11,
54:6, 54:9, 54:11, 54:15, 54:21, 54:23,	60:24, 61:1, 62:1	Texas [3] - 10:2,	76:14	39:10, 51:8, 53:7,
55:8, 55:22, 81:9,	support [4] - 66:15,	11:10, 70:20	tough [2] - 17:11,	62:9, 69:23, 70:4,
81:18, 81:20, 81:23,	67:21, 72:11, 72:12	THE [6] - 1:1, 1:2, 1:4,	72:17	70:7, 84:2
82:4, 82:8	supposed [3] - 67:10,	1:5, 1:12	town [2] - 18:8, 71:25	trying [2] - 71:16, 73:5
	67:16, 79:16	theory [1] - 78:7	township [4] - 34:12,	TSCHETTER [14] -
stations [2] - 22:24, 55:4	surface [3] - 46:5,	therefore [1] - 3:12	34:13, 40:12, 82:3	33:18, 34:4, 36:9,
status [5] - 5:24, 6:4,	46:7, 46:11	third [1] - 14:6	townships [7] - 33:22,	36:23, 37:25, 45:23,
6:7, 6:9, 6:23	surveying [1] - 18:16	Thomas [1] - 79:24	33:25, 34:7, 34:20,	46:16, 47:9, 48:9,
statute [1] - 36:7	surveys [1] - 75:21	thoroughly [1] - 7:6	35:25, 36:3, 36:6	49:4, 50:13, 75:12,
••	System [1] - 24:5	thoughts [1] - 72:9	track [2] - 40:4, 84:23	75:18, 75:23
steel [5] - 68:11,	system [5] - 4:1,	threat [1] - 7:11	tractor [1] - 55:15	Tschetter [3] - 33:18,
68:16, 69:9, 69:13, 69:20	59:22, 62:6, 62:10	three [8] - 17:16,	tractors [1] - 17:18	45:23, 75:13
	systems [3] - 23:3,	25:14, 27:24, 32:8,	trading [1] - 11:4	turbines [2] - 32:16,
step [2] - 61:7, 62:9	23:21, 25:1	52:24, 54:24, 58:6,	traffic [1] - 34:10	45:5
steps [2] - 22:18, 62:4		72:1	train [3] - 24:11,	turn [5] - 10:3, 24:23,
Steve [1] - 59:19	T	Three [2] - 4:8, 11:23	24:16, 25:3	28:7, 53:24, 80:4
still [7] - 19:17, 19:18,		three-quarters [1] -	trained [2] - 15:7, 25:4	turned [1] - 63:4
27:9, 31:7, 43:25,	T-O-M-S-H-A [1] -	52:24	trains [2] - 14:9, 14:17	Turner [1] - 4:24
48:5, 65:20		throughout [5] - 8:9,	TransCanada [2] -	two [16] - 17:6, 17:7,
stone [1] - 81:9		27:24, 66:9, 82:20,	43:20, 44:5	17:16, 35:17, 35:24,
stop [1] - 68:24	T-S-C-H-E-T-T-E-R [2]	84:18	TRANSCRIPT [1] - 2:1	39:12, 44:1, 47:19,
stopping [1] - 5:12	- 33:19, 45:24	tied [1] - 27:1	Transcript [1] - 1:7	54:3, 54:24, 56:3,
story [1] - 57:18	tab [1] - 35:8	tile [15] - 21:10, 21:12,	transcription [1] -	58:6, 58:13, 65:20,
straight [2] - 18:3,	table [5] - 3:14, 48:21,	21:16, 21:18, 64:11,	86:12	82:17
18:5	60:1, 84:1, 84:2	64:17, 64:21, 64:22,	Transfer [6] - 10:10,	two-part [1] - 58:13
streams [1] - 80:11	tank [1] - 62:19	64:24, 65:4, 65:5,	10:12, 10:19, 46:17,	two-person [1] - 54:3
strike [1] - 56:24	tanks [1] - 60:8	65:11, 65:13, 65:16,	47:11, 47:20	two-year [1] - 17:6
strip [1] - 19:10	Task [1] - 63:10	65:20	transference [1] -	type [10] - 12:5, 23:18,
	tax [6] - 16:5, 16:11,	tiles [3] - 64:17, 65:1,	79:13	33:24, 34:9, 38:21,
		05.40	transmission [1] - 7:9	43:24, 45:13, 62:24,
strongly [1] - 8:15	16:14, 16:18, 16:21,	65:18		
strive [1] - 23:24 strongly [1] - 8:15 structure [2] - 19:20,	50:16	tiling [1] - 65:10	transport [1] - 4:14	67:13, 75:1

typically [16] - 19:4, 10:12, 37:14, 38:21	16:18, 17:22, 18:13, 18:18, 20:21, 24:6,	view [1] - 26:24	wheatgrass [1] -	Z	14
19:12, 37:14, 38:21,		views [3] - 5:17, 7:17,	44:25		
40:14, 41:12, 51:18,	25:14, 26:12, 28:2,	8:16	whoever's [1] - 24:15	zero [1] - 71:23	
52:6, 52:10, 53:6,	29:14, 30:22, 32:17,	visit [1] - 67:25	whole [2] - 66:9, 82:20		
63:22, 64:4, 70:2,	32:19, 33:23, 34:24,	visually [1] - 41:20	wide [2] - 19:11, 78:10		
76:11, 77:22, 83:23	35:8, 39:10, 39:22,	voice [1] - 6:14	wind [3] - 32:16, 45:5,		
11	42:23, 42:25, 46:24,	vote [1] - 32:4	78:13		
U	47:3, 48:10, 48:25, 49:17, 49:22, 50:10,		wing [1] - 24:3		
	52:4, 55:21, 58:8,	W	winter [1] - 63:23		
U.S [4] - 13:6, 14:21,	58:10, 58:20, 58:24,		wireless [1] - 25:23		
68:20, 69:9	59:18, 60:11, 61:8,	W-A-G-N-E-R [1] -	wish [1] - 68:13		
U.Sproduced [1] -	61:21, 64:6, 78:5,	56:2	witnesses [1] - 7:1		
13:17	79:2, 79:5, 79:23,	W-Y-A-T-T [1] - 26:13	Wittler [3] - 1:24, 7:25,		
ultimately [4] - 27:22,	83:1, 83:16, 84:8,	WAGNER [6] - 56:1,	86:18		
28:3, 31:4, 63:14	85:1	56:6, 56:14, 56:21,	WITTLER [1] - 86:5		
unable [1] - 48:24		57:10, 57:12	wondering [4] - 34:6,		
uncertain [1] - 39:24	ups [1] - 47:13	Wagner [1] - 56:1	34:11, 36:11, 73:14		
under [5] - 5:9, 6:1,	upstream [3] - 19:6,	wait [1] - 29:22	word [3] - 48:3, 53:3,		
23:10, 24:21, 52:8	79:1, 79:2	walk [2] - 47:12, 48:6	70:7		
underground [1] -	UTILITIES [2] - 1:1,		words [1] - 56:14		
63:10	1:12	wander [1] - 44:7	works [1] - 30:2		
underneath [8] -	Utilities [5] - 3:4,	wants [2] - 26:6, 26:12	workspace [1] - 19:24		
41:17, 51:4, 51:5,	31:17, 36:4, 69:7,	warning [2] - 74:20,	world [2] - 27:7, 27:25		
51:6, 52:9, 74:4,	85:6	75:6	worry [1] - 58:14		
74:10, 75:14	utilities [1] - 62:16	washed [1] - 27:13	worse [1] - 57:12		
understood [1] - 83:5	utilize [1] - 49:22	Water [2] - 58:13,	worth [2] - 35:23,		
underutilized [1] -	utilized [2] - 16:8, 58:2	58:16	59:15		
58:2	utilizing [1] - 15:6	water [33] - 20:3,	writing [5] - 5:12,		
unduly [1] - 7:15		52:16, 58:10, 58:18,	6:17, 22:9, 67:5,		
unuuy [1] - 7.15	V	58:23, 59:3, 59:7,			
unearth [1] - 46.5	•		85:2		
unearth [1] - 46:5	•	59:11, 59:13, 60:4,	85:2 written [2] - 6:5, 66:23		
unfortunately [4] -		59:11, 59:13, 60:4, 60:8, 60:14, 60:24,			
unfortunately [4] - 69:21, 79:2, 79:11,	valorem [1] - 16:16	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1,	written [2] - 6:5, 66:23		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3	valorem [1] - 16:16 valuable [2] - 57:20,	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] -		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20	valorem [1] - 16:16 valuable [2] - 57:20, 57:25	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6,	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7,	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13,		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18,	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13,		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] -	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7,	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13,	-	
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21,	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X		
$\begin{array}{l} \textbf{unfortunately}[4]-\\ 69:21,79:2,79:11,\\ 83:3\\ \textbf{uniform}[1]-72:20\\ \textbf{union}[3]-15:6,\\ 15:11,15:15\\ \textbf{Union}[2]-66:4,67:20\\ \textbf{union-based}[1]-15:6\\ \textbf{unit}[1]-14:17\\ \textbf{United}[15]-10:21,\\ 11:7,11:12,13:21,\\ \end{array}$	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5 variable [2] - 80:18,	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19,		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23,	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5 variable [2] - 80:18, 84:5	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X		
$\begin{array}{c} \textbf{unfortunately} [4] - \\ 69:21, 79:2, 79:11, \\ 83:3 \\ \textbf{uniform} [1] - 72:20 \\ \textbf{union} [3] - 15:6, \\ 15:11, 15:15 \\ \textbf{Union} [2] - 66:4, 67:20 \\ \textbf{union-based} [1] - 15:6 \\ \textbf{unit} [1] - 14:17 \\ \textbf{United} [15] - 10:21, \\ 11:7, 11:12, 13:21, \\ 13:25, 30:20, 30:23, \\ 66:6, 68:9, 68:16, \\ \end{array}$	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5 variable [2] - 80:18, 84:5 variance [1] - 74:19	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18		
$unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5 variable [2] - 80:18, 84:5 variance [1] - 74:19 varies [5] - 39:18,	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19,		
$unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 \\ union-based [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 \\ union-based [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 \\ union-based [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 \\ union-based [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:4, 69:6, 69:12, 69:20, 70:18 \\ union-based [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 \\ union-based [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:4, 69:6, 69:12, 69:20, 70:18 \\ union-based [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:25, 30:20, 30:23, 66:6, 69:12, 69:12, 69:20, 70:18 \\ union-based [1] - 10:11 + 10:112, 13:25, 10:112, $	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5 variable [2] - 80:18, 84:5 variance [1] - 74:19 varies [5] - 39:18, 63:23, 74:25, 80:8,	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18		
$\begin{array}{c} \textbf{unfortunately} \ [4] - \\ 69:21, \ 79:2, \ 79:11, \\ 83:3 \\ \textbf{uniform} \ [1] - \ 72:20 \\ \textbf{union} \ [3] - \ 15:6, \\ 15:11, \ 15:15 \\ \textbf{Union} \ [2] - \ 66:4, \ 67:20 \\ \textbf{union-based} \ [1] - \ 15:6 \\ \textbf{unit} \ [1] - \ 14:17 \\ \textbf{United} \ [15] - \ 10:21, \\ 11:7, \ 11:12, \ 13:21, \\ 13:25, \ 30:20, \ 30:23, \\ 66:6, \ 68:9, \ 68:16, \\ 69:4, \ 69:6, \ 69:12, \\ 69:20, \ 70:18 \\ \textbf{units} \ [3] - \ 7:18, \ 54:24, \\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y		
$\begin{array}{l} \textbf{unfortunately} [4] - \\ 69:21, 79:2, 79:11, \\ 83:3 \\ \textbf{uniform} [1] - 72:20 \\ \textbf{union} [3] - 15:6, \\ 15:11, 15:15 \\ \textbf{Union} [2] - 66:4, 67:20 \\ \textbf{union-based} [1] - 15:6 \\ \textbf{unit} [1] - 14:17 \\ \textbf{United} [15] - 10:21, \\ 11:7, 11:12, 13:21, \\ 13:25, 30:20, 30:23, \\ 66:6, 68:9, 68:16, \\ 69:4, 69:6, 69:12, \\ 69:20, 70:18 \\ \textbf{units} [3] - 7:18, 54:24, \\ 54:25 \\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20, 59:24	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18,		
$\begin{array}{c} \textbf{unfortunately} [4] - \\ 69:21, 79:2, 79:11, \\ 83:3 \\ \textbf{uniform} [1] - 72:20 \\ \textbf{union} [3] - 15:6, \\ 15:11, 15:15 \\ \textbf{Union} [2] - 66:4, 67:20 \\ \textbf{union-based} [1] - 15:6 \\ \textbf{unit} [1] - 14:17 \\ \textbf{United} [15] - 10:21, \\ 11:7, 11:12, 13:21, \\ 13:25, 30:20, 30:23, \\ 66:6, 68:9, 68:16, \\ 69:4, 69:6, 69:12, \\ 69:20, 70:18 \\ \textbf{units} [3] - 7:18, 54:24, \\ 54:25 \\ \textbf{unless} [2] - 30:10, \\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20, 59:24 web [1] - 6:10	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11		
$\begin{array}{l} \textbf{unfortunately} [4] - \\ 69:21, 79:2, 79:11, \\ 83:3 \\ \textbf{uniform} [1] - 72:20 \\ \textbf{union} [3] - 15:6, \\ 15:11, 15:15 \\ \textbf{Union} [2] - 66:4, 67:20 \\ \textbf{union-based} [1] - 15:6 \\ \textbf{unit} [1] - 14:17 \\ \textbf{United} [15] - 10:21, \\ 11:7, 11:12, 13:21, \\ 13:25, 30:20, 30:23, \\ 66:6, 68:9, 68:16, \\ 69:4, 69:6, 69:12, \\ 69:20, 70:18 \\ \textbf{units} [3] - 7:18, 54:24, \\ 54:25 \\ \textbf{unless} [2] - 30:10, \\ 41:18 \\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20, 59:24 web [1] - 6:10 website [2] - 5:9,	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2,		
$\begin{array}{c} \textbf{unfortunately} \ [4] - \\ 69:21, \ 79:2, \ 79:11, \\ 83:3 \\ \textbf{uniform} \ [1] - \ 72:20 \\ \textbf{union} \ [3] - \ 15:6, \\ 15:11, \ 15:15 \\ \textbf{Union} \ [2] - \ 66:4, \ 67:20 \\ \textbf{union-based} \ [1] - \ 15:6 \\ \textbf{unit} \ [1] - \ 14:17 \\ \textbf{United} \ [15] - \ 10:21, \\ 11:7, \ 11:12, \ 13:21, \\ 13:25, \ 30:20, \ 30:23, \\ 66:6, \ 68:9, \ 68:16, \\ 69:4, \ 69:6, \ 69:12, \\ 69:20, \ 70:18 \\ \textbf{units} \ [3] - \ 7:18, \ 54:24, \\ 54:25 \\ \textbf{unless} \ [2] - \ 30:10, \\ 41:18 \\ \textbf{unlikely} \ [1] - \ 61:11 \\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 wealth [1] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20, 59:24 web [1] - 6:10 website [2] - 5:9, 84:23	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13,		
$\begin{array}{c} \textbf{unfortunately} [4] - \\ 69:21, 79:2, 79:11, \\ 83:3 \\ \textbf{uniform} [1] - 72:20 \\ \textbf{union} [3] - 15:6, \\ 15:11, 15:15 \\ \textbf{Union} [2] - 66:4, 67:20 \\ \textbf{union-based} [1] - 15:6 \\ \textbf{unit} [1] - 14:17 \\ \textbf{United} [15] - 10:21, \\ 11:7, 11:12, 13:21, \\ 13:25, 30:20, 30:23, \\ 66:6, 68:9, 68:16, \\ 69:4, 69:6, 69:12, \\ 69:20, 70:18 \\ \textbf{units} [3] - 7:18, 54:24, \\ 54:25 \\ \textbf{unless} [2] - 30:10, \\ 41:18 \\ \textbf{unlikely} [1] - 61:11 \\ \textbf{untiled} [1] - 38:6 \\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20, 59:24 web [1] - 6:10 website [2] - 5:9, 84:23 weeds [1] - 39:7	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13, 17:16, 22:22, 38:25,		
$\begin{array}{l} \textbf{unfortunately} \ [4] - \\ 69:21, \ 79:2, \ 79:11, \\ 83:3 \\ \textbf{uniform} \ [1] - \ 72:20 \\ \textbf{union} \ [3] - \ 15:6, \\ 15:11, \ 15:15 \\ \textbf{Union} \ [2] - \ 66:4, \ 67:20 \\ \textbf{union-based} \ [1] - \ 15:6 \\ \textbf{unit} \ [1] - \ 14:17 \\ \textbf{United} \ [15] - \ 10:21, \\ 11:7, \ 11:12, \ 13:21, \\ 13:25, \ 30:20, \ 30:23, \\ 66:6, \ 68:9, \ 68:16, \\ 69:4, \ 69:6, \ 69:12, \\ 69:20, \ 70:18 \\ \textbf{units} \ [3] - \ 7:18, \ 54:24, \\ 54:25 \\ \textbf{unless} \ [2] - \ 30:10, \\ 41:18 \\ \textbf{unlikely} \ [1] - \ 61:11 \\ \textbf{untiled} \ [1] - \ 38:6 \\ \textbf{untilled} \ [1] - \ 38:10 \\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20, 59:24 web [1] - 6:10 website [2] - 5:9, 84:23 weeds [1] - 39:7 weigh [1] - 35:12	$\label{eq:spectral_states} \begin{array}{c} \mbox{written } [2] - 6:5, \ 66:23 \\ \mbox{ww.puc.sd.gov} [1] - \\ 5:9 \\ \mbox{WYATT} [3] - 26:13, \\ 29:23, \ 33:4 \\ \mbox{Wyatt} [2] - 26:13, \\ 31:14 \\ \mbox{X} \\ \mbox{X} \\ \mbox{XL} [5] - \ 32:6, \ 35:19, \\ 35:23, \ 43:18 \\ \mbox{Y} \\ \mbox{yards} [2] - \ 53:18, \\ 55:11 \\ \mbox{year} [11] - \ 16:21, \ 17:2, \\ 17:3, \ 17:6, \ 17:13, \\ 17:16, \ 22:22, \ 38:25, \\ 39:6, \ 42:13 \\ \mbox{W} \\ \mbox{wexpected} \end{array}$		
$\begin{array}{l} \textbf{unfortunately}[4]-\\ 69:21,79:2,79:11,\\ 83:3\\ \textbf{uniform}[1]-72:20\\ \textbf{union}[3]-15:6,\\ 15:11,15:15\\ \textbf{Union}[2]-66:4,67:20\\ \textbf{union-based}[1]-15:6\\ \textbf{unit}[1]-14:17\\ \textbf{United}[15]-10:21,\\ 11:7,11:12,13:21,\\ 13:25,30:20,30:23,\\ 66:6,68:9,68:16,\\ 69:4,69:6,69:12,\\ 69:20,70:18\\ \textbf{units}[3]-7:18,54:24,\\ 54:25\\ \textbf{unless}[2]-30:10,\\ 41:18\\ \textbf{unlikely}[1]-61:11\\ \textbf{untiled}[1]-38:6\\ \textbf{untilled}[1]-38:10\\ \textbf{untrue}[1]-58:22\\ \end{array}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	59:11, 59:13, 60:4, 60:8, 60:14, 60:24, 60:25, 61:17, 62:1, 62:4, 62:10, 67:2, 73:18, 80:10, 80:11, 82:19, 82:23, 83:7, 83:13, 83:22, 83:25, 84:2, 84:3, 84:11 water-bearing [5] - 82:19, 82:23, 83:7, 83:13, 84:11 ways [2] - 13:8, 60:21 weather [4] - 27:20 weather [4] - 17:17, 17:20, 23:23, 23:24 WEB [5] - 58:13, 58:16, 58:23, 59:20, 59:24 web [1] - 6:10 website [2] - 5:9, 84:23 weeds [1] - 39:7 weigh [1] - 35:12 welcome [1] - 3:2	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13, 17:16, 22:22, 38:25, 39:6, 42:13 years [13] - 17:8, 27:2,		
$\label{eq:second} unfortunately [4] - \\ 69:21, 79:2, 79:11, \\ 83:3 \\ uniform [1] - 72:20 \\ union [3] - 15:6, \\ 15:11, 15:15 \\ Union [2] - 66:4, 67:20 \\ union-based [1] - 15:6 \\ unit [1] - 14:17 \\ United [15] - 10:21, \\ 11:7, 11:12, 13:21, \\ 13:25, 30:20, 30:23, \\ 66:6, 68:9, 68:16, \\ 69:4, 69:6, 69:12, \\ 69:20, 70:18 \\ units [3] - 7:18, 54:24, \\ 54:25 \\ unless [2] - 30:10, \\ 41:18 \\ unlikely [1] - 61:11 \\ untiled [1] - 38:6 \\ untilled [1] - 38:10 \\ untrue [1] - 58:22 \\ untuthful [1] - 71:5 \\ \end{tabular}$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	$\begin{array}{c} 59:11, 59:13, 60:4,\\ 60:8, 60:14, 60:24,\\ 60:25, 61:17, 62:1,\\ 62:4, 62:10, 67:2,\\ 73:18, 80:10, 80:11,\\ 82:19, 82:23, 83:7,\\ 83:13, 83:22, 83:25,\\ 84:2, 84:3, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{watgrebaring [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{watgrebaring [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{watgrebaring [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{watgrebaring [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{watgrebaring [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{watgrebaring [5]} - \\ 12:20\\ \mbox{wather [4]} - 17:17,\\ 17:20, 23:23, 23:24\\ \mbox{WEB [5]} - 58:13,\\ 58:16, 58:23, 59:20,\\ 59:24\\ \mbox{watb [1]} - 6:10\\ \mbox{watbsite [2]} - 5:9,\\ 84:23\\ \mbox{watgs [1]} - 39:7\\ \mbox{watgh [1]} - 35:12\\ \mbox{watcher [1]} - 7:15\\ \end{tabular}$	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13, 17:16, 22:22, 38:25, 39:6, 42:13 years [13] - 17:8, 27:2, 27:15, 28:3, 28:12,		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 units [3] - 7:18, 54:24, 54:25 unless [2] - 30:10, 41:18 unlikely [1] - 61:11 untiled [1] - 38:6 untilled [1] - 38:10 untrue [1] - 58:22 untruthful [1] - 71:5 unused [1] - 28:5	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5 variable [2] - 80:18, 84:5 variance [1] - 74:19 varies [5] - 39:18, 63:23, 74:25, 80:8, 80:14 various [3] - 27:24, 41:25, 79:18 vast [1] - 18:25 vegetate [1] - 38:19 vegetation [3] - 38:6, 38:10, 38:22 vegetative [1] - 38:12 venture [1] - 47:19 Vernon [1] - 12:1	$\begin{array}{c} 59:11, 59:13, 60:4,\\ 60:8, 60:14, 60:24,\\ 60:25, 61:17, 62:1,\\ 62:4, 62:10, 67:2,\\ 73:18, 80:10, 80:11,\\ 82:19, 82:23, 83:7,\\ 83:13, 83:22, 83:25,\\ 84:2, 84:3, 84:11\\ \end{tabular}{\begin{tabular}{lllllllllllllllllllllllllllllllllll$	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13, 17:16, 22:22, 38:25, 39:6, 42:13 years [13] - 17:8, 27:2, 27:15, 28:3, 28:12, 29:10, 29:20, 31:6,		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 units [3] - 7:18, 54:24, 54:25 unless [2] - 30:10, 41:18 unlikely [1] - 61:11 untiled [1] - 38:6 untilled [1] - 38:10 untrue [1] - 58:22 untruthful [1] - 71:5 unused [1] - 28:5 up [57] - 4:16, 6:21,	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	$\begin{array}{c} 59:11, 59:13, 60:4,\\ 60:8, 60:14, 60:24,\\ 60:25, 61:17, 62:1,\\ 62:4, 62:10, 67:2,\\ 73:18, 80:10, 80:11,\\ 82:19, 82:23, 83:7,\\ 83:13, 83:22, 83:25,\\ 84:2, 84:3, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{wather [4]} - 17:17,\\ 17:20, 23:23, 23:24\\ \mbox{WEB [5]} - 58:13,\\ 58:16, 58:23, 59:20,\\ 59:24\\ \mbox{web [1]} - 6:10\\ \mbox{website [2]} - 5:9,\\ 84:23\\ \mbox{weeds [1]} - 39:7\\ \mbox{weigh [1]} - 35:12\\ \mbox{welcome [1]} - 3:2\\ \mbox{welfare [1]} - 71:3\\ \mbox{wetlands [1]} - 80:11\\ \end{tabular}$	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13, 17:16, 22:22, 38:25, 39:6, 42:13 years [13] - 17:8, 27:2, 27:15, 28:3, 28:12, 29:10, 29:20, 31:6, 31:7, 51:20, 65:12,		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 units [3] - 7:18, 54:24, 54:25 unless [2] - 30:10, 41:18 unlikely [1] - 61:11 untiled [1] - 38:6 untilled [1] - 38:10 untrue [1] - 58:22 untruthful [1] - 71:5 unused [1] - 28:5 up [57] - 4:16, 6:21, 8:5, 11:10, 11:12,	valorem [1] - 16:16 valuable [2] - 57:20, 57:25 value [5] - 16:21, 20:7, 20:8, 50:17 valve [2] - 41:18, 80:12 valves [3] - 80:7, 80:15, 81:5 variable [2] - 80:18, 84:5 variance [1] - 74:19 varies [5] - 39:18, 63:23, 74:25, 80:8, 80:14 various [3] - 27:24, 41:25, 79:18 vast [1] - 18:25 vegetate [1] - 38:19 vegetation [3] - 38:6, 38:10, 38:22 vegetative [1] - 38:12 venture [1] - 47:19 Vernon [1] - 12:1 via [5] - 14:9, 22:24, 23:2, 23:3, 24:2	$\begin{array}{c} 59:11, 59:13, 60:4,\\ 60:8, 60:14, 60:24,\\ 60:25, 61:17, 62:1,\\ 62:4, 62:10, 67:2,\\ 73:18, 80:10, 80:11,\\ 82:19, 82:23, 83:7,\\ 83:13, 83:22, 83:25,\\ 84:2, 84:3, 84:11\\ \end{tabular}{\begin{tabular}{lllllllllllllllllllllllllllllllllll$	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13, 17:16, 22:22, 38:25, 39:6, 42:13 years [13] - 17:8, 27:2, 27:15, 28:3, 28:12, 29:10, 29:20, 31:6, 31:7, 51:20, 65:12, 70:8		
unfortunately [4] - 69:21, 79:2, 79:11, 83:3 uniform [1] - 72:20 union [3] - 15:6, 15:11, 15:15 Union [2] - 66:4, 67:20 union-based [1] - 15:6 unit [1] - 14:17 United [15] - 10:21, 11:7, 11:12, 13:21, 13:25, 30:20, 30:23, 66:6, 68:9, 68:16, 69:4, 69:6, 69:12, 69:20, 70:18 units [3] - 7:18, 54:24, 54:25 unless [2] - 30:10, 41:18 unlikely [1] - 61:11 untiled [1] - 38:6 untilled [1] - 38:10 untrue [1] - 58:22 untruthful [1] - 71:5 unused [1] - 28:5 up [57] - 4:16, 6:21,	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	$\begin{array}{c} 59:11, 59:13, 60:4,\\ 60:8, 60:14, 60:24,\\ 60:25, 61:17, 62:1,\\ 62:4, 62:10, 67:2,\\ 73:18, 80:10, 80:11,\\ 82:19, 82:23, 83:7,\\ 83:13, 83:22, 83:25,\\ 84:2, 84:3, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{water-bearing [5]} - \\ 82:19, 82:23, 83:7,\\ 83:13, 84:11\\ \mbox{wather [4]} - 17:17,\\ 17:20, 23:23, 23:24\\ \mbox{WEB [5]} - 58:13,\\ 58:16, 58:23, 59:20,\\ 59:24\\ \mbox{web [1]} - 6:10\\ \mbox{website [2]} - 5:9,\\ 84:23\\ \mbox{weeds [1]} - 39:7\\ \mbox{weigh [1]} - 35:12\\ \mbox{welcome [1]} - 3:2\\ \mbox{welfare [1]} - 71:3\\ \mbox{wetlands [1]} - 80:11\\ \end{tabular}$	written [2] - 6:5, 66:23 www.puc.sd.gov [1] - 5:9 WYATT [3] - 26:13, 29:23, 33:4 Wyatt [2] - 26:13, 31:14 X XL [5] - 32:6, 35:19, 35:23, 43:18 Y yards [2] - 53:18, 55:11 year [11] - 16:21, 17:2, 17:3, 17:6, 17:13, 17:16, 22:22, 38:25, 39:6, 42:13 years [13] - 17:8, 27:2, 27:15, 28:3, 28:12, 29:10, 29:20, 31:6, 31:7, 51:20, 65:12,		