Received 12/23/2021 4:46:35 AM Commonwealth Court of Pennsylvania

Filed 12/23/2021 4:46:00 AM Commonwealth Court of Pennsylvania 126 MD 2017

## **EXHIBIT A**

In the Matter Of: DEP & PGE vs GRANT TOWNSHIP

MICHAEL PELEPKO

October 5, 2021

Geiger Loria Fillus McLucas Reporting LLC 2550 Kingston Road, Suite 217 York, PA 17402 York 717.845.6418 Harrisburg 717-541-1508 800.233.9327 Scheduling@glfmllc.com



IN THE COMMONWEALTH COU	JRT OF PENNSYLVANIA
COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION, PETITIONER	: : :
AND	NO. 126 M.D. 2017
PENNSYLVANIA GENERAL ENERGY COMPANY, L.L.C., INTERVENOR VS GRANT TOWNSHIP OF INDIANA COUNTY AND THE GRANT TOWNSHIP SUPERVISORS, RESPONDENTS	
VIRTUAL DEPOSITION OF: MICHAEI	SETH PELEPKO

TAKEN BY:

RESPONDENTS

BEFORE:

DATE:

TERESA K. BEAR, REPORTER NOTARY PUBLIC

OCTOBER 5, 2021, 10:00 A.M.

40 1 0 Is it possible that injecting wastewater 2 in the Yanity well could change the pore pressures in 3 the rocks? 4 MS. SILVA: Objection. 5 MR. WATLING: Objection. 6 Α It would -- I would expect it would 7 change with injection of a fluid into the subsurface. 8 BY MS. HOFFMANN: 9 Could it induce seismicity? Q 10 MS. SILVA: Objection. Yeah, I don't -- I'm not sure how this 11 Α 12 article connects to --13 BY MS. HOFFMANN: 14 That's okay. I'm --Q 15 -- the Yanity well. I mean, there have Α 16 been a number of things we've talked about and there 17 has to be -- you know, if you look at the literature, there are a lot of different factors that would 18 19 contribute to an induced seismic event. You know, we 20 talked about the presence of faults; we talked about historical record seismicity. 21 22 We -- it's important to understand, I would think in this case, how map faults are oriented, 23 24 you know, with respect to the contemporary stress 25 field and it's important to consider the injection

1	41 volumes and pressures.
2	I mean, there's when the department
3	issued this permit, we concluded that there was a low
4	risk for induced seismicity based on our evaluation
5	and we established permit conditions to mitigate that
6	low risk.
7	Q Okay. I appreciate you saying all that.
8	I just want to ask clearly for the record whether
9	injection of wastewater in the Yanity well
10	(Technical difficulties.)
11	(Discussion held off the record.)
12	BY MS. HOFFMANN:
13	Q So I was just saying that I appreciate
14	your answer and I just wanted to ask clearly for the
15	record is it possible that injecting wastewater in the
16	Yanity well could induce seismicity?
17	MS. SILVA: Objection.
18	MR. WATLING: Objection.
19	A It's the risk is not zero, I would
20	say, but the risk is low. So that implies some
21	possibility, but there were based on our
22	evaluation, that risk is low.
23	BY MS. HOFFMANN:
24	Q And I appreciate that also. I'm just
25	trying to be clear. It's a yes-or-no question. Could

Geiger Loria Filius McLucas Reporting LLC York 717-845-6418 Harrisburg 717-541-1508 Toll Free 1-800-233-9327

1	42 it induce seismicity?
2	MS. SILVA: Objection.
3	MR. WATLING: Objection. He can answer a
4	question in the words he chooses. They don't have to
5	be yes or no.
6	MS. HOFFMANN: Thanks for that speaking
7	objection, but that was my question.
8	BY MS. HOFFMANN:
9	Q You can answer.
10	A Yes, it's possible, I suppose.
11	MS. HOFFMANN: And then there's a
12	paragraph Chad, if you could scroll up just above
13	that one.
14	Sorry, it's towards the end of that
15	paragraph.
16	BY MS. HOFFMANN:
17	Q It's the sentence that says I'll just
18	read it. "A new study finds that quakes near the
19	airport continued for years after the wells were shut
20	down, suggesting that halting wastewater injection may
21	not immediately stop induced seismicity."
22	Did I read that correctly?
23	A Yes.
24	Q If earthquakes did occur after injecting
25	wastewater in the Yanity well and the well were shut

43 1 down -- was then shut down, are you confident that the 2 quakes would stop? 3 MS. SILVA: Objection. 4 MR. WATLING: Objection. 5 Α There's -- there are a lot of factors that I don't know about this current study you're 6 referencing and I don't think it's -- it's easy or 7 8 even possible for me to try to complete this 9 evaluation here or try to understand how this 10 situation might share commonalities with the Yanity. I don't have that information available. 11 12 That requires a separate analysis to 13 understand if there's anything common between this 14 site and the Yanity for me to draw any kind of 15 conclusions technically. 16 BY MS. HOFFMANN: 17 I understand that, and I'm not asking you 0 to connect this particular study to the Yanity. 18 I'm 19 asking to your knowledge, just the scenario that I 20 described, if there were quakes that occurred after injecting wastewater in the Yanity well and the well 21 22 were shut down, do you feel confident that the quakes 23 would then stop? 24 MS. SILVA: Objection. 25 MR. WATLING: Objection.

1	А	44 From what I know about the Yanity well, I
2	believe the p	permit conditions that were added to the
3	permit were s	sufficient to address that risk of any
4	kind of ongoi	ing seismic events.
5	BY MS. HOFFMA	ANN:
6	Q	Okay. And why is that?
7	А	They were designed to, one, have the
8	ability to lo	ook to do local low threshold
9	monitoring.	And when I say "low threshold," I mean
10	below what's	traditionally considered a felt seismic
11	event. This	is one well in a relatively discrete
12	area. It's r	not part of an injection field with
13	numerous well	ls.
14		And, you know, based on that information,
15	stopping or n	nodifying injection is a common practice
16	in mitigating	g risk based on the literature that's
17	available and	d so I think it's you know, I believe
18	it's an effec	ctive way to address this low risk at the
19	site.	
20	Q	Thank you.
21		MS. HOFFMANN: Chad, you can take that
22	down.	
23	BY MS. HOFFMA	ANN:
24	Q	Mr. Pelepko, do you know what to what
25	maximum press	sure the cements used to construct the

	45
1	Yanity well were designed?
2	A The compressive strength of the cements?
3	Q To what standards they were designed,
4	such as the maximum pressure they could withstand.
5	A I that was part of the engineering
6	review. I my recollection, reviewing that memo, is
7	that the professional engineer who evaluated that said
8	they were suitable for this application.
9	Q If I represented to you that they were
10	between 350 and 1200 PSI, does that seem far afield
11	from what you recall?
12	A You said that's the what are those
13	values?
14	Q The maximum pressure that the cement is
15	designed to withstand.
16	MR. WATLING: Objection.
17	A Okay. No, I think the I'd have to
18	it really depends on what you know, what I need
19	to know what strengths those cements are associated
20	with. I believe our current regulations talk about
21	24-hour compressive strengths. I believe they speak
22	to that.
23	There's a I think there's a definition
24	for cement that talks about permeability and 24-hour
25	compressive strengths. I don't recall what that

46 1 number is off the top of my head, however. 2 BY MS. HOFFMANN: 3 Okay. Do you know what the maximum 0 pressure of the injection well -- of the Yanity 4 injection well would be? 5 I don't know what it is off the top of my 6 Α I know it's below the fracture gradient. 7 head. Τ 8 don't know the exact number. And I know it's a function of the -- you know, the fluid density and the 9 surface applied pressure to estimate the bottom hole 10 11 pressure. 12 Do you feel confident that the various Q casing cements that were constructed for the former 13 14 purpose of the Yanity well will be able to withstand 15 the pressures of the injection well? 16 MS. SILVA: Objection. 17 MR. WATLING: Objection. I feel confident that the mechanical 18 Α 19 integrity review was thorough and agree that it was a 20 suitable candidate for conversion based on that 21 assessment. 22 BY MS. HOFFMANN: Is it possible to verify that those 23 0 24 cements would withstand those pressures? 25 MR. WATLING: Objection.

	47
1	A Well, I think if I think about this
2	well historically, it was the well was subjected to
3	pressures higher than it would be subjected to moving
4	forward and when it was being completed.
5	As I mentioned previously, the well
6	you know, the injection would not be at a higher
7	pressure than what the well experienced during
8	completion activities. So I think that's I believe
9	that's evidence that the well is suitably constructed
10	for injection activities.
11	MS. SILVA: I'm just going to place a
12	continuing objection on the record. We've been going
13	on for a while now about specifics about the Yanity
14	well permit and the permitting process.
15	The court order specifically said that
16	that is not part of this case and this is a collateral
17	attack on the permit and I'm just going to place a
18	continuing objection on the record that this
19	questioning about the permitting process is out of
20	bounds.
21	BY MS. HOFFMANN:
22	Q Mr. Pelepko, do you have expertise in
23	well integrity?
24	A I do have expertise in well integrity,
25	yes.

Г

1	48 Q Do you know whether it's possible to test
2	the upper zones of the Yanity well to know what kind
3	of condition they're in?
4	A What kind of test specifically?
5	Q Any tests.
6	A There are some logs that can be run and
7	they typically will allow the analyst to look at the
8	casing and the cement sheath outside of that casing
9	for casing strings that are beyond that first inner
10	string and cement column.
11	I'm not aware of logs that can penetrate
12	the acoustic logs. I'm not aware of your ability to
13	see a signal for outer casing strings if there's a
14	casing string between those and the logging tool.
15	Q So it's not possible to test the outer
16	casings?
17	A Not with not with logging technology
18	that I'm familiar with. There are other ways to look
19	at integrity. You know, surface observations can be
20	made. That's another in my experience, that's
21	another typical process for looking at integrity
22	well integrity.
23	Q Have you ever been aware of casings
24	failing?
25	A Yes.

1	MS	. SILVA: Objection. 49
2	A Ye	S.
3	BY MS. HOFFMANN:	
4	Q If	there were a failure of the casing in
5	the Yanity well,	have you or your team done a
6	hydrogeological	analysis to find out which way that
7	contamination wo	uld go?
8	MS	. SILVA: Objection.
9	MF	. WATLING: Objection.
10	AI	haven't done completed that analysis
11	and I haven't re	viewed work of that analysis.
12	BY MS. HOFFMANN:	
13	Q Sc	you don't know where it would go?
14	MS	. SILVA: Objection.
15	MR	. WATLING: Objection.
16	A We	ll, if there's it really depends on
17	the circumstance	s. I mean, there's it really
18	depends on the c	ircumstances, I would think. I
19	haven't done tha	t analysis and that's it's hard for
20	me to speak abou	t specifics like that without
21	understanding th	e scenario or even use my current
22	knowledge to spe	ak about, you know, a hypothetical
23	scenario like th	at.
24	BY MS. HOFFMANN:	
25	Q In	a scenario when there's a spill on the

Geiger Loria Filius McLucas Reporting LLC York 717-845-6418 Harrisburg 717-541-1508 Toll Free 1-800-233-9327

50 1 surface, for instance, if a truck carrying wastewater 2 fluid rolls over, did you do any analysis of where that might go? 3 4 MS. SILVA: Objection. 5 MR. WATLING: Objection. 6 Α No, I didn't complete any analysis like 7 that. 8 BY MS. HOFFMANN: Are you familiar with a spill that took 9 Q 10 place at another well in Grant Township, the Lockhart 11 well in October of last year? I'm not familiar with that case, no. 12 Α 13 What about in June of this year, a leak 0 a gas leak at the Yanity well? Are you aware of 14 15 that? 16 MS. SILVA: Objection. 17 MR. WATLING: Objection. I heard -- I believe an inspector noted 18 Α 19 it. That's my familiarity, that there was the 20 presence of gas at one of the well's annular spaces. 21 BY MS. HOFFMANN: 22 Do you have expertise in stray gas 0 migration? 23 24 Α I do, yes. 25 0 What does that mean?

# EXHIBIT B

In the Matter Of: DEP & PGE vs GRANT TOWNSHIP

*SCOTT PERRY* September 13, 2021

Geiger Loria Fillus McLucas Reporting LLC 2550 Kingston Road, Suite 217 York, PA 17402 York 717.845.6418 Harrisburg 717-541-1508 800.233.9327 Scheduling@glfmllc.com



IN THE COMMONWEAL	TH COURT OF PENNSYLVANIA
COMMONWEALTH OF PENNSYLV DEPARTMENT OF ENVIRONMEN PROTECTION, PETITIONER	
AND	: NO. 126 M.D. 2017
PENNSYLVANIA GENERAL ENE COMPANY, L.L.C., INTERVENOR VS GRANT TOWNSHIP OF INDIAN	: : : :
COUNTY AND THE GRANT TOW	
SUPERVISORS, RESPONDENTS	:
VIRTUAL DEPOSITION OF: S	COTT PERRY
TAKEN BY: F	ESPONDENTS
	ERESA K. BEAR, REPORTER TOTARY PUBLIC
DATE: S	EPTEMBER 13, 2021, 10:02 A.M.

1	93 <b>Q Okay. So you're not aware of that</b>
2	happening?
3	A No, I am not.
4	Q How are neighboring residents, for
5	instance, made aware of a notice of violation issuing?
6	A We do not directly make them aware of it,
7	but they certainly could easily make themselves aware
8	of it, particularly in the last couple of years.
9	Q And how could they do that?
10	A Well, we have all of that information on
11	our website in aggregate and in a well-by-well basis.
12	Q So if someone doesn't have Internet
13	access, they would not be able to access that
14	information, correct?
15	A Well, there are numerous ways that
16	someone can use the Internet when you don't have it in
17	your house.
18	Q Okay. So they would need to find a place
19	with Internet and go on the DEP website?
20	A That would that would be correct or
21	they could they could do Right-to-Know law requests
22	of us to find out about notices of violation at wells
23	near them.
24	Q Are you familiar with the average length
25	of time for a response to a Right-to-Know request by

Geiger Loria Filius McLucas Reporting LLC York 717-845-6418 Harrisburg 717-541-1508 Toll Free 1-800-233-9327

	99
1	That testing has to occur upon initial generation of a
2	waste stream. And if the waste composition changes,
3	then it must be retested and recharacterized, but if
4	the waste stream is not believed to have been changed,
5	they can rely on generator knowledge for five years
6	and then they have to retest it.
7	Q So for a given Form U and sorry. Does
8	each truck have its own Form U or is that
9	A Each well, each I think you're just
10	you're now it's beyond my knowledge. I believe
11	that they I believe they are required to have their
12	own Form U for the waste they're containing.
13	Q Okay. So then you said that would be
14	good for five years unless there's reason to believe
15	the waste unless the waste composition has changed,
16	correct?
17	A That is my understanding of the residual
18	waste regulations.
19	Q So apart from driving through a scanner
20	or being scanned when they come into the facility,
21	there's no other testing going on of the radioactivity
22	once a Form U has been filed and there's not been any
23	change in the chemical composition, correct?
24	A That I think that's correct.
25	Q Could you specifically identify which

Geiger Loria Filius McLucas Reporting LLC York 717-845-6418 Harrisburg 717-541-1508 Toll Free 1-800-233-9327

1	100 radiation tests are performed?
2	A Well, they would be testing for the
3	radiation constituencies that would be believed to be
4	in the waste stream itself.
5	Q Are those tests those recommended by the
6	U.S. EPA?
7	A Not to I can only speak to what I
8	understand the DEP regulations to require and I
9	believe that it was on our own initiative that we did
10	all of this.
11	Q So you're saying sorry. So the answer
12	to the question of are these tests tests that were
13	recommended by EPA, your answer is no?
14	A Well, I the answer is I don't know.
15	Q Okay. And then sometimes for these
16	landfills you're aware that they accept fracking
17	waste, correct?
18	A They accept solid waste generated through
19	oil and gas well development.
20	Q Do they ever receive wastewater from oil
21	and gas?
22	A Not to my knowledge.
23	Q Are you familiar with the Belle Vernon
24	Municipal Authority?
25	A I am familiar with I am aware of the

1 media reports on that matter. 2 Okay. So are you aware that it 0 3 discharges to the Monongahela River? 4 Α Yes. 5 And do you know whether the authority was 0 6 able to treat the fracking waste that it received? 7 Α I am aware that there was some issue with 8 it exceeding its NPDES permit. 9 0 Okay. Were you aware that the landfill 10 was self-reporting -- or that the municipal authority, 11 excuse me, was self-reporting violations to the DEP 12 and asking the DEP for help? 13 I am -- no, I was not aware of that. Α 14 Q Okay. 15 Chad, could you please MS. HOFFMANN: 16 pull up GT Exhibit 12. 17 (Exhibit Number 12 produced and marked for identification.) 18 19 MS. HOFFMANN: Are you able to scroll up 20 to the top? 21 Sorry, and could you scroll down a bit 22 more? My bad. Okay. 23 BY MS. HOFFMANN: So, Mr. Perry, do you -- first of all, do 24 0 25 you recognize this email?

102 1 Α No. 2 Okay. Do you see that it's from someone Q 3 named Donald Leone -- and it's really small on my 4 screen so let me make sure I'm seeing this right. 5 It's sent to John Mowry and copying various people with PA.gov email addresses. 6 Do you see that? 7 8 Α Yes. 9 Q Do you know any of those people? 10 I've heard the name Chris Kriley before Α and I can't remember in what capacity, but I don't 11 12 know the others. 13 Okay. 0 14 I don't know -- I would say I don't know Α 15 anyone on this email with the exception of potentially 16 Chris Kriley. You recognize his name? 17 Okay. Q 18 Α Yes. 19 MS. HOFFMANN: Chad, could you scroll to 20 the second page, just to see the signature. Thank 21 you. 22 BY MS. HOFFMANN: 23 Q So do you see, Mr. Perry, where it says 24 "Donald J. Leone, P.E., Environmental Engineer 25 Manager, DEP Clean Water?"

103 1 Α Um-hum. 2 So do you have any reason to disbelieve 0 that this is someone who works in the DEP's Clean 3 Water Division? 4 5 No. Α 6 MS. HOFFMANN: And, Chad, if you could 7 scroll up to the bulk of the email. 8 BY MS. HOFFMANN: 9 Q Mr. Perry, could you just review that 10 email and let me know when you're done reading, please. 11 12 MR. WATLING: While he's reading, I'll 13 just object to the extent you're asking him for --14 testimony from Mr. Perry regarding an email from individuals he's not familiar with and an email he's 15 16 not a party to. 17 BY MS. HOFFMANN: Just let me know when you're done 18 Q 19 reading, Mr. Perry. 20 Α Okay. 21 So with your familiarity with the Belle Q 22 Vernon case or the Belle Vernon plant, does this email appear to be referencing the -- what we had talked 23 24 about earlier about the waste coming in and being 25 discharged into the river?

waste is being -- brine is being treated to remove 1 2 radium, where is that taking place? 3 Α Titusville. And by whom? 4 0 5 The company's name I believe is GCI. Α 6 Q Are you familiar with the half-life of 7 radium-226? 8 Α I believe it is 1,600 years. 9 Okay. 0 So -- and, again, I'm not 10 knowledgeable about this myself, but I understand that to mean that that -- it will take more than 16,000 11 12 years for a given quantity of radium-226 to decay to 13 background levels; is that what that means? 14 I don't know. Α 15 But in any case, it would be a -- it Q would take a very long time if an aquifer were 16 17 contaminated with radium-226 to be naturally attenuated, correct? 18 19 MR. WATLING: Objection. 20 MR. FOX: Objection. 21 I actually don't know that to be correct. Α 22 I think -- yeah, I just don't -- I don't know that that is correct. There's a variety of factors to 23 24 consider there. How -- what's the dilutional effect of the aquifer, you know, how fast is water moving 25

	123
1	that inspect wells. It's somewhere around 80
2	mid-80s.
3	Q And that's higher than it was in 2014?
4	A I'd have to look at the records, as we
5	increased the complement of the staff twice and
6	currently we have fewer people than we did previously.
7	Q So you currently have you said you
8	currently have fewer people. By how much?
9	A Thirty-six positions.
10	Q When did those when were those
11	positions eliminated?
12	A Well, they haven't necessarily been
13	eliminated. It's that we have a complement limit of
14	190 as opposed to 226.
15	Q So the maximum number is lower?
16	A Yes.
17	Q And when was that changed?
18	A It was within the past three or four
19	years.
20	Q And do you know why?
21	A It was due to overall declining state
22	revenues and budgetary restrictions across all
23	Commonwealth agencies.
24	Q Number 15 says "DEP should verify that
25	the various drilling dates reported by the operators

Г

1	to DEP actua	124 11y correspond to the start of each
2	drilling pha	se so that DEP can ensure that timely
3	inspections	are conducted during each critical phase
4	of the drill	ing process."
5		Is that occurring?
6	A	Yes, we have implemented that.
7	Q	16. "DEP should record and report
8	publicly all	dates reported by the operators of the
9	critical dri	lling stages and then use those electronic
10	records to e	valuate its performance with regard to
11	inspections	in the aggregate."
12	A	We have we do provide those reports
13	electronical	ly and we do utilize that kind of
14	information	to evaluate individual performance, but I
15	don't believ	e we've done it in the aggregate.
16	Q	Are there any plans to do that?
17	A	No.
18	Q	And why not?
19	A	Because I think we can more effectively
20	manage it on	an individual-by-individual basis.
21	Q	Okay.
22		MS. HOFFMANN: Chad, could you scroll to
23	page 74 of t	he PDF, please.
24	BY MS. HOFFM	ANN:
25	Q	So Recommendation 17. "DEP should

Geiger Loria Filius McLucas Reporting LLC York 717-845-6418 Harrisburg 717-541-1508 Toll Free 1-800-233-9327

Г

	128
1	Form U or the Form 26R process and, yes, we do
2	collect those records and manage them.
3	Q And from the disposal facilities?
4	A Our well, most of you know,
5	primarily for wastewater, those facilities are not in
6	Pennsylvania so we wouldn't we wouldn't have
7	jurisdiction there, but certainly at our landfills,
8	yes.
9	Q Okay. Number 19. "DEP should verify the
10	self-reported waste data it obtains from operators,
11	haulers, and disposal sites for completeness and
12	accuracy before posting the data on its website."
13	A We do not we do not do that because,
14	you know, specific particularly when we're talking
15	about monthly reporting, we feel it's more appropriate
16	to put the raw data out there immediately; and if
17	there's any corrections that need to be made, those
18	can be made at a later date.
19	Q And do you know if corrections have been
20	needed to be made?
21	A Well, for example, some you know, this
22	was happening, you know, a longer time ago, but we
23	would require wastewater volumes to be reported in
24	barrels and some folks were recording it in gallons,
25	but the report you know, there's 42 gallons in a

1	129 barrel and so you would have this multiplier of 42 and
2	it would look like huge volumes of wastewater were
3	being generated, when in fact they were since they
4	were reporting it in gallons. But as barrels, it was
5	excessive. The same thing would happen with pounds
6	versus tons and things like that.
7	
	Q So did the department then go in and correct that or
8	
9	A We did, and obviously with the assistance
10	of if we find anomalous data, we send it back to
11	the operators to make the appropriate corrections. We
12	don't just do it ourselves.
13	Q Okay. Is there someone whose or
14	multiple people whose job it is to review those or
15	give them a look when they're being posted?
16	A That work ultimately falls to our
17	Compliance and Data Management Division within the
18	Bureau of Planning and Program Management.
19	Q Okay.
20	MS. HOFFMANN: Chad, could you please
21	scroll to page 84 in the PDF.
22	BY MS. HOFFMANN:
23	Q Recommendation 20. "DEP should elevate
24	its level of transparency to the public by disclosing
25	more pertinent information on its website. The

Г

1	130 following changes should be made on the website to
2	approve transparency related to DEP's monitoring of
3	shale gas development activities and their impact on
4	water quality," and then there's a number of changes.
5	So if you could just read through that
6	and for each letter let me know if that's been
7	implemented or not, please.
8	A a., yes.
9	b., I feel like maybe not "eFACTS on the
10	Web," but certainly our website's been modified to
11	address, I think, the general the issue here.
12	Q Sorry, let me interrupt you. So for that
13	one, you could search the DEP website specific to
14	shale gas?
15	A So right. I mean, we do if you go
15 16	A So right. I mean, we do if you go this is just the oil and gas. So eFACTS on the Web
16	this is just the oil and gas. So eFACTS on the Web
16 17	this is just the oil and gas. So eFACTS on the Web is one thing and it contains all of the data generated
16 17 18	this is just the oil and gas. So eFACTS on the Web is one thing and it contains all of the data generated by eFACTS. And what we have done is taken the data
16 17 18 19	this is just the oil and gas. So eFACTS on the Web is one thing and it contains all of the data generated by eFACTS. And what we have done is taken the data generated as part of the work we do in the Office of
16 17 18 19 20	this is just the oil and gas. So eFACTS on the Web is one thing and it contains all of the data generated by eFACTS. And what we have done is taken the data generated as part of the work we do in the Office of Oil and Gas Management and incorporated these
16 17 18 19 20 21	this is just the oil and gas. So eFACTS on the Web is one thing and it contains all of the data generated by eFACTS. And what we have done is taken the data generated as part of the work we do in the Office of Oil and Gas Management and incorporated these recommendations on the report's page of the Office of
16 17 18 19 20 21 22	this is just the oil and gas. So eFACTS on the Web is one thing and it contains all of the data generated by eFACTS. And what we have done is taken the data generated as part of the work we do in the Office of Oil and Gas Management and incorporated these recommendations on the report's page of the Office of Oil and Gas Management's website.
16 17 18 19 20 21 22 <b>23</b>	this is just the oil and gas. So eFACTS on the Web is one thing and it contains all of the data generated by eFACTS. And what we have done is taken the data generated as part of the work we do in the Office of Oil and Gas Management and incorporated these recommendations on the report's page of the Office of Oil and Gas Management's website.    Q Okay.

	1
1	131 that.
2	Q Is there a reason why you haven't?
3	A We do it on a well-by-well basis but not
4	in the aggregate. It's being managed under two
5	when you have two different data management systems,
6	trying to get them to crosstalk is complicated just
7	because of the IT architecture behind it so yeah,
8	eFACTS is old and having it necessarily communicate
9	with a completely new data management system where the
10	production data is stored was is hard.
11	And we feel like that by providing the
12	on a well-by-well basis on our GIS mapping tool people
13	can find out all of the information that we have on
14	that well on a well-by-well basis, but being able to
15	do a total data download on every single piece of
16	electronic data we have, you know, on a regional or
17	operator basis is not quite possible, but I think that
18	in the the spirit of this recommendation, you can
19	easily link production data on a well-by-well basis to
20	all of the other information we have available to it
21	on our website.
22	Q Okay. And you mentioned eFACTS is old.
23	Are there any plans to develop a new system?
24	A The capabilities of the system are being
25	modernized kind of on a case-by-case you know, on a

	September 10, 2021
1	132 project-by-project basis so but we're not I
2	don't think there's any plans to completely eliminate
3	eFACTS and replace it with a new enterprise-wide data
4	management system given the current our current
5	capabilities.
6	Q Okay, understood. You can go ahead with
7	e., please.
8	A We did like I said, we did develop
9	this is e. I think although there are other
10	mapping features on our website when it comes to oil
11	and gas management, we have a uniform and unified
12	system, which I think addresses e.
13	I don't know about f. I made mention to
14	this with regard to the notices of violation.
15	We did provide the number of water
16	supplies impacted by the oil and gas industry on our
17	website. We can provide complaint information, but
18	the type some of the information that they're
19	requesting here I don't believe is really appropriate
20	to be making publicly available, given the chilling
21	effect it would have on future complainants.
22	Q Could you elaborate on that? What kind
23	of why do you think it would have a chilling
24	effect?
25	A Well, people don't necessarily want

# **EXHIBIT C**

From: John Mowry <jmowry@klhengineers.com> To: 'gckmabv@aol.com' <gckmabv@aol.com> Subject: FW: Belle Vernon STP Date: Fri, Jan 4, 2019 7:39 am

John C. Mowry, P.E.

Email: jmowry@klhengineers.com

Office: 412.494.0510 Ext. 127

Fax: 412.494.0426

http://www.klhengineers.com

KLH

From: Leone, Donald [mailto:doleone@pa.gov] Sent: Friday, January 04, 2019 7:36 AM To: John Mowry <jmowry@klhengineers.com> Cc: Kriley, Christopher <ckriley@pa.gov>; Greenwald, Stacey <sgreenwald@pa.gov> Subject: Belle Vernon STP Importance: High

John,

Our Waste Management Folks have talked to the landfill about entering into a COA where the landfill will agree to pay any penalties for effluent violations at the Belle Vernon plant under that COA. What this does is remove liability from Belle Vernon for current and past violations. In turn Belle Vernon would need to let the landfill stay connected to their system. The landfill is in process of constructing a pretreatment plant. The landfill will also be looking to take their waste elsewhere after the pretreatment facility is up and running – so they eventually should not be a problem for Belle Vernon. If your client wants a meeting to discuss further before we have an overall meeting with all parties let me know. Since this is landfill leachate it will not go away if the landfill closes – so the state has some concerns here in reference to continuity of service for the wastewater.

Let me know if you want a preliminary meeting.

Thanks.

**Donald J. Leone, P.E.** | Environmental Engineer Manager Department of Environmental Protection | Clean Water South West Regional Office Building 400 Waterfront Drive | Pittsburgh, PA 15222 Phone: 412.442.4059 | Fax: 412.442.4328 www.depweb.state.pa.us

## **EXHIBIT D**

**A Special Performance Audit** 

## Department of Environmental Protection

DEP's performance in monitoring potential impacts to water quality from shale gas development, 2009 - 2012



**COMMONWEALTH OF PENNSYLVANIA Department of the Auditor General Bureau of Special Performance Audits** 

**EUGENE A. DEPASQUALE, AUDITOR GENERAL** 



<b>Finding Five</b>	<b>DEP</b> does not use a manifest system to track shale
	gas waste, but relies upon a disjointed process of
	utilizing three different reports and self-reporting
	by operators with no assurances that waste is
	disposed of properly.

#### Key points:

- DEP has not dedicated one office to "follow the waste," and has instead assigned shale gas waste monitoring to two DEP offices (Office of Oil and Gas and the Bureau of Waste Management).
- DEP failed to implement a shale gas waste manifest system, opting instead to rely on self-reported waste data from three different sources.
- DEP does not use the self-reported waste data as a monitoring tool, and DEP does not verify that the selfreported data is accurate and complete.

DEP does not have an effective integrated process in place to follow shale gas waste from the point of generation to the ultimate point of treatment and disposal. Instead, DEP relies on inspectors from two different bureaus to inspect waste as part of other routine inspections.

DEP also relies on the operators, haulers, and treatment facilities to selfreport amounts and types

of waste generated, transported, and treated. DEP does not cross check the waste data in the reports to follow the waste from beginning to end. In addition, DEP does not verify the accuracy of the self-reported data. As a result, DEP cannot be certain—and cannot assure the public—that shale gas waste has been managed properly and safely.

Shale gas development activities create a substantial amount of waste. Officially categorized as "residual waste," <sup>50</sup> this waste presents a potential threat to the environment—especially water supplies—as a result of mishandling; improper storage, disposal, and/or transport; spills; or other unintended releases.

<sup>&</sup>lt;sup>50</sup> Under the Federal Hazardous Waste Regulation, which Pennsylvania incorporates by reference, wastes associated with the exploration, development, or production of natural gas are excluded from the definition of hazardous waste. As such, shale gas development waste is considered to be and regulated as residual waste. *See* 35 P.S. § 6018.101 *et seq.*, known as the "Solid Waste Management Act" and particularly, Section 103 (relating to Definitions) of that act, 35 P.S. § 6018.103.

Shale gas development waste is generally classified into two categories:

- Drilling waste. This type of waste consists of soil and rocks that are returned to the surface during the drilling process and may contain drilling muds and other lubricants/chemicals used during drilling.
- Flowback/produced waste. This type of waste, often called wastewater, consists mostly of brine and other wastes that return to the surface after the hydraulic fracturing process.

#### **DEP** does not have an integrated system to track and verify shale gas waste disposal.

Both categories of waste from shale gas development activities need to be properly handled and disposed of in accordance with federal and state laws and regulations.<sup>51</sup> Monitoring operators' compliance with these laws is DEP's responsibility. However, DEP does not have an integrated management system to aid in this monitoring. DEP relies on staff from two different offices to monitor waste.

#### **Office of Oil and Gas Management**

- This office is responsible for monitoring waste generated, handled, and stored at oil and gas sites.
- This monitoring is part of the routine inspections conducted at the well sites.

#### **Bureau of Waste Management**

- This bureau is responsible for the monitoring and inspection of all waste disposal and/or transportation activities once waste leaves the well site.
- This bureau is responsible for the management of all residual waste, not just residual wastes from oil and gas activity.

<sup>&</sup>lt;sup>51</sup> In addition to the Solid Waste Management Act, 35 P.S. § 6018.101 *et seq.*, cited previously, wastes associated with shale gas development activities are also regulated under 58 Pa.C.S. § 3201 *et seq.* (2012 Oil and Gas Act).

 Monitoring the transport and disposal of shale gas waste (residual waste) increased the workload and responsibilities for this bureau.

Because of this division of duties, DEP does not have a single and uniform process in place where one office follows the waste from the point of generation to the ultimate point of disposal. Following the waste from "cradle to grave" in a unified, integrated process helps to ensure that no adverse impacts to the environment, including water quality, occur from the mishandling and improper disposal of wastes.

To that end, a study<sup>52</sup> conducted by the U.S. Department of Energy in 2011, which included the Marcellus Shale formation in Pennsylvania, stated that a key component to water and waste management is,

> Adoption of a life cycle approach to water management from the beginning of the production process (acquisition) to the end (disposal); all water flows should be tracked and reported quantitatively throughout the process.<sup>53</sup>

DEP relies upon self-reported waste data from three different sources rather than a manifest system.

We found that DEP does not operate a true "manifest" system for shale gas waste. A true manifest system would track waste from gas wells from the first use of the water to the final disposition of the wastes, including wastewater. An effective system requires that each load of waste is tracked from generator to hauler to disposal site.

While the use of a manifest system is not required by law for shale gas activities in Pennsylvania, implementation of such a system is a strong regulatory action that DEP could institute in

<sup>&</sup>lt;sup>52</sup> U.S. Department of Energy, Secretary of Energy Advisory Board, Shale Gas Production Subcommittee 90-Day Report, August 18, 2011.

<sup>&</sup>lt;sup>53</sup> The life cycle of water starts with clean, fresh water and ends with wastewater. We refer to this wastewater as "waste" throughout this finding.

an effort to thoroughly track waste and its disposal. In fact, in the U.S. Department of Energy report mentioned above, the shale gas production subcommittee recommended that shale gas regulators, including DEP, should develop a manifest system for tracking all of the waste.

DEP officials have stated that they do not maintain a manifest system for shale gas waste because such a system would be duplicative to the self-reported waste data that it receives from operators, haulers, and disposal facilities. However, the harm in not instituting a manifest system is that DEP does not have <u>one</u> unified and integrated system to track waste, and as we discuss below, DEP does not know if the self-reported data is accurate and reliable.

#### DEP fails in its oversight role by not using the selfreported waste data as a proactive monitoring tool.

State laws and regulations require DEP to collect waste data from shale gas well operators, transporters, and disposal facilities. This information is self reported to DEP. Shale gas operators report semi-annual data to DEP electronically, whereas transporters and disposal facilities report data annually. These reports identify the type and volume of waste generated and how that waste was managed.

While reviewing three different sets of self-reported data is far more cumbersome than having a manifest system, this selfreported waste data has the potential to provide DEP with a tool for proactively monitoring waste generation, transport, and disposal.

However, we found that DEP does not review this self-reported data and use it as a management tool for its oversight role over shale gas waste. Further, given the fact that DEP lacks a sufficient number of oil and gas inspectors that can inspect waste at the well sites (see Finding Four), the review of operator-reported data becomes increasingly vital since it provides one layer of assurance that operators are complying with environmental laws and regulations.

DEP officials told us that they do not have sufficient staff to routinely perform cross checks among the three different sets of self-reported data. However, they stated that if DEP were to receive a complaint that a particular generator, transporter, or landfill was not complying with the applicable requirements, then DEP would begin an investigation, which would include cross checking the information from each data source for verification.

If DEP officials believe a manifest system is not needed because it would be duplicative to this self-reported data, then DEP officials must find the staff and the time to review the self-reported waste data and cross check the three different sources of data. Otherwise, DEP's current system, absent a manifest, is not an effective monitoring tool.

By not reviewing and cross checking the self-reported data, not only is DEP not following the waste generated from shale gas activities, it is not proactive in discouraging improper, even illegal, disposal of waste.

## **DEP** does not verify that the self-reported data is accurate and complete.

The self-reported waste data is posted to DEP's website for public access and use.<sup>54</sup> DEP publicizes the website as:

A first-of-its-kind tool that provides the public with greater insight into oil and gas operations across the state. This application is designed to make the activities of drilling companies and their business partners more transparent.

We found that DEP does not verify the accuracy of the selfreported data. DEP information technology officials stated that they can "spot-check" the data for basic redundancy checking (e.g., double reporting, etc.), but these efforts do not ensure that the information is accurate and complete.

In other words, DEP acts merely as the pass-through for this data—missing an opportunity to use the data as a monitoring

<sup>&</sup>lt;sup>54</sup> https://www.paoilandgasreporting.state.pa.us/publicreports/Modules/Welcome/Agreement.aspx.

#### DEP fails to provide adequate transparency when there are any adverse impacts to water supplies from shale gas drilling.

DEP does not provide the public with information related to complaints about water supplies impacted from shale gas drilling. Without this information, it is impossible for the public to know where and when water supplies are contaminated. The following sections provide two distinct categories of information that are missing from DEP's website.

#### Complaint information not posted to DEP's website.

The complaint tracking system (CTS) is used to track incoming complaints and to document DEP's response to those complaints; however, the information in CTS is not available to the public.

While we understand that DEP cannot publicly post all information in CTS due to confidentiality requirements (complainant name and address information is confidential),<sup>66</sup> DEP could at a minimum post aggregate information about complaints, such as the number of complaints it receives, the number of complaints that result in an investigation, the number of water supplies—both public and private—impacted by shale gas drilling, etc. To be clear, we are not suggesting that DEP post each complaint verbatim that it receives, as we recognize that some complaints are unfounded and could even be alarmist in nature. But once the complaint is investigated, DEP could provide the above-mentioned aggregate information.

Further, DEP could post "determination" letters<sup>67</sup> on its website so that the public could see the results of DEP's complaint investigations, redacting confidential information where necessary. Currently, the only means the public has to see determination letters is to spend considerable time to wade

<sup>&</sup>lt;sup>66</sup> Under 65 P.S. § 67.708(b)(17), Pennsylvania's Right-to-Know Law, complaints and other records related to a non-criminal investigation are exempt from access by a requestor.

<sup>&</sup>lt;sup>67</sup> Determination letters are issued after a complaint investigation stating whether the water supply has been impacted by shale gas drilling (positive determination) or not (negative determination).

through confusing and, in some cases, voluminous paper files at DEP's district offices.  $^{68}$ 

A government agency responsible for environmental regulation and protecting the environment should provide determination letters and aggregate complaint information to the public to be as fully transparent and accountable as possible. As a protector of the environment and the source for environmental-related information, DEP must provide citizens with as much information as it can to ensure the public that their water supplies are being protected.

#### Posting of confirmed cases of water supply contamination.

Under Act 13, DEP is required to "...publish, on its Internet website, lists of confirmed cases of subterranean water supply contamination that result from hydraulic fracturing."<sup>69</sup>

To date, DEP has not posted such information on its website because, according to DEP's narrow interpretation of this portion of Act 13, there has never been such a case. In response to our inquiry of how DEP interprets the reporting requirement, DEP noted the following:

Subterranean water supply is not a defined term in the 2012 Oil and Gas Act [Act 13] or 25 Pa Code Chapter 78. DEP interprets 'subterranean water supply' as fresh groundwater. Fresh groundwater is 'water in that portion of the generally recognized hydrologic cycle which occupies the pore spaces and fractures of saturated subsurface materials' (58 Pa. C.S. §3203; 25 Pa Code § 78.1). Accordingly, a case of subterranean water supply contamination that results from hydraulic fracturing would occur where the act of stimulating a well by hydraulic fracturing contaminates fresh groundwater. To date, there are no documented cases in Pennsylvania of fresh groundwater contamination resulting from hydraulic fracturing. Should the Department become aware of any such cases, it will make this information available on its website

<sup>&</sup>lt;sup>68</sup> When members of the public review determination letters at the district offices, the names of the complainants are redacted.

<sup>&</sup>lt;sup>69</sup> 58 Pa.C.S. § 3218(b.4). [Emphasis added.]

To the letter of the law, DEP is correct in stating that there have been no definitive confirmed cases of ground water contamination from hydraulic fracturing; however, DEP makes this assertion through a narrow interpretation of the term "hydraulic fracturing." In technical terms, hydraulic fracturing applies to just one stage of a highly industrial process, which occurs after site construction, drilling, well casing, and cementing are complete.

The phrase "hydraulic fracturing" is also used informally to describe the entire process of shale gas extraction including, but not limited to, site construction, drilling, and hydraulic fracturing. Therefore, under DEP's narrow interpretation, it would not be required under Act 13 to publish on its website contamination cases resulting from activities <u>related to</u> hydraulic fracturing (e.g., site construction, drilling, transportation, impoundments, etc.).

We believe the General Assembly may not have realized the implications of utilizing the very specific terms of "confirmed cases" and "hydraulic fracturing" and may have unknowingly hampered, or even made, the provision of this law ineffectual.

As the state's environmental regulator, DEP should take steps to post information on its website to make the public aware of every credible case of subterranean water supply contamination from **any oil and gas related sources whatsoever** (including well pad construction, drilling, hydraulic fracturing, waste storage, pipelines, etc.).

We are firmly of the opinion that the public deserves better information, access to that information, and transparency, from DEP with respect to impacts to water supplies. Without this information, DEP's lack of transparency leaves the public with no assurance that water contamination is being reported and addressed and that water supplies are protected.

#### RECOMMENDATIONS

20. DEP should elevate its level of transparency to the public by disclosing more pertinent information on its website. The following changes should be made on the website to improve transparency related to DEP's monitoring of shale

gas development activities and their impact on water quality:

- a. Provide an "Oil and Gas Public Reports" button on the main webpage to provide an easy access portal to all of the reports available to the public that are related to oil and gas activities in the state. Each report should be clearly labeled with hyperlinks to instructions for using the report.
- b. Incorporate a feature that allows users to search "eFACTS on the Web" specific to shale gas activities.
- c. Make the name search function consistent on "eFACTS on the Web" so that an operator can be easily identified, which is necessary to obtain certain ID numbers to search eFACTS.
- d. Link the eFACTS data to the "Oil and Gas Compliance Reports" inspection data and to the "Oil and Gas Production Reports" so that production data can easily be tied to other information presented.
- e. Eliminate the duplicative mapping features on the website, or if both mapping tools are deemed worthy of maintaining, update the eMapPA application to make it more user-friendly with regard to eFACTS queries.
- f. Provide a notification about completed shale gas inspections with the eNOTICE feature and include a link to the completed inspection report.
- g. Include complaint information, in the aggregate, such as the number of complaints received, the number of complaints that resulted in an investigation, the number of water supplies impacted by oil and gas activity.
- h. Post determination letters on the website, with complainant identifying information and information about precise locations of water supplies redacted.
- i. Post information to make the public aware of any credible cases of subterranean water supply contamination from any oil and gas related sources whatsoever, including well pad construction, drilling, hydraulic fracturing, waste storage, pipelines, etc.
- 21. The General Assembly should consider amending the provision to require DEP to post information on its website regarding not only definitive confirmed cases, but also any probable cases with credible evidence that oil and gas activity may adversely impact water supplies, whether public or private.

# **EXHIBIT E**

# VERITEXT LEGAL SOLUTIONS

### Deposition of: Joshua Pribanic

September 24, 2021

In the Matter of:

Commonwealth of PA, Dept of Environmental Protection v. Grant Township of Indiana County

Veritext Legal Solutions

888.777.6690 | cs-midatlantic@veritext.com | 215-241-1000

Page 1 IN THE COMMONWEALTH COURT OF PENNSYLVANIA 1 COMMONWEALTH OF 2 : PENNSYLVANIA, DEPARTMENT OF: ENVIRONMENTAL PROTECTION 3 Petitioner 4 and : No. 126 M.D. 2017 5 **PENNSYLVANIA GENERAL ENERGY:** COMPANY, LLC 6 • 7 Intervenor 8 vs. 9 GRANT TOWNSHIP OF INDIANA COUNTY AND THE GRANT : 10 TOWNSHIP SUPERVISORS : 11 Respondents 12 Friday, September 24, 2021 13 14 Oral deposition of JOSHUA PRIBANIC, 15 16 taken remotely in, Bozeman, Montana, commencing 17 at 1:00 p.m., and recorded stenographically by Theresa F. Franco, a Court Reporter and Notary 18 19 Public. 20 21 22 VERITEXT LEGAL SOLUTIONS 23 MID-ATLANTIC REGION 1801 Market Street - Suite 1800 24 Philadelphia, Pennsylvania 19103

|--|

1	this is the Standards and Guidelines for
2	Identifying Tracking and Resolving Oil and Gas
3	Violations, DEP Exhibit-16.
4	A. Yeah. And that's different than
5	complaints, so I'm not sure why this is this
6	like a different subject now or what?
7	Q. No. This is still Exhibit-16, and
8	we're going to go back to that page we were
9	just on. So, again, I don't mean to confuse
10	you by scrolling too quickly. So I'm just
11	going back to that page we were on, which is
12	the same document, pages 17 and 18.
13	Do you see it deals with water
14	supply investigation requests related to oil
15	and gas activities?
16	A. It does.
17	Q. Okay. And then it outlines how
18	those investigations should be concluded with
19	findings in writing; is that correct?
20	A. I do see that, yep.
21	Q. And, earlier, you didn't understand
22	if this is a policy or not; is that correct?
22 23	if this is a policy or not; is that correct? A. Well, I think that there's a

1	a policy. Yeah, we don't understand whether or
2	not it is or is not. We just know that it
3	wasn't happening throughout the Department,
4	and, in fact, still isn't happening in many of
5	the offices at the DEP. And that
6	Q. Well
7	A I mean, you guys should share
8	this with your personnel and/or just take that
9	sentence and email it to everybody right now so
10	that they know that they're required, the
11	Pittsburgh office for instance, to send these
12	letters because they're still not doing it.
13	Q. So your investigative wording dealt
14	with cases that predated this policy, and the
15	policy describes
16	A. Wait a second.
17	Q putting findings in writing; is
18	that correct?
19	A. This is 2015, right?
20	Q. Yeah.
21	A. So, no. We were in the Pittsburgh
22	office in 2015, and I believe 2016 as well.
23	That was the last office that we reviewed
24	records at. And, of course, we found

1	complaints in that instance which were still
2	not receiving findings in writing. And, in
3	fact, it was the worst office in the state with
4	regards to complaints not receiving findings in
5	writing. It was almost every single instance.
6	And when
7	Q. Do you believe all of those
8	complaints, all of those determination letters
9	were drafted after the date of this policy?
10	Earlier we talked about the
11	A. We have we have, like, you know,
12	direct statements from the Pittsburgh office
13	that they didn't believe that they were that
14	they needed to send determinations at all to
15	anybody. And that was in, like, 2016 and '15.
16	So we've had communications with them in
17	regards to this. So that was a I'd have to
18	dig that up on our end, but, you know, it was a
19	major problem that we saw in that southwest
20	office, because each of your offices are
21	operating differently.
22	You know, your northwest, north
23	central office isn't operating the same as your
24	southwest office. There's no cong

1	consistency between each office and how they
2	handle complaint investigations, which Harvard
3	found as well and published in 2014. And also
4	the auditor general and the attorney general.
5	There's major issues there.
6	Q. So, earlier we discussed that the
7	complaint investigation article and the
8	accessible database dealt with cases from 2014
9	and earlier. And I asked you about this policy
10	being adopted, January 2015, and you responded
11	just now, regarding 2015 and '16.
12	Are you saying that those are in
13	your database accessible through the complaint
14	investigation article?
15	A. You mean records that would have
16	been published after 2015?
17	Q. Yeah.
18	A. Yeah, there would be.
19	Q. Hold on one second.
20	A. I mean we have cases, you know,
21	from Allegheny County in 2016 that were put out
22	there. They're recorded. The complaint was
23	recorded, the communication, in 2016, and
24	that's the you know, the document we have