Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 1:

Explain how Starfire plans to ensure its contractors hire local workers. Provide:

Contract language that will be used to ensure local hiring, if available; and a.

b. Details on any local programs that will be implemented to train local workers.

Response:

The Project has yet to execute contracts with an EPC company and thus contract a.

language is currently unavailable. However, the Project will seek bids from at least three

EPC companies. The scope of work, which will be delineated during negotiations between

the EPC and Starfire, will include contract provisions to enhance local hiring, including a

requirement that the EPC host a job fair to prioritize local labor force hiring. Local outreach

for this job fair will be coordinated with some or all of the following: Hazard Community

& Technical College, Perry, Knott, and Breathitt County departments, local mining and

reclamation companies, and community foundations with which Starfire has developed

relationships.

b. The Project is currently coordinating with existing local workforce programs that

have been used in similar projects in eastern Kentucky. Local community and technical

college(s) will be invited to participate in the job fair to enroll job seekers in appropriate

training programs such as OSHA certification, electrician apprenticeships, or similar

training and certification programs.

Responding Witness: David Gil

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 2:

Provide information concerning each natural gas pipeline and well within the project boundary,

including owner name and pipe diameter. Provide any communication between Starfire and each

of the natural gas pipeline and well owners.

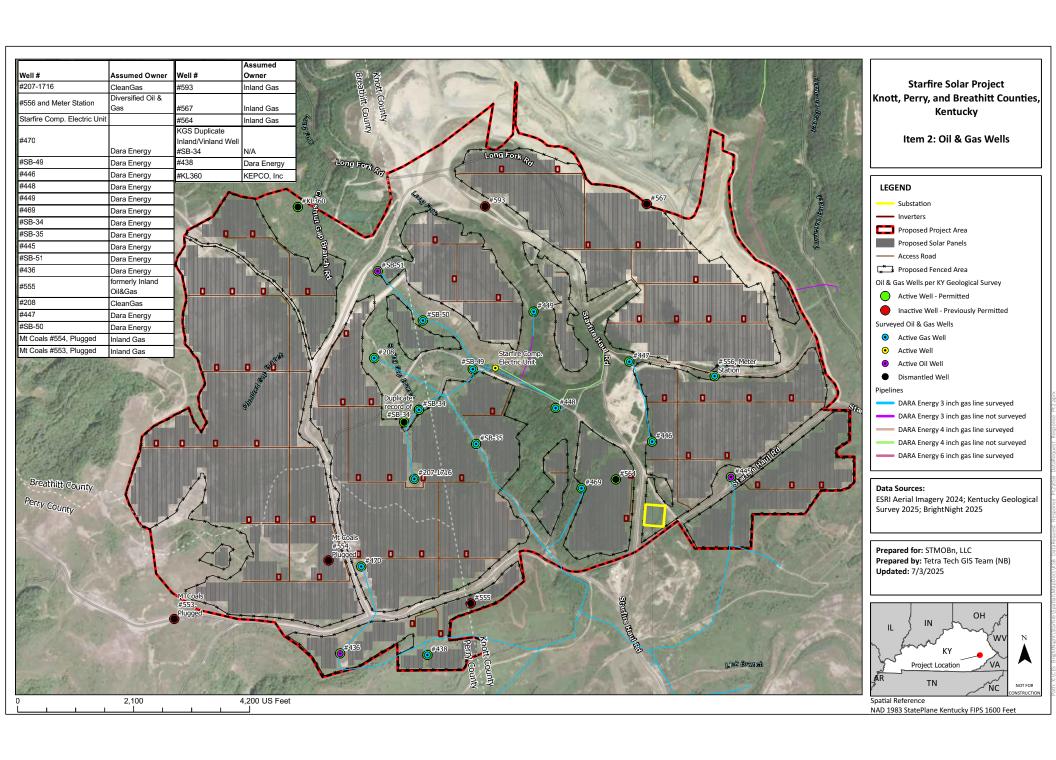
Response:

Please find the revised site map titled "Item 2: Oil & Gas Wells" attached, which includes the

surveyed pipelines, pipeline diameters, and pipeline owner names. The Project has not had further

communications with gas pipeline and well owners since those provided in RFI 2-6.

Responding Witness: Annie Winter



Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 3:

Explain whether Starfire will ensure all inactive gas wells are secured.

Response:

Starfire has obtained Affidavits confirming that most of the inactive wells identified in the map

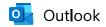
attached to the Response to Post-Hearing Request No. 2 above are plugged. See attached. The only

inactive well which Starfire could not obtain an affidavit for is well #KL360. However, well

#KL360 is outside of the Project footprint and Starfire does not intend to install generation

infrastructure near that dismantled well location.

Responding Witness: Annie Winter



#### Re: Brightnight Plugged & Abandoned Wellls

Prom Lindsey Moffitt

Date Tue 7/1/2025 10:44 AM

To Brian Patton <dexterbpatton@gmail.com>

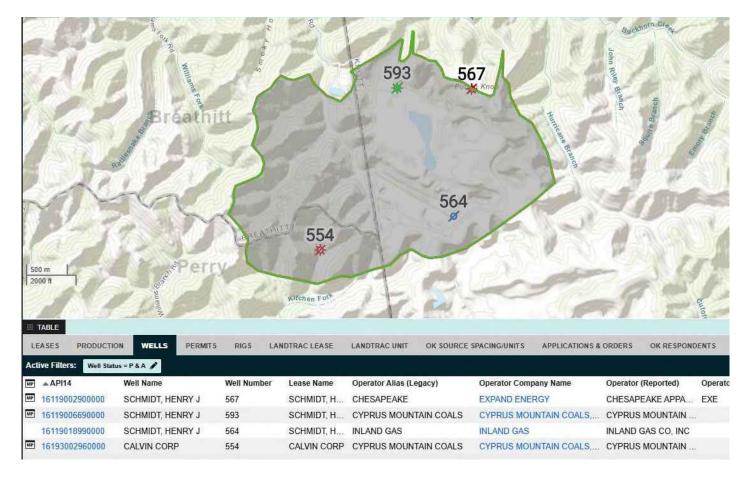
Cc Michael Ricci (Michael Ricci)

4 attachments (3 MB)

593\_Plugging Record.pdf; 554\_Plugging Record.pdf; 564\_Plugging Record.pdf; 567\_Plugging Record.pdf;

Hi Brian,

Here are those plugging records!





From: Brian Patton <dexterbpatton@gmail.com>

Sent: Tuesday, July 1, 2025 10:20 AM

To: Lindsey Moffitt Lindsey Moffith Cospec com

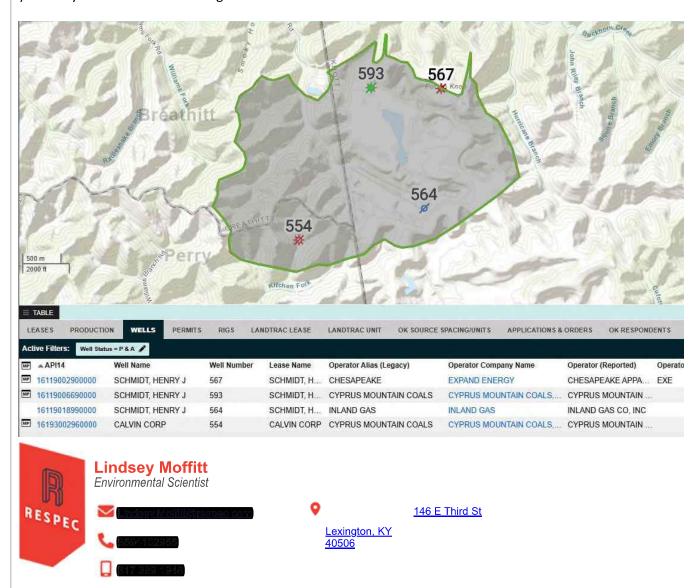
Cc: Michael Ricci Michael Ricci Cospec Com

Subject: Re: Brightnight Plugged & Abandoned Wellls

If you click on each well listing will it give you the actual plugging record? If so can you attach those to this map and remail.

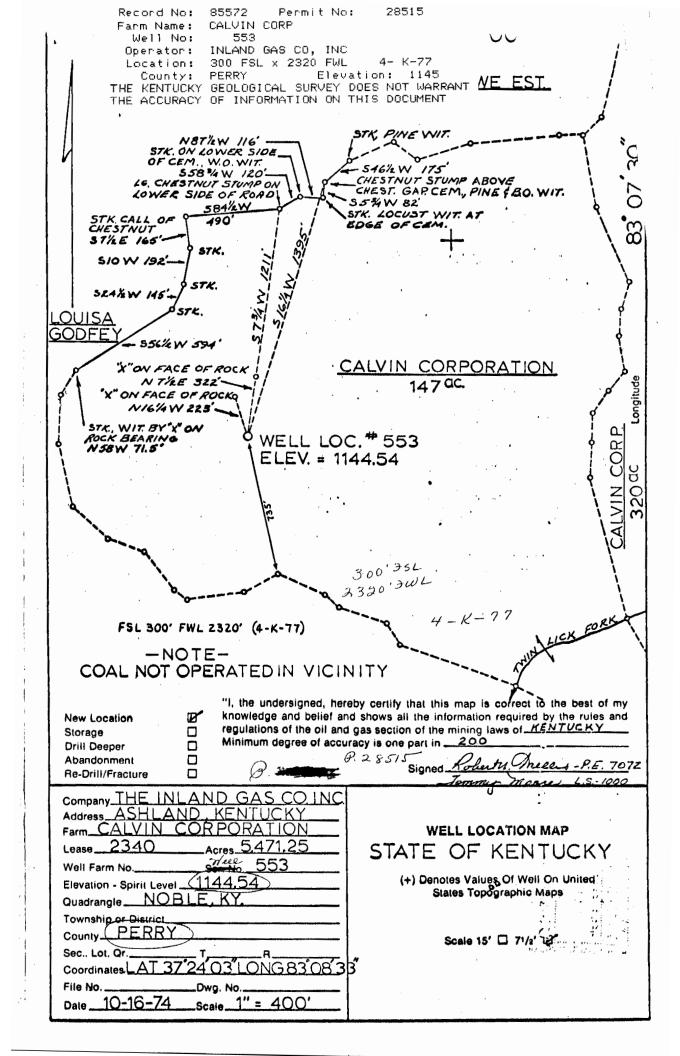
On Tue, Jul 1, 2025 at 9:31 AM Lindsey Moffitt Lindsey Moffitt wrote: Hi Brian,

Here is a screen capture from Enverus of the Plugged & Abandoned wells. Let me know if this format works for you or if you would like something else?



Confidentiality Notice: This E-mail and any attachments is covered by the Electronic Communications Privacy Act, 18 U.S.C. & 2510-2524, is confidential and may be legally privileged. If you are not the intended recipient, you are hereby notified that any retention, dissemination, or copying of this communication is strictly prohibited. Please reply to the sender that you have

received the message in error, and permanently delete the original and destroy any copy, including printed copies of this email and any attachments thereto.							



Record No: 85572 Permit No:

Farm Name: CALVIN CORP

Well No: 553

INLAND GAS CO, INC Operator: Location: 300 FSL x 2320 FWL

4- K-77 Elevation: 1145 County: PERRY

THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Oab

LEXINGTON, KY.

# WELL LOG AND COMPLETION REPORTAGE 2 9 1975

28515

TO BE FILED IMMEDIATELY AFTER COMPLETION OF WELL

DEPT. OF MINES & MINERALS OIL & GAS DIVISION

NOTICE: IT IS NECESSARY TO SUB	MIT A RECORD FOR EACH PERMIT. LEXINGTON, KENTUCKY
WELL IDENTIFICATION Permit No. 28515  Operator The Inland Gas Company, Inc.  Farm Name Calvin Corporation  Well No. 553	TYPE OF COMPLETION (CHECK ONE)           Dry Hole
TYPE OPERATION (CHECK ONE)  County Perry  Carter Coordinates 4 K 77 (ISCOTION)  (ISCOTION)  County Perry  Carter Coordinates 4 K 77 (ISCOTION)  (ISCOTION)  COUNTY PORTY  (ISCOTION)  COUNTY PORTY  (ISCOTION)  COUNTY PORTY  (ISCOTION)  (ISCOTION)	Pressure Maintenance or Secondary Recovery: Secondary Recovery: Water Injection
\$ W  ELEVATION 1144.54 (ground) 1146.54 (K.B.)	Notural   Show oil and gas   Date   1/1/75     After Treatment   175 MCF   Date   6/4/75
TOTAL DEPTH  Driller's Log 2100 <sup>†</sup> Geophysical Log 2096.5 <sup>†</sup> OPERATIONAL DATES	30 BOD  COMPLETION INTERVAL Formation Name(s) Interval(s) Big Lime 2016' - 2022'
Date	
Placed in Operation (IF PRODUCINE, INJECTION, ETC.)  Date Shut-in (IF SHUT-IN PRODUCER OR OTHER TEMPORARILY BUSPERSED OPERATION)	(CHECK APPLICABLE BOXES):  WELL TREATMENT (N OPEN THRU HOLE PERFORATION  Shot
Contractor(s): Johnson Drilling Company	Acid   2000   gale 2016 - 2022   interval
Address: P. O. Box 844  Martin, Kentucky 41649	Fracture gals Interval
TYPE(S) OF GEOPHYSICAL LOGS RUN: (Electrical, induction, sonio, gamma ray, neutron, density, etc.)	CASING RECORD    SIZE   DEPTH   SXS CEMENT   CSG PULLED
Gamma Ray  Mechanical Caliper - Diff. Temperature -  Gamma Ray - Density	7" 1868' 1658' 4 1/2" 2111' 40
1217'-1227'   Sand   Show gas   Show of   Sh	Remarks HOWB OF GIL AND/OR GAB, FILL-UP TESTS, DST'S, CORES, ETC.)
KENTUSKY	GEOLOGICAL SURVEY
The above information is complete and correct.	Supr. of Production Operations

#### FORMATION RECORD

The same of the sa

From	То	Rock Type (describe rock types and other materials penetrated and record accurrences of oil, gas and water from surface to total depth)	Frem	То	Rock Type (describe rock types and other materials penetrated and record occurrences of oil, gas and water from surface to total depth)
0	60	Fill dirt			
60	308	Slate			
308	432	Sand, water @ 315'			
432	488	Slate			
488	490	Coal			
490	880	Slate		ĺ	
880	920	Sand			
920	1020	Slate, show gas @ 1217' to 1227		<b>.</b>	
1020	1372	Sand, water @ 1320'		]	
1372	1375	Slate			
1375	1395	Sand			
1395	1420	Slate			
1420	1460	Sand			
1460	1465	Slate			
1465	1495	Sand			
1495	1615	Slate and shells			
1615	1630	Sand			
1630	1633	Red Rock			
1633	1648	Slate			
1648	1690	Sand			
1690	1818	Slate			• •
1818	1845	Little Lime			
1845	1848	Slate			
1848	2046	Big Lime, show oil @ 2038' to 2046'			
2046	2053	Keener			
2053	2096	Red Rock			
	2096	TOTAL DEPTH			
			28515		

Farm Name: CALVIN CORP
Well No: 553
Operator: INLAND GAS CO, INC
Location: 300 FSL x 2320 FWL 4- K-77
County: PERRY Elevation: 1145
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
THE ACCURACY OF INFORMATION ON THIS DOCUMENT

1 1415.	ACCORMO	01, 1141	210 11 1 2 2 2 1		

## KENTUCKY GEOLOGICAL SURVEY WELL TICKET

### TIGHT FORMATION CARD

REFERENCE NO.										
C	COD	ΤΥ E	PERMIT NO. SEPORTED							
2	3	4	5	6	7	8	9	Ю	11	
	9	3	<u> </u>	Ø	5	1	5	2	4	

Duplicate columns 2-11 on each cord coded on this page

	<u> </u>	T inia page							
TOP	BOTTOM	FORM.	NAME	NATURAL (UNTREATED) OPEN FLOW IN MICE		SOURC	FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMICIALO
	18 2046	333B		30 31 32 33 3 1 O E			41 42 43 44 FRAC	45 46 47 48 49	50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
₹ Fai	cord No: rm Name:	85572 CALVIN	CORP	mit No:	285	515	<u> </u>	INITIAL FYER TREATMENT) OPEN FLOW IN MCF	COMMENTS S
7 0	Well No: perator: ocati <mark>on:</mark>	300 FS	GAS C	00, INC 320_FWL	4- H			5 46 47 48 49	50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
THE	County: KENTUCKY ACCURACY			BURVEY (	ation: DOES NOT THIS DOO		ARRANT	INITIAL FTER TREATMENT) OPEN FLOW IN MCF	COMMENTS E
7	3 16 17 18 13 20 21	22 23 24 25	26 27 28 29	30 31 32 55 5	4 35 36 37 38	39140	41 42 45 44	45 46 47 48 49	50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
TOP	BOTTOM	FORM,	NAME	NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILIT (md)	SOURCE	TREATMENT (ACID, SHOT, FRAC, NOME)	INTTIAL (AFTER YREATMENT) OPEN FLOW IN INCF	COMMENTS E
7	5   6   17   18   19   20   21	22 23 24 25	26 27 28 29	30 31 32 33 3	4 35 36 37 38	59 40	41 42 43 44	45 46 47 48 49	50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 55 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
TOP	TERVAL BOTTOM	FORM/	NAME	NATURAL (UNTREATED) OPEN FLOW IN MCF 8	PERMEABILIT (md)	SOURC	FRAC, NOME	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS
7	16 17 18 19 20 21	22 23 24 25	26 27 28 29	30 31 32 33 34	35 36 37 38 3	59 40	4) 42 43 44	45 46 47 48 49	50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
TOP	TERVAL BOTTOM	FORMA CODE	NAME	NATURAL (UNTREATED) PEN FLOW N MCF	PERMEABILIT	SOURC	TREATMENT (ACID, SHOT, FRAC, NOME)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS
7 13 14 15	16 17 18 19 20 21	22 23 24 25	26 27 28 29	30 31 32 33 34	35 36 37 38 3	9 40 4	41 42 43 44	45 46 47 48 49	50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

# COMMONWEALTH OF KENTUCKY DEPARTMENT OF MINES & MINERALS DIVISION OF OIL AND GAS P. O. BOX 2244 FRANKPORT, KY 40601 PHONE (502) 573-0147



#### AFFIDAVIT TO TIME AND MANNER OF PLUGGING AND FILLING WELL AS REQUIRED BY LAW

(TYPE OR PRI	

Appalachia	ın Realty	y Company (	Cypri	os Mtn (	Coals)	)	
INLAND GA	S CO				,		
NAME AND ADDRE							
AME AND ADDRE	. 7 -						
PERMIT NO	28515	, ELEVATIO	DN 1144 Ex	.54 , COUNT	Y PER	RY , TOTAL DEPTH 2096	
CARTER COO	RDINATES	3_0300F	SL, <u>2320</u>	FWL, SEC	4	, LETTERK, NUMBER	77
FARM OWNE	R (LESSOR	)CALVIN	CORPOR	ATION		WELL NUMBER 553	
AFFIDAVIT TO B	E MADE IN 1	TRIPLICATE, ONE C	OPY TO BE	MAILED TO THE DEP	ARTMENT (	OF MINES AND MINERALS, ONE COPY	TO BE
RETAINED BY TH RESPECTIVE AD		ERATOR AND THE	THIRD TO BE	E MAILED BY REGIST	ERED MAIL	L TO EACH COAL OPERATOR NAMED A	T THEIR
			A	FFIDAVIT		0085572007	
STATE OF KE			,				
COUNTY OF			} ss:		ill		
TERRET CWEAT	TUAT TUE	PI LICCING OF SA	ID WELL WA			F THE ABOVE CAPTIONED WELL DOE O INSTRUCTIONS FROM THE OIL ANI	
INSPECTOR ANI	ACCORDIN	G TO CHAPTER 35	3 OF THE K	ENTUCKY REVISED S E BACK OF THIS FOI	STATUTES	on 8-17-01 XXX	
PLUGGED:						(PLUG DESCRIPTION) 30 sks CLASS A CEMENT	
LOGGED.							
	FROM _	1657	10	1557	with _	46 sks CLASS A CEMENT	
	FROM	1350	то	1200	WITH _	70 sks CLASS A CEMENT	1
	FROM	550	то _	450	WITH _	58 sks CLASS A CEMENT	
	FROM	350	то	250	with _	58 sks CLASS A CEMENT	1
	FROM	100	то	0	WITH _	78 sks CLASS A CEMENT	
	FROM		то		WITH _	,	
						,	
INDICATE BELO						ND WHERE IT WAS SHOT OFF.	
						BOTTOM OF CASING AT 6	2
						BOTTOM OF CASING AT5	1
						BOTTOM OF CASING AT 2	
						VAL. 10 3/4 PERF @ 500	
			DICATE THE	INTERVAL ()		350,300,200,100,5	0
		0."		INTERVAL	-1000		
BORE HOLE SIZ	-	OTHER STEEL OR	IIINK WAS	LEFT IN THE WELL	AND DESC	CRIBE:	
SIAIE WILLII	EK OK NOT	OHIER BIRBE ON				31	
	<b>/</b>			NEY OSBORNE J WELL SER	VICE I		
(OPTIONAL)	SIGNATUR	E OF CONTRACTO	RESPONSIB	LE FOR ABOVE PLUG	GING	TITLE	
(REOURED)	SIGNATUR	E OF OPERATOR R	PSEON SIBLE	FOR ABOVE PLUGGI	NG	Mgr. of Technical Serv	ices
		CRIBED BEFOR		- +f		DAY OF <u>SEPTEMBER</u> . 19	2001
					Wa	my W Jambs	
1000000	ector can	PIRES: 1/2	3/02	1	1	NOTARY PUBLIC	
		,	,	1.	SEP	12 3004	OVED
ALL BLANKS MU PORM ED-38 (REV		ETED. INCOMPLETE	affidavits w	ILL BE REJECTED.			OVER

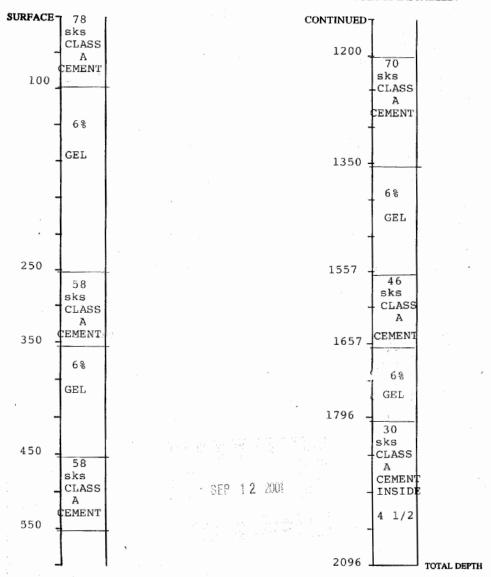
#### CEMENT TABLE

	2855 ()		
8 3/4"	10"	12"	16"

DATE

					III B II II II II II I II I II I II I						
HOLE SIZE	2"	3"	4"	5"	6 1/2"	8"	8 1/2"	8 3/4"	10"	12"	16"
NO. FT. FILLED PER											1
SACK OF CEMENT*	45'	20'	11'	7'	4'	2 3/4'	2 1/2*	2 1/3	2'	l'	1/2
* I CURIC FOOT PER SA	CK					-					

GRAPHICALLY SHOW BELOW THE LOCATION AND INTERVAL OF ALL PLUGS INSTALLED.



IF THE WELL IS TO BE LEFT AS A DOMESTIC WATER WELL, PLUG ACCORDING TO THE INSPECTORS INSTRUCTIONS, COMPLETE THIS FORM ON BOTH SIDES AND HAVE THE FOLLOWING AFFIDAVIT SIGNED BY THE REAL ESTATE OWNER.

#### AFFIDAVIT

	7 •						
	*						
. I,							ICH THIS WELL WAS
DRILLED, DE	SIRE THAT THE WEL	LL BE LEFT OPEN FROM T	THE FRI	SH WATER ZONE TO	THE SURFACE	FOR USE AS A	WATER WELL AND DO
HEREBY ACC	EPT THE FULL RESP	ONSIBILITY FOR SAID WA	ATER W	ELL. THE OIL OPERA	TOR REMAINS	RESPONSIBLE	FOR ALL PLUGS
BELOW THE	RESH WATER ZONE	3		•			
			1	1.44 1000 4	ar je li	1	

SIGNATURE OF OWNER OR HIS AGENT



# COMMONWEALTH OF KENTUCKY DEPARTMENT OF MINES & MINERALS DIVISION OF OIL AND GAS P. O. BOX 2244 FRANKFORT, KY 40601 PHONE (502) 573-0147



# AFFIDAVIT TO TIME AND MANNER OF PLUGGING AND FILLING WELL AS REQUIRED BY LAW

(TYPE OR PRINT IN INK)

CYPRUS NAME AND ADDRE	S COAL CO	D. RATOR								
CNR NAME AND ADDRE	SS OF ORIGINAL	OPERATOR		discovered to the same that the same of		The state of the s				
CY PRUS	COAL C	0.								
PERMIT NO	28496	, ELEVATION	111	1.08 COUNT	Y_PER	RY , TOTAL DEPTH 197	5			
CARTER COO	RDINATES	1280 FSL	30	0 XXX FWL, SEC	· _3	, LETTER K , NUMBE	R_77			
FARM OWNER (LESSOR) CALVIN CORP WELL NUMBER 554										
AFFIDAVIT TO BE MADE IN TRIPLICATE, ONE COPY TO BE MAILED TO THE DEPARTMENT OF MINES AND MINERALS, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD TO BE MAILED BY REGISTERED MAIL TO EACH COAL OPERATOR NAMED AT THEIR RESPECTIVE ADDRESSES.										
			/	AFFIDAVIT						
STATE OF KE			1							
COUNTY OF		The second secon	_}ss:							
INSPECTOR AN	D ACCORDING	F TO CHAPTER 353 (	F THE	AS COMPLETED ACC	CORDING STATUTE	OF THE ABOVE CAPTIONED WELL DO TO INSTRUCTIONS FROM THE OIL AN S ON 1 = 24 20(	D GAS			
PLUGGED:	FROM _	1975	TO_	1925	WITH	12 sks class A cemer	nt			
	FROM	1600	то	1500	WITH	68 sks Class A cemer	nt			
	FROM	1150	то	1000	WITH	68 sks classs A ceme	ent			
	FROM _	450	то	600	with	68 sks class A cemer	nt			
	FROM	150	то	0	with	68 sks class A cemer	nt			
	FROM		то		WITH					
	FROM		то		with					
	FROM _		то		with	:				
INDICATE BELO	W THE SIZE A	ND INTERVAL OF A	LL CASI	NG LEFT IN THE WELL	L AND IF A	AND WHERE IT WAS SHOT OFF.				
CASING SIZE _	10"	_, INTERVAL _0-	-489	, SHOT OFF A	1	BOTTOM OF CASING AT	189			
į.						00 BOTTOM OF CASING AT				
CASING SIZE		_, INTERVAL		, SHOT OFF A	r	BOTTOM OF CASING AT				
IF CASING WA	S NOT LEFT I	N THE WELL, WINDIG	CATE TH	IE BORE HOLE SIZE	AND INTE	ECEIVE				
BORE HOLE SI	ZE10	" 0-1850		INTERVAL			IUII 📗			
BORE HOLE SI	ZE			INTERVAL		HULL FEB 17 2001				
STATE WHETE	IER OR NOT	THER STEEL OR JU	NK WA	S LEFT IN THE WELL	AND DE		us			
0.1	100			RODNEY OSBOR	RNE	DIVISION OF OIL AND GAS				
OPTIONALS	SIGNATURE	OF CONTRACTOR B		R&J WELL SEE		INC PRESIDENT TITLE				
X (ha	les ()	Sauch	и			UCH. TECHNICHE SER	uices			
,,				E FOR ABOVE PLUGG	ING	DAY OF FEBRUARY , 18	2001			
SWORN TO	AND SUBSC	RIBED BEFORE N	AE THI	s	$\left( \right) -$					
MV COMM	SCION DVDI	RES: 1/23	lan		Wann.	NOTARY PUBLIC	M155/0N			
		, ,				200EE7100E	OVED			
ALL BLANKS MU	ST BE COMPLET	ED. INCOMPLETE AFF	DAVITS	WILL BE REJECTED.		0085571005	OVER			

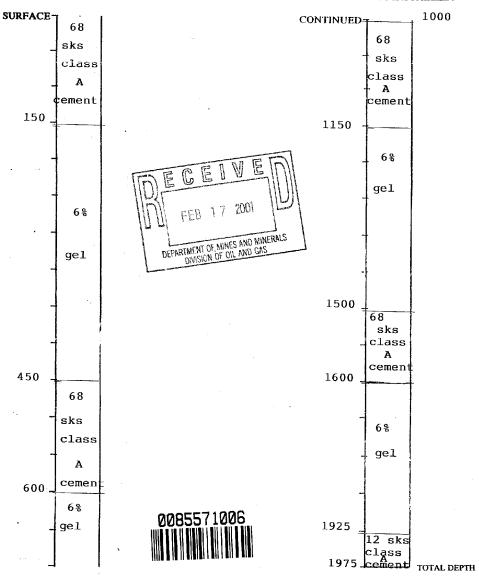
ALL BLANKS MUST BE COMPLETED. INCOMPLETE AFFIDAVITS WILL BE REJECTED FORM ED-38 (REV. 2-99)



#### CEMENT TABLE

					·						
HOLE SIZE	2"	3"	4"	5"	6 1/2"	R"	8 1/2"	8 3/4"	10"	127	167
NO. FT. FILLED PER							0 1/2	0 3/4	70	12	16"
SACK OF CEMENT*	45'	20'	11'	7'	4'	2 3/4'	2 1/2'	2 1/3	2'	1,	1/2
* I CURIC FOOT PEP SA	CK				<u> </u>			1,2		1	1/2

GRAPHICALLY SHOW BELOW THE LOCATION AND INTERVAL OF ALL PLUGS INSTALLED.

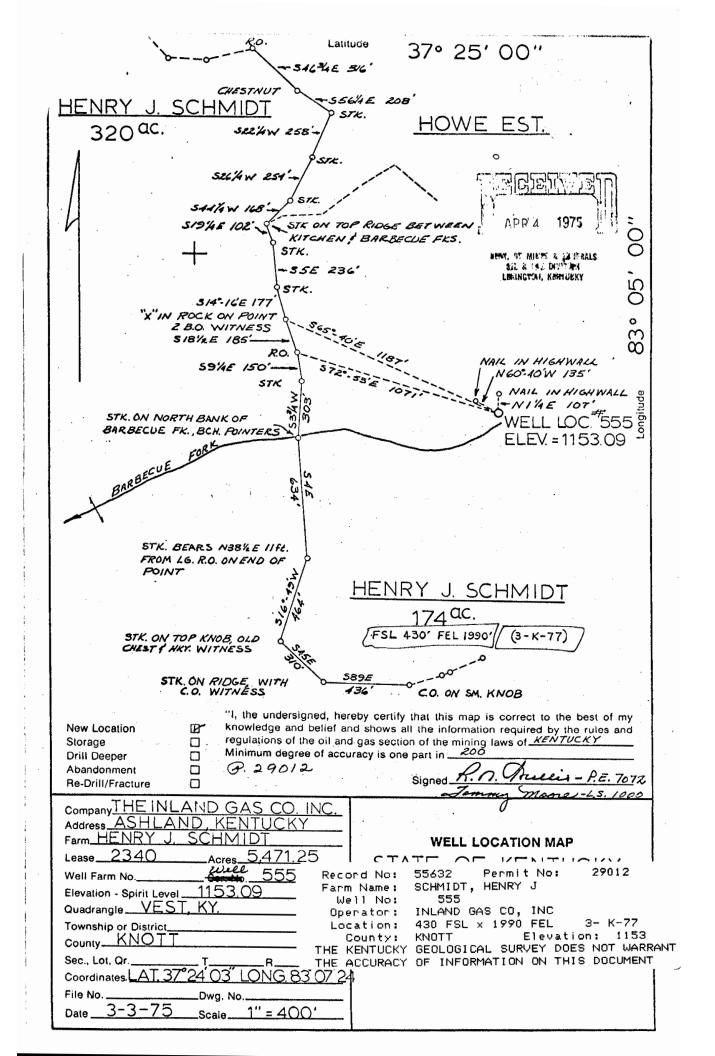


IF THE WELL IS TO BE LEFT AS A DOMESTIC WATER WELL, PLUG ACCORDING TO THE INSPECTORS INSTRUCTIONS, COMPLETE THIS FORM ON BOTH SIDES AND HAVE THE FOLLOWING AFFIDAVIT SIGNED BY THE REAL ESTATE OWNER.

#### AFFIDAVIT

, 1,	THE OWNER OF THE PEAL ESTATE ON WHICH THIS WELL WAS
DRILLED, DESIRE THAT THE WELL BE LEFT OPEN FROM THE FRESH	WATER ZONE TO THE SURFACE FOR USE AS A WATER WELL AND DO
HEREBY ACCEPT THE FULL RESPONSIBILITY FOR SAID WATER WELL	THE OIL OPERATOR REMAINS RESPONSIBLE FOR ALL PLUGS
BELOW THE FRESH WATER ZONE	

SIGNATURE OF OWNER OR HIS AGENT	DATE
---------------------------------	------



Record No: Farm Name: Well No:

Operator:

Location:

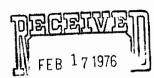
55632 SCHMIDT, HENRY J

Permit No:

555 INLAND GAS CO, INC

430 FSL x 1990 FEL 3- K-77

County: KNOTT Elevation: 1153
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT LS THE ACCURACY OF INFORMATION ON THIS DOCUMENT



### REPORT DIVISION LEXING CH, KENTUCKY WELL LOG AND COMPLETION

29012

TO BE FILED IMMEDIATELY AFTER COMPLETION OF WELL NOTICE: IT IS NECESSARY TO SUBMIT A RECORD FOR EACH PERMIT. 9/23/75

WELL IDENTIFICATION Permit No. 29012	TYPE OF COMPLETION (CHECK ONE)
Operator The Inland Gas Company, Inc. 7	Dry Hole Shut-In or Producing?
Form Name Calvin Corporation lenny & 5 ch	Producing
Well No. 555	GosX
#0   No.	Pressure Maintenance or SERVICE WELL:
	Secondary Recovery: Saltwater Disposal
TYPE OPERATION LOCATION	Water Supply
County Knott	Gas Injection Observation Well
New Well X Carter Coordinates 3 K 77	Gas Storage:
Workover Footoge from Section Lines:	Observation
Despening 430' from Fine 1990' from E line	INITIAL PRODUCTION
ELEVATION (1153.091 (ground) 1155.091 (K.B.)	Natural
(Kib.)	After Treatment 65 Mcf/10 BOPD Date 6-18-75
TOTAL DEPTH	
Driller's Log 2074 2083 Geophysical Log 20691	COMPLETION INTERVAL
ovolni) item toy	Formation Name(s) Interval(s)
OPERATIONAL DATES	Big Lime 2014-2022
Date Commenced 4-23-75 Date Drilling Completed 6-10-75	
Commences	- I THE RESIDENCE OF THE PARTY
Date Plaged Placed in Operation 9-23-75	
(IF DRY HOLE) (IF PRODUCING, INJECTION, ETC.)	CHECK APPLICABLE BOXERIS
Date	WELL TREATMENT IN OPEN THRU HOLE PERFORATION
Shut-in PRODUCER OR OTHER	Shot qts, interval
TEMPORABLY SUSPENDED OPERATION)	Shot qts interval [
DRILLING METHOD	Acid 2000 gals. 2014-2022 interval
Potesti conventional - from to	
Tools from Sur to 2074 Tools air - from to	
(DEPTHS) (DEPTHS)	Fracture 40,320 gale. 2014-2022 Interval
CONTRACTOR(S):Johnson Drilling Company	42,000 lbs/sand
Address: Martin, Kentucky 41649	Fracture gals.
	lbs/sand
TVATAL	CASING RECORD
TYPE(S) OF GEOPHYSICAL LOGS RUN: (Electrical, induction, sonie, germa ray, neutron, density, stc.)	16" 35" OKB CEMENT COS PULLED
n n n n n n n n n n n n n n n n n n n	77 7
Gamma Ray, Density, Temperature	
	4 1/2" 2076' 30
	OF OIL AND GAS
(DEPTHS-TOP, BASE)	Remarks (showe of oil and/or das, fill-up tests, dat's, cores, etc.)
2004-2007 Big Lime Show Gas	
2014-2023 Big Lime / Show 011	
E. T. Time	-1
122011	
1.2000	
KENTOCKY GEOLOGICA	
- surger of the	
The above information is complete and correct.	Signed W. A. Wather La.
2/13/76	,
Date	Title Supt. Production Operations

#### FORMATION RECORD

		FORMATI	DN RECO	RD	
, from	7.	Rock Type (describe rock types and other materials ponetrated and record accurrences of oil, gas and water from surface to total depth)	From	То	Rock Type (describe rock types and other materials penetrated and record occurrences of oil, gas and water from surface to total depth)
0 30 105 107 172 310 313 330 385 425 450 675 715 810 835 915 947 1020 1140 1274 1279 1400 1405 1550 1550 1625 1745 1760 1770 1850 1873 1876	30 105 107 172 310 313 330 385 425 450 675 715 810 835 915 947 1020 1140 1274 1279 1400 1405 1550 1565 1600 1625 1745 1760 1770 1850 1873 1876 2034	Fill Slate Coal, water 7 B. P. H. Sand Slate Coal Slate Sand Slate Slate Sand Slate Sl			
Fa C I	cord N Lrm Nam Well N Deration Count E KENTU E ACCUR	e: SCHMIDT, HENRY J lo: 555 r: INLAND GAS CO, INC on: 430 FSL x 1990 FEL 3	NOT WA	3 RRANT	

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF MINES AND MINERALS
OIL AND GAS DIVISION
BOX 690, LEXINGTON, KENTUCKY
40586



#### AFFIDAVIT TO TIME AND MANNER OF PLUGGING AND FILLING WELL AS REQUIRED BY LAW

(Type or Print)

,,,,	•												
INLA	ND GAS	COMPAN	Y -	P.	Ο.	BOX	1180	-	ASHL	AND,	KENTUCKY	411	01-1180
Name and A	ddress of La	ast Operator											
INLA	ND GAS	COMPAN	- Y	Ρ.	٥.	BOX	1180	_	ASHL.	AND,	KENTUCKY	411	01-1180
Name and A	ddress of O	riginal Opera	tor Who	First P	ermitte	ed and [	Drilled This	Well					
Name and A	ddress of C	oal Operator				-							
Permit No	2901	2 ,	Elevation		115	3.09	, Cou	anty	Knot	t	, Total Depth	2	074'D.D
Carter Coordi	inates	430'	*위 FS	NL SL	199	0	FEL *WK. Sec.	3		. Lette	,K	Number	77
		Calu-	in Co	rnar	ra+i								555
Farm Owner	(Lessor) _	Carvi									Well No	ımber	
Affidavit to and the third											e copy to be retain	ed by the	e Well Operato
	00, 10 00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		AFFIDAVIT			01110 00	00556320	אמב	
STATE OF KI	ENTUCKY					1				ı			
COUNTY OF						SS:							
INLA	AND GAS	COMPAN	NΥ			,						Operati	or of the abov
captioned we to Chapter 35	II does heret	by swear that	the plugg	ing of	said w	ells was	completed 28,	accordi	ng to instru		rom the oil and gas cord of which is li	inspecto	r and accordin
the back of t		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						,		,	(Plug Description		W OI SHOWIT
PLUGGED:	From _	1750'		To				With	Cas	t Ir	on Plug		
	From _	1450'		То		1400	) '	With	25	sks.	cement		
	From _	550 <b>'</b>		То		500'		With	25	sks.	cement		
	From _	330'		То		295'		With	26	sks.	cement		
	From _	125'		То		851		With	37	sks.	cement		
	From			To				With					
	From			To				With	Doo	k an	d clay be	tween	all
	From _			To				With	O O T	ent	plugs		
Indicate be	low the size	e and interva	of all ca	ising le	eft in t	the well	and if and	where i	t was sho	et off.			
Casing Siz	ze <u>4</u>	1/2",	Interval	0-	-207	6	, Sho	t Off at	161	.5'	Bottom of Cas	ing At _	2076'
Casing Siz	7"		Interval				Sho	t Off A	150	6'	Bottom of Cas		1888'
Casing Siz	ze		Interval						t				
		t in the well,						. 011 7			Dottom of Cas	mg At _	
	. 1.0						- 496	. 1					
Bore Hole S	0	3/4"		. Interv	/a!		- 188		_				
Bore Hole S	3126		ingle was	interv									
State Wilet	iner or not t	other steel or	Junk was	s lett i	n the	well and	describe:						
	Mine 1	Polit	Dai	lling	Co	ly	Role	<b>♦</b> 5.	Roles	<del>-</del>	Mgr		
(Optional)	Signature	of Contracto	r respons	sible fo	or abov	ve plugg	ging				T⊭¶e		
Kon	i w.le.l	1 / 10/2	mi	SI.	/ ( )	1					Tech		
(Required)	Signature	of Operator	responsit	ole for	above	pluggir	ng				Title		
Sworn to and	d subscribed	d before me t	this	28		day	/ of	4)	one	nel	م	1	9 88
							7	$\sim$		P	Tools	01	
		8 )	10	9			¥	Ju	icy	Nota	ry Public	9	
My commissi	ion expires:	0-2	6-8						,				

All Blanks must be completed. Incomplete affidavits will be rejected. Revised 2-84

55630 Record No:

Permit No:

30697

SCHMIDT, HENRY J Farm Name: Well No:

564

AFFIDAVIT TO TIME AND MANNER OF PLUGGING AND FILLING WELL AS REQUIRED BY LAW

Well No:
Operator: INLAND GAS CO, INC
Location: 2600 FSL x 700 FWL 2- K-77
County: KNOTT Elevation: 1421
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT TH!

		INFORMATIO							
INLAND	GAS CO	MPANY - P. O.	BOX 1180 -	ASHLAND,	KENTU	CKY 4110	)1		
Name and Add	dress of La	st Operator							
"SAME"									
Name and Add	dress of O	riginal Operator Who	First Permitted an	d Drilled This	Well				
MOUNTAL	IN COAL	s, INC P.	O. BOX 423	- BULAN,	KENTUC	KY 41722	2		
Name and Ade	dress of Co	oal Operator						· · · · · · · · · · · · · · · · · · ·	
Permit No.	30697	, Elevatio	n <u>1420.72</u>	, Co	unty K	nott	, Total	Depth233	7'
Carter Coordin	ates	26001	90% SL, 700	<b>) XXX</b> FWL, Sec.	2	, Let	er K	, Number	77
arm Owner (L	essor)	Henry J. Schm	udt				\	Vell Number	564
Affidavit to I	be made in	triplicate, one copy t	to be mailed to the	Department of	of Mines a	nd Minerals, o	ne copy to be	retained by th	e Well Operato
and the third t	сору то ве	mailed by registered	mail to each Coal	Operator nan	ned at the	in respectives	od esset		
				AFFIDAVIT	Г : { ў	MAY G	1997		
STATE OF KE	NTUCKY,		) s:	S:	- I mener	g		ILJ	
COUNTY OF _			)		;. , i	A March C.	in Carlotterical	** ** ********************************	
	GAS CO							, Operati	or of the abov
captioned well to Chapter 35:	does hereb 3 of the Ke	y swear that the plug intucky Revised Statu	ging of said wells v utes onMan	vas completed Ch 13,	according 19			ind gas inspecto ch is listed belo	
the back of th	is form.	•					(Plug Desc		
PLUGGED:	From _		то220	<u>o'</u>	With .	Set cas	iron br	idge plug	•
	From _	1550'	то 150	0'	With .	Brush B	cidge & F	ock & Cla	У
	From _	1500'	то146	0'	With .	22 sks.	cement		
	From	1000'	то975	ı	With	14 sks.	Cement		
	From _	500'	To 475	1	With	14 sks.	cement		
	From _	310'	280			30 sks.			
	_		10		With				
	From _		το		With .	Dools and	1 Class be	+raon =11	
	From _	······································	То		With ,	plugs.	Clay De	tween all	Cellette
Indicate belo	ow the size	and interval of all c	asing left in the w	ell and if and	where it	was shot off			
	1	1 /2"				1940'			2328'
Casing Size		1/2 . Interva		,	ot Off at		Bottom	of Casing At _	2020
Casing Size		, interva	l	, Sho	ot Off At	**************	Bottom	of Casing At _	
Casing Size		. Interva	1	, Sho	ot Off At		_ Bottom	of Casing At _	
If casing wa	s NOT left	in the well, indicate	the bore hole size	and interval.					
Bore Hole Si	ize 12	1/4"	_ Interval	0 -464'					
	QII		4	64' - 213	381	-			
Bore Hole Si			_ interval			None			
State wheth	er or not o	other steel or junk wi	as left in the well i	and describe:		None	3 		
	Oliv	enm. Ro	ofeits	-		Cor	ntractor		
(Optional)	Signature	of Contractor respon	nsible for above plu	ngging			Tí	tle	
$\underline{\mathcal{U}}$	1.1	laten.	Ja.	· · · · · · · · · · · · · · · · · · ·	Pa	odurt	in M	anage	1
(Required)	Signature	of Operator respons	ible for above plug	ging			Ti	lie Ø	
Sworn to and	subscribed	before me this	4th	day of		MAY		, 1	9 87
		1			$\Omega$	-/1	2		
					Nm.	i) []	(prints	 1214	
Mv commissio		8/11/90		-		Not	ary Public	1	

Record No: 55630 Permit No: 30697
Farm Name: SCHMIDT, HENRY J
Well No: 564
Operator: INLAND GAS CO, INC

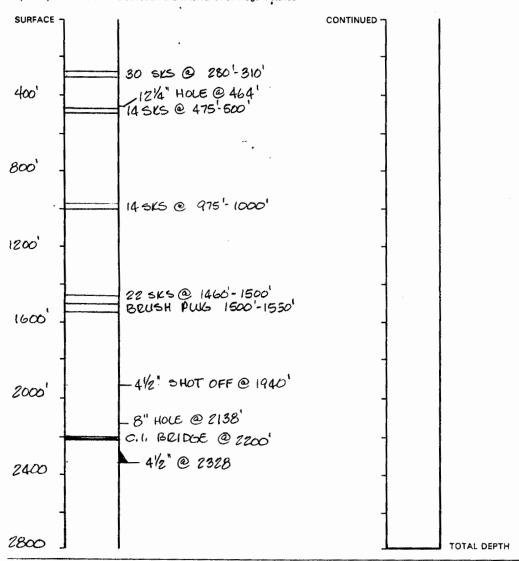
Operator: INLAND GAS CO, INC
Location: 2600 FSL x 700 FWL 2- K-77
County: KNOTT Elevation: 1421
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Hole Size	2''	3′′	4"	5′′	61/211	8"	8 1/2 "	8%''	10''	12''	16"
No. Ft. Filled per sack of cement*	45′	20'	11'	7′	4'	2%'	21/2'	2%'	2'	1′	<b>y</b> , '

<sup>\*1</sup> cubic foot per sack

1

Graphically Show Below the Location and Interval of all Plugs installed



If the well is to be left as a domestic water well, plug according to the Inspectors instructions, complete this form on both sides and have the following affidavit signed by the real estate owner.

#### AFFIDAVIT

l,	, the owner of the real estate on which this well was
drilled, desire that the well be left open from the fresh water zone to the surface for use as a	a water well and do hereby accept the full responsibility
for said water well. The Oil Operator remains responsible for all plugs below the fresh wa	iter zone.



COMMONWEALTH OF KENTUCKY **DEPARTMENT FOR NATURAL RESOURCES** DIVISION OF OIL AND GAS

P. O. Box 2244 Frankfort, KY 40602

Phone: (502) 573-0147 Fax: (502) 573-1099



AFFIDAVIT TO TIME AND MANNER OF PLUGGING AND FILLING WELL AS REQUIRED BY LAW

Rarboth a Cusick

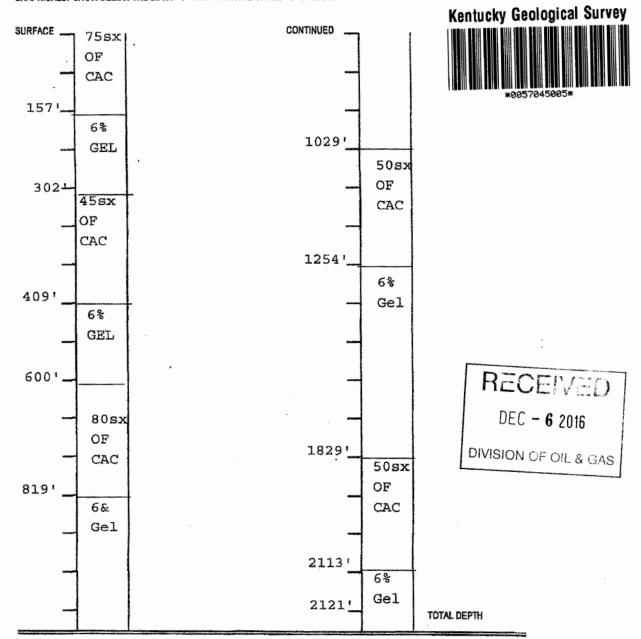
	RESS OF LAST OF Inland Gas ( ADDRESS OF ORIG							
B1	DRESS OF ORIGINAL ack Hawk ADDRESS OF COAL	Mining	z LLC, 3228	Summit Square	e Place, Su	ite 180,	Lexington, KY	40509
E-MAIL ADD	PRESS PET BAL OP	ERATOR	ELEVATION 14	20.8 COUNTY	, Knott	т	TOTAL DEPTH 2121'	
CARTER COORDINA	TES 15	00 B.F.			LETTER	L	NUMBER 77	
FARM OWN	ER (LESSOR) H	enry J.	Schmidt	-	WELL N	JMBER	567	
STATE OF	KENTUCKY, WY	AFFID	D MAIL TO EACH COAL O DAVIT SS:	TO THE DIVISION OF OIL AND PERATOR NAMED AT THEIR	RESPECTIVE ADDRESSE	CHARLOT  State of  My Comm Fx  Chesapeable	LIC OFFICIAL SEAL TE A. CULLIFER West Virginia rpires Sep 11, 2020	
WELL WAS	COMPLETED ACCO					HEBY SWEAR TH	HAT THE PLUCKY REVISED	
STATUTES	ON 1-14-16 (PLUGGED D	ATE)		ED BELOW OR SHOWN ON T	THE BACK OF THIS FORM	l.		
PLUGGED:			T829	WITH 50sx	of Class A	ESCHIENT.		
PLUGGED:		то	10291	WITH	of Class A			
PLUGGED:	FROM 819'	TO	600'		Class A Cemen			
PLUGGED:		то	302'	*******	of Class A			
PLUGGED:	FROM_157'	то	Surface	with 75sx c	of Class A	Cement		
PLUGGED:	FROM	то		WITH				
PLUGGED:	FROM	то		WITH	12.0.1			
PŁUGGED:	FROM	TO		WITH				
CA CA	ASING SIZE 16" ASING SIZE 7"	3/4" IN	TERVAL 027' TERVAL 035 TERVAL 0211	SHOT OFF AT 66	BOTTOM OF CAS  BOTTOM OF CAS  BOTTOM OF CAS	ING AT	27'	
IF CA	SING SIZE 7 11	casin	WELL, INDICATE THE BO	ORE HOLE SIZE AND INTERV INTERVAL 10"	hole from	665' to	356',	
CA	SING SIZE						ing (cemente	d to
L				surf	face) from	356' to	RECI	IVE
(OPTIONAL)	SIGNA	TURE OF CO	INTRACTOR RESPONSIB	LE FOR ABOVE PLUGGING	TITLE		DEC -	<b>6</b> 2016
~	8.010			(,	mp/etrous	+		

R# 57045

HOLE SIZE	2"	3"	4"	5"	6 1/2"	8°	8 1/2"	8 3/4"	10"	12"	16"
NO. FT. FILLED PER SACK OF CEMENT*	45'	20'	, 11°	r	4'	23/4'	2 1/2"	2 1/3'	2'	1'	1/2

<sup>&</sup>quot;I CUBIC FOOT PER SACK

GRAPHICALLY SHOW BELOW THE LOCATION AND INTERVAL OF ALL PLUGS INSTALLED.



IF THE WELL IS TO BELEFT AS A DOMESTIC WATER WELL, PLUG ACCORDING TO THE INSPECTOR'S INSTRUCTIONS, COMPLETE THIS FORM ON BOTH SIDES AND HAVE THE FOLLOWING AFFIDAVIT SIGNED BY THE REAL ESTATE OWNER.

#### AFFIDAVIT

Į	, THE OWNER OF THE REAL ESTATE ON WHICH THIS WELL WAS DRILLED.
١	DESIRE THAT THE WELL BE LEFT OPEN FROM THE FRESH WATER ZONE TO THE SURFACE FOR USE AS A WATER WELL AND DO HEREBY
	ACCEPT THE FULL RESPONSIBILITY FOR SAID WATER WELL. THE OIL OPERATOR REMAINS RESPONSIBLE FOR ALL PLUGS BELOW THE FRESH
	WATER ZONE.

# COMMONWEALTH OF KENTUCKY DEPARTMENT OF MINES AND MINERALS DIVISION OF OIL AND GAS P.O. Box 2244 FRANKFORT, KY 40601 PHONE (502) 573-0147

### R# 57046 AFFIDAVIT TO TIME AND MANNER OF PLUGGING AND FILLING WELL AS REQUIRED BY LAW

(TYPE OR PRINT IN INK)

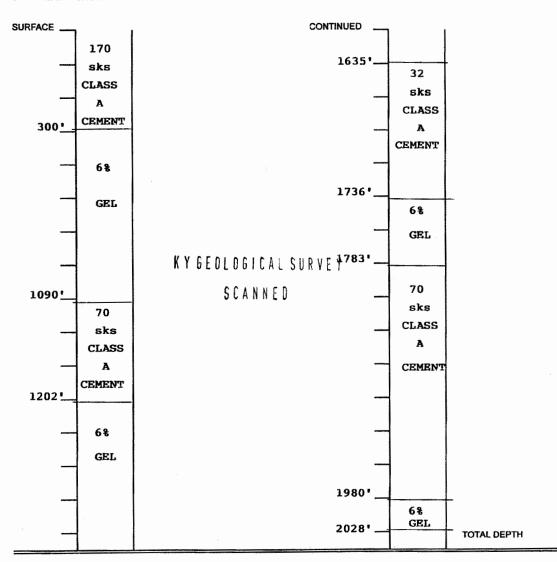
	(	
	CYRPUS MT COAL	
The state of the s	NAME AND ADDRESS OF LAST OPERATOR	
	E-MAIL ADDRESS OF LAST OPERATOR INLAND GAS CO INC	
	NAME AND ADDRESS OF ORIGINAL OPERATOR	
	E-MAIL ADDRESS OF ORIGINAL OPERATOR	
	NAME AND ADDRESS OF COAL OPERATOR	
	E-MAIL ADDRESS OF COAL OPERATOR	
	PERMIT NO. 33727 ELEVATION 1150 COUNTY KNOTT TOTAL DEPTH 20	128'
	CARTER FNL X FEL COORDINATES 1540 X FSL 1525 FWL SEC 23 LETTER L NUMBER _	<b>7</b> 7
K A GEOLOGICAT SALAE.	FARM CHARLED (LEGGOD) SCHMIDT. HENRY J	
	AFFIDAVIT TO BE MADE IN TRIPLICATE, ONE COPY TO BE MAILED TO THE DEPARTMENT OF MINES AND MINERALS, ONE COPY TO BE	
SCANNED	BY THE WELL OPERATOR AND THE THIRD TO BE MAILED BY REGISTERED MAIL TO EACH COAL OPERATOR NAMED AT THEIR RESPECTABLE.	ERETAINED CTIVE
	AFFIDAVIT STATE OF KENTUCKY.	
	COUNTY OF PURY SS:	
	( live of the live	
	, OPERATOR OF THE ABOVE CAPTIONED WELL DATE OF THE ABOVE CAPTIONED WELL DESCRIPTION OF THE ABOVE CAPTIONED WELL DATE OF THE OFFICE OF THE ABOVE CAPTIONED WELL DATE OF THE OFFICE OF THE OFFICE OF THE	IOES NSPECTOR
	AND ACCORDING TO CHAPTER 353 OF THE KENTUCKY REVISED STATUTES ON 3.27-15, RECORD OF WH  BELOW OR SHOWN ON THE BACK OF THIS FORM. (PLUGGED DATE)	
	(PLUG DESCRIPTION)	
	PLUGGED: FROM 1980 TO 1763 WITH 70 SKS CLASS A CEME	
	PLUGGED: FROM 1736 TO 1635 WITH 32 SKS CLASS A CEME	NT
	PLUGGED: FROM 1202 TO 1090 WITH 70 sks CLASS A CEME	NT
	PLUGGED: FROM 300 TO 0 WITH 170 sks CLASS A CRME	NET
Kentucky Geological Survey	PLUGGED: FROM TO WITH	
:	PLUGGED: FROMTO WITHTO	news Sand
	PLUGGED: FROM TO WITH ADD 69 204	· <b>E</b>
	PLUGGED: FROM TO WITH APR 2 2 201	3
	DIVIDION OF OIL	00101
*0057046006*	INDICATE BELOW THE SIZE AND INTERVAL OF ALL CASING LEFT IN THE WELL AND IF AND WHERE IT WAS SHOT OF OIL	
	CASING SIZE 16" INTERVAL 0-271 SHOT OFF AT BOTTOM OF CASING AT 2  CASING SIZE 11 3/4" BUTTOM OF CASING AT 2	
		30'
	CASING SIZE 8 5/8" INTERVAL 0-1818" SHOT OFF AT BOTTOM OF CASING AT 1	818'
	IF CASING WAS NOT LEFT IN THE WELL, INDICATE THE BORE HOLE SIZE AND INTERVAL:	
	CASING SIZE INTERVAL	
	CASING SIZEINTERVAL	
	PERFD): CASING @ 1730,1700,1185,1135,280,230  R & J WELL SERVICE INC	0,150,1
	RODNEY OSBORNE PRESIDENT	
	(OPTIONAL SIGNATURE OF CONTRACTOR RESPONSIBLE FOR ABOVE PLUGGING TILE	
	( MUCK 1 Xamaan GENERAL MC	e.
	(REQUIRED) SIGNATURE OF OPERATOR RESPONSIBLE FOR ABOVE PLUGGING TITLE	
	SWORN TO AND SUBSCRIBED BEFORE ME THIS	
	May daisely	
	NARAK GRIGSBY	
	NOTARY PUBLIC	
	MY COMMISSION EXPIRES: 10, 2017 STATE AT LARGE, KENTUCKY	1
	COMM. #490124	
	ALL BLANKS MUST BE COMPLETED. INCOMPLETE ADDIFAVITS WILL BE REJECTED MY COMMISSION EXPIRES JUNE 10, 20	1/
	FORM ED-38 (REV. 299) CONTINUED	
	CONTINUED	

#### CEMENT TABLE

HOLE SIZE	2"	3"	4"	5"	6 1/2"	8"	8 1/2"	8 3/4"	10"	12"	16"
NO. FT. FILLED PER SACK OF CEMENT*	45'	20'	11'	7'	4'	2 3/4'	2 1/2'	2 1/3'	2	1'	1/2

<sup>\*1</sup> CUBIC FOOT PER SACK

GRAPHICALLY SHOW BELOW THE LOCATION AND INTERVAL OF ALL PLUGS INSTALLED.



Kentucky Geological Survey

IF THE WELL IS TO BELEFT AS A DOMESTIC WATER WELL, PLUG ACCORDING TO THE INSPECTOR'S INSTRUCTIONS, COMPLETE THIS FORM ON BOTH SIDES AND HAVE THE FOLLOWING AFFIDAVIT SIGNED BY THE REAL ESTATE OWNER.

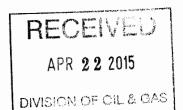
#### **AFFIDAVIT**

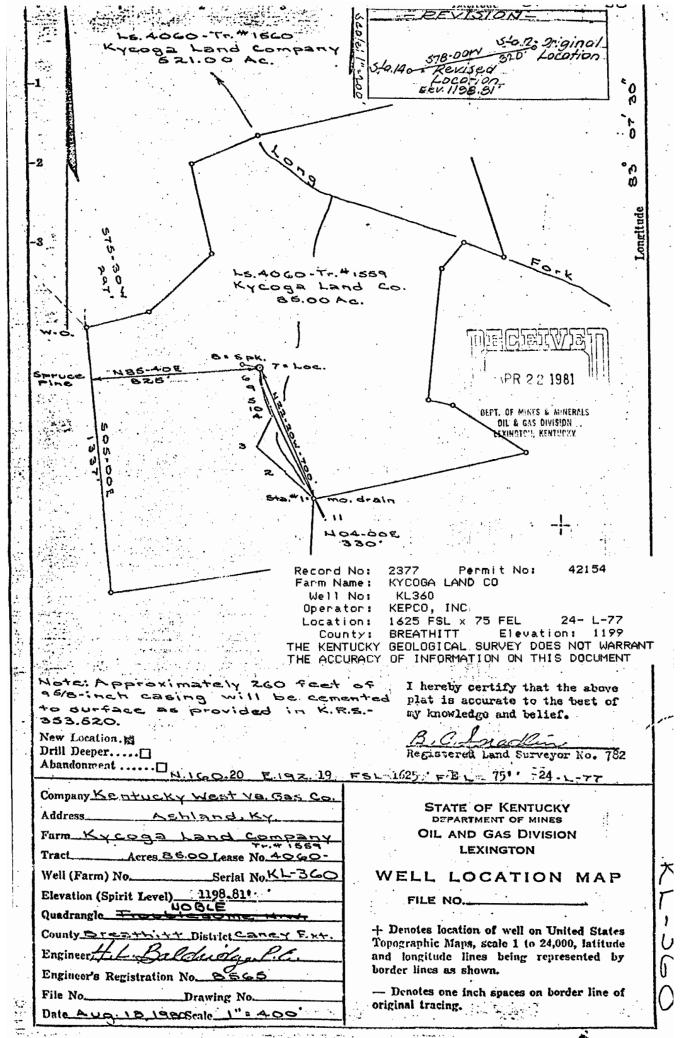
I, \_\_\_\_\_\_\_, THE OWNER OF THE REAL ESTATE ON WHICH THIS WELL WAS DRILLED, DESIRE THAT THE WELL BE LEFT OPEN FROM THE FRESH WATER ZONE TO THE SURFACE FOR USE AS A WATER WELL AND DO HEREBY ACCEPT THE FULL RESPONSIBILITY FOR SAID WATER WELL. THE OIL OPERATOR REMAINS RESPONSIBLE FOR ALL PLUGS BELOW THE FRESH WATER ZONE.

SIGNATURE OF OWNER OR HIS AGENT

DATE

FORM ED-38 (REV. 2/99)





1)O5.

Record No: 2377 Permit No: 42154 Farm Name: KYCOGA LAND CO Well No: KL360 Operator: KEPCO, INC

Location: 1625 FSL x 75 FEL 24- L-77
County: BREATHITT Elevation: 1199
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
THE ACCURACY OF INFORMATION ON THIS DOCUMENT



## WELL LOG AND COMPLETION REPORT

TO BE FILED IMMEDIATELY AFTER COMPLETION OF WELL

EPT. OF MINES A MINERALS OIL & GAS DIVISION LEXINGTON, KENTUCKY

NOTICE: IT IS NECESSARY TO SUBMIT A RECORD FOR EACH PERMIT.

WELL IDENTIFICATION Permit No. 42154	TYPE OF COMPLETION (CHECK ONE)
Operator KEPCO, Inc.	Dry Hale Shut-In or Producing?
Ferm Name Kycoga Land Company	on Producing
Well No. KL360	Go:
	Pressure Maintenance or SERVICE WELL:
TYPE OPERATION LOCATION	Secondary Recovery: Saltwater Disposal
Re-Open County Breathitt	Gas Injection Observation Well
New Well X Carter Coordinates 24 1 //	Gas Storage: Injection-Extraction Other:
Workover Footoge from Section Lines: QUAD.	Observation
Deepening 1625 from Kline 75' from Eline	
š 💥	INITIAL PRODUCTION
ELEVATION 1198.81 (ground) (C.F.)	Natural Date
ELEVATION 1198.81 (ground) (K.B.)	73MCF-Br.Sh. 7-23-81
TOTAL DEPTH	
Driller's Log 2856. Geophysical Log	COMPLETION INTERVAL
Supply Log	Formation Name(s) Interval(s)
OPERATIONAL DATES	Brown Shale 2510-2772
Date Commenced 6-08-81 Date Drilling Completed 6-13-81	Big Lime 1986-1991
Date Date	
Placed in Operation (if pay Hole) (if pay Hole)	(CHECK APPLICABLE BOXES):
	WELL TOPATHENT IN OPEN THRU
Shut-in 7-23-81	Shot qts interval
TEMPORARILY SUSPENDED OPERATION)	Shotinterval
DRILLING METHOD	Acid gois, interval
Rotary conventional-from to	Acid 191 Bb1 1986-1991   P
Tools from to Tools oir - from 0 to 2856	Frecture 300 Bibil 2510-2772 interval
contractor(s): Co.Rotary 2 & Co.Rig 32	60,000 lbs/sond
Address:	Fracture gols,
	ibs/sand interval
TYPE(S) OF GEOPHYSICAL LOGS RUN:	Casing Size Hole Size Depth Sks Cement Csg Pulled
(Electrical, Induction, sonic, gemma ray, neutron, density, stc.)	13-3/6 13-1/2 14
	9-5/8 12-1/2 289' 85 -
FDC, Temperature, SNP	6-5/8 8-3/4 1743 30 1300
	<u>4-1/2</u> <u>6-1/4</u> <u>2822</u> <u>160</u> -
V	2 - 2763
	E OU AND CAL
OCCURRENCE O	F OIL AND GAS
	HOWS OF OIL AND/OR GAR, FILL-UP TESTS, DBT'S, CORES, ETC.}
	-7-@ mi
	Signed 5
Dete 8-18-81	E. R. Minns, Chief Geologist

This form must be completed and filed for every permit. Re-Opened wells need not include a driller's log. However, the front side of the form must be completed.

#### FORMATION RECORD

From Yo	Rock Typu (describe rock types and other materials penetrated and record securrences of oil, give and water from ourface to total depth)	From	To	Rock Type  [describe rack types and other materials penatrated and record occurrences of oil, gos and water from surface to total depth)
0 10 10 40 90 95 177 262 380 380 463 380 463 463 500 634 634 634 634 638 738 1050 1150 1515 1634 1674 1	Sand Slate Sand Coal Sand Slate Sand Slate Sand Coal Sand Slate Coal Slate Coal Slate Sand Slate Sand Slate Sand Slate Little Lime Pencil Cave Big Lime Injun Sand Weir Brown Shale White Slate Corniferous			Water 25' Water 700'

Record No: 2377 Permit No: 42154

Farm Name: KYCOGA LAND CO

Well No: KL360
Operator: KEPCO, INC
Location: 1625 FSL x 75 FEL 24- L-77
County: BREATHITT Elevation: 1199
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 4:

Refer to Starfire's responses to Siting Board Staff's First Request for Information, Item 2:

Confirm whether KY 1087 is currently accessible for site access for vehicles. a.

b. If KY 1087 is currently inaccessible:

> (1) Provide a detailed description of the current state of KY 1087.

(2) Provide a detailed description of the process to make KY 1087 usable as a

site access point. Include in the description the projected economic cost.

Response:

Starfire confirms that KY 1087 is currently accessible for site access for vehicles. a.

Please see attached for email confirmation of KY 1087's accessibility from KYTC Division

10 based in Jackson, Kentucky, and photos of KY 1087 taken in July 2025.

b. See the Response to Post-Hearing Request 4(a) above.

Responding Witness: Brian Patton



#### Fw: Perry Co. Road Classifications

From Brian Patton <bri> sprian.patton@brightnightpower.com>

Date Wed 7/2/2025 11:27 AM

To Jackson Doughty <jackson@brightnightpower.com>; David Gil <david.gil@brightnightpower.com>

#### See KYDOT email on KY 1087

#### Get Outlook for iOS

From: Back, Darren D (KYTC-D10) < Darren.Back@ky.gov>

Sent: Wednesday, July 2, 2025 10:45:12 AM

To: Brian Patton <bri>hrian.patton@brightnightpower.com>

Subject: RE: Perry Co. Road Classifications

Brian,

Yes, KY 1087 has been recently resurfaced and is open and accessible.

Thanks.



#### Darren Back, PE

Transportation Engineer Supervisor
District 10 – Planning Section
Department of Highways
473 Highway 15 S
Jackson, Kentucky 41339
(502) 764-0003 OFFICE
(606) 207-5562 MOBILE

From: Brian Patton <a href="mailto:shright: brian.patton@bright: brian.patton.p

Sent: Tuesday, July 1, 2025 8:35 AM

To: Back, Darren D (KYTC-D10) < Darren.Back@ky.gov >; Brian Patton < dexterbpatton@gmail.com >

Subject: Re: Perry Co. Road Classifications

Darren,

Hope you are well and ready for the July 4<sup>th</sup> Holiday. If you remember I'm working on answering questions by the KY Siting Board on the Starfire Solar Project in Perry, Knot and Breathitt Counties. You had answered several questions for us in regards to the roads in the area and that email is below. One of their questions is the accessibility of KY Hwy 1087. Could you give me an update on that road? Just simple statement as to its condition and is it assessable daily.

Sincerely, Brian Patton Brightnight Power 502-692-9447

From: Back, Darren D (KYTC-D10) < <u>Darren.Back@ky.gov</u>>

Sent: Thursday, March 20, 2025 2:15 PM

To: Brian Patton < brian.patton@brightnightpower.com >; Brian Patton < dexterbpatton@gmail.com >

Subject: RE: Perry Co. Road Classifications

Brian,

I've reviewed the questions regarding the roadways around the Starfire Project and compiled the following information:

#### 1 Road Width and Weight Limits:

- **KY 80** (AAA route) 4-lane, 12' lanes, 10' paved shoulders, 14' raised mountable median, 80,000 lb max load.
- KY 476 (AAA route, MP 1.905–22.275) 20' lane width, 0–3' paved shoulders, 80,000 lb max load.
- **KY 1087** (AAA route, MP 0–0.8) 20' pavement width, no paved shoulders, 80,000 lb max load.
- Starfire Access Roads No available information.

#### 2. Current Road Conditions:

- KY 80 Pavement in good condition.
- **KY 476** Good condition overall, with some pavement breaks in certain areas.
- KY 1087 Fair condition, with visible cracking and some edge breaks.

#### 3. Bridges and Culverts:

- 097B00054N Culvert on KY 1087 at MP 0.7, 32' wide, no weight limit.
- o 097B00144N Bridge on KY 476 at MP 12.43, 26.25' wide, no weight limit.

#### 4. Road and Bridge Upgrades:

Unknown at this time until more details about load weights are provided.

#### 5. Load Weights for Deliveries:

• The company will need to provide details on expected load weights for cement and water trucks, heavy equipment, gravel, panels, inverters, and the transformer.

#### 6. Substation Transformer Weight and Delivery Truck Class:

The company will need to provide this information.

#### 7. Permit Requirements:

• Kentucky will require some special permits for oversize/overweight deliveries.

#### 8. Traffic Stoppages:

• The company will need to determine if stoppages will be necessary, as well as expected locations, frequency, and duration.

#### 9. Directional Map:

• The company will need to provide a one-page map detailing delivery routes, access points, bridges, and structures.

Let me know if you need any further clarification. Happy to assist as needed.

Thanks, Darren

From: Brian Patton <a href="mailto:brian.patton@brightnightpower.com">brian.patton@brightnightpower.com</a>

Sent: Tuesday, March 18, 2025 10:20 AM

**To:** Brian Patton < <a href="mailto:dexterbpatton@gmail.com">dexterbpatton@gmail.com</a>>; Back, Darren D (KYTC-D10) < <a href="mailto:Darren.Back@ky.gov">Darren.Back@ky.gov</a>> <a href="mailto:Subject">Subject: Re: Perry Co. Road Classifications</a>

Darren,

I will send a map shortly.

From: Brian Patton < dexterbpatton@gmail.com >

Sent: Tuesday, March 18, 2025 8:59 AM

To: Back, Darren D (KYTC-D10) < <a href="mailto:Darren.Back@ky.gov">Darren.Back@ky.gov">Darren.Back@ky.gov</a>; Brian Patton < <a href="mailto:brian.patton@brightnightpower.com">brightnightpower.com</a>

Subject: Re: Perry Co. Road Classifications

Darren,

Attached is a list of questions from the Kentucky Siting Board in regard to the roadways around the Starfire Project in Breathitt, Knott and Perry Counties. I could really use some help answering these.

The projected rote to the site is construction materials and manpower will enter the site off of HWY80 onto KY rt 426 down troublesome creek then turning onto rt 1087 (Balls Fork) traveling about <sup>3</sup>/<sub>4</sub> and turning onto the Starfire Property.

- 1. Provide the width and weight limit ratings of all roads proposed to be used during the delivery and construction phase of the project.
- 2. Provide the current condition of all roads expected to be used during the delivery and construction phase of the project. Case No. 2024-00255 -2-
- 3. Provide the width and weight limit ratings of all bridges and culverts within a two-mile radius of the project.
- 4. Describe any repairs or upgrades that will need to be made to any roads prior to the delivery and construction phase of the project.
- 5. Describe any repairs or upgrades that will need to be made to any bridges or culverts prior to the delivery and construction phase of the project.
- 6. Provide the maximum expected load weights for each type of delivery truck, including cement and water trucks, heavy equipment, gravel for access roads, panels, inverters, and the transformer.
- 7. Provide the estimated weight of the project's required substation transformer and the truck class necessary for its delivery.
- 8. Explain whether any oversize or overweight deliveries will require special permits from the County Road Departments or the Kentucky Department of Transportation.
- 9. Explain whether any traffic stoppages will be necessary to accommodate large truck deliveries for the project and/or for constructing the project transmission line. If yes, provide the expected locations, frequency, and length of those stoppages.
- 10. Provide a one-page directional map showing highlighted anticipated delivery routes for the project. Include on the map: access roads, access points, existing roads, bridges, electric

generation components, and all structures within two miles of the project.

From: Back, Darren D (KYTC-D10) < <a href="mailto:Darren.Back@ky.gov">Darren.Back@ky.gov</a>>

Sent: Monday, March 17, 2025 11:44 AM

To: <a href="mailto:dexterbpatton@gmail.com">dexterbpatton@gmail.com</a>; <a href="mailto:brian.patton@brightnightpower.com">brian.patton@brightnightpower.com</a>

#### Brian,

Thank you for stopping by today. We always appreciate when businesses take the initiative to ask questions and ensure compliance with legal requirements.

Based on my research, here is the information I found in our databases:

- 2024 Annual Designation of the Extended Weight Coal or Coal By-Products Haul Road System (attached)
- KY 1087 Truck Weight Class: (attached spreadsheet)
  - AAA (80,000 lbs) from MP 0 0.8
  - A (44,000 lbs) from MP 0.8 2.976
- Overweight Over-Dimensional Permits:
  - Permit Information and Instructions

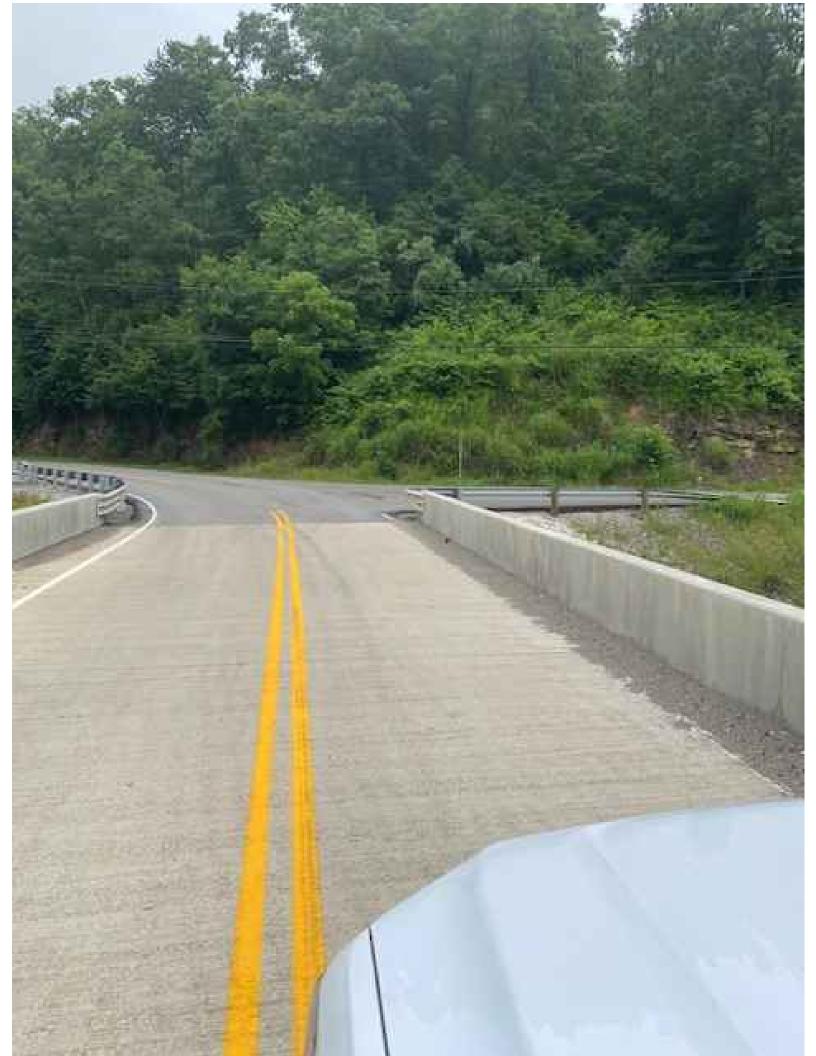
If you need any additional information, please don't hesitate to reach out. My contact details are below.

Best regards,

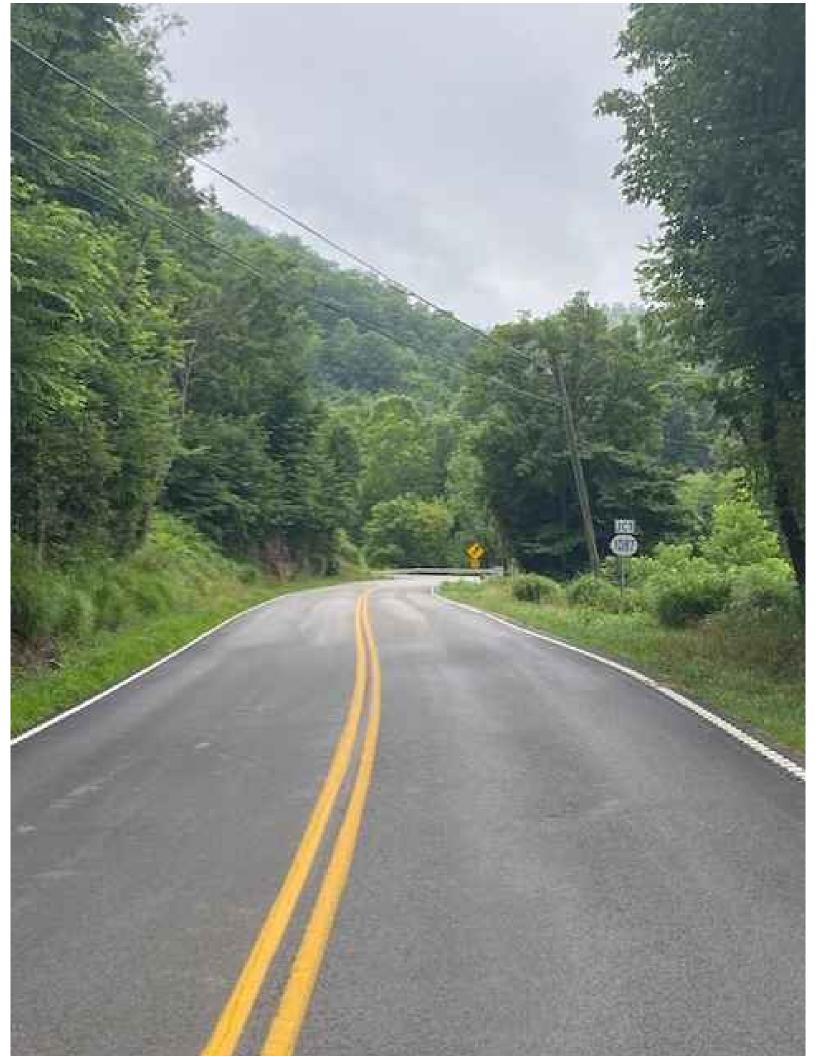


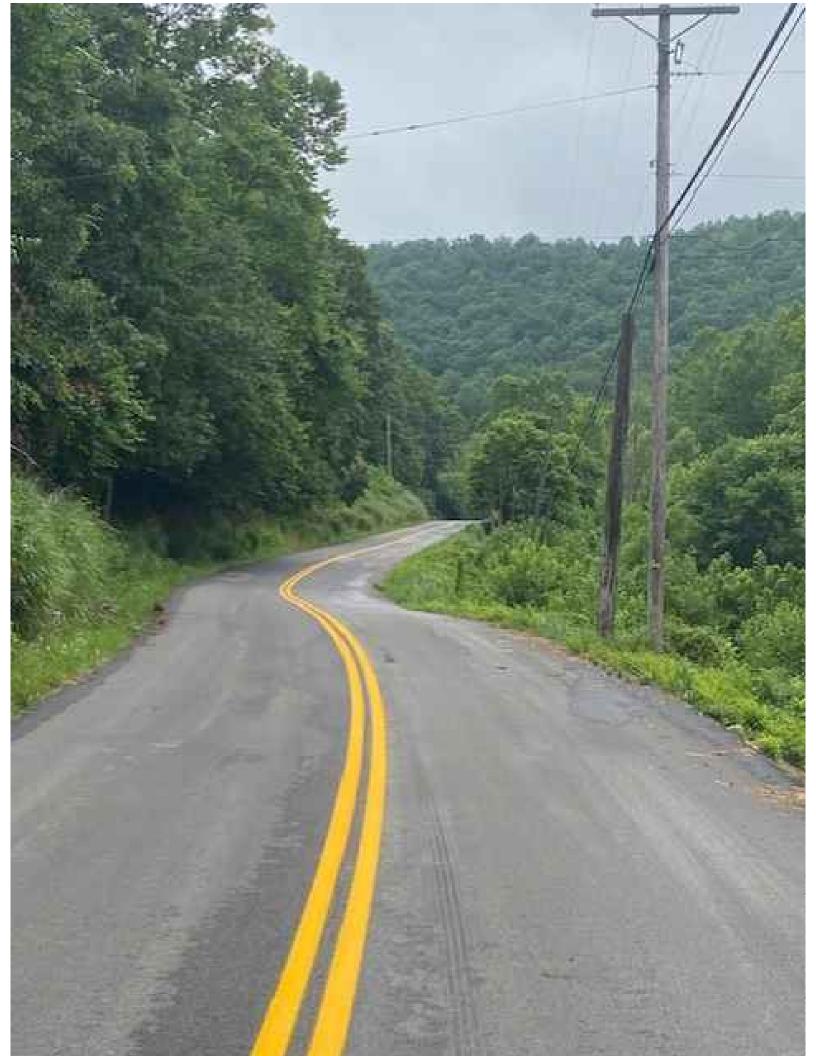
#### Darren Back, PE

Transportation Engineer Supervisor
District 10 – Planning Section
Department of Highways
473 Highway 15 S
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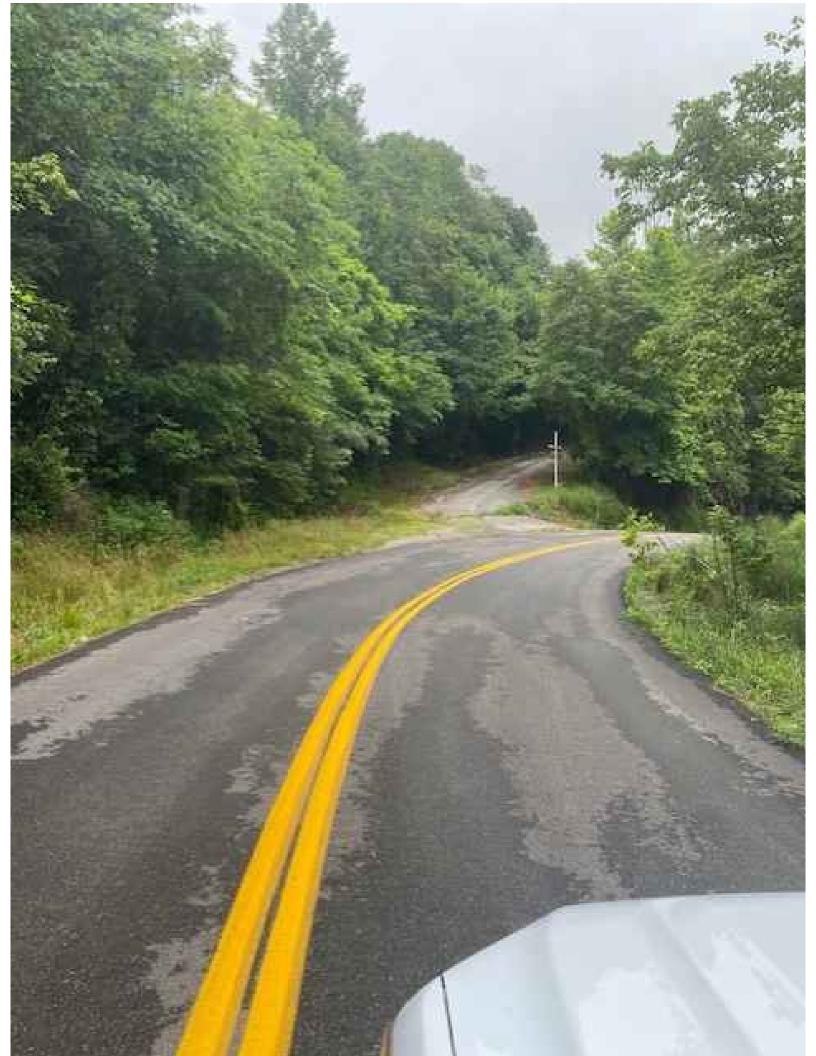


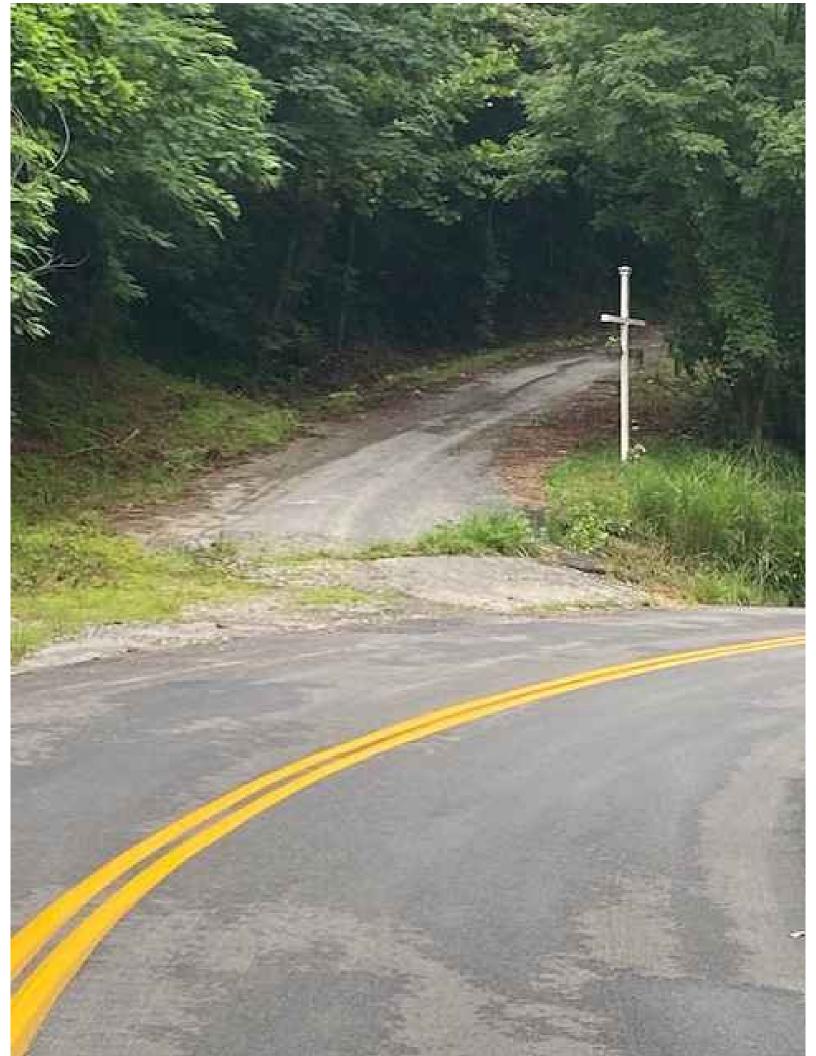












Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 5:

Provide any and all studies concerning subsidence at the project site.

Response:

Subsidence studies have not been conducted for the Project site because the Starfire mine is a

surface mine, not an underground mine, and subsidence occurs only in connection with

underground mining operations. The efforts to test soil conditions described during the June 18,

2025 evidentiary hearing were monuments erected to test for differential settlement occurring

onsite. Differential settlement is an event where soil compacts over time after closure of a surface

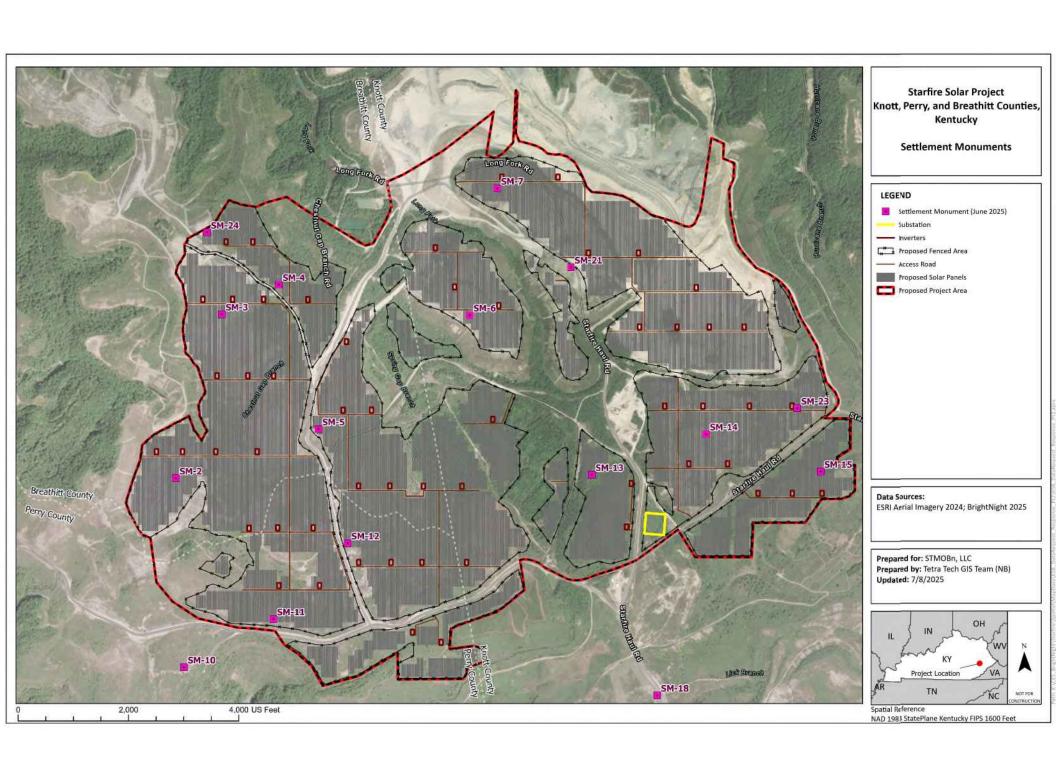
mine and, in general, the surface grade does not substantially move or sink after a surface mine is

reclaimed. Please see attached for a map of settlement monuments located onsite and a spreadsheet

generated from the data collected detailing the movement of soil at the settlement monuments. As

shown in the attached spreadsheet, the average median change in the soil height from May 2024

to June 2025 has been approximately 0.15 feet or approximately 1.8 inches.



5/31/2024	to 6/20/202	4 compariso	on	5/31/202	24 to 7/24/2	024 compar	ison	5/31/	2024 to 8/1	9/2024 comp	arison	5/31/20	24 to 9/16/2	024 compa	rison	5/31/202	to 10/28/	2024 comp	arison	5/31/202	4 to 10/28/	2024 compa	arison					
N (ft)	E	(ft) Z	(ft)	N	(ft) E	(ft) Z	(ft)		N (ft)	E(ft)	Z (ft)	1	(ft) E	(ft) Z	(ft)	N	(ft) E	(ft) Z	(ft)	N	(ft) E	(ft) Z	(ft)					
1	0.000	-0.044	-0.049	1	0.009	-0.046	-0.011		0.02	-0.060	-0.054	1	0.002	-0.052	-0.034	1	-0.005	-0.049	-0.069	1	-0.040	-0.022	-0.044					
2	0.067	0.095	0.004	2	0.073	0.092	-0.048	:	0.07	2 0.048	0.025	2	0.120	0.068	-0.073	2	0.092	0.036	-0.066	2	0.069	0.088	-0.071					
3	-0.002	-0.025	-0.236	3	0.055	0.137	-0.107	:	0.09	0.067	-0.046	3	0.081	0.112	-0.102	3	0.070	0.072	-0.114	3	0.037	0.115	-0.128					
4	-0.005	-0.001	-0.050	4	0.019	0.030	-0.071		0.09	0.066	-0.042	4	0.095	0.091	-0.131	4	0.090	0.086	-0.114	4	-0.042	0.021	0.046					
5	0.035	0.024	-0.239	5	-0.033	-0.001	-0.181		0.07	4 0.084	-0.125	5	0.069	0.102	-0.150	5	0.079	0.087	-0.157	5	0.038	0.133	-0.181					
6	-0.008	0.002	-0.027	6	-0.038	0.012	0.027		-0.04	3 -0.020	0.018	6	-0.017	0.002	0.008	6	0.101	0.071	-0.075	6	-0.020	0.064	0.050					
7	0.020	-0.060	0.113	7	-0.020	0.018	0.177				0.239	7	-0.007	-0.002	0.225	7	0.081	0.003	0.231	7	-0.027	0.081	0.260					
8	-0.058	0.026	0.018	. 8	-0.044	0.009	-0.033				0.017	. 8	-0.166	-0.030	0.019	. 8	-0.030	-0.001	-0.026	. 8	-0.250	-0.069	-0.017					
9	-0.042	-0.011	-0.075	9	-0.014	-0.021	-0.058				-0.059	9	-0.052	-0.055	-0.048	9	-0.034	-0.025	-0.095	9	-0.345	-0.162	-0.047					
10	0.134	0.113	-0.164	10	0.072	0.004	0.134	1			-0.157	10	0.132	0.098	-0.144	10	0.120	0.020	-0.165	10	0.080	0.096	-0.156					
11	0.087	0.083	-0.142	11	0.008	-0.027	0.009	1			-0.140	11	0.086	0.069	-0.147	11	0.063	0.047	-0.148	11	0.015	0.083	-0.155					
12	0.016	0.004	0.013	12	0.029	0.026	0.067	1:			-0.040	12	0.000	0.003	-0.082	12	0.104	0.073	-0.111	12	0.075	0.120	-0.198					
13	0.016	-0.004	-0.048	13	0.029	-0.018	-0.022	1:			0.037	13	0.046	-0.009	-0.002	13	0.104	0.012	0.032	13	-0.017	0.120	-0.006					
13						-0.018	0.055				0.037		-0.050	0.047	0.088		0.010	0.012	0.032		-0.017							
	0.046	-0.019	0.014	14	0.037			1				14				14				14		0.048	0.105					
15	0.038	-0.017	-0.065	15	0.046	-0.020	0.040	1			0.041	15	0.002	0.009	0.058	15	0.052	0.012	-0.005	15	-0.057	0.026	-0.001					
16	0.009	-0.037	-0.131	16	0.013	-0.021	-0.042	1			-0.092	16	0.006	0.017	-0.083	16	0.018	0.022	-0.102	16	-0.033	0.013	-0.106					
17	-0.001	-0.044	-0.160	17	0.012	0.015	-0.061	1			-0.113	17	0.009	0.054	-0.053	17	-0.002	0.054	-0.095	17	0.036	0.020	-0.084					
18	-0.049	0.060	-0.042	18	-0.020	0.033	-0.057	1			-0.039	18	-0.003	0.024	-0.023	18	-0.044	0.028	-0.040	18	-0.066	-0.004	-0.048					
19	-0.019	0.024	0.009	19	-0.007	0.015	-0.027	1				19	0.028	0.029	-0.004	19	-0.021	0.043	-0.025	19	-0.040	0.081	-0.002					
20	-0.031	0.007	0.008	20	-0.036	0.002	-0.008	2	-0.04	2 -0.001	0.039	20	0.013	0.020	0.001	20	-0.057	0.006	0.068	20	-0.008	0.011	0.014					
21	-0.054	-0.027	0.042	21	-0.008	0.013	0.047	2	-0.10	4 -0.009	-0.026	21	-0.098	0.003	0.010	21	-0.034	0.023	0.022	21	-0.107	0.010	0.007					
23	0.128	-0.078	0.009	23	0.133	-0.066	0.050	2:	0.04	-0.016	0.002	23	0.048	0.000	0.041	23	0.146	-0.054	-0.008	23	0.012	-0.023	0.010					
24	0.034	-0.004	0.013	24	0.081	0.108	-0.060	2	0.12	0.040	0.001	24	0.141	0.088	-0.073	24	0.131	0.080	-0.089	24	0.090	0.100	-0.107					
5/31/2024 t N (ft)		24 comparis (ft) Z				025 compar (ft) Z	ison (ft)	5/31/	2024 to 2/2 N (ft)	6/2025 comp E(ft)	arison Z (ft)		24 to 3/21/2 (ft) E		rison (ft)			2025 compa (ft) Z	rison ! (ft)			025 compa (ft) Z	rison ! (ft)	5/31/	2024 to 6. N (ft)	25/2025 co E(ft)	mpariso Z (ft)	
				N						E(ft)														5/31/	N (ft)	E(ft)	Z (ft)	
	E	(ft) Z	(ft)	N	(ft) E	(ft) Z	(ft)		N (ft) -0.01	E(ft) 7 -0.071	Z (ft)	1	(ft) E	(ft) Z	(ft)	N	(ft) E	(ft) Z	(ft)	N	(ft) E	(ft) Z	(ft)		N (ft) L -0.0	E(ft) 57 -0.0	Z (ft)	
	0.032	(ft) Z -0.079	(ft) -0.045	N 1	(ft) E -0.119	(ft) Z -0.057	(ft) -0.077	:	N (ft) 1 -0.01 2 0.05	E(ft) 7 -0.071 6 0.019	Z (ft) -0.034	1	(ft) E -0.034	(ft) Z -0.031	(ft) -0.082	1	(ft) E -0.039	(ft) Z	(ft) -0.029	1	(ft) E 0.063	(ft) Z -0.141	(ft) -0.098		N (ft) L -0.0 2 0.0	E(ft) 57 -0.0 55 0.0	Z (ft) 116 -	0.061
N (ft) 1 2	0.032 0.096	(ft) Z -0.079 0.087	-0.045 -0.084	N 1 2	-0.119 0.005	(ft) Z -0.057 0.042	(ft) -0.077 -0.103	:	N (ft) 1 -0.01 2 0.05 3 -0.01	E(ft) 7 -0.071 6 0.019 9 0.085	Z (ft) -0.034 -0.112	1 2	(ft) E -0.034 0.059	(ft) Z -0.031 0.066	(ft) -0.082 -0.111	1 2	(ft) E -0.039 0.066	(ft) Z -0.041 0.057	(ft) -0.029 -0.117	N 1 2	(ft) E 0.063 0.067	(ft) Z -0.141 0.073	(ft) -0.098 -0.125	:	N (ft) 1 -0.0 2 0.0 3 0.0	E(ft) 57 -0.0 55 0.0 42 0.1	Z (ft) 116 - 183 - 26 -	0.061
N (ft) 1 2	0.032 0.096 0.037	(ft) Z -0.079 0.087 0.115	-0.045 -0.084 -0.087	N 1 2 3	-0.119 0.005 -0.079	-0.057 0.042 0.094	-0.077 -0.103 -0.145	:	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058	Z (ft) -0.034 -0.112 -0.150	1 2 3	-0.034 0.059 0.051	-0.031 0.066 0.099	-0.082 -0.111 -0.121	N 1 2 3	(ft) E -0.039 0.066 0.031	-0.041 -0.057 0.105	-0.029 -0.117 -0.118	N 1 2 3	0.063 0.067 0.034	-0.141 0.073 0.118	-0.098 -0.125 -0.124	:	N (ft) 1 -0.0 2 0.0 3 0.0 4 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1	Z (ft) 116 183 126	0.061 0.155 0.215
N (ft) 1 2	0.032 0.096 0.037 0.129	-0.079 0.087 0.115 0.070	(ft) -0.045 -0.084 -0.087 -0.093	N 1 2 3 4	-0.119 0.005 -0.079 0.019	-0.057 0.042 0.094 0.057	-0.077 -0.103 -0.145 -0.139	:	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06 5 -0.00	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086	Z (ft) -0.034 -0.112 -0.150 -0.172	1 2 3 4	-0.034 0.059 0.051 0.067	-0.031 0.066 0.099 0.090	-0.082 -0.111 -0.121 -0.158	1 2 3 4	-0.039 0.066 0.031 0.057	-0.041 0.057 0.105 0.097	-0.029 -0.117 -0.118 -0.143	N 1 2 3 4	0.063 0.067 0.034 0.059	-0.141 0.073 0.118 0.096	-0.098 -0.125 -0.124 -0.145	:	N (ft) 1 -0.0 2 0.0 3 0.0 4 0.0 5 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1	Z (ft) 116 183 26 10 179	0.061 0.155 0.215 0.157
N (ft) 1 2 3 4 5	0.032 0.096 0.037 0.129 0.051	-0.079 0.087 0.115 0.070 0.113	(ft) -0.045 -0.084 -0.087 -0.093 -0.166	N 1 2 3 4 5	-0.119 0.005 -0.079 0.019 -0.031	-0.057 0.042 0.094 0.057 0.132	-0.077 -0.103 -0.145 -0.139 -0.212	:	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06 6 -0.00 6 0.09	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.067	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251	1 2 3 4 5	-0.034 0.059 0.051 0.067 0.041	-0.031 0.066 0.099 0.090 0.113	(ft) -0.082 -0.111 -0.121 -0.158 -0.212	1 2 3 4 5	-0.039 0.066 0.031 0.057 -0.019	-0.041 0.057 0.105 0.097 0.057	-0.029 -0.117 -0.118 -0.143 -0.027	N 1 2 3 4 5	0.063 0.067 0.034 0.059 0.011	-0.141 0.073 0.118 0.096 0.100	-0.098 -0.125 -0.124 -0.145 -0.240	:	N (ft) 1 -0.0 2 0.0 3 0.0 4 0.0 6 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1	Z (ft) 116 - 183 - 26 - 10 - 179 -	0.061 0.155 0.215 0.157 0.297
N (ft) 1 2 3 4 5	0.032 0.096 0.037 0.129 0.051 0.073	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104	-0.045 -0.084 -0.087 -0.093 -0.166 -0.063	N 1 2 3 4 5 6	-0.119 0.005 -0.079 0.019 -0.031 -0.052	-0.057 0.042 0.094 0.057 0.132 0.083	-0.077 -0.103 -0.145 -0.139 -0.212 -0.111	:	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06 5 -0.00 6 0.09 7 0.06	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.067	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090	1 2 3 4 5	-0.034 0.059 0.051 0.067 0.041 0.079	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087	1 2 3 4 5	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005	-0.041 0.057 0.105 0.097 0.057 0.057 0.034	-0.029 -0.117 -0.118 -0.143 -0.027 0.048	N 1 2 3 4 5 6	0.063 0.067 0.034 0.059 0.011 0.084	-0.141 0.073 0.118 0.096 0.100 0.088	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131	:	N (ft) 1 -0.0 2 0.0 3 0.0 4 0.0 5 0.0 6 0.0 7 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1	Z (ft) 116	0.061 0.155 0.215 0.157 0.297 0.152
N (ft) 1 2 3 4 5	0.032 0.096 0.037 0.129 0.051 0.073 0.097	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119	-0.045 -0.084 -0.087 -0.093 -0.166 -0.063 0.081	N 1 2 3 4 5 6 7	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025	(ft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103	:	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06 6 -0.00 6 0.09 7 0.06 8 **	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.067 2 0.106	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116	1 2 3 4 5 6 7	(ft) E -0.034 0.059 0.051 0.067 0.041 0.079 0.080	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 0.203	N 1 2 3 4 5 6 7	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001	-0.041 0.057 0.105 0.097 0.057 0.034 0.073	-0.029 -0.117 -0.118 -0.143 -0.027 0.048 0.372	N 1 2 3 4 5 6 7	0.063 0.067 0.034 0.059 0.011 0.084 0.029	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 0.161		N (ft) 1 -0.0 2 0.0 3 0.0 4 0.0 6 0.0 6 0.0 7 0.0 8 -0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1 94 -0.0	Z (ft) 116	0.061 -0.155 -0.215 -0.157 -0.297 -0.152 -0.175
N (ft) 1 2 3 4 5 6 7	0.032 0.096 0.037 0.129 0.051 0.073 0.097	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.019	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 0.081 -0.023	N 1 2 3 4 5 6 7 8	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074	(fft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046	:	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06 6 -0.00 6 0.09 7 0.06 8 **	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.067 2 0.106 **	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116	1 2 3 4 5 6 7 8	(ft) E -0.034 0.059 0.051 0.067 0.041 0.079 0.080 -0.046	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 0.203 -0.084	N 1 2 3 4 5 6 7 8	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036	-0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.372 -0.048	N 1 2 3 4 5 6 7 8	0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 0.161 -0.285	:	N (ft) 1 -0.0 2 0.0 3 0.0 4 0.0 5 0.0 6 0.0 7 0.0 8 -0.0 9 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1 94 -0.0 25 -0.0	Z (ft) 116	0.061 0.155 0.215 0.157 0.297 0.152 0.175 0.174
N (ft) 1 2 3 4 5 6 7 8 9	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.019 0.003	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 0.081 -0.023 -0.085	N 1 2 3 4 5 6 7 8 9	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095	(ft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141	:	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06 6 -0.00 6 0.09 7 0.06 3 ** 9 **	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.067 2 0.106 ** ** 9 0.062	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 **	1 2 3 4 5 6 7 7 8 9	(ft) E -0.034 0.059 0.051 0.067 0.041 0.079 0.080 -0.046 -0.042	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049 -0.038	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 -0.203 -0.084 -0.135	N 1 2 3 4 5 6 7 8 9	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047	(ft) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.033	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.372 -0.048 -0.048	N 1 2 3 4 5 6 7 8 9	(ft) E 0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018 -0.026	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 0.161 -0.285 -0.407		N (ft) 1 -0.0 2 0.0 8 0.0 6 0.0 6 0.0 7 0.0 8 -0.0 9 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1 94 -0.0 25 -0.0 72 0.1	Z (ft) 116 - 183 - 183 - 179 - 177 - 109 - 134 - 118 - 100 -	0.061 0.155 0.215 0.157 0.297 0.152 0.175 0.174
N (ft) 1 2 3 4 5 6 7 8 9 10	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.019 0.003 0.044	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 0.081 -0.023 -0.085 -0.150	N 1 2 3 4 5 6 7 8 9	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095 0.053	(ft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.050	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.177	10	N (ft) 1 -0.01 2 0.05 3 -0.01 4 0.06 5 -0.00 6 0.09 7 0.06 8 ** 9 ** 0 0.10	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.067 2 0.106 ** 9 0.062 1 0.075	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 ** ** -0.182	1 2 3 4 5 6 7 8 9	(ft) E -0.034 0.059 0.051 0.067 0.041 0.079 0.080 -0.046 -0.042 0.084	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049 -0.038 0.088	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 0.203 -0.084 -0.135 -0.198	N 1 2 3 4 5 6 7 8 9	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072	(ft) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.033 0.067	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.372 -0.048 -0.048 -0.048	N 1 2 3 4 5 6 7 8 9	(ft) E 0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.089	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018 -0.026 0.074	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 -0.161 -0.285 -0.407 -0.198	1	N (ft) 1 -0.0 2 0.0 8 0.0 6 0.0 6 0.0 7 0.0 8 -0.0 9 0.0 1 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1 94 -0.0 25 -0.0 72 0.1	Z (ft) 116 -1883 -1883 -1975 -	0.061 0.155 0.215 0.157 0.297 0.152 0.175 0.174 0.442 0.217
N (ft) 1 2 3 4 5 6 7 8 9 10 11	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161 0.072	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.019 0.003 0.044 0.072 0.047	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 0.081 -0.023 -0.085 -0.150 -0.160	N 1 2 3 3 4 4 5 6 6 7 8 9 10 11 12	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095 0.053 -0.025 -0.034	(ft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.050 0.050 0.106	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.177 -0.156	: : : : : : : : : :	N (ft)  -0.01  -0.01  -0.05  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06  -0.00  -0.06	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.062 2 0.106 ** ** 9 0.062 1 0.075 7 0.049	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 ** ** -0.182 -0.173	1 2 3 4 5 6 7 8 9 10	(ft) E -0.034 0.059 0.051 0.067 0.041 0.079 0.080 -0.046 -0.042 0.084 0.051 0.068	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049 -0.038 0.088 0.069	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 -0.203 -0.084 -0.135 -0.198 -0.175	N 1 2 3 4 5 6 7 8 9 10	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072 0.023 0.021	(f(f) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 0.067 0.071	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.372 -0.048 -0.048 -0.212 -0.199	N 1 2 3 4 5 6 7 8 9 10 11 11 12	(ft) E 0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.089 0.033 0.045	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018 -0.026 0.074 0.065	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 -0.161 -0.285 -0.407 -0.198 -0.230	1 1	N (ft) 1 -0.0 2 0.0 8 0.0 6 0.0 6 0.0 6 0.0 7 0.0 8 -0.0 9 0.0 1 0.0 2 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1 94 -0.0 25 -0.0 72 0.1 22 0.0 71 0.1	Z (ft) 116 -1883 -1926 -	0.061 0.155 0.215 0.157 0.157 0.297 0.152 0.175 0.174 0.442 0.217
N (ft) 1 2 3 4 5 6 7 8 9 10 11 12	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161 0.072 0.074 0.092	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.019 0.003 0.044 0.072 0.047 0.057	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 0.081 -0.023 -0.055 -0.150 -0.160 -0.102 -0.161	N 1 2 3 4 5 6 6 7 8 8 9 10 11 12 13	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095 0.053 -0.025 -0.034 0.000	(f(t) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.050 0.106 0.113	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.177 -0.156 -0.120 0.008	1) 1 1 1:	N (ft)  1   -0.01  2   0.05  3   -0.01  4   0.06  5   -0.00  7   0.06  8   **  9   **  1   0.00  2   0.06  8   0.00	E(ft)  7	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 ** ** -0.182 -0.173 -0.150 -0.013	1 2 3 4 5 6 7 8 9 10 11 11 12	-0.034 -0.059 -0.051 -0.067 -0.041 -0.079 -0.080 -0.046 -0.042 -0.084 -0.051 -0.068 -0.013	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049 -0.038 0.088 0.069 0.086 -0.002	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 -0.203 -0.084 -0.135 -0.198 -0.175 -0.113 -0.005	N 1 2 3 4 5 6 7 8 9 10 11 11	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072 0.023 0.021 -0.005	(f(f) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.023 0.067 0.071	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.048 -0.048 -0.048 -0.212 -0.199 -0.000 -0.001	N 1 2 3 4 5 6 7 7 8 9 10 11 12 12	(ft) E 0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.089 0.033 0.045 0.032	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018 -0.026 0.074 0.065 0.085 0.029	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 -0.285 -0.407 -0.198 -0.230 -0.140 -0.208	1 1 1 1	N (ft)  1 -0.0  2 0.0  3 0.0  4 0.0  5 0.0  6 0.0  7 0.0  8 -0.0  9 0.0  1 0.0  2 0.0  8 0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1 52 0.1 52 0.1 72 0.1 66 -0.0	Z (ft) 116 -1 183 -1 226 -1 110 -1 179 -1 177 -1 184 -1 188 -1 18	0.061 0.155 0.215 0.157 0.297 0.152 0.175 0.174 0.442 0.217 0.233 0.168
N (ft)  1  2  3  4  5  6  7  8  9  10  11  12  13  14	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161 0.072 0.074 0.092	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.003 0.044 0.072 0.047 0.057 0.029	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 -0.081 -0.023 -0.085 -0.150 -0.160 -0.102 -0.161	N 1 2 3 4 5 6 7 8 9 10 11 12 13	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095 0.053 -0.025 -0.034 0.000 -0.033	(ft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.500 0.050 0.113 0.070	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.177 -0.156 -0.120 0.008 0.124	1 1 1 1 1	N (ft)  1	E(ft) 7 -0.071 6 -0.019 9 -0.085 2 -0.086 0 -0.067 2 -0.106 ** ** 9 -0.062 1 -0.040 1 -0.040 1 -0.041	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 ** -0.182 -0.173 -0.150 -0.013 0.119	1 2 3 4 5 6 7 8 9 10 11 12 13	-0.034 0.059 0.051 0.067 0.041 0.079 0.080 -0.046 -0.042 0.084 0.051 0.068 0.013	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049 -0.038 0.088 0.069 0.086 -0.002 0.008	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 0.203 -0.084 -0.135 -0.198 -0.175 -0.113 -0.005 0.187	N 1 2 3 3 4 5 6 6 7 8 9 10 11 12 13	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072 0.023 0.021 -0.005 -0.038	(f(t) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.033 0.067 0.071 0.020 0.020	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.372 -0.048 -0.212 -0.199 -0.000 -0.011	N 1 2 2 3 4 4 5 6 6 7 8 8 9 10 11 12 13 3 14	0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.083 0.033 0.045 0.032	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018 -0.026 0.074 0.065 0.095 0.029 -0.008	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 -0.161 -0.285 -0.407 -0.198 -0.230 -0.140 -0.208 -0.208	1 1 1 1 1 1	N (ft)  1 -0.0  2 0.0  3 0.0  4 0.0  5 0.0  6 0.0  7 0.0  8 -0.0  9 0.0  1 0.0  2 0.0  8 0.0  1 -0.0	E(ft)  57 -0.0  55 0.0  42 0.1  12 0.1  12 0.0  65 0.1  52 0.1  94 -0.0  25 -0.0  72 0.1  22 0.0  71 0.1  66 -0.0  17 0.0	Z (ft)   116   -  183   -  183   -  195	0.061 0.155 0.215 0.157 0.297 0.152 0.175 0.174 0.442 0.217 0.233 0.168 0.065 0.183
N (ft)  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161 0.072 0.074 0.092	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.003 0.044 0.072 0.047 0.057 0.029 -0.007	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 0.081 -0.023 -0.085 -0.150 -0.160 -0.102 -0.161 0.102 -0.029	N 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095 0.053 -0.025 -0.034 0.000 -0.033 0.071	(f(f) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.050 0.050 0.106 0.116 0.070 0.018	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.177 -0.156 -0.120 0.008 0.124 -0.003	1 1 1 1 1 1	N (ft) 1	E(ft) 7 -0.071 6 0.019 9 0.085 0 0.058 2 0.086 0 0.067 2 0.106 *** ** 9 0.062 1 0.075 7 0.049 1 -0.041 1 0.011 7 -0.049	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 ** ** -0.182 -0.173 -0.150 -0.013 0.119 -0.025	1 2 3 4 5 6 7 8 9 10 11 12 13 14	-0.034 -0.059 -0.051 -0.067 -0.041 -0.079 -0.080 -0.042 -0.042 -0.084 -0.051 -0.068 -0.013 -0.018 -0.008	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049 -0.038 0.088 0.069 0.086 -0.002 0.008 0.017	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 0.203 -0.084 -0.135 -0.198 -0.175 -0.113 -0.005 0.187 0.009	N 1 2 3 4 5 6 7 8 9 10 11 12 13 14	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072 0.021 -0.005 -0.038 -0.035	(f(t) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.033 0.067 0.071 0.020 0.023 0.060 0.039	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.048 -0.048 -0.048 -0.212 -0.199 -0.000 -0.011 -0.210 -0.033	N 1 2 3 4 5 6 7 7 8 9 10 11 12 13 14 15	0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.089 0.033 0.045 0.032	(ft) Z -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018 -0.026 0.074 0.065 0.085 0.029 -0.008 -0.013	-0.098 -0.125 -0.124 -0.145 -0.240 -0.131 -0.285 -0.407 -0.198 -0.230 -0.140 -0.200 -0.100 -0.245	1 1 1 1 1 1	N (ft)  1   -0.0  2   0.0  8   0.0  4   0.0  6   0.0  7   0.0  8   -0.0  0   0.0  1   0.0  2   0.0  1   0.0  1   0.0  2   0.0  3   0.0  4   0.0  5   0.0  6   0.0  7   0.0  8   -0.0  9   0.0  1   0.0  1   0.0  2   0.0  3   0.0  4   0.0  5   0.0	E(ft)  57 -0.0  55 0.0  42 0.1  12 0.1  12 0.0  65 0.1  52 0.1  94 -0.0  25 -0.0  72 0.1  22 0.0  71 0.1  66 -0.0  68 -0.0	Z (ft)   116   -1   183   -1   183   -1   183   -1   179   -1   177   -1   177   -1   183   -1     183   -	0.061 0.155 0.215 0.157 0.297 0.152 0.175 0.174 0.442 0.217 0.233 0.168 0.065 0.183 0.058
N (ft)  1  2  3  4  5  6  7  8  9  10  11  12  13  14	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161 0.072 0.074 0.092 0.053 0.089	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.019 0.003 0.044 0.072 0.047 0.057 0.029 -0.007	(ft) -0.045 -0.084 -0.087 -0.093 -0.166 -0.063 -0.061 -0.023 -0.085 -0.150 -0.160 -0.160 -0.102 -0.161 0.102 -0.029 -0.122	N 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095 0.053 -0.025 -0.034 0.000 -0.033 0.071 -0.044	(f(f) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.050 0.050 0.106 0.113 0.070 0.018 0.016	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.175 -0.156 -0.120 0.008 0.124 -0.003 -0.081	1 1 1 1 1 1 1	N (ft)  1	E(ft) 7	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 ** -0.182 -0.173 -0.150 -0.013 0.119 -0.025 -0.101	1 2 3 4 5 6 7 8 9 10 11 12 13	-0.034 -0.059 -0.051 -0.067 -0.041 -0.079 -0.046 -0.046 -0.046 -0.048 -0.051 -0.068 -0.068 -0.018 -0.008	(ft) Z -0.031 0.066 0.099 0.990 0.113 0.127 0.141 -0.049 -0.038 0.088 0.069 0.086 -0.002 0.008 0.017 -0.022	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 -0.084 -0.135 -0.195 -0.175 -0.113 -0.005 -0.199 -0.099	N 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072 0.023 0.021 -0.005 -0.038 -0.035 -0.005	(f(f) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.033 0.067 0.071 0.020 0.023 0.069 0.039	-0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.372 -0.048 -0.212 -0.199 -0.000 -0.011 -0.210 -0.033 -0.116	N 1 2 3 4 5 6 7 7 8 9 10 11 12 13 14 15	0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.089 0.033 0.045 0.032 0.000 0.056 0.019	(ft) 2 -0.141 -0.073 -0.118 -0.096 -0.100 -0.088 -0.115 -0.018 -0.026 -0.074 -0.065 -0.085 -0.085 -0.008 -0.013 -0.001	-0.098 -0.125 -0.125 -0.124 -0.145 -0.240 -0.131 -0.285 -0.407 -0.198 -0.230 -0.140 -0.208 -0.208 -0.201 -0.208	1 1 1 1 1 1	N (ft)  1   -0.0  2   0.0  3   0.0  4   0.0  6   0.0  7   0.0  8   -0.0  9   0.0  1   0.0  2   0.0  1   0.0  2   0.0  3   -0.0  5   0.0  6   0.0  7   0.0  8   -0.0  9   0.0  1   0.0  2   0.0  6   0.0  6   0.0  7   0.0  8   -0.0  9   0.0  1   0.0  1   0.0  1   0.0  2   0.0  3   0.0  4   -0.0  5   0.0  6   -0.0	E(ft) 57 -0.0 55 0.0 42 0.1 12 0.1 12 0.0 65 0.1 52 0.1 52 0.1 52 0.0 72 0.1 72 0.1 71 0.1 66 -0.0 68 -0.0 68 -0.0	Z (ft)   116   -1   183   -1   183   -1   183   -1   179   -1   177   -1   177   -1   183   -1     183   -	0.061 0.155 0.215 0.157 0.157 0.159 0.152 0.175 0.174 0.442 0.217 0.233 0.168 0.065 0.183 0.058
N (ft)  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17	0.032 0.096 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161 0.072 0.074 0.092 0.053 0.089	(ft) Z -0.079 0.087 0.115 0.070 0.113 0.104 0.119 0.003 0.044 0.072 0.047 0.057 0.029 -0.007 0.037 0.061	(ft) -0.045 -0.084 -0.087 -0.089 -0.166 -0.063 -0.063 -0.065 -0.150 -0.150 -0.160 -0.102 -0.102 -0.102 -0.102 -0.102 -0.102 -0.102 -0.102 -0.102 -0.102	N 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 15	(ft) E -0.119 0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.025 -0.025 -0.095 0.053 -0.025 -0.034 0.000 -0.033 0.071 -0.044 -0.044	(fft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.050 0.050 0.113 0.070 0.113 0.070 0.118 0.016 0.138	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.177 -0.156 -0.120 0.008 0.124 -0.008 -0.081 -0.045	1 1 1 1 1 1 1 1	N (ft) 1	E(ft) 7	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 -0.116 ** -0.182 -0.173 -0.150 -0.013 -0.119 -0.025 -0.101	1 2 3 4 5 6 7 7 8 8 9 10 11 11 12 13 14 15 16	(ft) E -0.034 0.059 0.051 0.067 0.041 0.079 0.080 -0.046 -0.042 0.084 0.051 0.068 0.013 0.018 -0.008 0.000	(ft) Z -0.031 0.066 0.099 0.090 0.113 0.127 0.141 -0.049 -0.038 0.088 0.069 0.086 -0.002 0.008 0.017 -0.022 0.016	(ft) -0.082 -0.111 -0.121 -0.158 -0.212 -0.087 -0.087 -0.094 -0.125 -0.198 -0.175 -0.113 -0.005 -0.187 -0.009 -0.009 -0.009	N 1 2 3 4 4 5 6 7 8 8 9 10 11 12 13 14 15 16	(ft) E -0.039 0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072 0.023 0.021 -0.005 -0.005 -0.005 -0.005 -0.005 -0.005	(f(t) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.023 0.067 0.071 0.020 0.023 0.060 0.039	. (ft) -0.029 -0.117 -0.118 -0.143 -0.027 -0.048 -0.048 -0.212 -0.199 -0.000 -0.011 -0.210 -0.033 -0.049	N 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.089 0.033 0.045 0.032 0.000 0.056 0.019	(ft) 2 -0.141 -0.073 -0.118 -0.096 -0.100 -0.088 -0.115 -0.018 -0.026 -0.074 -0.065 -0.085 -0.029 -0.008 -0.011 -0.011	-0.098 -0.125 -0.125 -0.124 -0.145 -0.240 -0.131 -0.285 -0.407 -0.198 -0.230 -0.140 -0.208 -0.140 -0.208 -0.311 -0.291	1 1 1 1 1 1 1 1 1	N (ft)  1   -0.0  2   0.0  3   0.0  4   0.0  5   0.0  7   0.0  8   -0.0  9   0.0  1   0.0  2   0.0  1   0.0  5   0.0  7   0.0  6   0.0  7   0.0  7   0.0  8   -0.0  9   0.0  1   0.0  1   0.0  1   0.0  2   0.0  3   -0.0  6   0.0  7   -0.0	E(ft) 57 -0.0 57 -0.0 542 0.1 12 0.1 12 0.0 552 0.1 552 0.1 552 0.1 552 0.1 66 -0.0 772 0.1 771 0.1 66 -0.0 771 0.1 66 -0.0 772 0.0 773 0.1 774 0.0 775 0.0 775 0.0 777 0.0 777 0.0 777 0.0 777 0.0 777 0.0 777 0.0 777 0.0	Z (ft)  116 -1  183 -1  126 -1  10 -1  179 -1  179 -1  117 -1  109 -1  134 -1  118 -1  100 -1  136 -1  137 -1  101 -1  120 -1  141 -1  141 -1	0.061 0.155 0.215 0.157 0.297 0.152 0.175 0.174 0.442 0.217 0.233 0.168 0.065 0.058 0.211 0.056
N (ft) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	0.032 0.036 0.037 0.129 0.051 0.073 0.097 -0.054 -0.100 0.161 0.072 0.074 0.092 0.053 0.089 0.032 0.021	(ft) Z -0.079 0.087 0.115 0.070 0.115 0.070 0.113 0.104 0.119 0.019 0.003 0.044 0.072 0.047 0.057 0.029 -0.007 0.037 0.061 0.082	(ft) -0.045 -0.084 -0.087 -0.083 -0.166 -0.063 -0.063 -0.085 -0.150 -0.150 -0.160 -0.161 -0.102 -0.161 -0.102 -0.029 -0.129 -0.129 -0.129	N 1 2 2 3 3 4 5 5 6 7 7 8 8 9 10 111 112 13 144 15 16 17 7 18	(ft) E -0.119 -0.005 -0.079 0.019 -0.031 -0.052 -0.025 -0.074 -0.095 0.053 -0.053 -0.025 -0.034 0.000 -0.033 0.071 -0.044 -0.004	(fft) Z -0.057 0.042 0.094 0.057 0.132 0.083 0.080 0.005 -0.007 0.050 0.050 0.106 0.118 0.018 0.018 0.018	(ft) -0.077 -0.103 -0.145 -0.139 -0.212 -0.111 0.103 -0.046 -0.141 -0.177 -0.156 -0.120 0.008 0.124 -0.003 -0.081 -0.043	1 1 1 1 1 1 1 1 1	N (ft) -0.01 -0.05 -0.05 -0.06 -0.06 -0.09 -0.06 -0.00	E(ft) 7	Z (ft) -0.034 -0.112 -0.150 -0.172 -0.251 -0.090 0.116 ** -0.182 -0.173 -0.150 -0.013 0.119 -0.025 -0.101 -0.102 -0.043	1 1 2 3 4 4 5 6 6 7 7 8 9 10 111 12 12 13 14 15 16 17 18	(ft) E -0.034 0.059 0.051 0.067 0.041 0.079 0.080 -0.046 -0.042 0.084 0.051 0.068 0.013 0.018 -0.008 0.000 0.016 -0.030	(ft) Z -0.031 -0.066 -0.099 -0.090 -0.113 -0.127 -0.141 -0.049 -0.038 -0.088 -0.098 -0.002 -0.008 -0.017 -0.022 -0.016 -0.031	(ft) -0.082 -0.111 -0.121 -0.158 -0.158 -0.087 -0.087 -0.094 -0.135 -0.198 -0.175 -0.113 -0.005 -0.175 -0.113 -0.005 -0.099 -0.126 -0.038	N 1 2 2 3 4 5 6 6 7 7 8 9 10 11 12 13 14 15 16 17 18	(ft) E -0.039 -0.066 0.031 0.057 -0.019 -0.005 0.001 -0.036 -0.047 0.072 0.023 0.021 -0.005 -0.038 -0.035 -0.035 -0.025 -0.023	(fft) 2 -0.041 0.057 0.105 0.097 0.057 0.034 0.073 -0.023 -0.023 0.067 0.071 0.020 0.023 0.060 0.039 0.019	(th) -0.029 -0.0117 -0.118 -0.143 -0.043 -0.048 -0.048 -0.048 -0.048 -0.0110 -0.000 -0.011 -0.033 -0.116 -0.049 -0.057	N 1 2 3 4 5 6 7 8 9 10 111 12 13 14 15 16 17 18	(ft) E 0.063 0.067 0.034 0.059 0.011 0.084 0.029 -0.019 -0.042 0.089 0.033 0.045 0.032 0.000 0.056 0.019 0.007	(ft) 2 -0.141 0.073 0.118 0.096 0.100 0.088 0.115 -0.018 -0.026 0.074 0.065 0.029 -0.008 -0.013 -0.001 0.012	- 0.098 -0.098 -0.125 -0.124 -0.145 -0.240 -0.131 -0.285 -0.407 -0.198 -0.230 -0.140 -0.205 -0.010 -0.245 -0.311 -0.235	1 1 1 1 1 1 1 1 1 1 1	N (ft)  1	E(ft) 57 -0.0 57 -0.0 542 -0.1 12 -0.1 12 -0.0 65 -0.1 52 -0.0 72 -0.1 22 -0.0 71 -0.1 66 -0.0 17 -0.0 68 -0.0 59 -0.0 59 -0.0	Z (ft)  116 -1  183 -1  183 -1  10 -1  179 -1  179 -1  117 -1  109 -1  134 -1  118 -1  100 -1  137 -1  141 -1  142 -1  143 -1	0.061 0.155 0.215 0.215 0.157 0.297 0.152 0.175 0.174 0.442 0.217 0.233 0.168 0.065 0.183 0.056 0.211 0.056 0.044
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\*\*Road to SM8 and SM9 cut off by Liberty Management.

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 6:

Explain what mitigation measures will be implemented to address any subsidence concerns.

Response:

Please refer to the Response to Post-Hearing Request No. 5. No mitigation measures are proposed

related to subsidence concerns because subsidence does not occur on reclaimed surface mines and

there has not been any deep, underground mining under the Project site. Additionally, no

mitigation measures are anticipated for differential settlement due to negligible change in soil

height.

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 7:

Explain whether the entire site will need to be graded, or only selected portions. If only selected

portions, provide a site map with those portions specifically delineated.

Response:

The Project intends to grade only selected portions of the site. The specific areas of the site

requiring grading will be determined by the EPC company prior to commencing construction.

Responding Witness: Colin Cannon

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 8:

Refer to the hearing video testimony of Brian Patton, 10:08:45 a.m.:

Explain what "department" is referenced that will monitor the vegetative growth. a.

b. Explain whether the entire site will be seeded prior to the two-year growing cycle

or only select areas.

Response:

a. The department charged with monitoring vegetative growth is the Kentucky

Department of Natural Resources, Office of Surface Mining.

b. The verbal description at 10:08:45 a.m. in the hearing video testimony was a

description of the typical reclamation process specific to a pastureland as a post mining

land use (PMLU), most of which has already been completed by the Starfire mining

operation. The two-year growing cycle associated with the pastureland PMLU is not

applicable to the commercial/industrial PMLU intended for this solar project. The portions

of the Project site which will not be graded will maintain the existing grass seed mixture,

while seeding areas within the limits of disturbance will be defined and vegetated in

accordance with the Project's Stormwater Pollution Prevention Plan (SWPPP). As noted

in paragraph 13 of the Project application, vegetative ground cover will be established on

the site with a target of 90% coverage of the entire site following construction activities.

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 9:

Provide a Stormwater Pollution Prevention Plan (SWPPP) for the project. If one does not exist,

provide an existing SWPPP used by the current mining company on the site, if available.

Response:

A Stormwater Pollution Prevention Plan (SWPPP) does not currently exist for the Project and will

be created by the EPC near the commencement of construction. Separately, the mining company

has filed its own existing permits, which include stormwater control system designs included in its

Office of Surface Mining Reclamation Act application submitted to the Kentucky Division of Mine

Permits (KYDMP). The KYDMP maintains the Surface Mining Information System, which is a

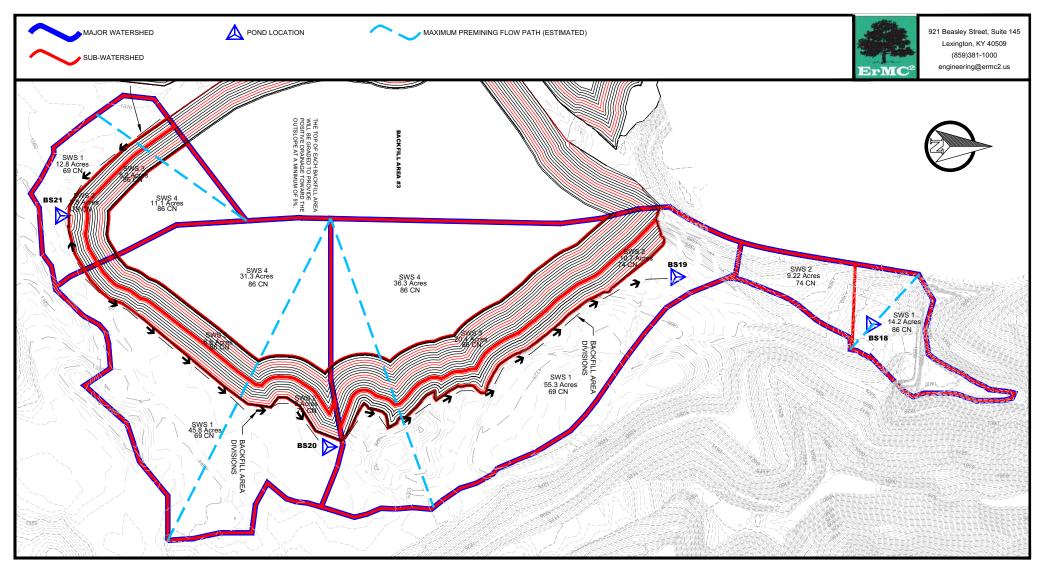
database cataloging mining-related permitting documents, and includes access to the Kentucky

Department of Natural Resources' "DocTree" (available at http://doctree.ky.gov/DocTree.web/) to

view these documents. The mining operation's stormwater control drawings to the Project site have

been downloaded from DocTree and are attached hereto, and includes depictions of drainage

ponding and drainage facilities, as well as mapping of watersheds and subwatersheds.

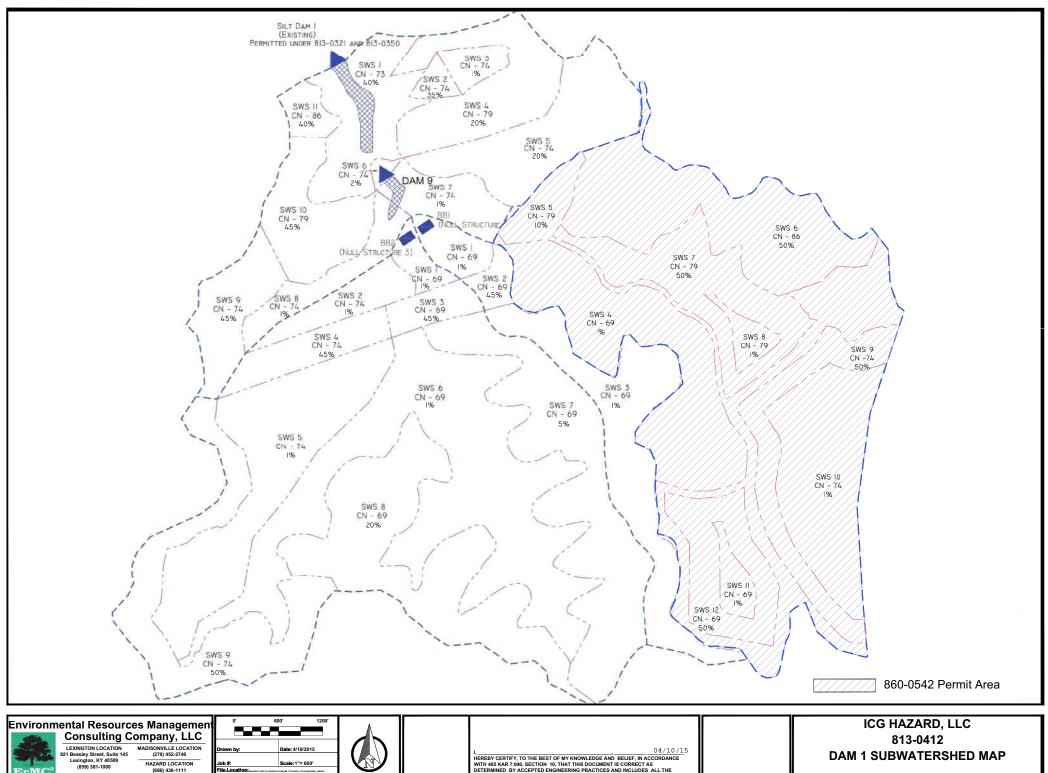


I,
HEREBY CERTIFY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IN ACCORDANCE
WITH 405 KAR 7:040, SECTION 10, THAT THIS DOCUMENT IS CORRECT AS DETERMINED
BY ACCEPTED ENGINEERING PRACTICES AND INCLUDES ALL THE INFORMATION
REQUIRED OF IT BY KRS CHAPTER 350 AND KAR TITLE 405.

0'	500'	1000'
Drawn by:	Date: 11	1/4/2015
Job #:	Scale: 1	"=500'
File Location: Y:1007 Pine Branchi001 ICG Hazards	80-0542 (East Long Fk)/MA2/CADD_Final	860-0542 MA 2 SWS



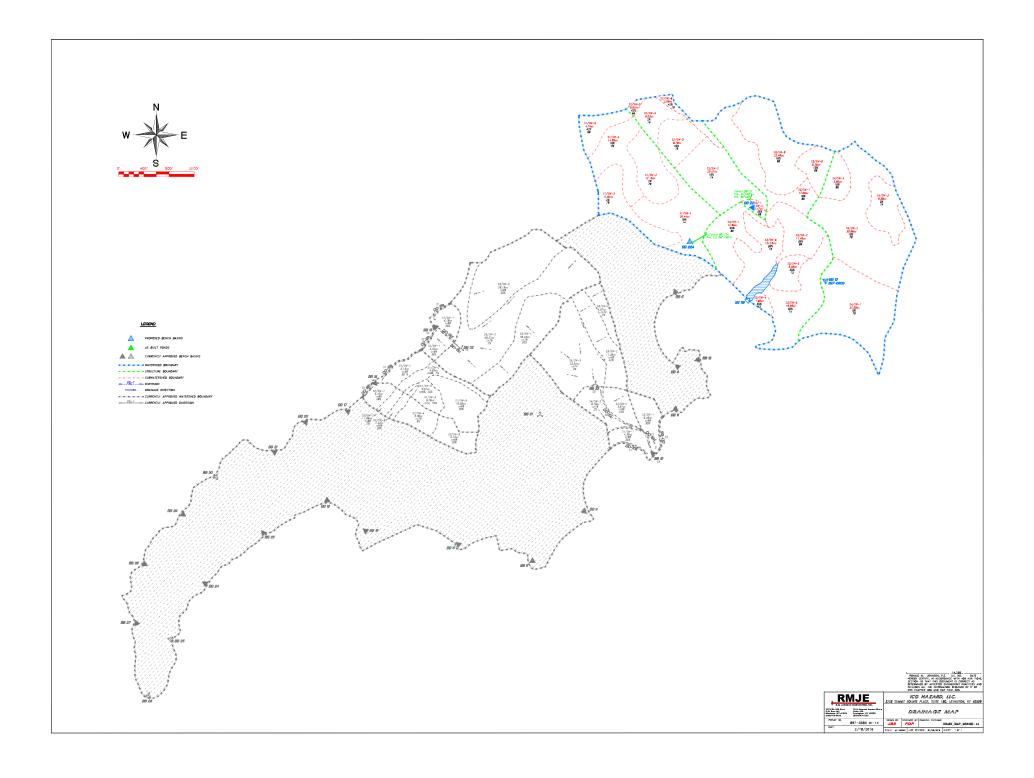
ICG HAZARD, LLC 860-0542 MA #2 POND WATERSHEDS

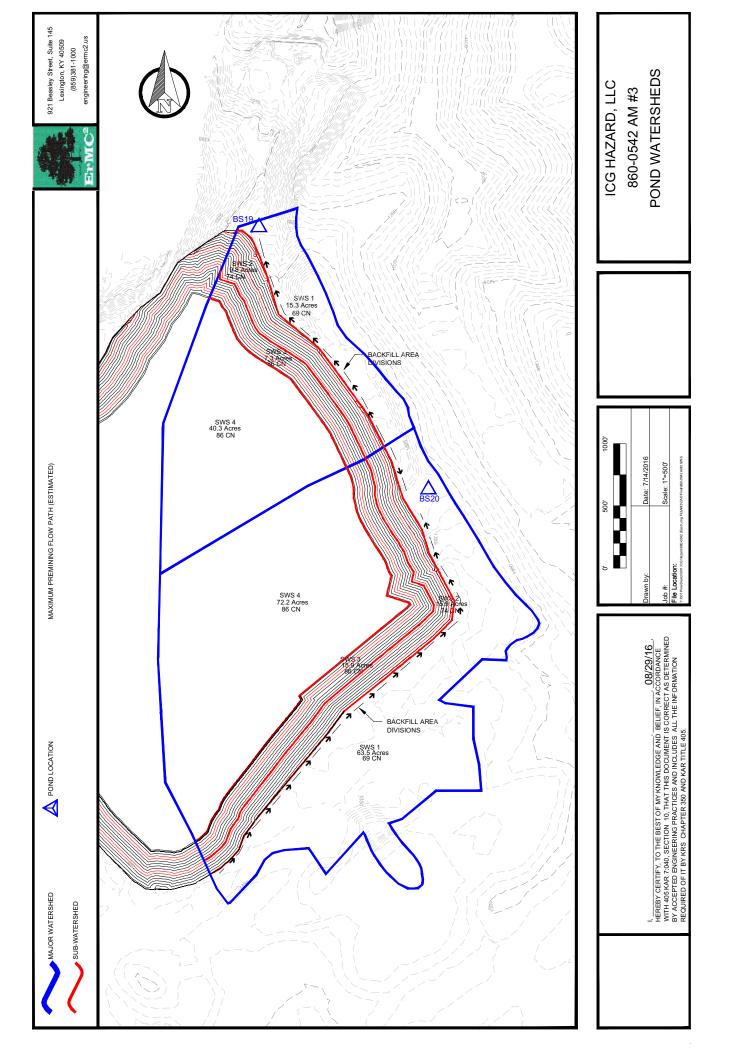


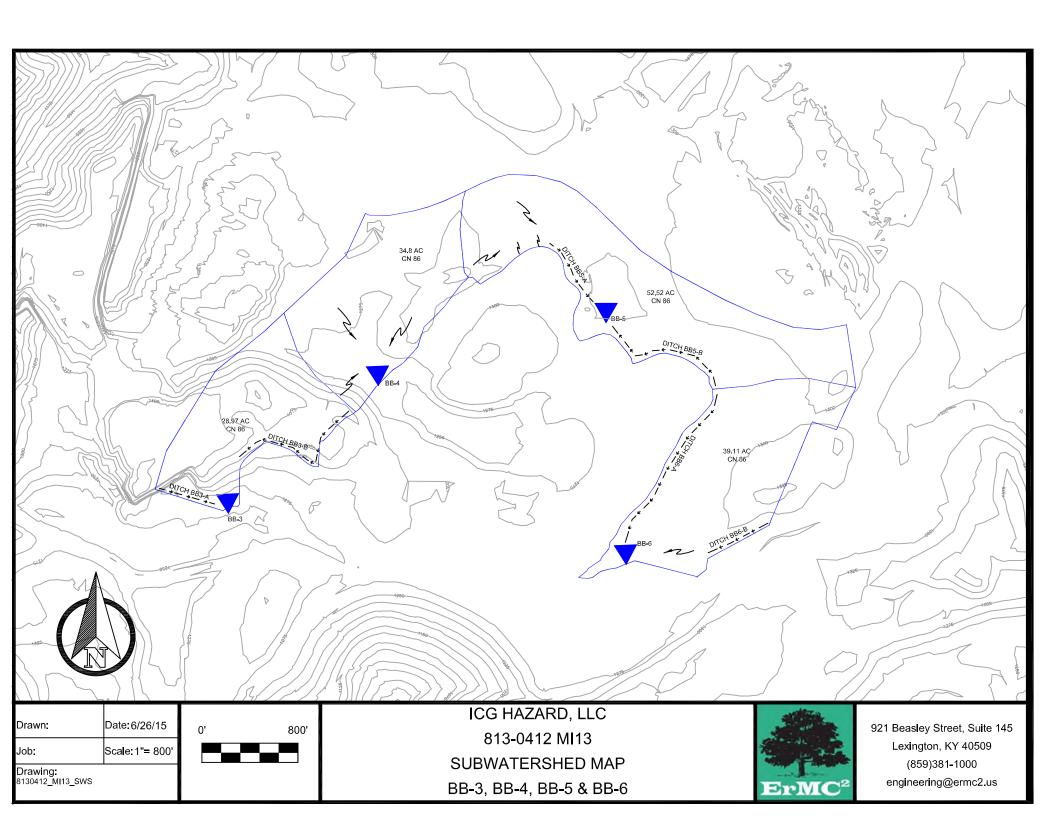
HAZARD LOCATION (606) 436-1111

I,
HEREBY CERTIFY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, IN ACCORDANCE
WITH 405 KAR 7-040, SECTION 10, THAT THIS DOCUMENT IS CORRECT AS
DETERMINED BY ACCEPTED ENGINEERING PRACTICES AND INCLUDES ALL THE
INFORMATION REQUIRED OF IT BY KRS. CHAPTER 350 AND KAR TITLE 405.

**DAM 1 SUBWATERSHED MAP** 







Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 10:

Explain how the project will mitigate slop failure.

Response:

Starfire interprets this question as requesting information on plans to mitigate slope failure. The

Project's Geotechnical Study details design considerations which will be incorporated into the

Project's construction engineering designs along with future site-specific, construction-grade

geotechnical analyses. The Geotechnical Study was submitted as an attachment to RFI 1-49. Areas

of excessively high slope will be graded in accordance with the Project's engineered designs and/or

avoided when locating Project infrastructure.

Responding Witness: Colin Cannon

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 11:

Explain what mitigation measures will be implemented to address shallow rock within the site.

Response:

Please refer to the Project's Geotechnical Study attached to RFI 1-49. Per the findings in the

Geotechnical Study, the Project will consider predrilling for driven piles and/or screw type piles

for structural foundations and rock trenching for the Project's electrical trenches. Avoidance in

certain areas may also be used for excessively shallow or sloped areas.

Responding Witness: Colin Cannon

Responses to Siting Board Staff's Post-Hearing Request for Information

Case No. 2024-00255

Request No. 12:

Explain what communication, if any, has taken place between Starfire and Knott, Breathitt, and

Perry County officials concerning local roads. Explain whether any concerns were raised by county

officials concerning road use. Provide documentation, if applicable.

Response:

KY 1087 and KY 476 are "local" roads that Starfire anticipates may be used for Project access.

However, KY 1087 and KY 476 are both state-maintained roads. Project representatives have

communicated via email and telephone with representatives from KYTC District 10, which is

based in Jackson, Kentucky, and responsible for maintaining these two roads. Please refer to the

attachments to the Response to Post-Hearing Request No. 4 for emails regarding use of KY 1087

and KY 476. To date, Breathitt, Knott, and Perry County local officials have not raised any issues

pertaining to local road use; however, the Project will be responsive to any issues that may arise

and coordinate with local road authorities to mitigate any road-related concerns on county

roadways.