



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

PERMIT APPLICATION TO DRILL AND OPERATE A CONVENTIONAL WELL

Notes		DEP USE ONLY	
NC CHANGE OF USE CLASS II-D PNDI 7/9/2022	OGO #	34294	Objection Date - Do not issue before: 5/20/2023
	Client Id	76535	Date Approved: SGP 1/9/24
	Bond #	5313	API #s37- 083-46237
	C: 5/11/23 kh G: ACM 1/3/24		Watershed Name: Designation: <input type="checkbox"/> HQ <input checked="" type="checkbox"/> EV Of-Panther Run
	INV:		Special Cond. See ATTACHED LIST in eWell
APS #	Auth Id	1439703	Site Id 168916 PF Id 170866 SF Id 1386346

Please read instructions before you begin filling in this form.

WELL INFORMATION

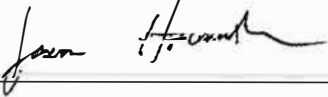
Well Operator Catalyst Energy, Inc.	DEP ID# 76535	Well API # 37-083-46237- -	Well Farm Name Lot 580	Well # 580-1
Address 1112 S Braddock Ave, Suite 201		LAT 41°49' 50.00" .14	NAD 83	Project Number
City Pittsburgh		LONG - 78°34' 54.00" 53.97	County McKean	Serial #
State PA	Zip 15218	Municipality Name/ City, Borough, Township Keating Township	USGS 7.5 min. quadrangle map Cyclone	Section 5
Phone 412.325.4350	Fax 412.325.4356	Email jhorvath@catalystenergyinc.com		

<input type="checkbox"/> Check if this is a new address	24/7 Emergency Phone contact number 412.325.4353	911 address of well site (if available) 4505 Rt 646, Cyclone, PA 16726
Freshwater Impoundment Name/ Identification	Centralized Impoundment Name/ Identification	Borrow Area Name/Identification ACM (per ERP)
Well Pad Name/Identification Lot 580-1		

Surface Elev 2181.8	Deepest Formation to be penetrated: Bertie	Anticipated TVD 5420	PERMIT TYPE Check applicable. Application is to: <input type="checkbox"/> Drill a new <input type="checkbox"/> Re-permit expired permit <input type="checkbox"/> Deepen well <input type="checkbox"/> Redrill wellbore <input type="checkbox"/> Alter well <input checked="" type="checkbox"/> Other (specify) Change in Use	TYPE OF WELL Check applicable. <input type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Comb. (gas & oil/condensate) <input type="checkbox"/> Injection, recovery <input checked="" type="checkbox"/> Injection, disposal <input type="checkbox"/> Coalbed Methane <input type="checkbox"/> Gas Storage <input type="checkbox"/> Other (specify) Configuration <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Horizontal <input type="checkbox"/> Deviated <input type="checkbox"/> Multiple laterals	APPLICATION FEE Check applicable. <input type="checkbox"/> Conventional <input type="checkbox"/> \$200 (Home Use Well) Total Application Fee \$ 100 Check # 41194 Bond Agreement Id 145824-259856
Target Formation(s) proposed for production Onondaga		Anticipated Target Top/Bottom TVD 5170 5188			
Number of wellbore laterals proposed under this application 0					
Total feet of wellbore to be drilled under this application 0 Ft.					
If applying for a permit to rework an existing well not registered or permitted, check this box <input type="checkbox"/> and enter date drilled, if known: (see instructions)					
PNDI Attached: <input checked="" type="checkbox"/> Any threatened or endangered "hit" must include a copy of the clearance letter from the applicable agency(ies).					
Application submitted as: Coal well: <input type="checkbox"/> Attach Coal Module CBM well <input type="checkbox"/> Attach Coal Module Non coal well <input checked="" type="checkbox"/> Attach justification.					

COORDINATION WITH REGULATIONS AND OTHER PERMITS		Yes	No
1. Will the well be subject to the Oil and Gas Conservation Law? If "No," go to 2).		<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. If "Yes" to #1, is the well at least 330 feet from outside lease or unit boundary?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the location fall within an area covered by a spacing order?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. If the well will be multilateral, identify the wellbores on the sketch on page 3 of the plat that will be completed as conservation and non-conservation.			
2. Will the edge of the disturbed area of any portion of the well site of a conventional well be within 100 feet from the edge of any solid blue lined stream, spring or body of water identified on the most current 7½' topographic quadrangle map or wetland greater than one acre in size or in a wetland?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, is a waiver request (form 5500-FM-OG0057) and site-specific E&S control plan attached?		<input checked="" type="checkbox"/>	<input type="checkbox"/>

See Special Condition
and memo from WQS
ACM

3. Will the well penetrate or be within 2,000 feet of an active gas storage reservoir boundary?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. If Yes, print the names of: Storage Field: Operator:		
4. Is the proposed well location within the permitted area of a landfill ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Will the well be drilled within 200 feet from any existing building or an existing water supply?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a. If "Yes," is written consent from the owner attached?	<input type="checkbox"/>	<input type="checkbox"/>
b. If written consent is not attached, is a variance request (form 8000-FM-OOGM0058) attached?	<input type="checkbox"/>	<input type="checkbox"/>
6. Will the well be located where it may impact a public resource as outlined in the "Coordination of a Well Location with Public Resources" form 5500-PM-OG0076? If yes, attach a completed copy of the form and	<input type="checkbox"/>	<input checked="" type="checkbox"/>
clearance letters from applicable agencies.		
7. Will any portion of the well site be in a Special Protection High Quality <input type="checkbox"/> (HQ) or Exceptional Value <input type="checkbox"/> (EV) watershed?	<input checked="" type="checkbox"/>	
of - Panther Run	ACM 1/5/24	
Provide name of special protection stream _____		
7.1 Will the well be drilled using enhanced drilling or completion technologies into a formation that typically produces gas or petroleum?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is this well part of a development which requires an Earth Disturbance Permit for Oil and Gas Activities disturbing more than 5 acres? If yes, list the number of the ESCGP approval if the permit has been issued.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.1 Is the disturbed area of the well site between 1 to 5 acres and in a Special Protection Watershed	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Is waste, including drill cuttings, from the drilling of this well is to be disposed of on this well site? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
10. Will the well or well site be located within a defined 100 year floodplain or where the floodplain is undefined, within 100 feet of the top of the bank of a perennial stream or within 50 feet of the top of the bank of an intermittent stream. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
a. If yes, is a waiver request attached that will protect the Waters of the Commonwealth? Yes <input type="checkbox"/> No <input type="checkbox"/>		
11. Is the well to be located within a H ₂ S area pursuant to §78.77a? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
12. Attach a current Ownership & Control form 8000-FM-OOGM0118.		
Signature of Applicant The person signing this form attests that they have the authority to submit this application on behalf of the applicant, and that the information, including all related submissions, is true and accurate to the best of their knowledge.		
Signature of Person Authorized to Submit Application 	(Print or Type)	Name of Signer: JASON HORVATH Title: Engineer
		Date 5/04/2023
Application Preparer/Contact: JHORVATH@CATALYSTENERGYINC.COM		Phone: 412.325.4355



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**PERMIT APPLICATION TO DRILL AND OPERATE
A CONVENTIONAL WELL
Record of Notification**

Farm Name - Well #		Lot 580 580.1	
Applicant Name		Catalyst	
DEP USE ONLY		APS #	
		DEP ID#	

List the following: surface landowner, surface landowners and water purveyors with water supplies within 1000 feet; municipality where the well will be drilled; adjacent municipality; gas storage operator if within 2000 feet. Mark the boxes, "X," which show the parties' interests. Use additional forms if you need more space. You are required to notify each of these parties. Notification: Signature below name indicates the party's acknowledgement of receipt of the well location plat and serves as proof of notification		Surface Landowner	Gas Storage Operator	Surface Landowners & Water Purveyors with water supplies <1000'	Municipalities	Notification Note the means and attach proof.			
						Certified Mail Dates		Address Affidavit	Written Consent
						Sent	Return Receipt		
Print Name: Curtis D. Wackwitz Signature	Address: PO Box 47 Cyclone PA 16726			X		9/16/22	9/29/22		
Print Name: Ronald H. & Helen E. Smith Signature	Address: PO Box 33 Cyclone PA 16726			X		1/24/23		X	
Print Name: Catalyst Energy, Inc. Signature <i>[Signature]</i>	Address: 1112 S. Braddock Ave Suite 201 Pittsburgh, PA 15218	X							X
Print Name: Signature	Address:								
Print Name: Signature	Address:								

Record of Written Consent

Written Consent: Signature below indicates the party's approval of the well location, or indicates written consent and waives the 15-day objection period where applicable.
Check applicable box

Print and Sign Name:	Address:	Date:	Surface Owner	Water Well within 200 feet	Building within 200 feet
<i>[Signature]</i> Jason Harvath	1112 S Braddock Ave STE 201 PITTSBURGH PA 15218	10/17/23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Print and Sign Name:	Address:	Date:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Print and Sign Name:	Address:	Date:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Print and Sign Name:	Address:	Date:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Print and Sign Name:	Address:	Date:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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						Certified Mail Dates		Address Affidavit	Written Consent
						Sent	Return Receipt		
Print Name: Annin Township	Address: PO Box 143 Turtle Point, PA 16750				X	9/16/22	9/29/22		
Signature									
Print Name: Otto Township	Address: PO Box 284 Duke Center PA 16729				X	9/16/22	9/20/22		
Signature									
Print Name: Foster Township	Address: 1185 East Main St. Bradford PA 16701				X	9/16/22	9/19/22		
Signature									
Print Name: Bradford Township	Address: 136 Hemlock St. Bradford, PA 16701				X	9/16/22	9/19/22		
Signature									
Print Name: Layfayette Township	Address: 7534 Route 59 Lewis Run PA 16738				X	9/16/22	9/19/22		
Signature									

Record of Written Consent

Written Consent: Signature below Indicates the party's approval of the well location, or indicates written consent and waives the 15-day objection period where applicable.
Check applicable box

Print and Sign Name:	Address:	Date:	Surface Owner	Water Well within 200 feet	Building within 200 feet
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WELL LOCATION PLAT

PAGE 1 Surface Location

Auth ID #:

Permit #: 083-46237

Project #:

GACM
1/3/24

C:



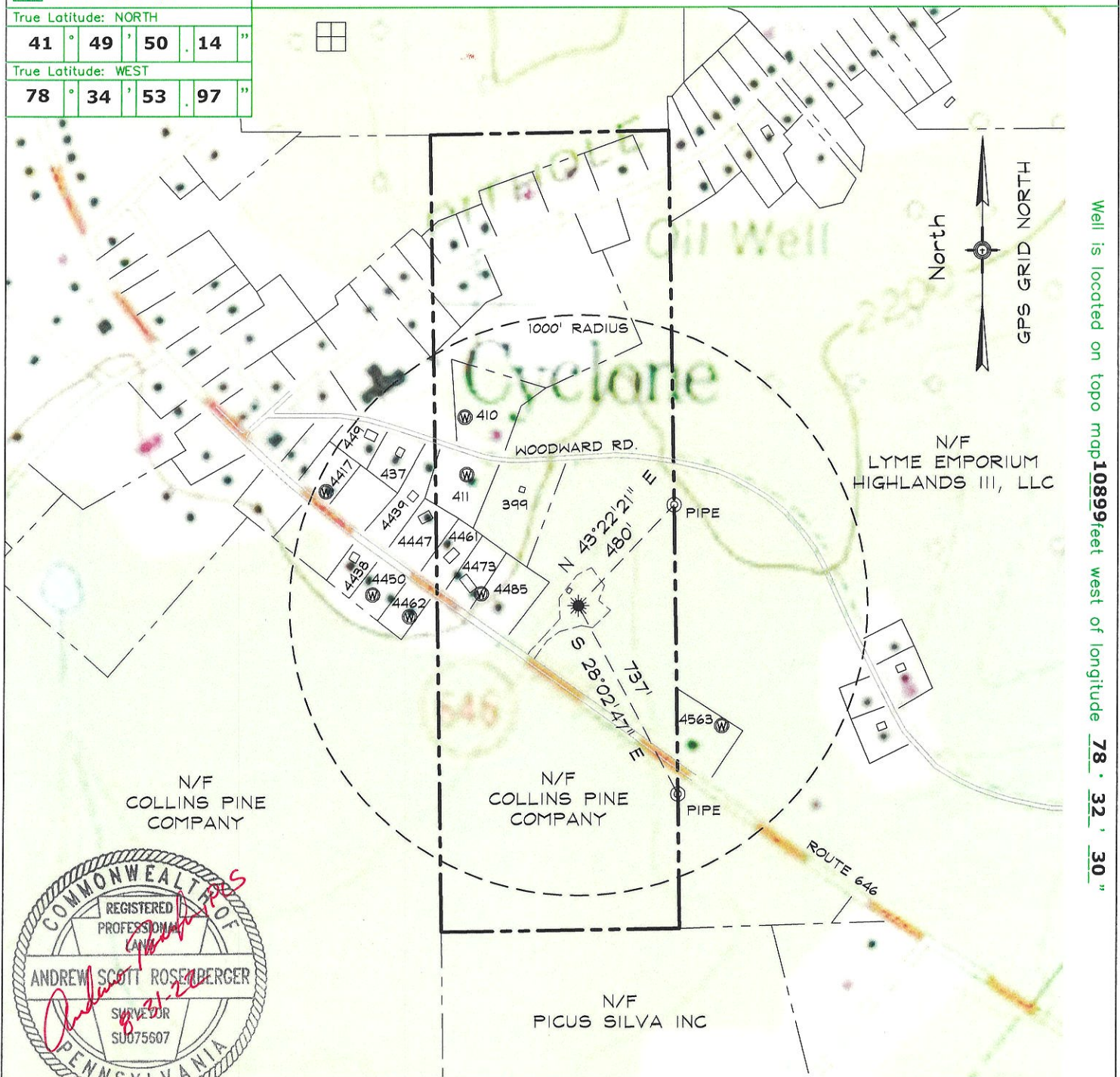
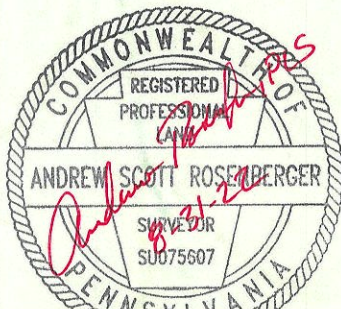
☐ Denotes location of top of well on topo map.

True Latitude: NORTH

41 ° 49 ' 50 . 14 "

True Latitude: WEST

78 ° 34 ' 53 . 97 "

Well is located on topo map 998 feet south of latitude 41 ° 50 ' 00 "Well is located on topo map 10899 feet west of longitude 78 ° 32 ' 30 "

Applicant/Well Operator Name: CATALYST ENERGY INC		DEP ID # 76535	Well (Farm) Name: LOT 580	Well #: 580-1	Serial #:
Address: 1112 S. BRADDOCK AVE, SUITE 201, PITTSBURGH, PA 15218			County: MCKEAN	Municipality: KEATING	Well Type: INJECTION
911 address of well site: N/A			USGS 7½' Quadrangle Map Name: CYCLONE, PA	Map Section: 5	Surface Elevation: 2184 ft.
Surveyor or Engineer: ANDREW S. ROSENBERGER	Phone #: (814) 368-4139	Dwg #: 05769.580-1	Date: 8/31/22	Scale: 1"=500'	Tract Acreage: 53± AC.
Lat. & Long Metadata Method: SURVEY GRADE GPS	Accuracy: +/- 10 ft.	Datum: NAD 83	Elevation Metadata Method: SURVEY GRADE GPS	Accuracy: +/-10 ft.	Datum: NAVD 88
			Survey Date: 8/22		

WELL LOCATION PLAT

Page 2 Notifications

DEP Statewide toll-free phone number for reporting cases of water contamination which may be associated with development of oil and gas resources is **1-866-255-5158**.

Applicant / Well Operator Name CATALYST ENERGY, INC	DEP ID# 76535	Well (Farm) Name LOT 580	Well # 580-1	Serial #
Surface Landowner / Lessor: CATALYST ENERGY, INC		Angle & Course of Deviation (Drilling): NONE	Anticipated True Vertical Depth Feet (TVD): 5420	Anticipated Total Measured Depth Feet (TMD): 5420
Target Formation(s): Onondaga		Deepest Formation to be penetrated Bertie	Number of laterals: 0	Total footage to be drilled all laterals: 0
Surface Owner/Water Purveyor w/Water Supply within 1000'/3000'		Latitude Longitude of Water Supply		
PAUL J. & BETH A. LEWIS (House #399)		LAT: 41°49'54" LONG: -78°34'57" (House Location)		
HELEN I. SLOCUM (House #410)		LAT: 41°49'57" LONG: -78°34'59"		
MARK & RONDA L. SHONTS (House #411)		LAT: 41°49'55" LONG: -78°34'59"		
JONATHON GREEN (House #437)		LAT: 41°49'55" LONG: -78°35'02" (House Location)		
CURTIS D. WACKWITZ (House #449)		LAT: 41°49'56" LONG: -78°35'03" (House Location)		
ROBERT G. & JANET H. SWICK (House #4417)		LAT: 41°49'54" LONG: -78°35'06"		
SCOTT D. & EUNICE R. FREER (House #4438)		LAT: 41°49'52" LONG: -78°35'04" (House Location)		
RONALD H. & HELEN E. SMITH (House #4439)		LAT: 41°49'54" LONG: -78°35'02" (House Location)		
DUSTIN M. & JAMIE L. SWEELEY (House #4447)		LAT: 41°49'53" LONG: -78°35'01" (House Location)		
MIRANDA J. LANANGER (House #4450)		LAT: 41°49'50" LONG: -78°35'03"		
MICHELLE N. EDEY (House #4461)		LAT: 41°49'52" LONG: -78°35'00" (House Location)		
FRANCIS L. KRAMER, JR. (House #4462)		LAT: 41°49'50" LONG: -78°35'02"		
JAMES J. BANKS (House #4473)		LAT: 41°49'51" LONG: -78°34'59" (House Location)		
DELMAR L. & SHARON S. WORK (House #4485)		LAT: 41°49'51" LONG: -78°34'58"		
TERRY FREDERICK (House #4563)		LAT: 41°49'46" LONG: -78°34'47"		
Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		Municipality: where the well will be drilled, adjacent to the well, or within 3000 feet		
KEATING TOWNSHIP		FOSTER TOWNSHIP		
SMETHPORT BOROUGH		OTTO TOWNSHIP		
ANNIN TOWNSHIP		ELDRED TOWNSHIP		
LIBERTY TOWNSHIP		Coal related parties		
NORWICH TOWNSHIP				
SERGEANT TOWNSHIP				
HAMLIN TOWNSHIP				
LAFAYETTE TOWNSHIP				
BRADFORD TOWNSHIP				



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WELL LOCATION PLAT

PAGE 1 Surface Location

Auth ID #:

G:

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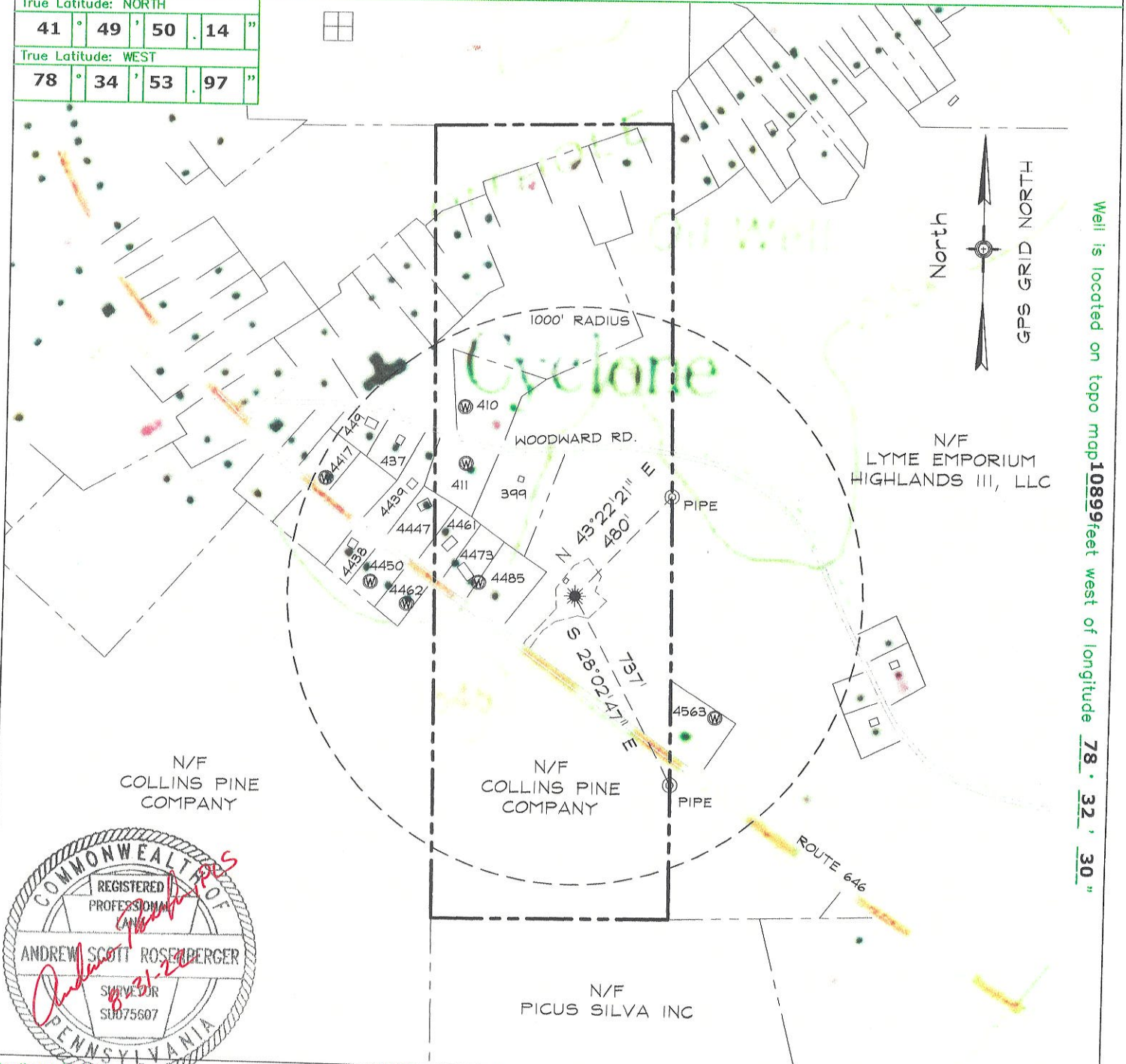
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MCKEAN

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KEATING

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911 address of well site:

N/A

USGS 7½' Quadrangle Map Name:

CYCLONE, PA

Map Section:

5

Surface Elevation:

2184

ft.

Surveyor or Engineer: ANDREW S. ROSENBERGER

Phone #:

(814) 368-4139

Dwg #:

05769.580-1

Date:

8/31/22

Scale:

1"=500'

Tract Acreage:

53± AC.

Lat. & Long Metadata Method:

SURVEY GRADE GPS

Accuracy:

+/- 10 ft.

Datum:

NAD 83

Elevation Metadata Method:

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NORWICH TOWNSHIP				
SERGEANT TOWNSHIP				
HAMLIN TOWNSHIP				
LAFAYETTE TOWNSHIP				
BRADFORD TOWNSHIP				



AFFIDAVIT OF NON-DELIVERY OF CERTIFIED MAIL FOR CONVENTIONAL WELL

I hereby certify that I have sent, by certified mail, a COMPLETE copy of my permit application, including location plat and all attachments thereto, for well # 580-1, on (farm name) Lot 580, (serial no.) 37-083-46237, in (municipality name and type) Keating Township, (county) McKean County.

I have sent the copy of the application by certified mail to each of these parties listed, as required depending on the relationship to the proposed well location:

- the surface landowner,
- the municipality in which the tract of land upon which the well to be drilled is located,
- the municipalities adjacent to the well site,
- all surface landowners and water supply purveyors whose water supplies are within 1,000 feet of the proposed well location,
- the owners and lessees of all coal seams in areas of underlying workable coal,
- every coal operator identified on the well permit application,
- the gas storage operator, if any, identified on the well permit application.

I have also sent a copy of "Landowner Notification of Well Drilling or Alterations," DEP form 8000-FM-OOGM0052, to every surface landowner or water purveyor whose water supplies are within 1,000 feet of the proposed well location.

I have sent a notice as described above to the following persons at the addresses shown below, and I was unable to obtain a receipt of delivery signed by the addressee or a member of his family residing at that address. Enclosed are copies of the white certified mail slip, and / or the green certified mail return-receipt card,* showing that delivery was not possible.

I certify that a copy of the complete permit application including location plat and all attachments thereto, and the "Landowner Notification of Well Drilling or Alterations," if applicable, was sent to the persons and addresses to whom tax notices for the property are sent.

Person & Address where certified mail was sent	Date Sent	Date mailing was returned as undeliverable.
1. <u>Michelle N. Edey</u> <u>4461 Route 646</u> <u>Cyclone, PA 16726</u>	<u>9/19/22</u>	<u>10/01/2022</u>
2. <u>Robert G. & Janet H. Swick</u> <u>809 Front Ave</u> <u>Salamanca, NY 147779</u>	<u>9/19/22</u>	<u>10/04/2022</u>

Well Operator (signature) *Jason Horvath*

(Print name & title) JASON HORVATH ENGINEER

In Witness Whereof, I have hereunto set my hand and official seal.

Notary Public (signature) *Margaret M. Gallik*

My commission expires: 08/20/2024

SEAL

Commonwealth of Pennsylvania - Notary Seal
Margaret M. Gallik, Notary Public
Allegheny County
My commission expires August 20, 2024
Commission number 1207660

In recognition hereof, I set my seal and signature this 20th day of March, 2023.

* Photocopies of the green cards are acceptable.



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- the owners and lessees of all coal seams in areas of underlying workable coal,
- every coal operator identified on the well permit application,
- the gas storage operator, if any, identified on the well permit application.

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I certify that a copy of the complete permit application including location plat and all attachments thereto, and the "Landowner Notification of Well Drilling or Alterations," if applicable, was sent to the persons and addresses to whom tax notices for the property are sent.

Person & Address where certified mail was sent	Date Sent	Date mailing was returned as undeliverable.
1. <u>Richard H & Helen E. Smith</u> <u>P.O. Box 33</u> <u>Cyclone, PA 16726</u>	<u>1/23/23</u>	<u>3/20/2023</u>
2. _____ _____ _____	_____	_____

Well Operator (signature) Jason Horvath

(Print name & title) JASON HORVATH ENGINEER

In Witness Whereof, I have hereunto set my hand and official seal.

Notary Public (signature) Margaret M. Gallik

My commission expires: 08/20/2024

SEAL

Commonwealth of Pennsylvania - Notary Seal
Margaret M. Gallik, Notary Public
Allegheny County
My commission expires August 20, 2024
Commission number 1207660

In recognition hereof, I set my seal and signature this 27th day of March, 2023.

* Photocopies of the green cards are acceptable.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Foster Township
1185 East Main Street
Bradford, PA 16701



9590 9402 6917 1104 1431 82

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7717

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

S. Morgan

C. Date of Delivery

9-19-22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail

- ☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

nsured Mail Restricted Delivery
(over \$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Otto Township
P.O. Box 284
Duke Center, PA 16729



9590 9402 6917 1104 1431 51

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7748

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

Joanne Drunna

C. Date of Delivery

9/20/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Keating Township
7160 PA Rt 46
Smethport, PA 16730



9590 9402 6917 1104 1431 20

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7779

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

Fred Bowser

C. Date of Delivery

9-19-22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery

- ☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

Mail
Mail Restricted Delivery
(\$500)

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Lafayette Township
7534 Route 59
Lewis Run, PA 16738



9590 9402 6917 1104 1431 68

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7731

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

Kimberly Cole

☒ Agent☐ Addressee

B. Received by (Printed Name)

Kimberly Cole

C. Date of Delivery

9/19/22

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery (over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Eldred Township
1834 West Eldred Road
Eldred, PA 16731



9590 9402 6917 1104 1431 99

2. Article Number (Transfer from service label)

018 0680 0001 1303 7700

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

Shelley F. Batt

☐ Agent☐ Addressee

B. Received by (Printed Name)

Shelley F. Batt

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery (over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Liberty Township
4859 Route 155
Port Allegany, PA 16743



9590 9402 6917 1104 1432 29

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7670

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

Donald Snyder

☐ Agent☐ Addressee

B. Received by (Printed Name)

Donald Snyder

C. Date of Delivery

9-19-22

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery (over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Bradford Township
136 Hemlock Street
Bradford, PA 16701



9590 9402 6917 1104 1432 05

2. Article Number (Transfer from service label)

018 0680 0001 1303 7694

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Marsha Thomas*☐ Agent☐ Addressee

B. Received by (Printed Name)

MARSHA THOMAS

C. Date of Delivery

9/19/22

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery

(over \$500)

☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted

Delivery

☐ Signature Confirmation™☐ Signature Confirmation

Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Norwich Township
3853 West Valley Road
Smethport, PA 16749



9590 9402 6917 1104 1432 36

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7663

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *M. Keese*☐ Agent☐ Addressee

B. Received by (Printed Name)

M. Keese

C. Date of Delivery

9/19/22

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery

(over \$500)

☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted

Delivery

☐ Signature Confirmation™☐ Signature Confirmation

Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Smethport Borough
201 West Main St
Smethport PA 16749



9590 9402 6917 1104 1431 37

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7762

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Tina Ours*☐ Agent☐ Addressee

B. Received by (Printed Name)

Tina Ours

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below:

☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted

Delivery

☐ Signature Confirmation™☐ Signature Confirmation

Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Francis L. Kramer, Jr.
PO BOX 38
CYCLONE PA, 16726



9590 9402 6917 1104 1430 38

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7809

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

B. Received by (Printed Name)

Francis L. Kramer

☐ Agent☒ Addressee

C. Date of Delivery

9-30-22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail
red Mail
red Mail Restricted Delivery
(over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Sergeant Township
14200 Wilcox Rd
Mt. Jewett PA 16740



9590 9402 6917 1104 1431 44

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7755

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

B. Received by (Printed Name)

Kathrine Carlson

☐ Agent☐ Addressee

C. Date of Delivery

9-19-22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail
Insured Mail Restricted Delivery
(over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Hamlin Township
P.O. Box 235
Hazel Hurst, PA 16733



9590 9402 6917 1104 1431 75

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7724

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

B. Received by (Printed Name)

Cheryl Potham

☐ Agent☐ Addressee

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail
Insured Mail Restricted Delivery
(over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Miranda J. Lananger
PO BOX 97
CYCLONE PA, 16726



9590 9402 6917 1104 1430 14

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7786

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Miranda J. Lananger* ☐ Agent ☒ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery

- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mark & Ronda L. Shonts
PO BOX 66
CYCLONE PA, 16726



9590 9402 6917 1104 1430 83

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7854

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Ronda L. Shonts* ☐ Agent ☒ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery

- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Delmar L. & Sharon S. Work
PO BOX 265
CYCLONE PA, 16726



9590 9402 6917 1104 1430 52

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7823

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Sharon S. Work* ☐ Agent ☒ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery

- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Terry Frederick
4563 ROUTE 646
CYCLONE PA, 16726



9590 9402 6917 1104 1430 07

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7922

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Terry Frederick*☐ Agent☒ Addressee

B. Received by (Printed Name)

Terry Frederick

C. Date of Delivery

9-27-22

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☒ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery (over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

James J. Banks
378 DUFFYTOWN RD
ELDRED PA, 16731



9590 9402 6917 1104 1430 45

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7816

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *James J. Banks*☐ Agent☐ Addressee

B. Received by (Printed Name)

James J. Banks

C. Date of Delivery

9/19/22

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☒ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery (over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Dustin M. & Jamie L. Sweeley
PO BOX 81
CYCLONE PA, 16726



9590 9402 6917 1104 1429 94

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7915

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Dustin M. & Jamie L. Sweeley*☐ Agent☐ Addressee

B. Received by (Printed Name)

Dustin M. & Jamie L. Sweeley

C. Date of Delivery

9/19/22

D. Is delivery address different from item 1? ☐ YesIf YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery (over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
 - Print your name and address on the reverse so that we can return the card to you.
 - Attach this card to the back of the mailpiece, or on the front if space permits.
- Article Addressed to:

Paul J. & Beth A. Lewis
PO Box 361
Smethport, PA 16749



9590 9402 6917 1104 1430 69

Article Number (Transfer from service label)

7018 0680 0001 1303 7830

S Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

- A. Signature
X *Cody Lewis* ☐ Agent ☒ Addressee
- B. Received by (Printed Name) *Cody Lewis* C. Date of Delivery
- D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- | | |
|--|---|
| <input type="checkbox"/> Adult Signature | <input type="checkbox"/> Priority Mail Express® |
| <input type="checkbox"/> Adult Signature Restricted Delivery | <input type="checkbox"/> Registered Mail™ |
| <input checked="" type="checkbox"/> Certified Mail® | <input type="checkbox"/> Registered Mail Restricted Delivery |
| <input type="checkbox"/> Certified Mail Restricted Delivery | <input type="checkbox"/> Signature Confirmation™ |
| <input type="checkbox"/> Collect on Delivery | <input type="checkbox"/> Signature Confirmation Restricted Delivery |
| <input type="checkbox"/> Collect on Delivery Restricted Delivery | |
| <input type="checkbox"/> Insured Mail | |
| <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500) | |

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
 - Print your name and address on the reverse so that we can return the card to you.
 - Attach this card to the back of the mailpiece, or on the front if space permits.
- Article Addressed to:

Scott D. & Eunice R. Freer
PO BOX 113
CYCLONE PA, 16726



9590 9402 6917 1104 1429 70

Article Number (Transfer from service label)

018 0680 0001 1303 7892

S Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

- A. Signature
X *Eunice R. Freer* ☐ Agent ☒ Addressee
- B. Received by (Printed Name) C. Date of Delivery
- D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- | | |
|--|---|
| <input type="checkbox"/> Adult Signature | <input type="checkbox"/> Priority Mail Express® |
| <input type="checkbox"/> Adult Signature Restricted Delivery | <input type="checkbox"/> Registered Mail™ |
| <input checked="" type="checkbox"/> Certified Mail® | <input type="checkbox"/> Registered Mail Restricted Delivery |
| <input type="checkbox"/> Certified Mail Restricted Delivery | <input type="checkbox"/> Signature Confirmation™ |
| <input type="checkbox"/> Collect on Delivery | <input type="checkbox"/> Signature Confirmation Restricted Delivery |
| <input type="checkbox"/> Collect on Delivery Restricted Delivery | |
| <input type="checkbox"/> Insured Mail | |
| <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500) | |

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
 - Print your name and address on the reverse so that we can return the card to you.
 - Attach this card to the back of the mailpiece, or on the front if space permits.
- Article Addressed to:

Jonathon Green
437 WOODARD RD
CYCLONE PA, 16726



9590 9402 6917 1104 1430 90

Article Number (Transfer from service label)

COMPLETE THIS SECTION ON DELIVERY

- A. Signature
X *Jonathon Green* ☐ Agent ☒ Addressee
- B. Received by (Printed Name) *Jonathon Green* C. Date of Delivery *9/22/22*
- D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
- | | |
|--|---|
| <input type="checkbox"/> Adult Signature | <input type="checkbox"/> Priority Mail Express® |
| <input type="checkbox"/> Adult Signature Restricted Delivery | <input type="checkbox"/> Registered Mail™ |
| <input checked="" type="checkbox"/> Certified Mail® | <input type="checkbox"/> Registered Mail Restricted Delivery |
| <input type="checkbox"/> Certified Mail Restricted Delivery | <input type="checkbox"/> Signature Confirmation™ |
| <input type="checkbox"/> Collect on Delivery | <input type="checkbox"/> Signature Confirmation Restricted Delivery |
| <input type="checkbox"/> Collect on Delivery Restricted Delivery | |
| <input type="checkbox"/> Insured Mail | |
| <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500) | |

Electronically Received 5/4/2023

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Helen I. Slocum
PO BOX 285
CYCLONE PA, 16726



9590 9402 6917 1104 1430 76

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7847

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Helen I. Slocum*☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Maild Mail Restricted Delivery
(\$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Curtis D. Wackwitz
PO BOX 47
CYCLONE PA, 16726



9590 9402 6917 1104 1431 06

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7878

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Curtis D. Wackwitz*☐ Agent☒ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery
(over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Annin Township
PO Box 143
Turtle Point PA 16750



9590 9402 6917 1104 1432 12

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7687

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Jennifer L. Lieben*☐ Agent☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☐ Adult Signature☐ Adult Signature Restricted Delivery☒ Certified Mail®☐ Certified Mail Restricted Delivery☐ Collect on Delivery☐ Collect on Delivery Restricted Delivery☐ Insured Mail☐ Insured Mail Restricted Delivery
(over \$500)☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Richard H. & Helen E. Smith
P.O. Box 33
Cyclone, PA 16726



9590 9402 7219 1284 1290 84

2. Article Number (Transfer from service label)

7018 0680 0001 1303 9001

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery
☐ Priority Mail Express®

Domestic Return Receipt

NIXIE 482 C2 1 2203/13/23

RETURN TO SENDER
UNCLAIMED
UNABLE TO FORWARD

BC: 16701470559 0080N071222-00961

LANG SURVEYING LLC
ANDREW S. ROSENBERGER, PLS
1059 LAFFERTY LANE
BRADFORD, PA 16701

1st 1/24/23

RDC 99

UNITED STATES
POSTAL SERVICE

16726

U.S. POSTAGE PAID
FCM LG ENV
BRADFORD, PA
16701
JAN 23, 23
AMOUNT
\$9.24
R2304H107802-55

7018 0680 0001 1303 9001



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Robert G. & Janet H. Swick
809 FRONT AVE
SALAMANCA NY, 14779



9590 9402 6917 1104 1431 13

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7885

PS Form 3811, July 2020 PSN 7530-02-000-9053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- ☐ Agent
- ☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

LANG SURVEYING LLC
ANDREW S. ROSENBERGER, PLS
1059 LAFFERTY LANE
BRADFORD, PA 16701

NIXIE 482 C2 1 2210/22/22

RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD

BC: 16701470539 0066N295162-00427

7018 0680 0001 1303 7885



9/24
10/4 Ret

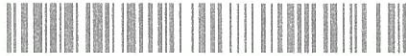
U.S. POSTAGE PAID
FCM LG ENV
BRADFORD, PA
16701

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Michelle N. Edey
4461 ROUTE 646
CYCLONE PA, 16726



9590 9402 6917 1104 1430 21

2. Article Number (Transfer from service label)

7018 0680 0001 1303 7793

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

- ☐ Agent
- ☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

FLWD

Michelle N. Edey
4461 ROUTE 646
CYCLONE PA, 16726

LANG SURVEYING LLC
ANDREW S. ROSENBERGER, PLS
1059 LAFFERTY LANE
BRADFORD, PA 16701

9/19

7018 0680 0001 1303 7793



--R-T-S- 167265001-1N

10/01

RETURN TO SENDER
UNABLE TO FORWARD
RETURN TO SENDER



U.S. POSTAGE PAID
FCM LG ENV
BRADFORD, PA
16701
SEP 16 22

1. PROJECT INFORMATION

Project Name: **PA EPA UIC Permit for Lot 580-1 Well**

Date of Review: **8/17/2023 09:13:42 AM**

Project Category: **Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Other**

Project Area: **2.88 acres**

County(s): **McKean**

Township/Municipality(s): **KEATING TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **CYCLONE**

Watersheds HUC 8: **Upper Allegheny**

Watersheds HUC 12: **Kinzua Creek Headwaters**

Decimal Degrees: **41.830604, -78.581652**

Degrees Minutes Seconds: **41° 49' 50.1752" N, 78° 34' 53.9483" W**

2. SEARCH RESULTS

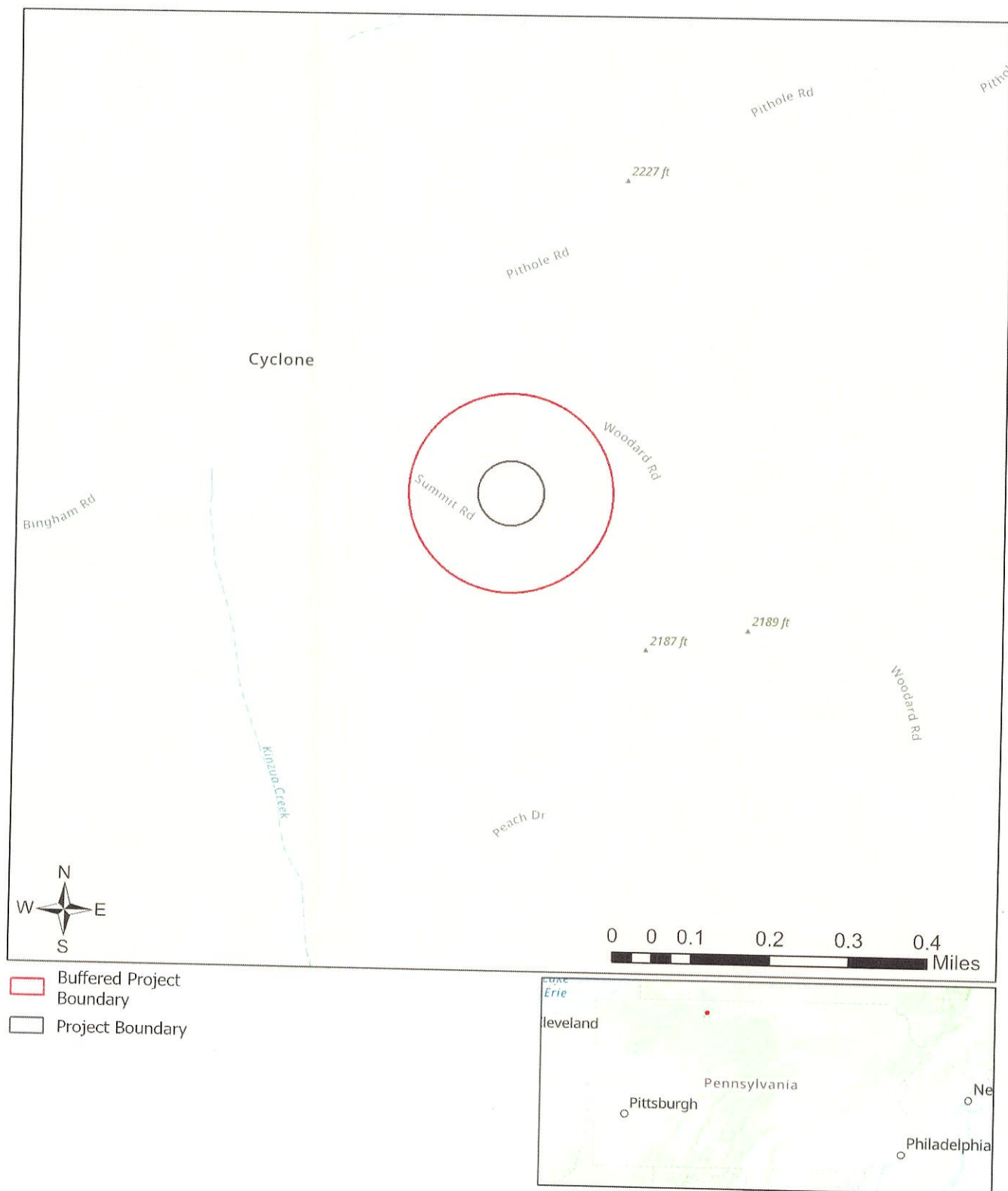
Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

PA EPA UIC Permit for Lot 580-1 Well



PA EPA UIC Permit for Lot 580-1 Well



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Game Commission

Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: JASON HORVATH
Company/Business Name: CATALYST ENERGY INC
Address: 1112 S. BRADDOCK AVE SUITE 201
City, State, Zip: PITTSBURGH, PA 15218
Phone: (412) 325-4350 Fax: (412) 325-4356
Email: jhorvath@catalystenergyinc.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Jason Horvath
applicant/project proponent signature

8/17/2023
date

Oil and Gas Conservation Law (No. 1961-359) includes definitions that will be referred to in this summary. DEP defines "Pool " as an underground reservoir containing a common accumulation of oil and gas, or both, not in communication laterally or vertically with any other accumulation of oil or gas, or both.

Production was recorded by Belden and Blake (Operator) for the 580-1 (API: 37-083-46237) and the Amoco-Witco 1 (API: 37-083-30629) internally as well as reported to the DEP during the following time periods:

Well API	Well Name	Recorded by Belden & Blake	Reported to State
37-083-30629	AMOCO-WITCO #1	1974-2018	1980-2021
37-083-46237	CYCLONE L-580-1	1990-2018	1993-2021

Production of oil and gas is graphed on page 3 by month. The last recorded production from this pool was November of 2007. The wellhead pressure of the 580-1 well was reported in December of 2020 at 90 psi and verified to be 90 psi in March of 2023. The graph shows gas decline curves consistent with reservoirs near their economic limit. When wells reach their economic limit, they can no longer be operated profitably, and the pool is deemed to be depleted.

The Conservation Law states that no injected fluids shall limit the production of other operators in the same pool. Catalyst Energy, Inc. is the sole owner of the once productive wells in this pool. No other companies operate in this Pool. Additionally, Catalyst owns 100% of the mineral rights for this Pool. Thus, we would not be limiting -third-party operators from producing from this pool.

In addition to the saleable gas as alluded to in the conservation law, we have a few comments regarding the other aspects of section 4

Prohibitive is: Permitting the migration of oil, gas or water from the stratum in which it is found to other strata, if such migration would result in the loss of recoverable oil or gas, or both;

Catalyst's Response: The injection well has three strings of casing that were cemented. These cemented strings were placed to inhibit the migration of fluids from the Onondaga to other strata.

C. The unnecessary or excessive surface loss or destruction of oil or gas:

Catalyst's Response: Catalyst's facility has been designed to prevent the unnecessary or excessive surface loss or destruction of oil or gas

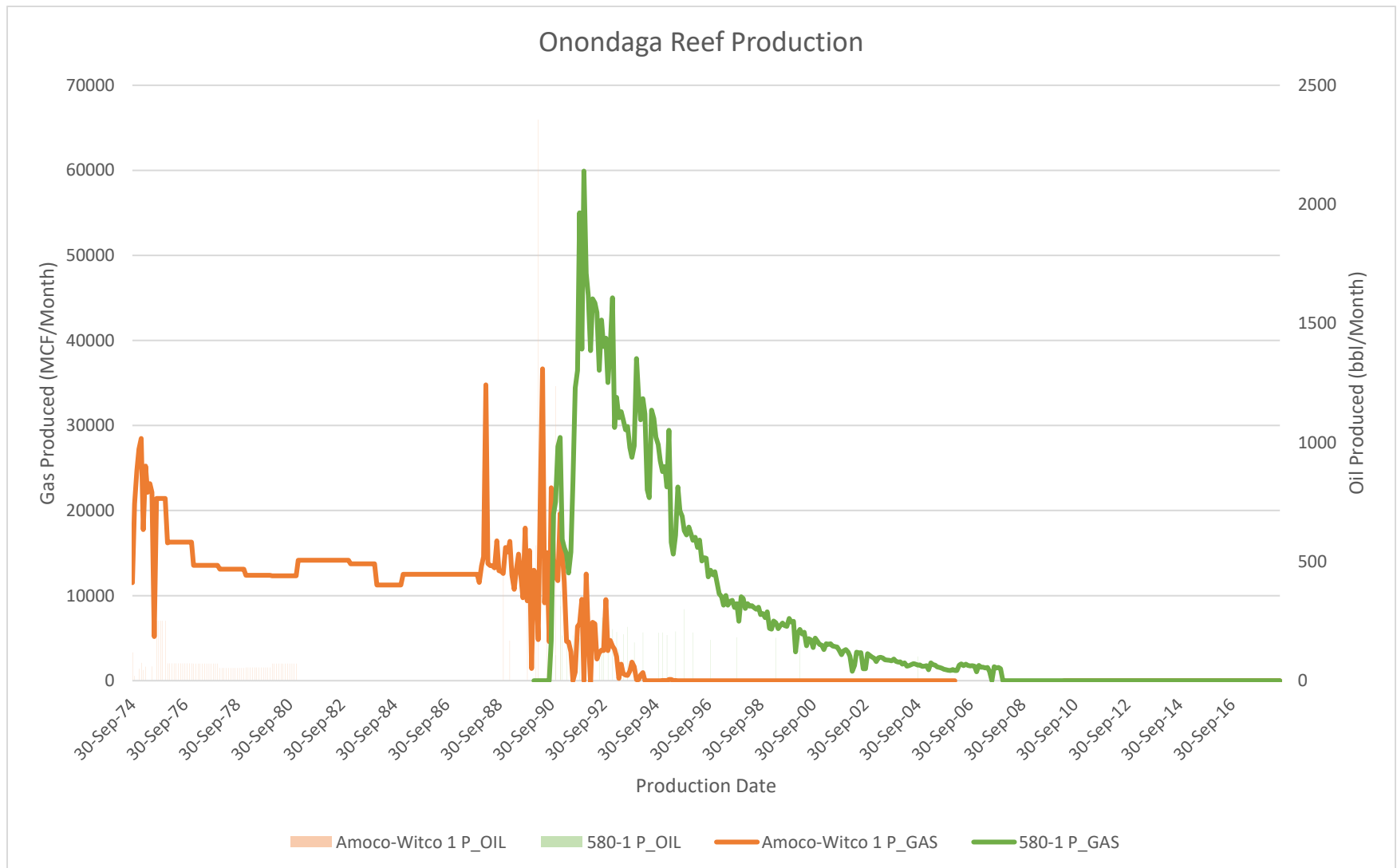
D. The inefficient or improper use, or unnecessary dissipation of reservoir energy.

Catalyst's Response: The Catalyst injection well was depleted by previous operators. The fluids permitted by the DEP for injection will not dissipate reservoir energy.

(ii) The drilling of more wells than are reasonably required to recover, efficiently and economically, the maximum amount of oil and gas from a pool.

Catalyst's Response: The high flowrate that is characteristic of pinnacle reefs negates the need for dense drilling patterns.

For the reasons outlined above, Catalyst Energy, Inc opines that this injection well would not conflict with the Oil and Gas Conservation Law of 1961.





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

**OIL AND GAS OPERATOR
OWNERSHIP AND CONTROL INFORMATION**

PLEASE TYPE OR PRINT

GENERAL OPERATOR INFORMATION		Enter the name and address under which you or your organization operate oil and gas wells in Pennsylvania which must be the same name as is providing the bond.			
Corporate, Company, Partnership or Registered Fictitious Name Catalyst Energy, Inc.			Type of Organization / Code Delaware Corporation		Federal Tax ID# 25-1674266
Individual or Partner - Last Name		First Name		MI	Suffix
Mailing Address 1112 S. Braddock Ave, Suite 201			<input type="checkbox"/> Check if this is a new address.		
City Pittsburgh		State PA	ZIP+4 15218	Country (If Other Than USA)	
Phone (Daytime) 412-325-4350		Ext. 2216	FAX 412-325-4356	Email Address prr@catalystenergyinc.com	
Person to Contact - Last Name Rodgers		First Name Paul		MI R	Suffix
				Title CEO	
<p>If the applicant is an individual or partnership operating under a name that is different than your full personal name, the name must be registered as a fictitious name with the Department of State. Please attach a copy of your APPROVED fictitious name registration. <input type="checkbox"/> Registration attached <input type="checkbox"/> Registration previously submitted and still active.</p>					
<p>If the applicant is a domestic or foreign corporation or limited liability company, it must be registered to conduct business in Pennsylvania with the Department of State. Please attach a copy of your APPROVED corporate registration or authorization to conduct business in Pennsylvania.</p> <p><input type="checkbox"/> Registration attached <input checked="" type="checkbox"/> Authorization to conduct business in PA attached <input type="checkbox"/> Registration previously submitted still active</p>					
<p>If the applicant has NO parent company, check the following box.</p> <p><input checked="" type="checkbox"/> No parent.</p> <p>If the applicant has a parent company, include the following information for the parent company: the name of the company, its address, phone number, taxpayer ID No., and state of incorporation, if the company is a corporation.</p> <p>Name _____ Phone No. () _____</p> <p>Address _____ Taxpayer ID No. _____</p> <p>_____ If corporation, state of incorporation _____</p>					

If the applicant has **NO subsidiaries**, indicate by checking the following box.

☐ **No subsidiary.**

If the applicant has **one or more subsidiaries**, include the following information for each subsidiary company: the name of the company, its address, phone number, taxpayer ID No., and state of incorporation, if the company is a corporation.

Name <u>KC Midstream Solutions, LLC</u>	Phone No. <u>(412) 325-4350</u>
Address <u>1112 S. Braddock Ave, Suite 201</u>	Taxpayer ID No. <u>61-1767551</u>
<u>Pittsburgh, PA 15218</u>	If corporation, state of incorporation <u>DE</u>
Name _____	Phone No. () _____
Address _____	Taxpayer ID No. _____
_____	If corporation, state of incorporation _____
Name _____	Phone No. () _____
Address _____	Taxpayer ID No. _____
_____	If corporation, state of incorporation _____
Name _____	Phone No. () _____
Address _____	Taxpayer ID No. _____
_____	If corporation, state of incorporation _____
Name _____	Phone No. () _____
Address _____	Taxpayer ID No. _____
_____	If corporation, state of incorporation _____

(Attach additional sheet, in the same format, if necessary.)

SIGNATURES

Under penalty of law, the undersigned hereby certify that they have the authority to submit this application on behalf of the applicant, that they have reviewed the information contained in this application and certify that the information is true and correct to the best of their knowledge and belief.

JASON HORVATH

(Print Name of Applicant)

PAUL RYAN RODGER

(Print Name & Title of Signatory)

Date 4/20/2012



(Signature)

Please call 717-772-2199 with any questions.

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF STATE

APRIL 19, 2012

TO ALL WHOM THESE PRESENTS SHALL COME, GREETING:

CATALYST ENERGY, INC.

I, Carol Aichele, Secretary of the Commonwealth of Pennsylvania
do hereby certify that the foregoing and annexed is a true and correct
copy of

CERTIFICATE OF AUTHORITY filed on April 21, 1992

which appear of record in this department.



IN TESTIMONY WHEREOF, I have
hereunto set my hand and caused
the Seal of the Secretary's Office to
be affixed, the day and year above
written.

A handwritten signature in cursive script, reading "Carol Aichele".

Secretary of the Commonwealth

Microfilm Number 9234-1194

Filed with the Department of State on APR 21 1992

Entity Number 2086941

Robert K. Kishner

Secretary of the Commonwealth 10

APPLICATION FOR CERTIFICATE OF AUTHORITY

DSCB:15-4124 (Rev 89)

Indicate type of corporation (check one):

☒ Foreign Business Corporation

☐ Foreign Nonprofit Corporation (15 Pa. C.S. § 6124)

☐ Foreign Professional Corporation

1. The name of the corporation is: Catalyst Energy, Inc.

2. The name which the corporation adopts for use in this Commonwealth is (complete only when the corporation must adopt a corporate designator for use in Pennsylvania):

3. (Complete only when the corporation name is not available for use in Pennsylvania):

☐ Limited Certificate of Authority only:

This is a Limited Certificate of Authority for the sole purpose of qualifying to register the fictitious name of:

This corporation shall do business in Pennsylvania only under such fictitious name pursuant to the attached resolution by the board of directors under 15 Pa. C.S. § 4123(b)(1). (See attached fictitious name form DSCB:54-311).

4. The address of this corporation's initial (a) registered office in this Commonwealth or (b) commercial registered office provider and the county of venue is:

(a)	<u>431 Ramsgate Drive</u>	<u>Gibsonia</u>	<u>PA</u>	<u>15044</u>	<u>Allegheny</u>
	Number and Street	City	State	Zip	County

(b)	<u>n/a</u>	
	Name of Commercial Registered Office Provider	County

For a corporation represented by a commercial registered office provider, the county in (b) shall be deemed the county in which the corporation is located for venue and official publication purposes.

5. The corporation is incorporated for a purpose ~~(not)~~ involving pecuniary profit, incidental or otherwise to its shareholders. (Strike out if not applicable):

9234-1191

DSCB:15-4124 (Rev 89)-2

6. The name of the jurisdiction under the laws of which the corporation is incorporated is:

Delaware

7. The address of its principal office under the laws of the jurisdiction in which it is incorporated is:

725 Market Street, Wilmington, DE 19801

IN TESTIMONY WHEREOF, the undersigned corporation has caused this application to be signed by a duly authorized officer this 20th day of April, 19 92.

Catalyst Energy, Inc.

(Name of Corporation)

BY: Paul Ryan Rodgers

(Signature)

Paul Ryan Rodgers

TITLE: President

92 APR 21 PM 2:11

PA DEPT. OF STATE

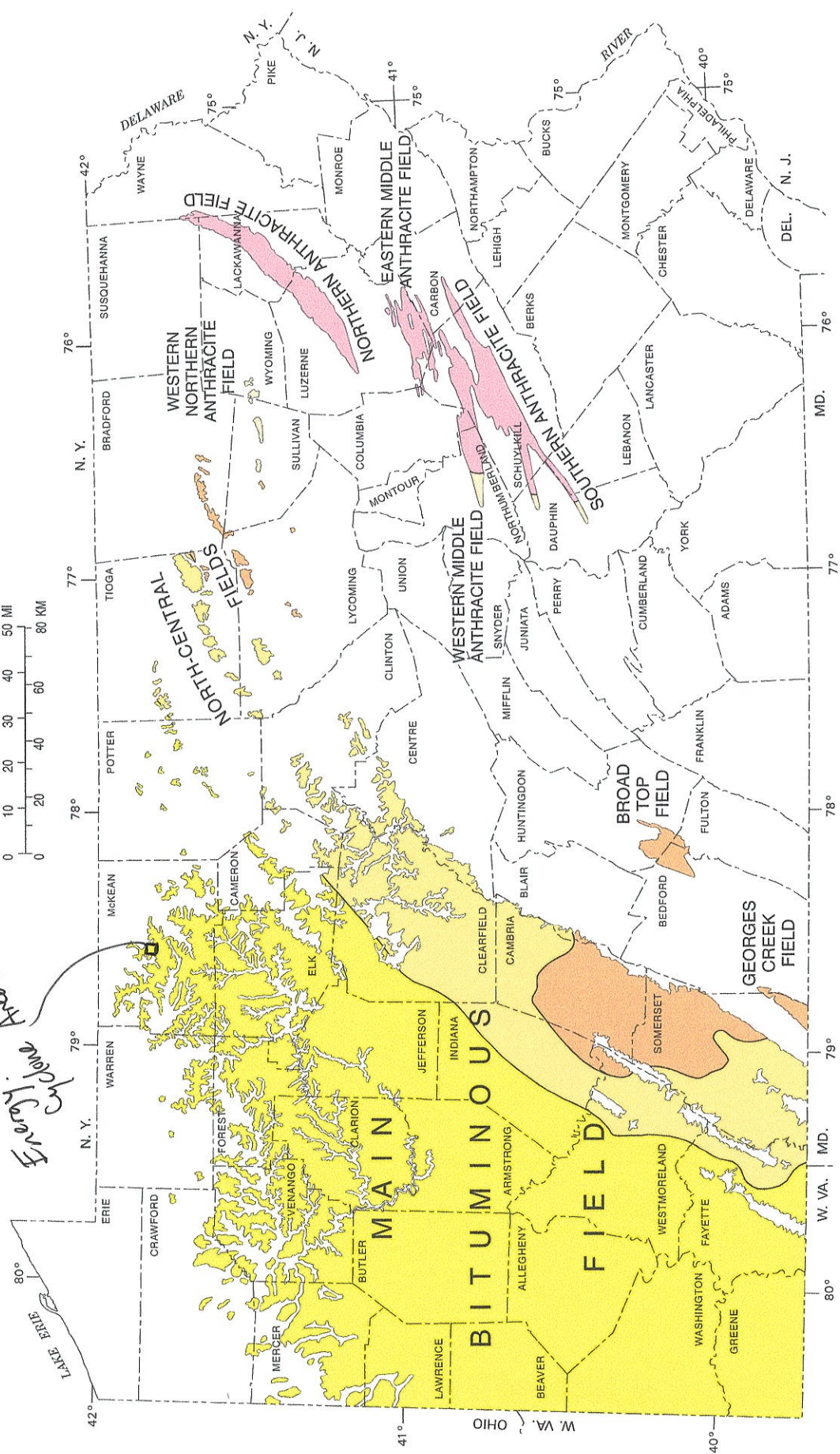
92 APR 29 PM 12:03

PA DEPT. OF STATE






DISTRIBUTION OF PENNSYLVANIA COALS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF
CONSERVATION AND NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY
www.dcnr.state.pa.us/topogeo

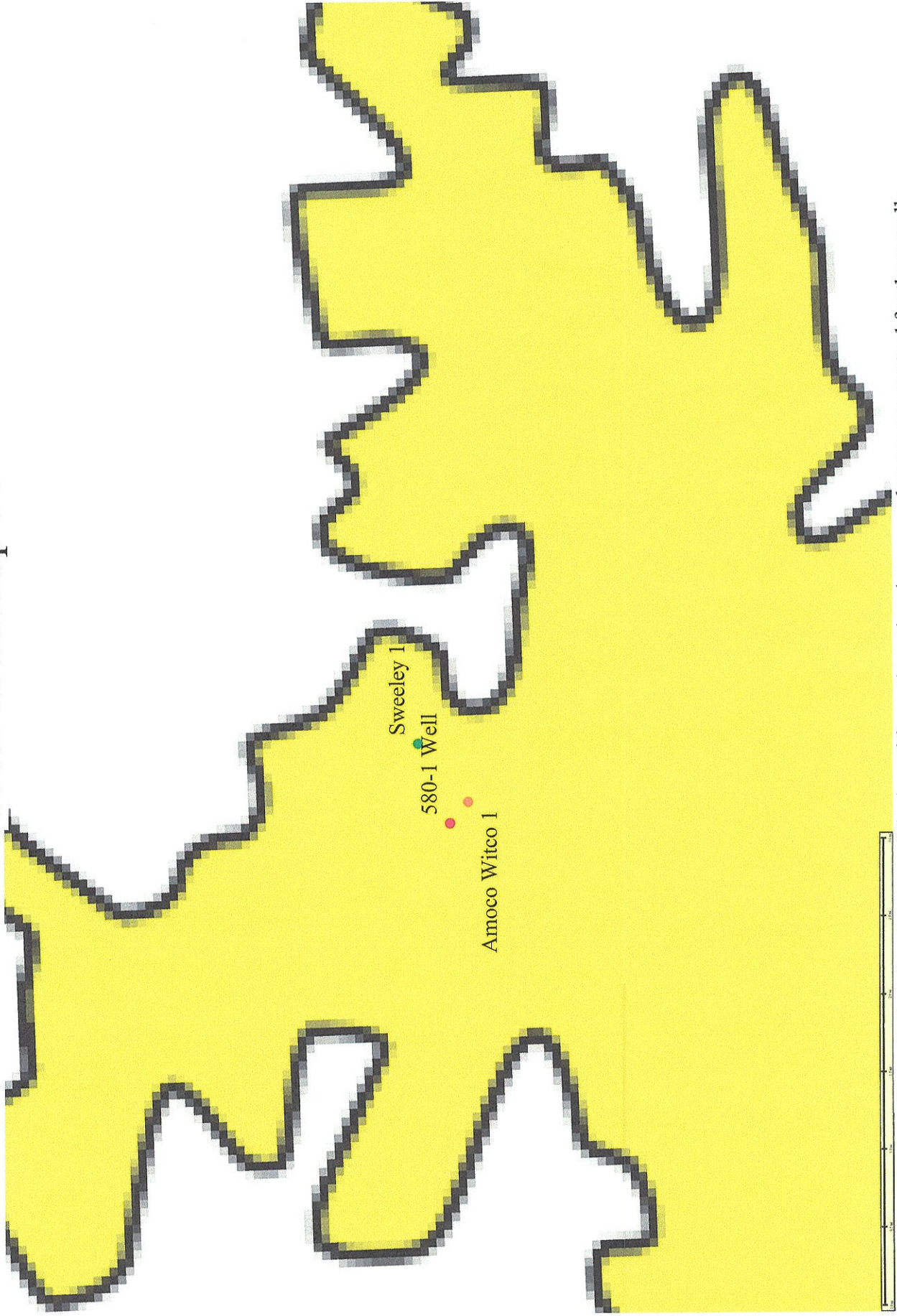
*Catawba River
Catawba River
Catawba River*



EXPLANATION

- | | |
|---|---------------------------------|
|  | Anthracite |
|  | Semi-anthracite |
|  | High-volatile bituminous coal |
|  | Medium-volatile bituminous coal |
|  | Low-volatile bituminous coal |

PA DCNR Map 11



Please find enclosed a copy of the log of formations showing no coal zones encountered for these wells

Cyclone
083-462371000' 54" 50' 00"
11000' 00' 78" 32' 30"
(E)DEEP
WELL RECORD AND COMPLETION REPORT

CONFIDENTIAL

- In accordance with 25 Pa. Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.
- In accordance with 25 Pa. Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-75).

BRADFORD FIELD, CYCLONE POOL

DEU

Well Operator Beiden & Blake Corporation		Telephone Number (814) 368-1660	
Address 14 North Third Street, Bradford, PA 16701		Zip	
Permit Number 37-083-46237-00		Project Number	
Farm Name Lot 580	Farm Number 380-1	Serial Number	Acres 52
Township Keokuk		County McKean	
Type of Well <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Injection <input type="checkbox"/> Storage <input type="checkbox"/> Disposal <input type="checkbox"/> Other (Specify)			

WELL RECORD
(Include Driller's Log on Reverse Side)

Drilling Method Other <input type="checkbox"/> (Specify)	Rotary (A) <input checked="" type="checkbox"/> Mud (M) <input checked="" type="checkbox"/> Cable Tool (C) <input type="checkbox"/>	Date Drilling Started 5-11-90	Date Drilling Completed 5-19-90
Elevation 2180'	Total Depth 5420'	7 1/2" Quadrangle Cyclone	

CASING AND TUBING RECORD

Hole Size	Pipe Size	Amount In Well	Material Behind Pipe Type and Amount	Packer/Hardware Type Size Depth	Date Run
17"	16"	31'			5-11-90
15"	11 3/4"	425.9'	282 sks cement 3% GAC 12 1/2" flocele		5-12-90
11"	8 5/8"	2504.36'	420 sks cement 3% GAC 12 1/2" flocele 230 sks cement Thixotropic flocele		5-15-90
7 7/8"	4 1/2"	5396.35'	385 sks cement 3% GAC 12 1/2" flocele		5-20-90

Cement return on surface casing? ☒ yes ☐ no

COMPLETION REPORT CONFIDENTIAL

Perforation Record			Stimulation Record						
Date	Interval Perforated		Date	Interval Treated	Fluid		Propping Agent		Average Injection Rate
7/3/90	perf. 20 holes 5170	0.36" 5188	7/3/90	5170-5188	15% HCL	500 gal			

Natural Open Flow 0	Natural Rock Pressure not gauged	Hours	Days
After Treatment Open Flow not gauged	After Treatment Rock Pressure 1440 psi	Hours	Days

Name, Address, and Telephone Number of Well Service Companies	
Schlumberger Well Service	Halliburton Services
95 Rutherford Run Bradford, PA 16701	350 High Street Bradford, PA 16701
(814) 362-7441	(814) 362-4523

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Name	Top	Bottom	Gas At	Oil At	Water At (Fresh or Brine)	Source of Data
Clay, Shale, Sandstone	0	42				Driller's Log
Shale	42	87				Gamma Ray Log
Shale, Hard Sandstone	87	470				
Red Shale, Sandstone	470	1278				
Shale, Sandstone	1278	2367				
Shale	2367	4773				
Tully	4773	4790				
Moscow	4790	4842				
Tichner	4842	4852				
Ludlowville	4852	5030				
Skantanteles	5030	5081				
Marcellus	5081	5169				
Onondaga (Onondaga)	5169	5266				
Bois Blanc	5266	5279				
Helderberg	5279	5338				
Bass Island	5338	5398				
Bertie	5398					
T.D.	5420					

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<i>Benjamin B. Blum</i>	Senior Geologist	10/26/90
Operator's Signature	Title	Date

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<i>[Signature]</i>	25-Feb-91	Comments
Reviewed By	Date	

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WELL RECORD AND COMPLETION REPORT

1. In accordance with 25 Pa. Code 78.122(a), a Well Record must be submitted to the Department within 30 calendar days of cessation of drilling or altering a well.

2. In accordance with 25 Pa. Code 78.122(b), a Completion Report must be submitted within 30 calendar days after completion of the well. In addition, the information on land application of topsoil water and disposal of residual waste (including contaminated drill cuttings) in a pit is to be filed with the Completion Report (see ER-OG-75).

ENVIRONMENTAL PROTECTION
NORTHWEST REGIONAL OFFICE

Bradford Field - Cyclone Pool.

WELL OPERATOR		BELDEN & BLAKE CORPORATION		TELEPHONE #		(814) 589-7091	
ADDRESS 22811 TITUSVILLE ROAD, PLEASANTVILLE, PA 16341							
PERMIT NUMBER 37-083-46948-00				PROJECT NUMBER			
FARM NAME SWEELEY		FARM NUMBER 1		SERIAL NUMBER		ACRES 1095+-	
TOWNSHIP KEATING				COUNTY MCKEAN			
TYPE OF WELL		Gas <input checked="" type="checkbox"/>		Oil <input type="checkbox"/>		Injection <input type="checkbox"/>	
		Storage <input type="checkbox"/>		Disposal <input type="checkbox"/>		Other (Specify) <input type="checkbox"/>	

WELL RECORD
(Include Driller's Log on Reverse Side)

Drilling Method	Rotary (Alt) <input checked="" type="checkbox"/>	Mud <input type="checkbox"/>	Cable Tool <input type="checkbox"/>	Date Drilling Started	09/12/97	Date Drilling Completed	09/20/97	
Other (Specify)								
Elevation	2130'	Total Depth	5489'	7 1/2" Quadrangle				CYCLONE

CASING AND TUBING RECORD

HOLE SIZE	PIPE SIZE	AMOUNT IN WELL	Material Behind Pipe		Packer / Hardware			Date Run	
			Type	Amount	Type	Size	Depth		
17 1/2"	16"	40'	SANDED IN		NONE	NONE	NONE	09/12/97	
15"	11 3/4"	500'	Class A	210 SKS.	UNIFILL	40 SKS.	NONE	NONE	09/13/97
11"	8 5/8"	2501'	Class A	120 SKS.			NONE	NONE	09/15/97
7 7/8"	4 1/2"	5415.5'	50 / 50 Pozl	160 SKS.			NONE	NONE	09/20/97
Cement return on surface casing? YES <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/>									

COMPLETION REPORT

Stimulation Record										
DATE	INTERVAL PERFORMED		DATE	INTERVAL TREATED		Fluid		Propping Agent		Average Injection Rate
	FROM	TO		Type	Amount	Type	Amount			
10/31/97	5166'	6207'	10/31/97	5166'	5207'	ACID	5000 GAL	NONE	NONE	5.5 BPM
(60 HOLES)										

Natural Open Flow	NOT TAKEN	Natural Rock Pressure	NOT TAKEN	Hours	Days
Treatment Open Flow	NOT TAKEN	After Treatment Rock Press.	0 # psig.	Hours	Days

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Name and Address of Well Service Companies	
Universal Well Services	P.O. Box 1456, Meadville, PA 16335
Allegheny Wireline	P.O. Box 506, Weston, WV 26452
IPSCO Drilling	H C 1 Box 616, Sheffield, PA 16347
Halliburton Services	101 Lucerne Road, Homer City, PA 15746

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Oil & Gas Geology Division
LAUREL HILL REGIONAL OFFICE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
DIVISION OF OIL AND GAS
PITTSBURGH, PENNSYLVANIA 15222

Office Use Only

083-
10629

PERMIT NO. 10629

PROJECT NO.

TYPE OF WELL

(GAS/OIL)

WELL OPERATOR Amoco Production Company

ADDRESS P. O. Box 691, Kalkaska, Michigan ZIP 49646

FARM NAME: Bingham Satterfield (Surface) @ Pennzoil Oil Co. FARM Amoco SERIAL NO. Witco #1 NO. ACRES 1095

TOWNSHIP: Keating COUNTY: McKean

DRILLING COMMENCED 12-12-73 DRILLING COMPLETED 2-18-74

ELEVATION 2110' (Ground) QUADRANGLE CYCLONE 7 1/2' 15'

Casing and Tubing Record							
Pipe Size	Amt. In Well	Material Behind Pipe Cement (Sks.)		Gal (Sks.)	Packer Type	Size	Date Run
16"	53'	40 Sks		None			12-13-73
11-3/4"	410'	265 Sks		"			12-17-74
8-5/8"	2540'	465 Sks		"			12-26-73
5-1/2"	7015'	500 Sks		"			2-11-74
2-7/8"	4875'	Tubing Landed		"	Baker Model R	2-7/8" 5-1/2"	2-18-74
		F.D.	D.D.	D.P.L.	Class	O	G
							Lease

Perforation Record				Stimulation Record			
Date	Interval Perforated From	To	Date	Interval Treated	Amt. Fluid	Amt. Sand	Injection Rate
2-14-74	4386'	4388'	2-14-74	350 Sks			
2-14-74	2520'	2522'	2-14-74	450 Sks			
2-18-74	6868'	6933'	2-26-74	6868-6933	20,000 gal Wtr	9500#	13.7 BPM
4-4-74	5184' (OVERALL)	5270'	4-1-74	6868-6933	75 sks cement		squeezed 3400 ps
			4-4-74	5184-5194	See Remarks		
				5212-5220			
				5226-5240			
			4-22-74	5258-5270			

Natural Open Flow: 200 MCFD @ 60 psi Natural Rock Pressure: 2841 psi hrs. days

After Treatment Open Flow: 3,000 MCFD After Treatment Rock Pressure 2841 psi 79 Hr Bottom Hole Build Up hrs. days

REMARKS: Interval 5184' thru 5270': Treated with 3000 Gal 28% HCL, 4.5 BPM, 4-4-74.

Retreated with 10,000 Gal 28% HCL, 10,000 Gal 15% HCL, 8.0 BPM, 4-22-74!

Plug Back Depth: 6448'

Interval 7015' thru 6448': Plug back accomplished with 75 sacks cement (35 sacks in formation, 40 sacks in casing)

Producing Formation: Onondaga Limestone

Formation on Reverse Side

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Oil & Gas Division
052674
6/10/74

083-20629

FORMATION						
Name	Top	Bottom	Gas At	Oil At	WATER AT (Fresh or Salt Water)	Source of Data
Interbedded SS - lt.-m. gry., v.f.-f.gr., Sh-M. dk gry.-brn. & SLTS. gry-brn.	Surface	4200				Samples and E-Log.
Sh-Gry-Dk. Gry.	4200	4800				
<u>Tully Limestone</u>	4800	4865				
LS-Lt-Dk Gry, ARG, CRPxL, Sh-Dk Gry - Blk	4865	5170				
<u>Onondaga Limestone</u>	5170	5360	5184'			
LS-Lt-M. Gry, F, XLN.			Thru			
<u>Helderberg Limestone</u>	5360	5420	5270'			
LS-Lt-M. Gry, V.F., XLN						
<u>Bass Island</u>	5430	5470				
Dol. Lt-M. Gry and Tan, V.F., XLN, Sl. suc.						
<u>Silurian Salina</u>	5470	5700				
Dol. Lt. Gry-Brn. F-V.F. XLN w/ANYH-Amber, Trans. Salt	5696	6385				
Salt-CL w/Dol - Lt. Gry. M. Brn, F. XLN, Sh. - Lt. Gry-Grn, Soft, Anhy.						
<u>Lockport</u>	6385	6700				
Dol.-Dk. Gry-Brn, SLTY in Pt., Interbed Sh.-Lt.Gry-Brn, Soft						
<u>Clinton</u>	6700	6810				
Sh. Lt. Brn-Gry, Soft w/Dol. Interbeds, Lt.Brn, V.F., XLN						
<u>Tuscarora</u>	6810	6940				
SS- WH-Lt. Gry, F-M Gr w/Sh Interbeds - Lt.-M.Gry						
<u>Queenston</u>	6940	7015				
Sh - Rd-Lt. Rd., SLTY, SDY, HEM.		TD				

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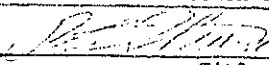
MAY 28 10 47 AM '74

 DEPT. OF NATURAL
 RESOURCES
 PITTSBURGH, PA. 15222

Date May 17, 1974

Approved Amoco Production Company Operator

By



Title

R. E. Strong, Supervisor In Charge

DRAWINGS FOR EROSION AND SEDIMENT CONTROL PLAN

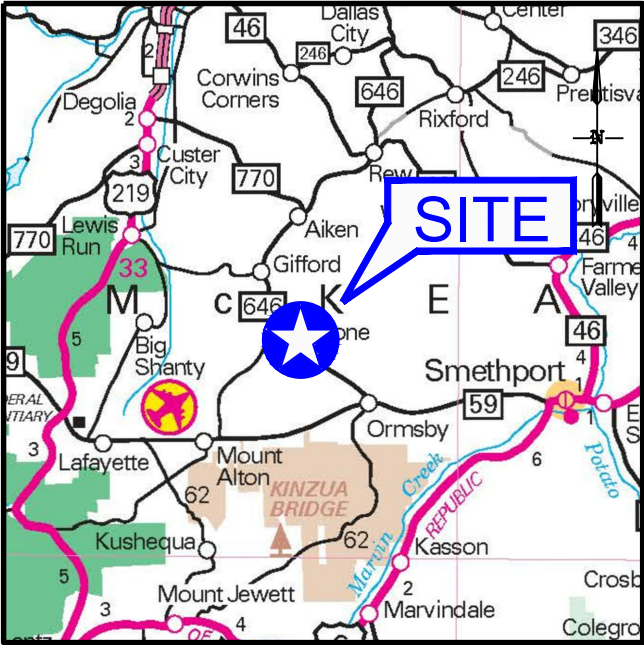
LOT 580-1 SITE

KEATING TOWNSHIP, MCKEAN COUNTY, PENNSYLVANIA

MARCH 2023

LIST OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SITE PLAN
3	DETAILS (FIGURE 1 OF 4)
4	DETAILS (FIGURE 2 OF 4)
5	DETAILS (FIGURE 3 OF 4)
6	DETAILS (FIGURE 4 OF 4)



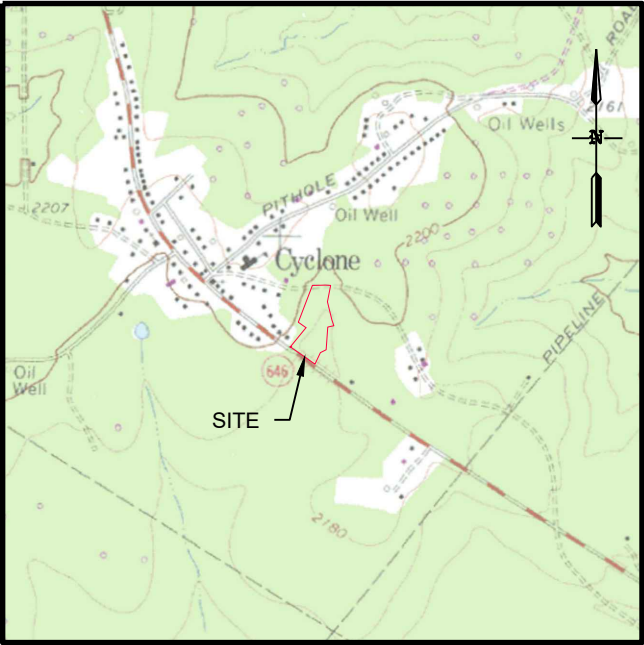
VICINITY MAP

SCALE: 1" = 5 Miles

PREPARED FOR:

Catalyst Energy, Inc.

CATALYST ENERGY, INC.
1112 S. BRADDOCK AVE, SUIT 201
PITTSBURGH, PA 15218
PHONE: 412-325-4350



LOCATION MAP

SCALE: 1" = 2000'

PREPARED BY:

ARM Group Inc.

Engineers and Scientists
www.armgroup.net

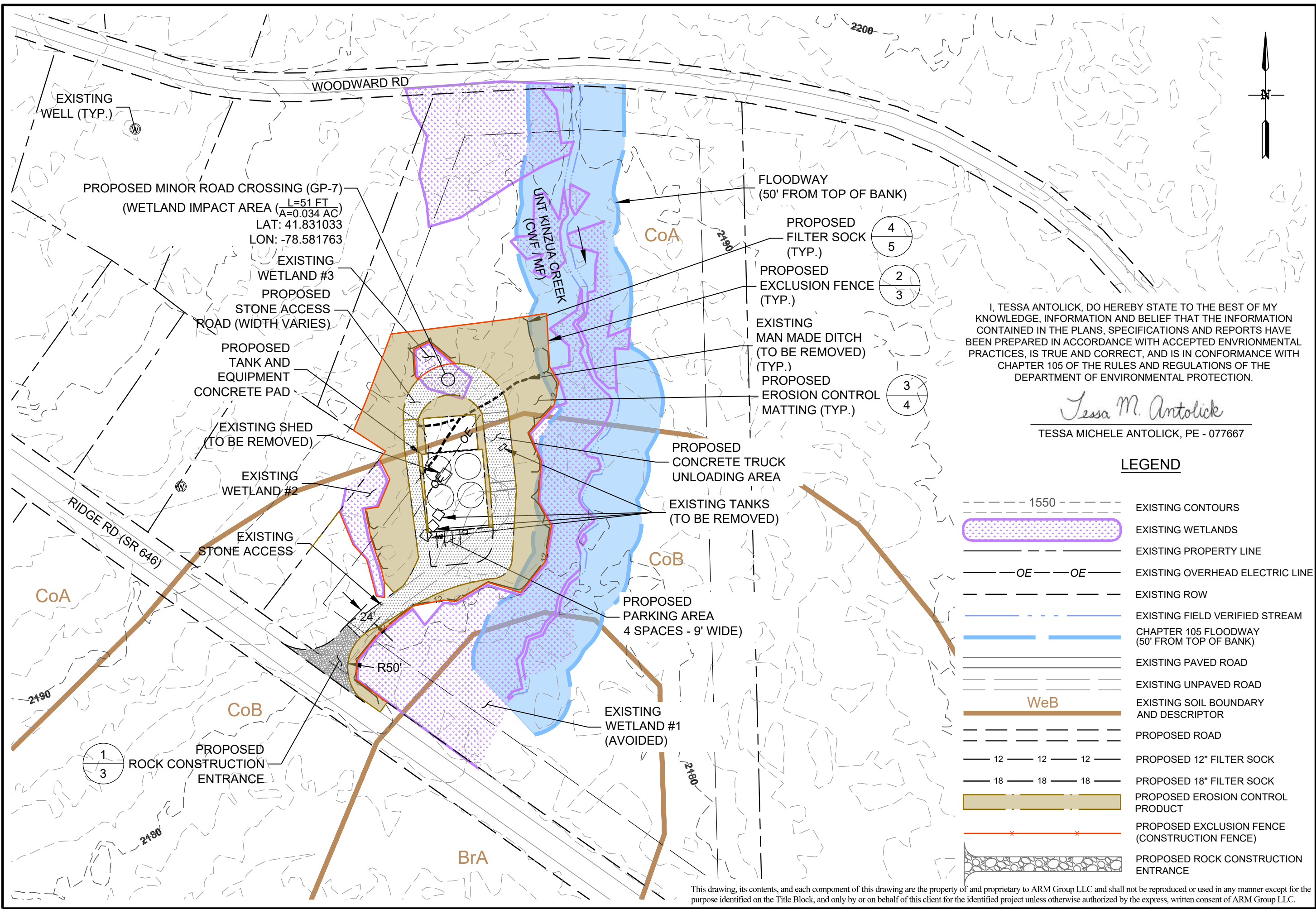
HEADQUARTERS:

1129 West Governor Road • Hershey, PA 17033-0797
Ph: (717) 533-8600 Fax: (717) 533-8605

drawing title	COVER SHEET		
	EROSION AND SEDIMENTATION CONTROL PLAN		
	project title	KEATING TOWNSHIP, MCKEAN COUNTY, PENNSYLVANIA	
Figure	1	LOT 580-1 SITE	
		CATALYST ENERGY, INC.	
scale	AS NOTED	date	03/20/2023
project no.	23010326	project no.	23010326
designed	RFH	checked	TMA
drawn	JAW	drawn	JAW



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I, TESSA ANTOLICK, DO HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE INFORMATION CONTAINED IN THE PLANS, SPECIFICATIONS AND REPORTS HAVE BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENVIRONMENTAL PRACTICES, IS TRUE AND CORRECT, AND IS IN CONFORMANCE WITH CHAPTER 105 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Tessa M. Antolick

TESSA MICHELE ANTOLICK, PE - 077667

LEGEND

- 1550
- EXISTING CONTOURS
- EXISTING WETLANDS
- EXISTING PROPERTY LINE
- OE OE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING ROW
- EXISTING FIELD VERIFIED STREAM
- CHAPTER 105 FLOODWAY (50' FROM TOP OF BANK)
- EXISTING PAVED ROAD
- EXISTING UNPAVED ROAD
- WeB
- EXISTING SOIL BOUNDARY AND DESCRIPTOR
- PROPOSED ROAD
- 12 12 12
- PROPOSED 12" FILTER SOCK
- 18 18 18
- PROPOSED 18" FILTER SOCK
- PROPOSED EROSION CONTROL PRODUCT
- PROPOSED EXCLUSION FENCE (CONSTRUCTION FENCE)
- PROPOSED ROCK CONSTRUCTION ENTRANCE

ARM Group LLC
Engineers and Scientists
www.armgroup.net

designed	scale	1" = 100'
checked	date	03/20/2023
drawn	project no.	23010326
		0 100 200
		SCALE IN FEET

SITE PLAN

EROSION AND SEDIMENTATION CONTROL PLAN

drawing title

project title

KEATING TOWNSHIP,
MCKEAN COUNTY,
PENNSYLVANIA

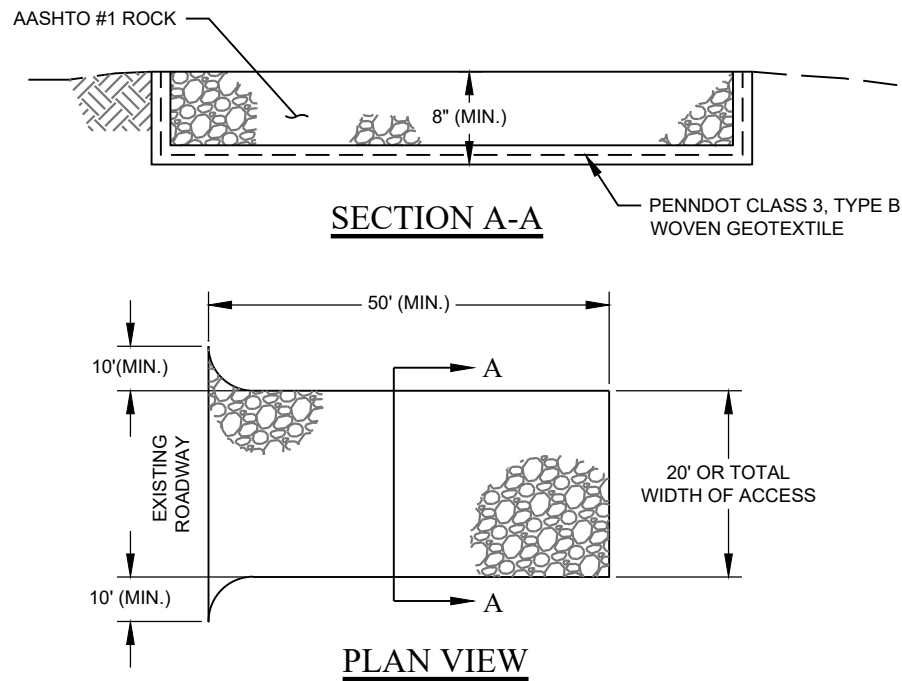
LOT 580-1 SITE
CATALYST ENERGY, INC.

Figure

2

This drawing, its contents, and each component of this drawing are the property of and proprietary to ARM Group LLC and shall not be reproduced or used in any manner except for the purpose identified on the Title Block, and only by or on behalf of this client for the identified project unless otherwise authorized by the express, written consent of ARM Group LLC.

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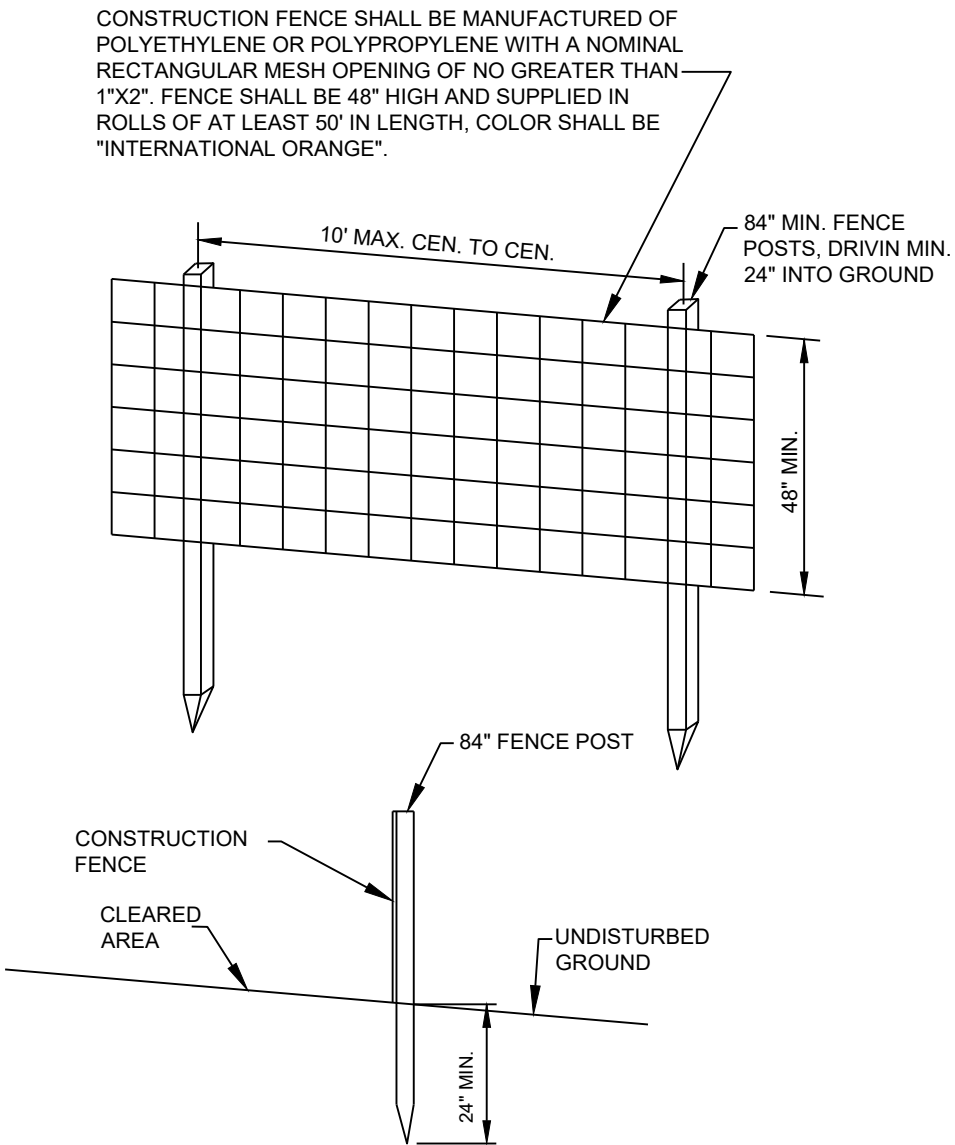
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITS ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER COURSES IS NOT ACCEPTABLE.

WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.


1 **DETAIL**
ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE



THE CONTRACTOR SHALL INSTALL THE CONSTRUCTION FENCE IN LOCATIONS AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS.

FENCE DESIRABLE WOODED AREAS, INDIVIDUAL TREES, AND SHRUBS DESIGNATED FOR PROTECTION, BEFORE BEGINNING OTHER GENERAL PROJECT WORK. WHERE DIRECTED, FENCE OTHER AREAS TO BE PROTECTED. DO NOT STOCKPILE MATERIALS UNDER, OR WITHIN, PROTECTED VEGETATION AREAS. PROHIBIT CONSTRUCTION TRAFFIC WITHIN PROTECTED AREAS. PLACE THE FENCE AT THE DRIPLINE OF TREES OR PLANTS, BUT AVOID CAUSING ROOT DAMAGE WHEN DRIVING POSTS. REPLACE DAMAGED FENCE IN KIND WITHIN 24 HOURS OF DAMAGE, AS DIRECTED. REMOVE TEMPORARY PROTECTION, WHEN DIRECTED.

2 **DETAIL**
EXCLUSION FENCE
NOT TO SCALE

Figure 3	drawing title EROSION AND SEDIMENTATION CONTROL PLAN	project title LOT 580-1 SITE CATALYST ENERGY, INC.	KEATING TOWNSHIP, MCKEAN COUNTY, PENNSYLVANIA	designed RFH	scale AS NOTED	date 03/20/2023	project no. 23010326
				checked TMA	drawn JAW		
 ARM Group LLC Engineers and Scientists www.armgroup.net							

P:\Catalyst Energy\023010326 - Lot 580-1 E&S Plan\Drawgs\23010326-FLC-103_LAYOUT_8.dwg Plotted: March 20, 2023

SPECIFICATION: 31 25 14.13 - HIGH PERFORMANCE-FLEXIBLE GROWTH MEDIUM

THIS SECTION SPECIFIES A HYDRAULICALLY-APPLIED, 100% BIODEGRADABLE, HIGH PERFORMANCE-FLEXIBLE GROWTH MEDIUM (HP-FGM) THAT IS MANUFACTURED IN THE UNITED STATES AND IS COMPOSED OF 100% RECYCLED THERMALLY REFINED (WITHIN A PRESSURE VESSEL) WOOD FIBERS, CRIMPED INTERLOCKING MAN-MADE BIODEGRADABLE FIBERS, MICRO-PORE GRANULES, NATURALLY DERIVED CROSSLINKED BIOPOLYMERS AND WATER ABSORBENTS. THE HP-FGM IS PHYTOSANITIZED, FREE FROM PLASTIC NETTING, REQUIRES NO CURING PERIOD AND UPON APPLICATION FORMS AN INTIMATE BOND WITH THE SOIL SURFACE TO CREATE A CONTINUOUS, POROUS, ABSORBENT AND FLEXIBLE EROSION RESISTANT BLANKET THAT ALLOWS FOR RAPID GERMINATION AND ACCELERATED PLANT GROWTH. ALL COMPONENTS OF THE FGM SHALL BE PRE-PACKAGED BY THE MANUFACTURER TO ASSURE BOTH MATERIAL PERFORMANCE AND COMPLIANCE WITH THE FOLLOWING VALUES. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT.

1.
- THERMALLY PROCESSED (WITHIN A PRESSURE VESSEL) WOOD FIBER - 80% ±3% - HEATED TO A TEMPERATURE GREATER THAN 380 DEGREES FAHRENHEIT (193 DEGREES CELSIUS) FOR 5 MINUTES AT A PRESSURE GREATER THAN 50 PSI (345 KPA)
CROSSLINKED BIOPOLYMERS AND WATER ABSORBENTS - 10% ±1%
CRIMPED, MAN-MADE BIODEGRADABLE INTERLOCKING FIBERS - 5% ±1%
MICRO-PORE GRANULES - 5% ±1%

INSTALLATION

STRICTLY COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. USE APPROVED HYDRO-SPRAYING MACHINES WITH FAN-TYPE NOZZLE (50-DEGREE TIP). TO ACHIEVE OPTIMUM SOIL SURFACE COVERAGE, APPLY HP-FGM FROM OPPOSING DIRECTIONS TO SOIL SURFACE. ROUGH SURFACES (ROCKY TERRAIN,CAT TRACKS AND RIPPED SOILS) MAY REQUIRE HIGHER APPLICATION RATES TO ACHIEVE 100% COVER. SLOPE INTERRUPTION DEVICES OR WATER DIVERSION TECHNIQUES ARE RECOMMENDED WHEN SLOPE LENGTHS EXCEED 100 FEET (30 M). MAXIMUM SLOPE LENGTH IS FOR PRODUCT APPLICATIONS ON A 3H:1V SLOPE FOR APPLICATION ON STEEPER SLOPES, SLOPE INTERRUPTION LENGTHS MAY NEED TO BE DECREASED BASED ON ACTUAL SITE CONDITIONS. NOT RECOMMENDED FOR CHANNELS OR AREAS WITH CONCENTRATED WATER FLOW. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT. TO ENSURE PROPER APPLICATION RATES, MEASURE AND STAKE AREA. FOR MAXIMUM PERFORMANCE, APPLY HP-FGM IN A TWO-STEP PROCESS AS FOLLOWS:

1.
- STEP ONE: APPLY FERTILIZER WITH SPECIFIED PRESCRIPTIVE AGRONOMIC FORMULATIONS AND 50% OF SEED WITH A SMALL AMOUNT OF HP-FGM FOR VISUAL METERING.
2.
- STEP TWO: MIX BALANCE OF SEED AND APPLY HP-FGM AT A RATE OF 50 LB PER 125 GALLONS (23 KG/475 LITERS) OF WATER OVER FRESHLY SEEDED SURFACES. CONFIRM LOADING RATES WITH EQUIPMENT MANUFACTURER. DO NOT LEAVE SEEDED SURFACES UNPROTECTED, ESPECIALLY IF PRECIPITATION IS IMMINENT.



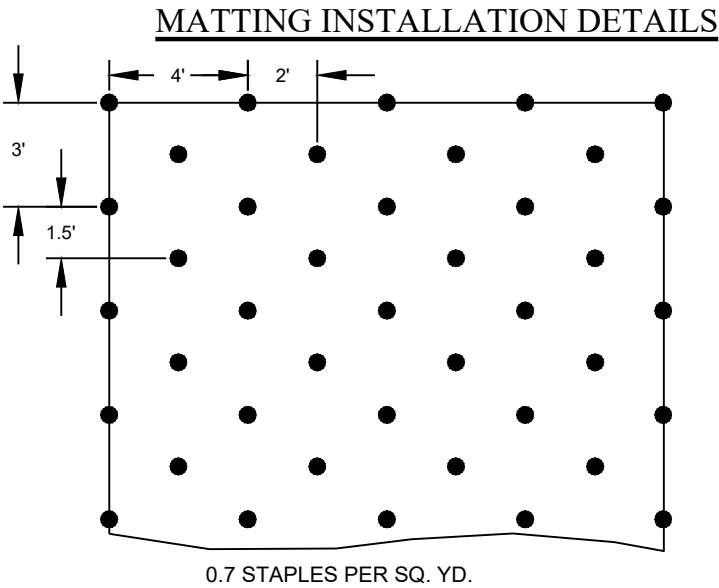
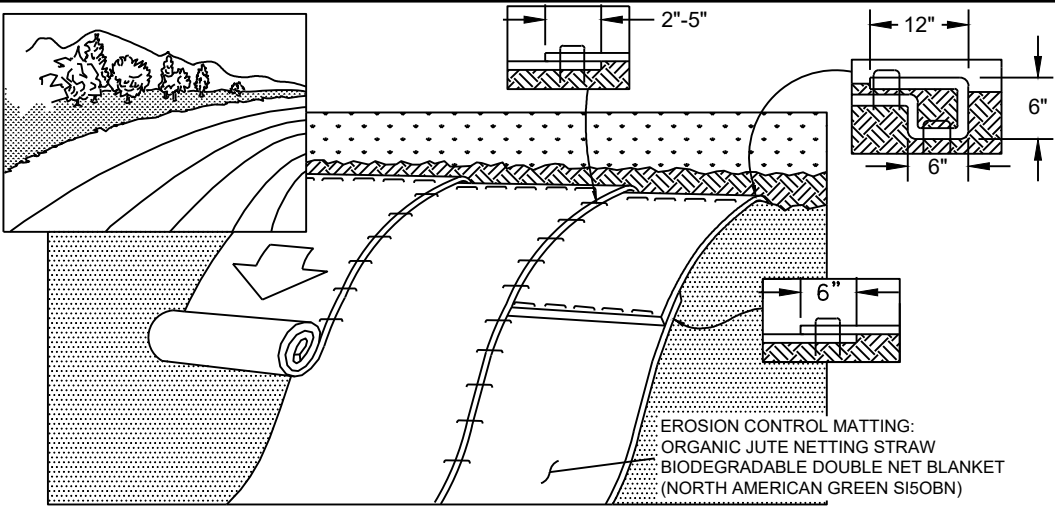
APPLICATION RATES

THESE APPLICATION RATES ARE FOR STANDARD CONDITIONS. DESIGNERS MAY WISH TO REDUCE RATES TO ENCOURAGE FASTER VEGETATION ESTABLISHMENT OR MAY NEED TO INCREASE APPLICATION RATES ON ROUGH SURFACES. CONSULT APPLICATION AND LOADING CHARTS TO DETERMINE NUMBER OF BAGS TO BE ADDED FOR DESIRED ARES AND APPLICATION RATE.

SLOPE GRADIENT / CONDITION	ENGLISH	SI
≤ 4H TO 1V	2,500 LB/AC	2,800 KG/HA
> 4H TO 1V AND ≤ 3H TO 1V	3,000 LB/AC	3,400 KG/HA
≥ 3H TO 1V AND ≤ 2H TO 1V	3,500 LB/AC	3,900 KG/HA
> 2H TO 1V AND ≤ 1H TO 1V	4,000 LB/AC	4,500 KG/HA
> 1H TO 1V	4,500 LB/AC	5,100 KG/HA
BELOW ECB OR TRM	1,500 LB/AC	1,700 KG/HA
AS INFILL FOR TRM	3,500 LB/AC	3,900 KG/HA

3A

DETAIL
FLEXTERRA HP-FGM EROSION CONTROL PRODUCT
NOT TO SCALE



STAPLE PATTERN FOR 16' WIDE ROLLS

NOTES:

1.
- MATTING SHALL BE PLACED ON SLOPES 3H:1V OR STEEPER.
2.
- MATTING SHALL BE PLACED ALONG STREAM EMBANKMENTS AND SLOPES.
3.
- PREPARE SOIL BEFORE INSTALLING INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
4.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE MATTING IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF MATTING EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE MATTING WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF MATTING BACK OVER SEED AND COMPACTED SOIL. SECURE MATTING OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE MATTING.
5.
- ROLL MATTING DOWN THE SLOPE. MATTING MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE ABOVE STAPLE PATTERN.
6.
- THE EDGES OF PARALLEL ROLLS MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP. CONSECUTIVE ROLLS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE - WITH UPSLOPE MAT OVERLYING DOWNSLOPE MAT) WITH AN APPROXIMATE 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE MATTING.
7.
- AS AN ALTERNATIVE TO ECM, A FLEXIBLE GROWTH MEDIUM (FGM) SHALL BE USED UNLESS SPECIFIED BY THE OWNER OR ENGINEER.

3B

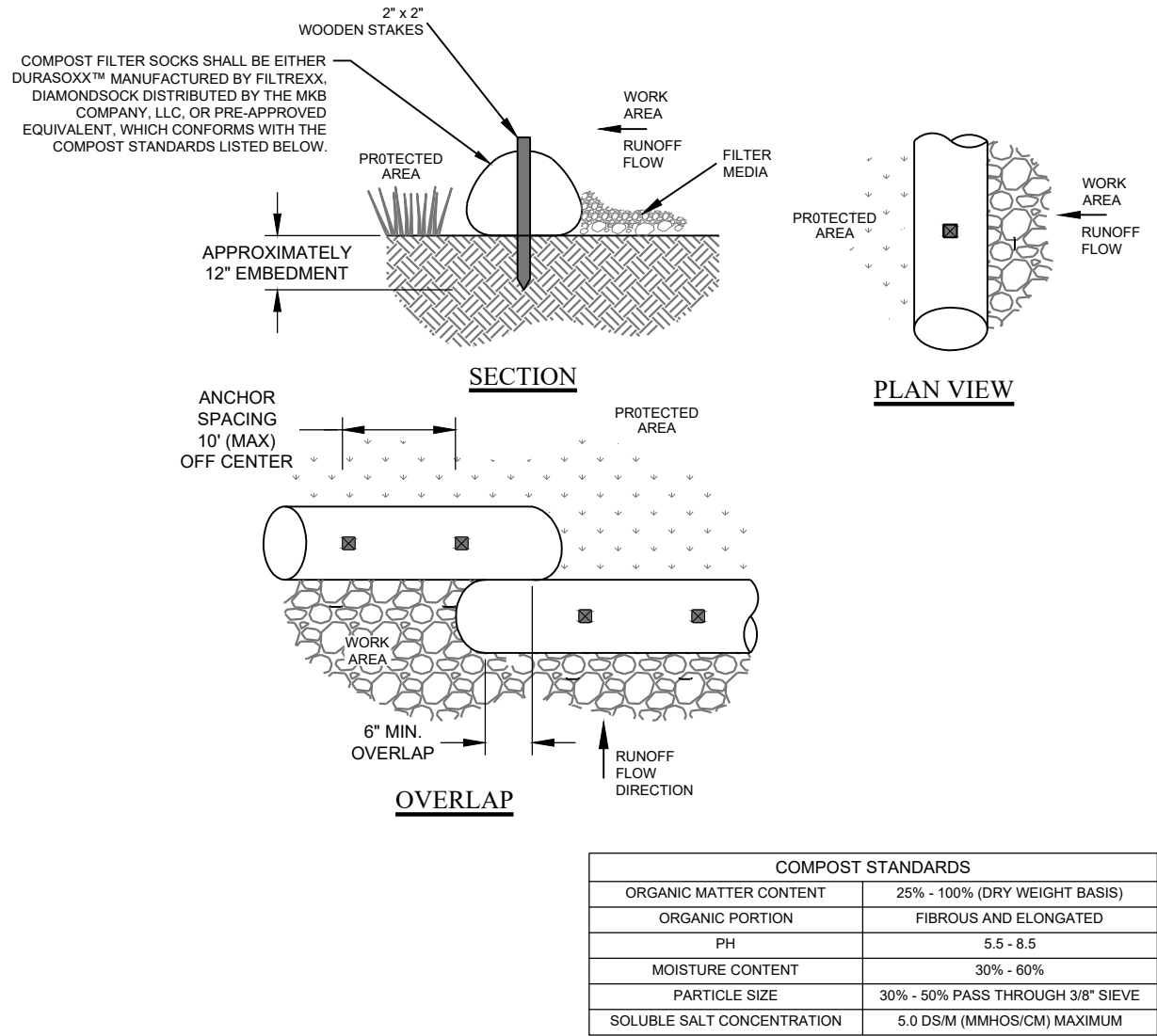
DETAIL
EROSION CONTROL MATTING
NOT TO SCALE

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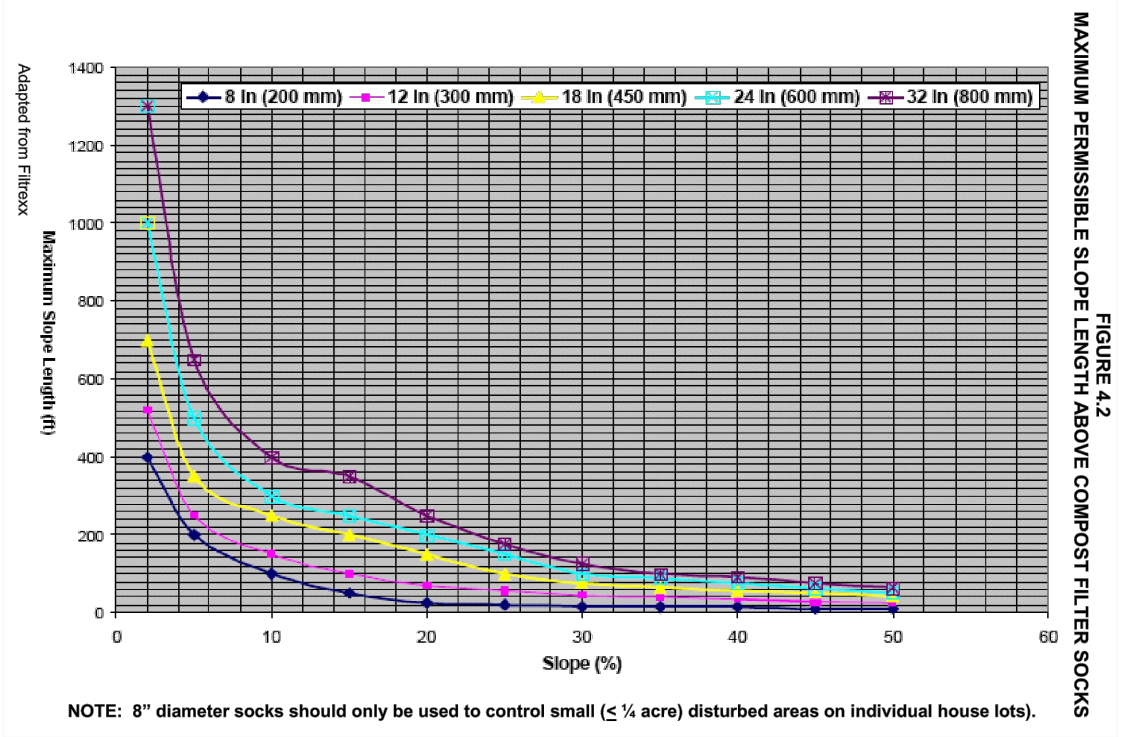
drawing title	scale	AS NOTED	date	03/20/2023	project no.	23010326
project title	RFH	TMA	JAW			
	DESIGNED	CHECKED	DRAWN			
Figure	DETAILS (FIGURE 2 OF 4) EROSION AND SEDIMENTATION CONTROL PLAN				KEATING TOWNSHIP, MCKEAN COUNTY, PENNSYLVANIA	
	LOT 580-1 SITE CATALYST ENERGY, INC.					
4						

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NOTES:

- FILTER SOCKS SHALL BE PLACED PARALLEL TO CONTOURS WITH BOTH ENDS OF THE SOCK EXTENDED UPSLOPE AT A 45 DEGREE ANGLE TO THE REST OF THE SOCK FOR A MINIMUM OF 8 FEET TO PREVENT END-AROUNDS. STAKES SHOULD BE PLACED THROUGH THE CENTER OF THE SOCK AT INTERVALS RECOMMENDED BY THE MANUFACTURER. WHERE SOCKS ARE PLACED ON PAVED SURFACES, CONCRETE BLOCKS SHOULD BE USED IMMEDIATELY DOWNSLOPE OF THE SOCKS TO HELP HOLD THE SOCK IN PLACE.
- PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE FILTER SOCK WITH THE SOIL.
- FILTER SOCKS SHALL BE FILLED WITH WELL-DECOMPOSED ORGANIC MATERIAL (TYPICALLY COMPOSTED WOOD MULCH) IN ACCORDANCE WITH THE COMPOST STANDARDS LISTED ABOVE.
- REMOVE ALL ROCKS, CLODS, VEGETATION, OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED FILTER SOCK WILL HAVE DIRECT CONTACT WITH THE SOIL.
- THE ENDS OF ADJACENT FILTER SOCK SHOULD BE TIGHTLY ABUTTED SO THAT NO OPENING EXISTS FOR WATER OR SEDIMENT TO PASS THROUGH. ALTERNATELY, FILTER SOCK MAY BE OVERLAPPED 6" MINIMUM TO PREVENT SEDIMENT PASSING THROUGH THE FIELD JOINT.
- WOODEN STAKES SHOULD BE USED TO SECURE THE FILTER SOCK TO THE SOIL AS ILLUSTRATED. WOODEN STAKES SHOULD BE PLACED 6" FROM THE FILTER SOCK END.
- CARE SHALL BE TAKEN DURING INSTALLATION SO AS TO AVOID DAMAGE OCCURRING TO THE FILTER SOCK AS A RESULT OF THE INSTALLATION PROCESS. SHOULD THE FILTER SOCK BE DAMAGED DURING INSTALLATION, A WOODEN STAKE SHALL BE PLACED ON EITHER SIDE OF THE DAMAGED AREA TERMINATING THE LOG SEGMENT.
- FIELD MONITORING SHALL BE PERIODICALLY PERFORMED BY THE ENGINEER TO VERIFY THAT THE PLACEMENT DOES NOT DAMAGE THE FILTER SOCK. ANY FILTER SOCK DAMAGED DURING PLACEMENT SHALL BE REPLACED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE ANTICIPATED FUNCTIONAL LIFE OF A BIODEGRADABLE FILTER SOCK SHOULD BE 6 MONTHS; FOR PHOTODEGRADABLE SOCKS 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PROJECTS WITH DISTURBANCES ANTICIPATED TO LAST LONGER THAN THE FUNCTIONAL LIFE OF A SOCK SHOULD PLAN TO REPLACE THE SOCKS PERIODICALLY OR USE ANOTHER TYPE OF BMP.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- WHERE THE LIMIT OF CLEARING / CONSTRUCTION AND FILTER SOCK ARE ADJACENT, PLACE THE SOCK ON THE EDGE OF LIMIT OF CLEARING / CONSTRUCTION.



4 **DETAIL**
FILTER SOCK
NOT TO SCALE

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drawing title	DETAILS (FIGURE 3 OF 4) EROSION AND SEDIMENTATION CONTROL PLAN		
project title	LOT 580-1 SITE CATALYST ENERGY, INC.		
project location	KEATING TOWNSHIP, MCKEAN COUNTY, PENNSYLVANIA		
Figure	5		

designed	RFH	scale	AS NOTED
checked	TMA	date	03/20/2023
drawn	JAW	project no.	23010326

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GENERAL NOTES

1. A COPY OF THIS EROSION AND SEDIMENT CONTROL PLAN MUST BE KEPT AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
2. ARCHAEOLOGICAL ARTIFACTS DISCOVERED DURING THE PERFORMANCE OF THE WORK MUST BE ADEQUATELY PROTECTED AND THEIR DISCOVERY PROMPTLY REPORTED TO THE BUREAU FOR HISTORIC PRESERVATION, HISTORICAL AND MUSEUM COMMISSION, 400 NORTH STREET, SECOND FLOOR, HARRISBURG, PA 17120-0093, TELEPHONE (717) 783-8946.
3. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE §260.1 ET SEQ., §271.1 ET SEQ., AND §287.1 ET SEQ. NO BUILDING MATERIAL OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
4. SURFACE-WATER RUNOFF FROM THE STOCKPILE AREAS SHALL TRAVEL AS SHEET FLOW. FILTER SOCK THAT WILL RECEIVE THE RUNOFF FROM THE STOCKPILE AREAS SHALL BE MONITORED PERIODICALLY TO VERIFY THAT DISCHARGES TO THE RECEIVING WATERWAYS ARE NOT SEDIMENT LADEN. IF THE DISCHARGE DOES NOT MEET THIS REQUIREMENT, SEDIMENT CONTROL MEASURES SHALL BE INCREASED. ALSO, DURING CONSTRUCTION, TEMPORARY DIVERSION CHANNELS OR BERMS SHALL BE PLACED AS NEEDED AROUND THE UPSLOPE SIDE OF STOCKPILE AREAS TO PREVENT RUN-ON. SEDIMENT LADEN WATERS SHALL NOT BE ALLOWED TO ENTER STORMWATER MANAGEMENT FACILITIES.
5. THE PERMIT COVERS THE "MOVING, DEPOSITING, STOCKPILING, OR STORING OF SOIL, ROCK, OR EARTH MATERIALS". IF THE SITE WILL NEED TO HAVE FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE OPERATOR. IF THE SITE WILL HAVE EXCESS FILL THAT WILL NEED TO BE EXPORTED TO AN OFF SITE LOCATION, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESTS ON THE APPLICANT.
6. DEFINITIONS

6.1. **CLEAN FILL:** UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

6.1.1. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON PA CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

6.1.2. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.

6.2. **ENVIRONMENTAL DUE DILIGENCE:** ACCEPTABLE INVESTIGATIVE TECHNIQUES INCLUDE, BUT ARE NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCES. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".
7. FOR STRIP MINED AREAS, SOIL TESTING WILL BE DONE AT THE START OF EARTH DISTURBANCE ACTIVITIES TO DETERMINE THE FORMATION ACTIVITY. IF IT IS FOUND THAT THE TOTAL SULFUR CONTENT EXCEEDS 0.5%, A LIME DOSAGE WILL BE APPLIED AT A RATE ACCORDING TO DEP PUBLICATION 5600-FS-DEP4284. THE REQUIRED LIMING RATE WILL ALSO BE APPLIED WHEN THE SITE IS RECLAIMED.

STANDARD E&S PLAN NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LOCAL AND NEARBY MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, AND THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THE SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COME UNTIL THE CONTRACTOR HAS COMPLETED THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET. SEQ., 271.1 AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM THE PROJECT SITE ONTO STATE OR MUNICIPAL ROADS.
15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REGRUBBING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16. A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE BY OWNER AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
18. ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM OF 5 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLUPPAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOO, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SUBSURFACE DRAINS OR OTHER APPROVED METHOD.
26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE DEPARTMENT.
30. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
31. FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO REMOVE SEDIMENT LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.

CONSTRUCTION SEQUENCE

- ALL EARTH DISTURBANCE ACTIVITIES WILL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. DEVIATION FROM THE ESCP MUST BE APPROVED IN WRITING FROM THE ENGINEER.
1. AN ON-SITE PRE-CONSTRUCTION MEETING SHALL TAKE PLACE BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), AND THE OWNER AND/OR OPERATOR WILL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES.
2. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, NOTIFY ALL APPROPRIATE MUNICIPAL OFFICIALS, PADEP, AND THE PENNSYLVANIA FISH AND BOAT COMMISSION (IF REQUIRED BY PERMIT), OF THE INTENT TO BEGIN CONSTRUCTION.
3. AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 TO LOCATE EXISTING UNDERGROUND UTILITIES.
4. MARK THE PROJECT LIMITS OF DISTURBANCE.
- FACILITY PAD(S) AND ACCESS ROAD CONSTRUCTION SEQUENCE
1. INSTALL ORANGE EXCLUSION FENCING AROUND ADJACENT STREAMS, WETLANDS, AND OTHER SENSITIVE AREAS FOR PROTECTION.
2. INSTALL THE ROCK CONSTRUCTION ENTRANCE WITH WASH RACK, AND THE DOWN GRADIENT FILTER SOCKS AS SHOWN ON THE DRAWINGS NEAR THE ENTRANCE.
3. FOR ALL CLEARING AND GRUBBING, LOGS ARE TO BE EITHER HAULED OFF-SITE OR GIVEN TO THE LANDOWNER UPON THEIR REQUEST (AND AT THE DIRECTION OF THE OWNER OR THEIR REPRESENTATIVE). STUMPS, LIMBS, SHRUBS, BRUSH AND/OR SMALL LOGS SHALL BE GROUND, CHIPPED, WINDROWED ALONG THE LIMIT OF DISTURBANCE, AND/OR HAULED OFF-SITE. IF WINDROWING, ENSURE SUFFICIENT SPACE IS MAINTAINED TO ALLOW FOR INSTALLATION OF PERIMETER COMPOST FILTER SOCK (CFS).
4. CLEAR AND GRUB WITHIN DISTURBANCE LIMITS AND AS NEEDED TO INSTALL COMPOST FILTER SOCK DOWNSTREAM OF DISTURBED AREAS PRIOR TO COMMENCING TOPSOIL STRIPPING ACTIVITIES IN THOSE AREAS. TOPSOIL SHOULD NOT BE STRIPPED IN AN AREA UNTIL ALL DOWNGRAIDENT CFS IS INSTALLED. STRIP TOPSOIL AND STOCKPILE AS CLEARING PROGRESSES.
5. CONSTRUCT THE ACCESS ROAD, TANK PAD, UNLOADING VEHICLE BAYS AND ASSOCIATED SITE FEATURES.
6. UPON REACHING FINISHED GRADES, SEED AND MULCH AS SPECIFIED ON THE DRAWINGS AND APPLY EROSION CONTROL PRODUCT AS SHOWN ON THE PLANS AND ANYWHERE GRADE IS EQUAL TO OR GREATER THAN 3:1 AND ALL DISTURBED AREAS TO BE REVEGETATED WITHIN 50 FEET OF SURFACE WATERS.

SITE STABILIZATION

- TEMPORARY STABILIZATION-UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED 4 DAYS, THE SITE WILL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
- PERMANENT STABILIZATION-UPON FINAL COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE WILL IMMEDIATELY HAVE TOPSOIL RESTORED, REPLACED, OR AMENDED, SEEDED, MULCHED, OR OTHERWISE PERMANENTLY STABILIZED AND PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.
1. STABILIZE WITH EROSION CONTROL MATTING ON STEEP SLOPES WHERE SPECIFIED ON THE DRAWINGS AND DETAILS, AND PROVIDE REVEGETATION OF PERMANENT, NATIVE AREAS AS SPECIFIED IN THE DRAWINGS AND LISTED IN SECTION 3.2 NOTE: ALL NON-GRAVEL AREAS WILL BE RECLAIMED TO MEADOW CONDITIONS, OR BETTER, AND WILL BE SEEDED AND MULCHED TO HELP STABILIZE THE DISTURBED AREAS.
2. CLEAN UP SITE TO SATISFACTION OF OWNER OR THEIR REPRESENTATIVE.
3. REMOVE TEMPORARY EROSION MEASURES WHEN PERMANENT STABILIZATION IS ACHIEVED. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION.

NOTES:

- ALL DISTURBED AREAS WILL BE STABILIZED IMMEDIATELY WITH ROCK AND/OR SEEDING AND MULCHING.
- ONLY CLEAN, NON-POLLUTING MATERIALS WILL BE USED AS FILL. MINIMUM STONE SIZE SHOULD BE R-4, AS RATED BY THE NATIONAL STONE ASSOCIATION.
- ALL EARTHMOVING ACTIVITIES MUST INCORPORATE MEASURES TO MINIMIZE ACCELERATED EROSION. THE ESCP MUST BE AT THE SITE OF ACTIVITY AT ALL TIMES AND AVAILABLE FOR INSPECTION BY A REPRESENTATIVE OF PADEP.
- ALL EARTH DISTURBANCE ACTIVITIES WILL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED IN THE PLAN DRAWINGS. DEVIATION FROM THE SEQUENCE MUST BE APPROVED IN WRITING BY PADEP PRIOR TO IMPLEMENTATION. PADEP WILL BE NOTIFIED SEVEN (7) DAYS PRIOR TO THE START OF THE PROJECT CONSTRUCTION AND PRIOR TO ANY PLAN CHANGES.

PERMANENT CONTROLS

- AN EROSION CONTROL PRODUCT WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER OR EQUAL TO 3:1, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN ONE FIFTY (50) FEET OF WATERS OF THE COMMONWEALTH.
1. UPON FINAL COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE SITE SHALL IMMEDIATELY HAVE TOPSOIL RESTORED, REPLACED, OR AMENDED, SEEDED, MULCHED, OR OTHERWISE PERMANENTLY STABILIZED AND PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION.
2. E&S BMPs SHALL BE IMPLEMENTED AND MAINTAINED UNTIL THE PERMANENT STABILIZATION IS COMPLETED. ONCE PERMANENT STABILIZATION HAS BEEN ESTABLISHED, THE TEMPORARY E&S BMPs SHALL BE REMOVED. ANY AREAS DISTURBED IN THE ACT OF REMOVING TEMPORARY E&S BMPs SHALL BE PERMANENTLY STABILIZED UPON COMPLETION OF THE TEMPORARY E&S BMP REMOVAL ACTIVITY.
3. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED, THE DISTURBANCE AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING:

3.1. A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION.

3.2. AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
4. PERMANENT SEEDING AND MULCHING WILL BE INCORPORATED INTO THE OPERATIONS DURING THE APPROVED PLANTING SEASON OF MARCH 15 TO JUNE 1 OR AUGUST 1 TO OCTOBER 15. SEEDING MAY BE COMPLETED OUTSIDE OF THESE SEASONS AT THE CONTRACTORS DISCRETION, AND WITH APPROVAL OF THE OWNER, BUT CARRIES A HIGHER RISK OF REQUIRING RESEEDING BY THE CONTRACTOR. SEED APPLICATION WILL BE WITH CYCLONE SEEDER, DRILL, OR CULT-PACKER SEEDER. MULCH WILL BE SPREAD AND ANCHORED MECHANICALLY OR UNIFORMLY BY HAND.
5. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE STABILIZED BY APPLYING A SEED MIXTURE TO ESTABLISH AN EROSION-RESISTANT STAND OF VEGETATION IN THE LEAST AMOUNT OF TIME.

5.1. ALL SEEDS, AS SPECIFIED, SHALL CONFORM TO THE PENNSYLVANIA SEED ACT OF 1965, AS AMENDED, AND REGULATIONS OF THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE, BUREAU OF PLANT INDUSTRY.

5.2. ALL SEEDS SHALL BE FURNISHED TO THE PROJECT SITE IN MIX PREPARED BY THE SEED PROCESSOR. THE MIX SHALL HAVE A CERTIFICATION TAG WHICH SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE. THE MIXTURE SHALL BE AS FOLLOWS:

5.2.1. RIPARIAN BUFFER MIX SHALL BE USED WITHIN 100' OF STREAMS AND 50' OF WETLANDS. NATIVE UPLAND MIX SHALL BE USED IN ALL OTHER AREAS. SEE PLANT MIX SCHEDULE ON THIS SHEET.

5.3. BEFORE SEEDING, APPLY THE FOLLOWING SOIL AMENDMENTS WITH TOPSOIL AND WORK INTO A FOUR-INCH TO SIX-INCH (4-6") SOIL DEPTH:

5.3.1. APPLY 6 TONS OF AGRICULTURAL-GRADE LIMESTONE PER ACRE.

5.3.2. APPLY NPK 10-20-20 FERTILIZER BY BROADCASTING AT A RATE OF 1,000 LBS/ACRE.

5.4. THE PREPARED AREAS SHALL THEN BE SEEDED WITH THE SPECIFIED SEED BY MEANS OF A MECHANICAL HOPPER TYPE SEEDER AT THE RATE OF 30 LBS/ACRE OR AS SPECIFIED IN THE NATIVE SEEDING SCHEDULE.

5.5. THE SEED SHALL BE SOWN EVENLY IN TWO DIRECTIONS, WITH 1/2 OF THE SEED BEING SOWN IN A DIRECTION AT RIGHT ANGLES TO THE OTHER HALF. SEEDING SHALL BE DONE ON A DAY WHEN THERE IS NO WIND.

5.6. AFTER SOWING THE SEED, THE AREA SHALL BE LIGHTLY RAKED TO COVER SEED TO AN AVERAGE DEPTH OF ONE-FOURTH INCH (1/4") AND ROLLED WITH A 200-POUND ROLLER. THE COMPLETED AREAS SHALL PRESENT A SMOOTH AND FINISHED APPEARANCE. THE SEEDING AND COMPACTING OF THE LARGE AREAS MAY BE ACCOMPLISHED BY USE OF A "GILL SEEDER" OR OTHER MECHANICAL SEEDER.
6. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE NATIONAL RESOURCE CONSERVATION SERVICE (NRCS) SOIL CONSERVATION SERVICE (SCS) STANDARD RECOMMENDATIONS AND THE PA DEP SOIL EROSION AND SEDIMENTATION POLLUTION CONTROL PROGRAM MANUAL. MEASURES PRESENTED HEREIN SHALL BE SUPPLEMENTED OR MODIFIED BY CONTRACTOR DURING THE WORK BASED ON ACTUAL SEQUENCE, TIMING, AND METHODS OF CONSTRUCTION AS NECESSARY TO COMPLY WITH PA DEP EROSION AND SEDIMENT CONTROL REQUIREMENTS.

TEMPORARY CONTROLS

- AN EROSION CONTROL PRODUCT WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER OR EQUAL TO 3:1, ALL AREAS OF CONCENTRATED FLOWS, AND DISTURBED AREAS WITHIN FIFTY (50) FEET OF WATERS OF THE COMMONWEALTH.
1. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OF ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
2. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED TEMPORARILY STABILIZED, THE DISTURBED AREAS SHALL BE COVERED WITH ONE OF THE FOLLOWING:

2.1. A MINIMUM UNIFORM COVERAGE OF MULCH AND SEED, WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION.

2.2. AN ACCEPTABLE BMP WHICH TEMPORARILY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
3. BEFORE SEEDING, APPLY THE FOLLOWING SOIL AMENDMENTS WITH TOPSOIL AND WORK INTO A FOUR-INCH TO SIX-INCH (4-6") SOIL DEPTH.

3.1. APPLY 1 TON OF AGRICULTURAL-GRADE LIMESTONE PER ACRE.

3.2. APPLY NPK 10-10-10 FERTILIZER BY BROADCASTING AT A RATE OF 500 LBS/ACRE.
4. THOROUGHLY LOOSEN THE AREAS TO BE SEEDED BY AN APPROVED METHOD UNTIL THE TILLAGE IS ACCEPTED. IRREGULARITIES IN THE SURFACE, RESULTING FROM TILLAGE OR FROM OTHER OPERATIONS, SHALL BE SMOOTHED BEFORE SEEDING OPERATIONS BEGIN TO PREVENT THE FORMATION OF WATER-COLLECTING POCKETS.
5. ALL SEEDS SHALL BE FURNISHED TO THE PROJECT SITE IN MIX PREPARED BY THE SEED PROCESSOR. THE MIX SHALL HAVE A CERTIFICATION TAG WHICH SHALL BE PRESENTED TO THE OWNERS REPRESENTATIVE. THE MIXTURE SHALL BE AS FOLLOWS:

5.1. TEMPORARY MIXTURE: THIS MIX SHALL BE USED ON ALL AREAS TO BE SEEDED AFTER DISTURBANCE, BUT PRIOR TO IMPLEMENTATION OF PERMANENT CONTROL MEASURES.

MIX	% MIX	PURITY	GERMINATION
ANNUAL RYEGRASS	100%	95%	90%
6. THE PREPARED AREAS SHALL THEN BE SEEDED WITH THE SPECIFIED SEED BY MEANS OF A MECHANICAL HOPPER TYPE SEEDER AT THE RATE OF 50 LBS/ACRE.
7. THE SEED SHALL BE SOWN EVENLY IN TWO DIRECTIONS, WITH ONE-HALF (1/2) OF THE SEED BEING SOWN IN A DIRECTION AT RIGHT ANGLES TO THE OTHER HALF. SEEDING SHALL BE DONE ON A DAY WHEN THERE IS NO WIND.
8. AFTER SOWING THE SEED, THE AREA SHALL BE LIGHTLY RAKED TO COVER SEED TO AN AVERAGE DEPTH OF ONE-FOURTH INCH (1/4") AND ROLLED WITH A 200-POUND ROLLER. THE COMPLETED AREAS SHALL PRESENT A SMOOTH AND FINISHED APPEARANCE. THE SEEDING AND COMPACTING OF THE LARGE AREAS MAY BE ACCOMPLISHED BY USE OF A "GILL SEEDER" OR OTHER MECHANICAL SEEDER.

MAINTENANCE PROGRAM

- EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED ACCORDING TO THE APPLICABLE CONSERVATION DISTRICT REQUIREMENTS AND STANDARD BEST MANAGEMENT PRACTICES. IN GENERAL, MAINTENANCE WILL INCLUDE INSPECTIONS ON A WEEKLY BASIS AND AFTER EACH STORMWATER EVENT, AND PERIODIC REMOVAL OF ANY SEDIMENT ACCUMULATED. COMPLETE DETAILS REGARDING MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES ARE PRESENTED ON THE ATTACHED FIGURES.
- THE FOLLOWING MAINTENANCE PROGRAM WILL BE FOLLOWED UNTIL THE SITE IS COMPLETELY STABILIZED AFTER CONSTRUCTION. DURING CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF ALL E&S FEATURES.

1. ALL TEMPORARY E&S CONTROL MEASURES WILL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ALL DEFECTIVE EROSION CONTROL MEASURES WILL BE REPAIRED IMMEDIATELY.

a. **FILTER SOCKS:** SPLIT, TORN, UNRAVELING OR SLUMPING FILTER SOCKS WILL BE REPAIRED OR REPLACED. SEDIMENT WILL BE REMOVED WHEN ACCUMULATIONS REACH ½ THE DIAMETER OF THE FILTER SOCK.

b. **EROSION CONTROL PRODUCT:** EROSION CONTROL PRODUCT DAMAGED BEFORE SUFFICIENT STABILIZATION OF UP-GRADIENT VEGETATION WILL BE IMMEDIATELY REPLACED.

c. **ROCK CONSTRUCTION ENTRANCE:** CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY.

d. **MULCH:** CHECK MULCHED AREAS FOR DAMAGE UNTIL DESIRED PURPOSE OF MULCHING IS ACHIEVED. DAMAGED PORTIONS OF MULCH OR TIE-DOWN MATERIAL SHALL BE REPAIRED/REPLACED AS NEEDED.
2. PERMANENT E&S CONTROL MEASURES

a. **PERMANENT SEEDING:** SEEDING WILL BE APPLIED IN THE LOCATIONS AND RATES SPECIFIED ON THE FIGURES. SEEDED AREAS WILL BE INSPECTED ONCE STABILIZED. INSPECTIONS WILL CONTINUE UNTIL 70% VEGETATIVE COVER IS ACHIEVED AND THE SITE IS CONSIDERED TO BE PERMANENTLY STABILIZED. VEGETATION COVER AND SIGNS OF EROSION WILL ALSO BE CHECKED AND RE-SEEDED AND FERTILIZED, AS NECESSARY.

b. OBSERVATION OF THE GROWTH OF DESIRED SPECIES AND WEED COMPETITION IS ESSENTIAL TO MAKING MAINTENANCE DECISIONS. ADHERE TO SUPPLIERS MAINTENANCE DIRECTIONS FOR EACH SEED MIX.

MAINTENANCE FOR BOTH THE TEMPORARY AND PERMANENT E&S CONTROL BMPs WILL INCLUDE PROPER REMOVAL AND DISPOSAL OF MATERIALS IN THE PROJECT AREA. ACCUMULATED SEDIMENT WILL BE SPREAD WITHIN THE EASEMENT AREAS AND PREPARED FOR PERMANENT EROSION CONTROL MEASURES. NO SEDIMENT WILL BE PLACED WITHIN 100 FEET OF STREAMS, LAKES, PONDS, AND WETLANDS.

CONSTRUCTION WASTES, SUCH AS BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC., SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE PADEP'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. THESE MATERIALS SHOULD BE RECYCLED WHERE FEASIBLE AND IS PREFERRED VERSUS DISPOSAL. WASTE MATERIALS COULD ADVERSELY IMPACT THE WATER QUALITY OF THE STREAMS, LAKES, PONDS, AND WETLANDS.

MULCHING

CLEAN OAT OR WHEAT STRAW SHALL BE FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS AS DEFINED BY THE PENNSYLVANIA SEED ACT OF 1947. APPLY AT A RATE OF THREE (3) TONS PER ACRE [ONE-HUNDRED TWENTY-FIVE (125) POUNDS PER ONE-HUNDRED (100) SQUARE YARDS]. PRECAUTIONS SHALL BE TAKEN TO STABILIZE THE MULCH UNTIL THE VEGETATIVE COVER IS ESTABLISHED. MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT WINDBLOWN TRANSPORT.

MULCH SHALL BE PLACED OVER DISTURBED AREAS WITHIN FORTY-EIGHT (48) HOURS AFTER RAKING AND SEEDING OR PLANTING HAS BEEN PERFORMED. SALT HAY OR OTHER SALINE MARSH GRASSES ARE NOT ACCEPTABLE. THE MATERIAL SHALL BE APPLIED AT AN AVERAGE MINIMUM DEPTH OF TWO INCHES (2") LOOSE MEASUREMENT. CARE SHALL BE TAKEN WHEN PLACING THE MULCH SO AS NOT TO DISTURB THE SEEDED SURFACES. THE MULCH SHALL BE SECURED BY THE FOLLOWING METHOD, OR OTHER METHOD PRESENTED BY THE CONTRACTOR AND ACCEPTABLE TO THE OWNERS REPRESENTATIVE:

DURING THE LIFE OF THE CONTRACT, PROPERLY CARE FOR ALL AREAS AND MULCHES, PERFORMING SUCH MULCHING AS NECESSARY TO PROVIDE PROTECTION FOR ESTABLISHED GROWTH ON THE TREATED AREAS.

PLANT MIX SCHEDULE

PLANTING ZONE	QUANTITY	SEED MIX	COMMENT
NATIVE UPLAND	15 BULK POUNDS PER ACRE	NATIVE BIOMASS MIX FOR STRIP MINES & GAS PRODUCTION SITES ERNMIX-110	SEE COMMENTS 1 AND 2
COVER CROP	30 BULK POUNDS PER ACRE	ANNUAL OATS (JAN 1 TO JULY 31) OR ANNUAL RYE (AUG 1 TO DEC 31)	SEE COMMENT 4
RIPARIAN BUFFER	20 BULK POUNDS PER ACRE	RIPARIAN BUFFER MIX ERNMIX-178	SEE COMMENTS 1 AND 3

NATIVE SEEDING SCHEDULE

NATIVE UPLAND MIX	
COMMON NAME	SCIENTIFIC NAME
BIG BLUESTEM	ANDROPOGON GERARDII
COASTAL PANICGRASS	PANICUM AMARIUM
SWITCHGRASS	PANICUM VIRGATUM
VIRGINIA WILDRYE	ELYMUS VIRGINICUS
PARTRIDGE PEA	CHAMAECRISTA FASCICULATA
BECKW. TICKLEWEED	DESMODIUM CANADENSE
RIPARIAN BUFFER MIX	
COMMON NAME	SCIENTIFIC NAME
PANICUM GLANDERSTINIUM	TIOGA
DEERTONGUE	TIOGA
ELYMUS VIRGINICUS	PA ECOTYPE
VIRGINIA WILDRYE	PA ECOTYPE
ANDROPOGON GERARDII	NAGAHARA
BIG BLUESTEM	NAGAHARA
SORGHASTHUM NUTANS	TOMAHAWK
INDIANGRASS	TOMAHAWK
PANICUM VIRGATUM	SHELTER
SWITCHGRASS	SHELTER
CHAMAECRISTA FASCICULATA	PA ECOTYPE
PARTRIDGE PEA	PA ECOTYPE
BLUE VERVAIN	PA ECOTYPE
ALNUS INCANA	PA ECOTYPE
COMMON SNEEWEED	PA ECOTYPE
MONARDA FISTULOSA	FORT INDIANTOWN GAP
WILD BERGAMONT	FORT INDIANTOWN GAP
VERONICA NOVBORACENSIS	PA ECOTYPE
NEW YORK LORNBIRD	PA ECOTYPE
POUGHKEEP GOBENOD	PA ECOTYPE
GREAT BLUE LORELLA	PA ECOTYPE



AS NOTED	scale	date	project no.
		03/20/2023	23010326
RFH	checked	drawn	
TMA		JAW	

DETAILS (FIGURE 4 OF 4)

EROSION AND SEDIMENTATION CONTROL PLAN

KEATING TOWNSHIP,
MCKEAN COUNTY,
PENNSYLVANIA

LOT 580-1 SITE
CATALYST ENERGY, INC.