

04/05/2019



Antero Resources  
1615 Wynkoop Street  
Denver, CO 80202  
Office 303.357.7310  
Fax 303.357.7315

April 3, 2019

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57<sup>th</sup> Street  
Charleston, WV 25304

To Whom It May Concern:

Please find enclosed the Well Operator's Report of Well Work, Form WR-35 (including As-Drilled Survey Plat, Directional Survey and FracFocus report), Discharge Monitoring Report Form WR-34 and corresponding logs for the following wells:

- Penny Unit 1H (API # 47-085-10298)—Mulvay Pad
- Penny Unit 2H (API # 47-085-10299)—Mulvay Pad
- Penny Unit 3H (API # 47-085-10300)—Mulvay Pad
- Stronsnider Unit 1H (API # 47-085-10201)—Mulvay Pad
- Stronsnider Unit 2H (API # 47-085-10202)—Mulvay Pad
- Stronsnider Unit 3H (API # 47-085-10203)—Mulvay Pad
- Trust Unit 1H (API # 47-085-10301)—Mulvay Pad
- Trust Unit 2H (API # 47-085-10302)—Mulvay Pad
- Niley Unit 1H (API # 47-085-10250)—Mulvay Pad
- Niley Unit 2H (API # 47-085-10251)—Mulvay Pad
- Niley Unit 3H (API # 47-085-10252)—Mulvay Pad

If you have any questions please feel free to contact me at (303) 357-7223.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Griffith", is written over a light blue circular stamp.

Megan Griffith  
Permitting Agent  
Antero Resources Corporation

Enclosures

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47 - 085 - 10298 County Ritchie District Clay  
 Quad Pennsboro 7.5' Pad Name Mulvay Pad Field/Pool Name -----  
 Farm name Edwin D. Mulvay et al Well Number Penny Unit 1H  
 Operator (as registered with the OOG) Antero Resources Corporation  
 Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
 Top hole Northing 4352566m Easting 508713m  
 Landing Point of Curve Northing 4352436.99m Easting 509040.85m  
 Bottom Hole Northing 4349623m Easting 509983m

Elevation (ft) 1029' GL Type of Well  New  Existing Type of Report  Interim  Final  
 Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
 Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
 Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
 Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
 Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
 Production hole  Air  Mud  Fresh Water  Brine

Mud Type(s) and Additive(s)  
Air - Foam & 4% KCL  
Mud - Polymer

Date permit issued 9/29/2015 Date drilling commenced 12/23/2016 Date drilling ceased 7/26/2017  
 Date completion activities began 2/6/2018 Date completion activities ceased 8/1/2018  
 Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 24', 76', 124', 422' Open mine(s) (Y/N) depths No  
 Salt water depth(s) ft 1522', 1949' Void(s) encountered (Y/N) depths No  
 Coal depth(s) ft 653', 664' Cavern(s) encountered (Y/N) depths No  
 Is coal being mined in area (Y/N) No

Reviewed by:  
 \_\_\_\_\_

WR-35  
Rev. 8/23/13

API 47-085 - 10298 Farm name Edwin D. Mulvay et al Well number Penny Unit 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	105'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	568'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2591'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	17087'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6736'		4.7#, N-80		
Packer type and depth set		N/A					

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	204 sx	15.6	1.18	120	0'	8 Hrs.
Surface	Class A	567 sx	15.6	1.18	826	0'	8 Hrs.
Coal							
Intermediate 1	Class A	940 sx	15.6	1.18	1181	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	740 sx (Lead) 1585 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.53 (Lead), 1.83 (Tail)	3774	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17087' MD, 6455' TVD (BHL), 6454' (Deepest Point Drilled) Loggers TD (ft) 17087' MD

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 5900'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

Conductor - 0

Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface

Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED N/A

API 47- 085 - 10298 Farm name Edwin D. Mulvay et al Well number Penny Unit 1H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>*PLEASE SEE ATTACHED EXHIBIT 1</b>					

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
<b>*PLEASE SEE ATTACHED EXHIBIT 2</b>								

Please insert additional pages as applicable.

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API 47- 085 - 10298 Farm name Edwin D. Mulvay et al Well number Penny Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Marcellus	6368' (TOP) TVD	6743' (TOP) MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 8287 mcfpd Oil 31 bpd NGL --- bpd Water 1011 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
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**\*PLEASE SEE ATTACHED EXHIBIT 3**


Please insert additional pages as applicable.

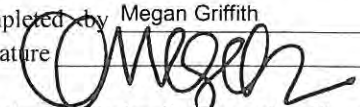
Drilling Contractor Frontier Drilling LLC  
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company Allied Horizontal Wireline Services  
Address 381 Colonial Manor Road City North Huntington State PA Zip 15642

Cementing Company BJ Services  
Address 1036 East Main Street City Bridgeport State WV Zip 26330

Stimulating Company Baker Hughes  
Address 837 Philippi Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223  
Signature  Title Permitting Agent Date 4/3/2019

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

API 47-085-10298 Farm Name <u>Edwin D. Mulvay et al</u> Well Number <u>Penny Unit 1H</u>					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	2/13/2018	16817	16986	60	Marcellus
2	2/14/2018	16616	16702	60	Marcellus
3	2/14/2018	16415	16501	60	Marcellus
4	2/15/2018	16215	16300	60	Marcellus
5	2/16/2018	16014	16100	60	Marcellus
6	2/16/2018	15814	15899	60	Marcellus
7	2/17/2018	15613	15699	60	Marcellus
8	2/18/2018	15412	15498	60	Marcellus
9	2/19/2018	15212	15297	60	Marcellus
10	2/20/2018	15011	15097	60	Marcellus
11	2/20/2018	14811	14896	60	Marcellus
12	2/21/2018	14610	14696	60	Marcellus
13	2/22/2018	14409	14495	60	Marcellus
14	2/22/2018	14209	14294	60	Marcellus
15	2/24/2018	14008	14094	60	Marcellus
16	2/25/2018	13808	13893	60	Marcellus
17	2/25/2018	13607	13693	60	Marcellus
18	2/26/2018	13406	13492	60	Marcellus
19	2/26/2018	13206	13291	60	Marcellus
20	2/26/2018	13005	13091	60	Marcellus
21	2/27/2018	12805	12890	60	Marcellus
22	2/28/2018	12604	12690	60	Marcellus
23	2/28/2018	12404	12489	60	Marcellus
24	3/1/2018	12203	12289	60	Marcellus
25	3/1/2018	12002	12088	60	Marcellus
26	3/2/2018	11802	11887	60	Marcellus
27	3/2/2018	11601	11687	60	Marcellus
28	3/3/2018	11401	11486	60	Marcellus
29	3/4/2018	11200	11286	60	Marcellus
30	3/4/2018	10999	11085	60	Marcellus
31	3/5/2018	10799	10884	60	Marcellus
32	3/5/2018	10598	10684	60	Marcellus
33	3/6/2018	10398	10483	60	Marcellus
34	3/7/2018	10197	10283	60	Marcellus
35	3/7/2018	9996	10082	60	Marcellus
36	3/8/2018	9796	9881	60	Marcellus
37	3/8/2018	9595	9681	60	Marcellus
38	3/9/2018	9395	9480	60	Marcellus
39	3/9/2018	9194	9280	60	Marcellus
40	3/9/2018	8993	9079	60	Marcellus
41	3/10/2018	8793	8878	60	Marcellus
42	3/10/2018	8592	8678	60	Marcellus
43	3/10/2018	8392	8477	60	Marcellus
44	3/11/2018	8191	8277	60	Marcellus
45	3/11/2018	7991	8076	60	Marcellus
46	3/11/2018	7790	7876	60	Marcellus
47	3/11/2018	7589	7675	60	Marcellus
48	3/12/2018	7389	7474	60	Marcellus
49	3/12/2018	7188	7274	60	Marcellus
50	3/12/2018	6988	7073	60	Marcellus
51	3/12/2018	6787	6873	60	Marcellus

API 47-085-10298 Farm Name Edwin D. Mulvay et al Well Number Penny Unit 1H

## EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	2/13/2018	77.7373	7929.395	5302	4345	417350	8943	N/A
2	2/14/2018	76.8191	7686.177	5253	3560	417540	9017	N/A
3	2/14/2018	72.5531	7564.328	5013	3717	416850	8853	N/A
4	2/15/2018	73.7572	7511.591	4991	4286	415530	9749	N/A
5	2/16/2018	75.1024	7723.984	5066	3953	416600	8995	N/A
6	2/16/2018	74.1507	7558.752	5455	3847	415390	8918	N/A
7	2/17/2018	72.8512	7603.36	5534	3744	416080	8787	N/A
8	2/18/2018	69.407	7712.43	5871	4812	374500	10446	N/A
9	2/19/2018	70.241	7568.367	5388	4497	418465	9167	N/A
10	2/20/2018	73.1	7394.5	5821	4082	421115	8798	N/A
11	2/20/2018	64.6727	7924.483	5229	3570	416600	11327	N/A
12	2/21/2018	71.1662	7376.279	5408	3925	419250	9194	N/A
13	2/22/2018	70.6964	7559.164	5176	3582	417100	9046	N/A
14	2/22/2018	77.2559	7585.679	5167	3733	418865	9049	N/A
15	2/24/2018	74.1	7445.7	5053	4034	414025	8573	N/A
16	2/25/2018	74.3157	7376.5	5059	3917	416800	8923	N/A
17	2/25/2018	72.4	7544	5154	4777	418300	8729	N/A
18	2/26/2018	70.9469	7228.594	5013	4192	418900	9197	N/A
19	2/26/2018	73.7083	7424.318	4893	4127	419500	8721	N/A
20	2/26/2018	75.7057	7109.312	4858	3899	417540	8872	N/A
21	2/27/2018	76.0677	7322.349	5211	3880	419150	8706	N/A
22	2/28/2018	74.4755	7114.05	5404	3828	419850	8808	N/A
23	2/28/2018	72.3	7509.4	5619	3911	421920	8654	N/A
24	3/1/2018	73.4037	7260.768	5645	4363	419100	8752	N/A
25	3/1/2018	71.1797	7384.35	5512	4225	417140	8885	N/A
26	3/2/2018	71.6	7469.2	5376	4284	426165	8765	N/A
27	3/2/2018	73.3242	7645.2	5144	4183	419710	8710	N/A
28	3/3/2018	74.5	7205.6	5339	3867	418235	8652	N/A
29	3/4/2018	75.148	7127.503	5319	3877	420730	8653	N/A
30	3/4/2018	77.4982	7116.869	5273	3729	419120	8641	N/A
31	3/5/2018	75.4311	7091.71	5665	3947	418000	8693	N/A
32	3/5/2018	75.7123	7152.944	5352	3622	420700	8687	N/A
33	3/6/2018	76.9725	7080.192	5147	4176	419000	8564	N/A
34	3/7/2018	72.8516	7157.458	5644	4292	416520	10454	N/A
35	3/7/2018	77.1176	7275.071	5186	3806	435450	8584	N/A
36	3/8/2018	77.5	7093	5460	4885	437300	11360	N/A
37	3/8/2018	74.1	6903	5811	4664	392000	9719	N/A
38	3/9/2018	77.6441	7033.541	4924	3729	419310	8588	N/A
39	3/9/2018	76.5992	6672.407	5373	3335	419300	8583	N/A
40	3/9/2018	77.7587	6778.496	5203	4026	420920	8546	N/A
41	3/10/2018	77.9507	7225.273	5618	3169	420350	8483	N/A
42	3/10/2018	74.6526	6970.929	5649	4279	360400	8992	N/A
43	3/10/2018	77.7737	6812.824	6386	3438	421400	9364	N/A
44	3/11/2018	77.78	6546.845	6120	3463	417100	8471	N/A
45	3/11/2018	76.385	6582.143	6024	3701	420400	8495	N/A
46	3/11/2018	76.4362	6598.877	5280	3200	419600	8508	N/A
47	3/11/2018	76.5901	6480.166	6638	3425	418705	8445	N/A
48	3/12/2018	78	6521.909	6589	3419	419200	8436	N/A
49	3/12/2018	75.7406	6488.204	6176	3193	418600	9564	N/A
50	3/12/2018	75.9054	6304.715	5974	3049	418400	8483	N/A
51	3/12/2018	75.7911	6230.372	5722	3251	418600	8447	N/A
	AVG=	74.4	7,282	5,378	3,967	19,165,170	414,621	TOTAL

API 47-085-10298 Farm Name Edwin D. Mulvay et al Well Number Penny Unit 1H**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Silty Sandstone	-15	105	-15	105
Sandy siltstone	105	145	105	145
Shale	145	185	145	185
Sandstone	185	305	185	305
Sandy Shale	305	545	305	545
Silty Shale	545	745	545	745
Sandy siltstone	745	885	745	885
silty shale	885	1,005	885	1,005
Sandy siltstone	1,005	1,115	1,005	1,115
Shaly Siltstone	1,115	1,345	1,115	1,345
Sandstone	1,345	1,525	1,345	1,525
Sandy siltstone	1,525	1,645	1,525	1,645
Silty Sandstone	1,645	1,863	1,645	1,864
Big Lime	1,878	2,065	1,879	2,067
Big Injun	2,065	2,424	2,067	2,426
Gantz Sand	2,424	2,673	2,426	2,675
Fifty Foot Sandstone	2,673	2,851	2,675	2,853
Gordon	2,851	3,011	2,853	3,016
Fifth Sandstone	3,011	3,286	3,016	3,298
Bayard	3,286	3,389	3,298	3,404
Warren	3,389	3,746	3,404	3,774
Speechley	3,746	4,495	3,774	4,554
Balltown	3,973	4,889	4,009	4,963
Bradford	4,495	4,889	4,554	4,963
Benson	4,889	5,129	4,963	5,214
Alexander	5,129	5,727	5,214	5,836
Rhinestreet	5,703	6,072	5,812	6,211
Sycamore	6,072	6,195	6,211	6,372
Middlesex	6,195	6,305	6,372	6,559
Burkett	6,305	6,338	6,559	6,640
Tully	6,338	6,368	6,640	6,743
Marcellus	6,368	NA	6,743	NA

\*Please note Antero determines formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.



# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/13/2018
Job End Date:	3/12/2018
State:	West Virginia
County:	Ritchie
API Number:	47-085-10298-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Penny 1H
Latitude:	39.32238100
Longitude:	-80.89908600
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,455
Total Base Water Volume (gal):	20,033,690
Total Base Non Water Volume:	0



## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Antero Resources	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.50488	
Sand	J.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	11.25134	
HCL Acid (12.6%-17.5%)	J.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.40000	0.11379	
LGC-15	J.S. Well Services, LLC	Gelling Agents	Hydrogen Chloride	7647-01-0	17.50000	0.02646	
			Guar Gum	9000-30-0	50.00000	0.02772	
			Petroleum Distillates	64742-47-8	60.00000	0.02625	
			Suspending agent (solid)	14808-60-7	3.00000	0.00424	
			Surfactant	68439-51-0	3.00000	0.00166	
WFRA-405	J.S. Well Services, LLC	Friction Reducer	2-Propenoic acid, polymer with propenamide	29003-06-9	30.00000	0.01481	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01192	

SI-1200	U.S. Well Services, LLC	Scale Inhibitor	Ethylene Glycol	107-21-1	40.00000	0.00731
			Proprietary Scale Inhibitor	Proprietary	10.00000	0.00196
Bioclear 2000	U.S. Well Services, LLC	Anti-Bacterial Agent	2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00432
			Deionized Water	7732-18-5	28.00000	0.00247
AP One	U.S. Well Services, LLC	Gel Breakers	Ammonium Persulfate	7727-54-0	100.00000	0.00079
AI-303	U.S. Well Services, LLC	Acid Corrosion Inhibitors	Ethylene glycol	107-21-1	40.00000	0.00004
			Cinnamaldehyde	104-55-2	20.00000	0.00001
			Formic acid	64-18-6	20.00000	0.00001
			Butyl cellosolve	111-76-2	20.00000	0.00001
			Polyether	60828-78-6	10.00000	0.00001
			Acetophenone, thiourea, formaldehyde polymer	68527-49-1	5.00000	0.00000

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water  
 \*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.  
 Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Discharge Monitoring Report  
Oil and Gas General Permit

Company Name: Antero Resources Corporation  
 API No: 47-085-10298 County: Ritchie  
 District: Clay Well No: Penny Unit 1H  
 Farm Name: Edwin D. Mulvay et al  
 Discharge Date/s From: (MMDDYY) 08/24/18 To: (MMDDYY) 09/23/18  
 Discharge Times. From: 0:00 To: 24:00  
 Total Volume to be Disposed from this facility (gallons): 760,649  
 Disposal Option(s) Utilized (write volumes in gallons):

- (1) Land Application: \_\_\_\_\_ (Include a topographical map of the Area.)  
 (2) UIC: 193,373 Permit No. 3400923821, 3416729543, 3416729464, 3416729445, 3410523619, 3416729731, 3400923761, 3405320968, 3410523268,  
 (3) Offsite Disposal: 305 Site Location: Mud Masters  
 (4) Reuse: 566, 970 Alternate Permit Number: \_\_\_\_\_  
 (5) Centralized Facility: \_\_\_\_\_ Permit No. \_\_\_\_\_  
 (6) Other method: \_\_\_\_\_ (Include an explanation)

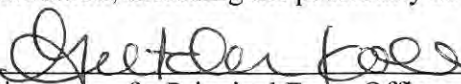
Follow Instructions below to determine your treatment category:

Optional Pretreatment test: N/A Cl- mg/l N/A DO mg/l

1. Do you have permission to use expedited treatment from the Director or his representative?  
(Y/N) N/A If yes, who? \_\_\_\_\_ and place a four (4) on line 7.  
If not go to line 2
2. Was Frac Fluid or flowback put into the pit? (Y/N) N/A If yes, go to line 5. If not, go to line 3.
3. Do you have a chloride value pretreatment (see above)? (Y/N) N/A If yes, go to line 4  
If not, go to line 5.
4. Is the Chloride level less than 5000 mg/l? (Y/N) N/A If yes, then enter a one (1) on line 7.
5. Do you have a pretreatment value for DO? (See above) (Y/N) N/A If yes, go to line 6  
If not, enter a three (3) in line 7.
6. Is the DO level greater than 2.5 mg/l? (Y/N) N/A If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
7. N/A is the category of your pit. Use the Appropriate section.
8. Comments on Pit condition: N/A No pit on site.

Name of Principal Exec. Officer: Gretchen Kohler  
 Title of Officer: Senior Environmental and Regulatory Manager  
 Date Completed: 10/30/18

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

  
 \_\_\_\_\_  
 Signature of a Principal Exec. Officer or Authorized agent.

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Category 1  
Sampling Results  
API No : \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	5	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl	5,000	_____	5,000	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

\*\*\* Al is only reported if the pH is above 9.0

Category 2  
Sampling Results  
API No : \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	10	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

\* Can be 25,000 with inspector's approval,

(Inspector's signature): \_\_\_\_\_

Date: \_\_\_\_\_

\*\* Include a description of your aeration technique.

Aeration Code: \_\_\_\_\_

\*\*\* Al is only reported if the pH is above 9.0

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Category 3  
Sampling Results  
API No : \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	20	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

\* Can be 25,000 with inspector's approval,

(Inspector's signature): \_\_\_\_\_ Date: \_\_\_\_\_  
 \*\* Include a description of your aeration technique. Aeration Code: \_\_\_\_\_  
 \*\*\* Al is only reported if the pH is above 9.0.

Category 4  
Sampling Results  
API No: \_\_\_\_\_

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	1	_____	N/A	N/A	Days
Fe	Monitor	_____	Monitor	_____	mg/l
D.O.	Monitor	_____	Monitor	_____	mg/l
Settleable Sol.	Monitor	_____	Monitor	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Activated Carbon (0.175)		_____	N/A	N/A	lb/Bt
Date Site Reclaimed	N/A	N/A			10 days from dis.
Disposal Area		_____	Monitor	_____	Acres

\* Can be 25,000 with inspector's approval,

(Inspector's signature): \_\_\_\_\_ Date: \_\_\_\_\_