

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

API 47 - 017 - 06578 County Doddridge District Southwest
Quad Oxford 7.5' Pad Name Oxford 13 Pad Field/Pool Name ----
Farm name I.L. Morris Well Number OXFD 13 EHS
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 4335539m Easting 521811m
Landing Point of Curve Northing 4335524.50m Easting 521772.10m
Bottom Hole Northing 4337628m Easting 521574m

Elevation (ft) 1152' 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 10/12/2018 Date drilling commenced 3/19/2015 Date drilling ceased 7/14/2015
Date completion activities began 3/16/2020 Date completion activities ceased 4/20/2020
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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

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Freshwater depth(s) ft 38' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1427', 1494', 1827' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 87' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:
Jordan
8/14/2020

API 47-017 - 06578 Farm name I.L. Morris Well number OXFD 13 EHS

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"	85'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	1099'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2850'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	13680'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7578'		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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	514 sx	15.6	1.18	120	0'	8 Hrs.
Surface	Class A	361 sx	15.6	1.18	826	0'	8 Hrs.
Coal							
Intermediate 1	Class A	n/a sx	15.6	1.18	1181	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	169 sx (Lead) 2489 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.53 (Lead), 1.83 (Tail)		-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13695' MD, 6816' TVD (BHL), 6818' (Deepest Point Drilled) Loggers TD (ft) 13695' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6300'

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

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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- 017 - 06578 Farm name I.L. Morris Well number OXFD 13 EHS

PERFORATION RECORD

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

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)
*PLEASE SEE ATTACHED EXHIBIT 2								

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Please insert additional pages as applicable.

API 47- 017 - 06578 Farm name I.L. Morris Well number OXFD 13 EHS

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>			
<u>Marcellus</u>	<u>6914' (TOP)</u>	<u>TVD</u>	<u>7644' (TOP)</u>	<u>MD</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

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 489 mcfpd Oil 1 bpd NGL --- bpd Water 1 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>		<u>BOTTOM</u>		<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	
	<u>NAME</u>	<u>TVD</u>	<u>TVD</u>	<u>MD</u>	<u>MD</u>

***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 C&J Energy Services
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

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

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Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223
Signature  Title Permitting Agent Date 7/21/20

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

API 47-017-06578 Farm Name I.L. Morris Well Number OXFD 13 EHS

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	2/27/2020	13555.4	13387.9954	60	Marcellus
2	2/27/2020	13352.11445	13184.7098	60	Marcellus
3	2/28/2020	13148.8289	12981.4243	60	Marcellus
4	2/29/2020	12945.54335	12778.1387	60	Marcellus
5	2/29/2020	12742.2578	12574.8532	60	Marcellus
6	3/1/2020	12538.97225	12371.5676	60	Marcellus
7	3/1/2020	12335.68671	12168.2821	60	Marcellus
8	3/2/2020	12132.40116	11964.9965	60	Marcellus
9	3/2/2020	11929.11561	11761.711	60	Marcellus
10	3/3/2020	11725.83006	11558.4254	60	Marcellus
11	3/3/2020	11522.54451	11355.1399	60	Marcellus
12	3/4/2020	11319.25896	11151.8543	60	Marcellus
13	3/4/2020	11115.97341	10948.5688	60	Marcellus
14	3/5/2020	10912.68786	10745.2832	60	Marcellus
15	3/5/2020	10709.40231	10541.9977	60	Marcellus
16	3/5/2020	10506.11676	10338.7121	60	Marcellus
17	3/6/2020	10302.83121	10135.4266	60	Marcellus
18	3/6/2020	10099.54566	9932.14104	60	Marcellus
19	3/7/2020	9896.260116	9728.85549	60	Marcellus
20	3/7/2020	9692.974566	9525.56994	60	Marcellus
21	3/7/2020	9489.689017	9322.28439	60	Marcellus
22	3/8/2020	9286.403468	9118.99884	60	Marcellus
23	3/9/2020	9083.117919	8915.71329	60	Marcellus
24	3/9/2020	8879.83237	8712.42775	60	Marcellus
25	3/9/2020	8676.546821	8509.1422	60	Marcellus
26	3/10/2020	8473.261272	8305.85665	60	Marcellus
27	3/11/2020	8269.975723	8102.5711	60	Marcellus
28	3/12/2020	8066.690173	7899.28555	60	Marcellus
29	3/13/2020	7863.404624	7696	60	Marcellus

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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	2/27/2020	79.6	8334	6006	4889	403180	7483.667	N/A
2	2/27/2020	81.9	8531	7027	4603	406080	7274.762	N/A
3	2/28/2020	85.36	8645	6456	5358	401220	7337.5	N/A
4	2/29/2020	83.4	8300	6285	4620	400840	7391.643	N/A
5	2/29/2020	81.2	8397	6952	4315	406740	7371.738	N/A
6	3/1/2020	82.79	8305	6642	4028	400360	7379.976	N/A
7	3/1/2020	84.52	8394	5995	4613	401980	7399.952	N/A
8	3/2/2020	85.9	8255	6209	4920	401040	7276.286	N/A
9	3/2/2020	85.75	8369	6274	4467	397220	7104.571	N/A
10	3/3/2020	84.14	8345	6719	4703	403100	7311.333	N/A
11	3/3/2020	83.8	8514	7289	5104	400960	7192.69	N/A
12	3/4/2020	85.5	8414	6797	5359	404060	7138.452	N/A
13	3/4/2020	84.8	8229	6305	4905	401220	7099.333	N/A
14	3/5/2020	85.9	8123	6265	4420	402620	7126.381	N/A
15	3/5/2020	85.27	8318	6116	4214	403120	6960.762	N/A
16	3/5/2020	85.9	8213	6441	4671	401000	7001.905	N/A
17	3/6/2020	85.54	8180	6568	5041	400020	6958.857	N/A
18	3/6/2020	85.56	8078	5525	5413	401460	7045.024	N/A
19	3/7/2020	85.9	8123	6579	4658	403940	6972.452	N/A
20	3/7/2020	85.71	8175	6007	4761	402960	7065.048	N/A
21	3/7/2020	85.66	8110	6485	4919	403300	6999.881	N/A
22	3/8/2020	84.91	8282	7253	4763	400820	7016	N/A
23	3/9/2020	85.9	7799	6467	4801	398240	6962.238	N/A
24	3/9/2020	85.41	8056	6314	4670	409800	8123.667	N/A
25	3/9/2020	79.34	7845	6141	4197	400780	8215.81	N/A
26	3/10/2020	85.11	7990	6401	3597	403220	6929.31	N/A
27	3/10/2020	85.9	7795	6412	3886	396800	6851.095	N/A
28	3/10/2020	85.73	7457	6301	4054	401920	7029.667	N/A
29	3/10/2020	85.77	7311	6311	4009	400280	7301.262	N/A
	AVG.	84.4	8,243	6,443	4,693	10,459,280	188,139	TOTAL

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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	120	175	120	175
Sandstone	175	230	175	230
Silty sandstone tr coal	230	595	230	595
Shaly siltstone tr coal	595	610	595	610
Shaly siltstone	610	705	610	705
Silty Sandstone	705	850	705	850
Silty sandstone	850	920	850	920
Silty Sandstone	920	1,190	920	1,190
Siltstone	1,190	1,310	1,190	1,310
Siltstone tr coal	1,310	1,480	1,310	1,480
Sandstone tr coal	1,480	1,800	1,480	1,800
Shaly siltstone tr coal	1,800	1,855	1,800	1,855
Silty sandstone tr coal	1,855	2,006	1,855	2,006
Big Lime	2,006	2,778	1,977	2,778
Fifty Foot Sandstone	2,778	2,847	2,749	2,847
Gordon	2,847	3,146	2,818	3,147
Fifth Sandstone	3,146	3,199	3,118	3,200
Bayard	3,199	3,748	3,171	3,784
Speechley	3,748	3,922	3,755	3,977
Balltown	3,922	4,624	3,948	4,750
Bradford	4,624	5,033	4,721	5,207
Benson	5,033	5,287	5,178	5,491
Alexander	5,287	6,709	5,462	7,089
Sycamore	6,529	6,680	6,865	7,060
Middlesex	6,680	6,814	7,060	7,315
Burkett	6,814	6,855	7,315	7,430
Tully	6,855	6,914	7,430	7,644
Marcellus	6,914	NA	7,644	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.

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Hydraulic Fracturing Fluid Product Component Information Disclosure



Job Start Date:	2/26/2020
Job End Date:	3/10/2020
State:	West Virginia
County:	Doddridge
API Number:	47-017-06578-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Oxford 13 EHS
Latitude:	39.16871300
Longitude:	-80.74768900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,970
Total Base Water Volume (gal):	9,079,911
Total Base Non Water Volume:	0

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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
Fresh Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.47316	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.18015	

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Trade Name	Product Name	Function	Listing Status
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker	Listed Below
Exceletrate EC-8	Halliburton	Friction Reducer	Listed Below
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Listed Below
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent	Listed Below
SCALECHEK LP-50	Halliburton	Scale Inhibitor	Listed Below
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant	Listed Below
MC B-8614	Halliburton	Biocide	Listed Below
HAI-501	Halliburton	Acid Corrosion Inhibitor	Listed Below

Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.

	Crystalline silica, quartz	14808-60-7	100.00000	13.31278	
	Hydrochloric acid	7647-01-0	30.00000	0.04144	
	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01316	
	Inorganic salt	Proprietary	30.00000	0.01316	
	Acrylamide acrylate polymer	Proprietary	30.00000	0.01316	
	Guar gum	9000-30-0	100.00000	0.01063	
	Methanol	67-56-1	100.00000	0.00429	
	Phosphoric Acid Salt	Proprietary	30.00000	0.00394	
	Glutaraldehyde	111-30-8	30.00000	0.00247	
	Sodium chloride	7647-14-5	5.00000	0.00066	
	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00041	
	Ammonium persulfate	7727-54-0	100.00000	0.00022	
	Ethanol	64-17-5	1.00000	0.00008	
	Modified thiourea polymer	Proprietary	30.00000	0.00008	
	Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00008	
	Oxylated phenolic resin	Proprietary	30.00000	0.00007	
	Formaldehyde	50-00-0	0.10000	0.00001	
	Ethoxylated alcohols	Proprietary	5.00000	0.00001	
	Propargyl alcohol	107-19-7	5.00000	0.00001	
	Hexadecene	629-73-2	5.00000	0.00001	
	Phosphoric acid	7664-38-2	0.10000	0.00001	
	C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	

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* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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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CNX GAS COMPANY, LLC

Location: Doddridge Co., WV
 Slot: Slot E
 Field: OXF-13E-HS
 Well: OXF-13E-HS
 Wellbore: OXF-13E-HS PWB

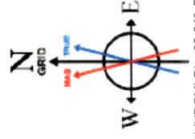
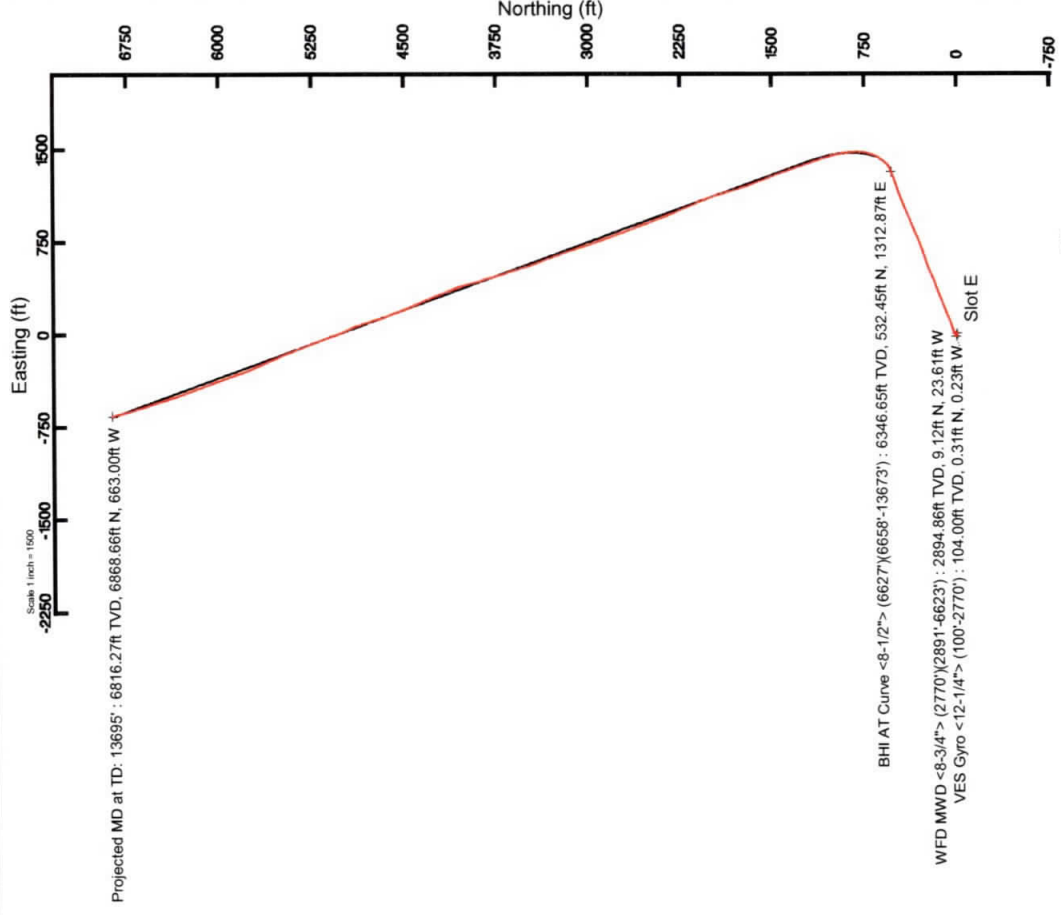
Grid System: NAD2011 Lambert West Virginia SP, Northern Zone (D701), US Feet
 North Reference: Grid North
 Patterson 805 (RKB) to Mean Sea Level: 1180.76 feet
 Scale: True Distance
 Dips are in feet
 Coordinates are in feet referenced to Slot

Location Information			
Facility Name	OXF-13 Pad	Grid East (US ft)	Grid North (US ft)
Slot	Slot E	Local E (ft)	Local N (ft)
Patterson 805 (RKB) to Mud line (At Slot, Slot E)	28.5 ft		
Mean Sea Level to Mud line (At Slot, Slot E)	-1152.26 ft		
Patterson 805 (RKB) to Mean Sea Level	1180.76 ft		

YES Gyro <8-3/4"> (2770)(2891-6623) : 0.97° Inc, 2895.00ft MD, 2894.86ft TVD, 16.64ft VS

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WFD MWV <8-3/4"> (2770)(2891-6623) : 0.97° Inc, 2895.00ft MD, 2894.86ft TVD, 16.64ft VS



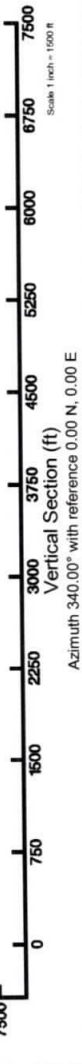
User specified (HDGM) Dip: 66.64° Field: 52265 nT
 Magnetic North is 7.74 degrees West of True North (at 01/Jul/2015)
 Grid North is 0.80 degrees West of True North
 To correct azimuth from True to Grid add 0.80 degrees
 To correct azimuth from Magnetic to Grid subtract 6.94 degrees

Well Profile Data (PLAN)					
Design Comment	MD (ft)	Inc (°)	TVD (ft)	Local E (ft)	Local N (ft)
Tie On	6627.00	24.950	70.770	6318.52	528.11
Proj. to Bottom	6690.78	37.494	27.282	6616.48	633.19
End of 3D Arc	7637.99	91.500	340.000	6907.00	1193.73
Landing Pl.	13878.24	91.500	340.000	6967.76	-667.38
BHL					

Targets			
Name	MD (ft)	Local E (ft)	Local N (ft)
CON-13E-HS BHL (ft)	15075.24	6248.88	8997.78
CON-13E-HS LP (ft)	7937.99	6907.00	1193.73
CON-13E-HS LP (ft)	8935.00	6907.00	1193.73
CON-13E-HS LP (ft)	8972.26	-11.34	-791.12

BHI AT Curve <8-1/2"> (6627)(6658-13673) : 24.77° Inc, 6658.00ft MD, 6346.65ft TVD, 51.31ft VS

Projected MD at TD: 13695 : 91.60° Inc, 13695.00ft MD, 6816.27ft TVD, 6681.19ft VS



Vertical Section (ft)
 Azimuth 340.00° with reference 0.00 N, 0.00 E



LATITUDE 39°12'30"

11,108'

54' TO BOTTOM HOLE
LATITUDE 39°12'30"

LONGITUDE 80°45'00"

14,399'

7,541' TO BOTTOM HOLE

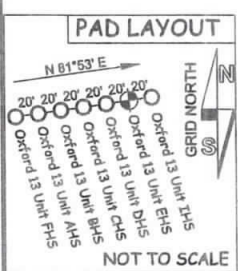
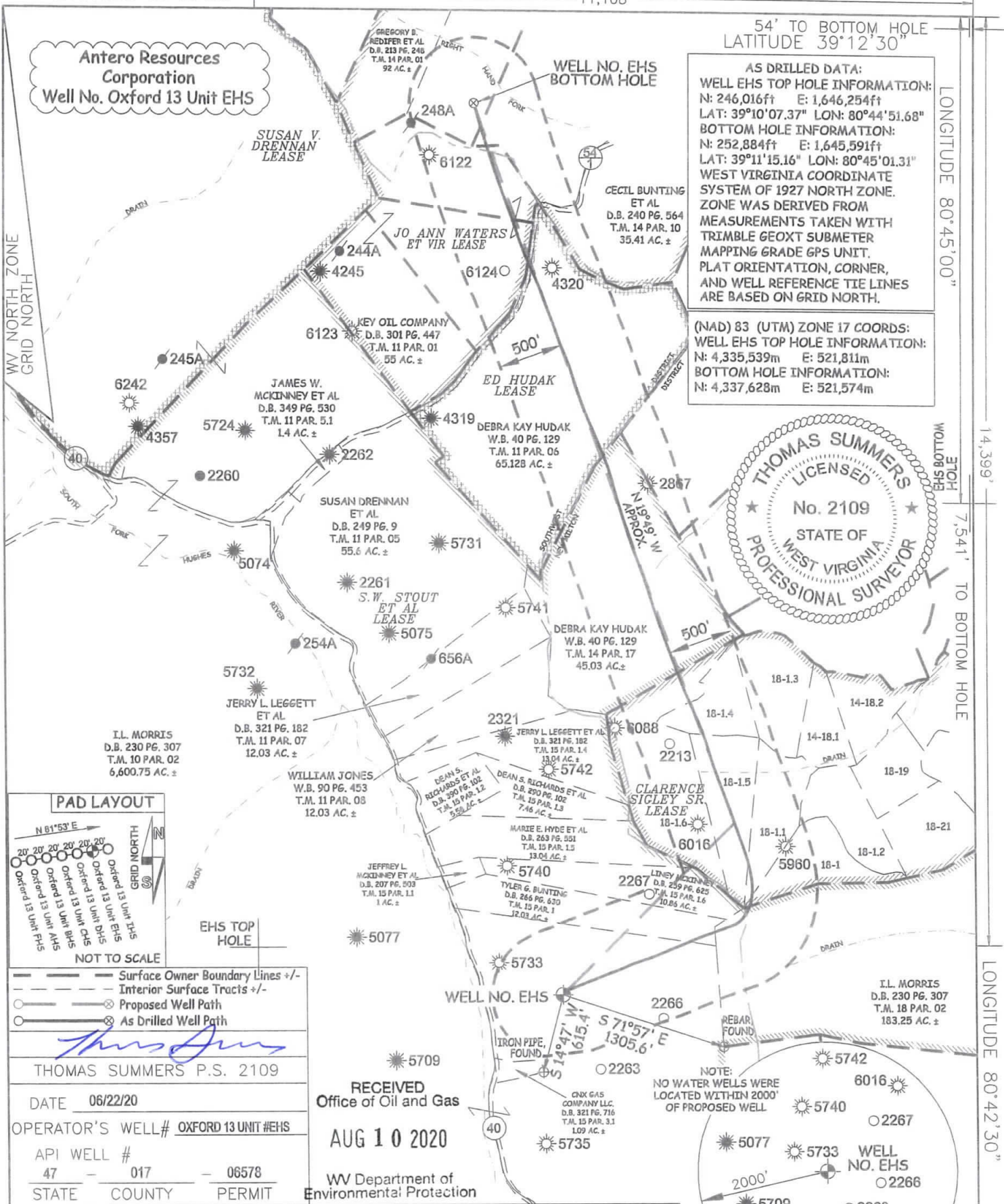
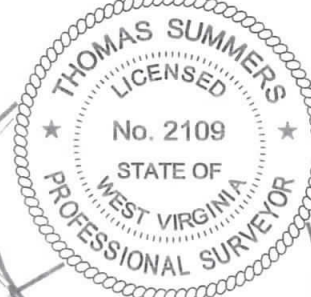
LONGITUDE 80°42'30"

COUNTY NAME PERMIT

Antero Resources Corporation
Well No. Oxford 13 Unit EHS

AS DRILLED DATA:
WELL EHS TOP HOLE INFORMATION:
 N: 246,016ft E: 1,646,254ft
 LAT: 39°10'07.37" LON: 80°44'51.68"
BOTTOM HOLE INFORMATION:
 N: 252,884ft E: 1,645,591ft
 LAT: 39°11'15.16" LON: 80°45'01.31"
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

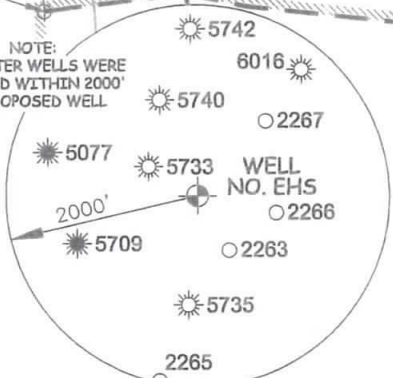
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL EHS TOP HOLE INFORMATION:
 N: 4,335,539m E: 521,811m
BOTTOM HOLE INFORMATION:
 N: 4,337,628m E: 521,574m



--- Surface Owner Boundary Lines +/-
 - - - Interior Surface Tracts +/-
 ⊗ Proposed Well Path
 ⊙ As Drilled Well Path

THOMAS SUMMERS P.S. 2109
 DATE 06/22/20
 OPERATOR'S WELL# OXFORD 13 UNIT #EHS
 API WELL # 47 - 017 - 06578
 STATE COUNTY PERMIT

RECEIVED
 Office of Oil and Gas
 AUG 10 2020
 WV Department of Environmental Protection



JOB # 20-005WA
 DRAWING # OXFORD13EHSAD
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
 WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION STORAGE ___ DEEP ___ SHALLOW
 LOCATION: ELEVATION 1,152' -AS BUILT WATERSHED HEADWATERS MIDDLE ISLAND CREEK
 QUADRANGLE TH - NEW MILTON 7.5' BH - OXFORD 7.5' DISTRICT SOUTHWEST & NEW MILTON COUNTY DODDRIDGE

- NOTE:**
- NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY/HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
 - TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 - AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 - WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
 - WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

SURFACE OWNER I. L. MORRIS ACREAGE 6,600.75 ACRES
 OIL & GAS ROYALTY OWNER S. W. STOUT ET AL; CLARENCE SIGLEY SR. LEASE ACREAGE 1,427 ACRES±; 150 ACRES±
 S. W. STOUT; ED HUDAK; JO ANN WATERS ET VIR 75 ACRES±; 180 ACRES±
 PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
 PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL
 (SPECIFY) AS DRILLED PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,816' TVD 13,895' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 1615 WYNKOOP STREET ADDRESS CT CORPORATION SYSTEM
 DENVER, CO 80202 CHARLESTON, WV 25313