

RECEIVED

AUG 03 2015

WR-35
Rev. 8/23/13

Page ___ of ___

WV GEOLOGICAL SURVEY MORGANTOWN, WV

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

API 47 - 033 - 05686 County Harrison District Tenmile
 Quad Salem Pad Name Hubert Pad Field/Pool Name ----
 Farm name Hubert Jr. and Lorena Bland Well Number Nellie 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 4,345,001.890m Easting 537,947.233m
 Landing Point of Curve Northing 4,344,938.19m Easting 538,274.77m
 Bottom Hole Northing 4,343,220.036m Easting 540,087.247m

Elevation (ft) 1376' 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 11/28/2012 Date drilling commenced 5/12/2013 Date drilling ceased 9/18/2013
 Date completion activities began 10/2/2013 Date completion activities ceased 1/25/2014
 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 364', 367' Open mine(s) (Y/N) depths N
 Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths N
 Coal depth(s) ft 1737' Cavern(s) encountered (Y/N) depths N
 Is coal being mined in area (Y/N) N

Reviewed by: _____

API 47-033 - 05686 Farm name Hubert Jr. and Lorena Bland Well number Nellie 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"	40'	New	94#/H-40	N/A	Y
Surface	17-1/2"	13-3/8"	448'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2560'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	16,172'	New	20#/P-110	N/A	Y
Tubing		2-3/8"	7684'		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	200 sx	15.6	1.18	38 Cu. Ft.	0'	8 hrs
Surface	Class A	518 sx	15.6	1.18	311 Cu. Ft.	0'	8 hrs
Coal							
Intermediate 1	Class A	937 sx	15.6	1.18	802 Cu. Ft.	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	1087 sx (Lead), 1370 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.80 (Tail)	3233 Cu. Ft.	~500' into Intermediate Casing	8 hrs
Tubing							

Drillers TD (ft) 16,172' MD, 7392' TVD (BHL), 7475' TVD (Deepest Point Drilled) Loggers TD (ft) 16,137' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 7254'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Nellie Unit 2H API# 47-033-05687). Please reference the wireline logs submitted with Form WR-35 for the Nellie Unit 2H. A Cement Bond Log has been included with this submittal.

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

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 Radioactive & Chemical

AUG 03 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

WR-35
Rev. 8/23/13

Page ___ of ___

API 47- 033 - 05686 Farm name Hubert Jr. and Lorena Bland Well number Nellie Unit 1H

PRODUCING FORMATION(S)	DEPTHS		
		TVD	MD
Marcellus	7430' (Top)		7684' (Top)

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3600 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 11,649 mcfpd Oil --- bpd NGL --- bpd Water 145 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	

	0		0		

*PLEASE SEE ATTACHED EXHIBIT 3

Please insert additional pages as applicable.

Drilling Contractor Patterson - UTI Drilling Company, LLC
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Rush Wellsite Services
Address 600 Alpha Drive City Canonsburg State PA Zip 15317

Cementing Company Allied Oil & Gas Services, LLC
Address 1036 East Main Street City Bridgeport State WV Zip 26330

Stimulating Company Nabors Completion & Production Services, Co.
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

Completed by Natalie Komp Telephone 303-357-6820
Signature Natalie Komp Title Permitting Agent Date 7/27/2015

RECEIVED

AUG 03 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47-033-05686 Farm Name Hubert Jr. and Lorena Bland Well Number Nellie Unit 1H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	2-Oct-13	15915'	16088'	60	Marcellus
2	31-Oct-13	15711'	15883'	60	Marcellus
3	31-Oct-13	15506'	15678'	60	Marcellus
4	31-Oct-13	15301'	15474'	60	Marcellus
5	1-Nov-13	15096'	15269'	60	Marcellus
6	1-Nov-13	14892'	15064'	60	Marcellus
7	1-Nov-13	14687'	14860'	60	Marcellus
8	1-Nov-13	14482'	14655'	60	Marcellus
9	2-Nov-13	14278'	14450'	60	Marcellus
10	15-Nov-13	14073'	14245'	60	Marcellus
11	17-Nov-13	13868'	14041'	60	Marcellus
12	17-Nov-13	13663'	13836'	60	Marcellus
13	17-Nov-13	13459'	13631'	60	Marcellus
14	17-Nov-13	13254'	13427'	60	Marcellus
15	18-Nov-13	13049'	13222'	60	Marcellus
16	18-Nov-13	12845'	13017'	60	Marcellus
17	20-Nov-13	12640'	12812'	60	Marcellus
18	20-Nov-13	12435'	12608'	60	Marcellus
19	21-Nov-13	12230'	12403'	60	Marcellus
20	21-Nov-13	12026'	12198'	60	Marcellus
21	22-Nov-13	11821'	11994'	60	Marcellus
22	22-Nov-13	11616'	11789'	60	Marcellus
23	22-Nov-13	11412'	11584'	60	Marcellus
24	22-Nov-13	11207'	11379'	60	Marcellus
25	23-Nov-13	11002'	11175'	60	Marcellus
26	23-Nov-13	10797'	10970'	60	Marcellus
27	23-Nov-13	10593'	10765'	60	Marcellus
28	24-Nov-13	10388'	10561'	60	Marcellus
29	25-Nov-13	10183'	10356'	60	Marcellus
30	25-Nov-13	9979'	10151'	60	Marcellus
31	25-Nov-13	9774'	9946'	60	Marcellus
32	26-Nov-13	9569'	9742'	60	Marcellus
33	26-Nov-13	9364'	9537'	60	Marcellus
34	26-Nov-13	9160'	9332'	60	Marcellus
35	27-Nov-13	8955'	9128'	60	Marcellus
36	27-Nov-13	8750'	8923'	60	Marcellus
37	27-Nov-13	8546'	8718'	60	Marcellus
38	28-Nov-13	8341'	8513'	60	Marcellus
39	28-Nov-13	8136'	8309'	60	Marcellus
40	28-Nov-13	7931'	8104'	60	Marcellus
41	28-Nov-13	7727'	7899'	60	Marcellus

RECEIVED
 AUG 03 2015
 WV GEOLOGICAL SURVEY
 MORGANTOWN, WV

API 47-033-05686 Farm Name Hubert Jr. and Lorena Bland Well Number Nellie 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	30-Oct-13	71.4	7,459	5,442	4,517	152,000	6,686	N/A
2	31-Oct-13	48.4	8,491	5,968	4,590	70,000	6,289	N/A
3	31-Oct-13	74.0	7,985	5,248	4,615	111,100	6,576	N/A
4	31-Oct-13	67.2	8,101	5,932	4,168	121,900	6,589	N/A
5	1-Nov-13	69.5	8,212	5,801	4,198	139,300	6,790	N/A
6	1-Nov-13	69.7	7,722	5,925	3,834	122,000	6,838	N/A
7	1-Nov-13	59.1	7,843	6,110	4,370	77,600	6,595	N/A
8	1-Nov-13	67.6	7,997	6,335	4,130	84,200	6,214	N/A
9	2-Nov-13	54.8	7,353	6,182	6,748	61,200	4,796	N/A
10	15-Nov-13	64.0	8,066	6,965	9,273	58,500	4,892	N/A
11	17-Nov-13	65.1	7,786	5,672	4,035	77,000	6,346	N/A
12	17-Nov-13	74.7	7,732	5,830	4,299	232,300	6,690	N/A
13	17-Nov-13	69.8	7,489	6,054	4,343	199,500	6,385	N/A
14	17-Nov-13	69.1	7,515	6,041	4,306	210,500	5,847	N/A
15	18-Nov-13	70.1	7,404	6,219	3,953	237,800	6,204	N/A
16	18-Nov-13	63.0	8,176	5,933	6,095	51,500	7,188	N/A
17	20-Nov-13	64.2	7,358	6,042	3,890	130,300	6,477	N/A
18	20-Nov-13	65.7	7,159	5,950	4,294	149,500	6,156	N/A
19	21-Nov-13	65.0	7,080	5,962	4,410	104,500	5,838	N/A
20	21-Nov-13	67.5	7,600	5,580	4,396	86,000	6,080	N/A
21	22-Nov-13	67.6	7,410	5,903	4,108	111,900	6,272	N/A
22	22-Nov-13	67.6	7,537	5,999	4,869	122,700	6,122	N/A
23	22-Nov-13	65.7	7,512	5,771	4,267	127,200	6,457	N/A
24	22-Nov-13	69.8	7,479	6,394	4,647	195,300	6,404	N/A
25	23-Nov-13	67.7	7,575	6,688	4,335	191,600	6,298	N/A
26	23-Nov-13	72.3	7,237	5,972	4,486	217,900	6,445	N/A
27	23-Nov-13	64.5	7,127	5,835	4,721	111,800	6,309	N/A
28	24-Nov-13	73.3	7,359	5,739	4,374	176,000	6,368	N/A
29	25-Nov-13	69.5	6,877	5,032	4,309	236,700	6,319	N/A
30	25-Nov-13	70.9	6,952	5,410	4,364	233,700	6,239	N/A
31	25-Nov-13	75.0	7,014	5,301	4,609	237,300	6,372	N/A
32	26-Nov-13	73.8	7,308	5,883	4,372	238,300	6,118	N/A
33	26-Nov-13	72.1	7,516	6,164	4,684	179,200	6,359	N/A
34	26-Nov-13	76.1	7,671	6,101	4,511	238,600	5,927	N/A
35	27-Nov-13	77.3	7,579	6,335	4,579	236,500	5,838	N/A
36	27-Nov-13	75.1	7,532	5,780	4,308	214,100	5,809	N/A
37	27-Nov-13	75.6	7,351	5,547	4,533	180,000	6,330	N/A
38	28-Nov-13	80.4	7,339	5,918	4,653	230,200	5,826	N/A
39	28-Nov-13	77.8	7,215	5,328	4,384	179,200	6,257	N/A
40	28-Nov-13	75.2	7,186	5,931	4,889	230,900	6,227	N/A
41	28-Nov-13	79.5	7,286	6,332	4,790	233,500	5,752	N/A
AVG=		69.4	7,527	5,916	4,616	6,599,300	255,524	TOTAL

RECEIVED
AUG 03 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47-033-05686 Farm Name Hubert Jr. & Lorena Bland Well Number Nellie 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
Freshwater	364'	NA	364'	NA
Freshwater	367'	NA	367'	NA
Siltstone	0	97	0	97
Sandy Shale	est 97	317	est 97	317
Sandstone	est 317	507	est 317	507
Silty Sandstone	est 507	657	est 507	657
Sandstone	est 657	1027	est 657	1027
Limestone/Dolomite	est 1027	1,117	est 1027	1,117
Siltstone	est 1117	1,297	est 1117	1,297
Sandstone	est 1297	1,327	est 1297	1,327
Limey Siltstone	est 1327	1,477	est 1327	1,477
Sandstone	est 1477	1,597	est 1477	1,597
Sandy Siltstone	est 1597	1,737	est 1597	1,737
Coal	est 1737	1757	est 1737	1757
Sandstone	est 1757	1797	est 1757	1797
Siltstone	est 1797	1817	est 1797	1817
Sandstone	est 1817	2097	est 1817	2097
Limey Shale	est 2097	2283	est 2097	2283
Big Lime	2,283	2,403	2,283	2,403
Big Injun	2,403	2,758	2,403	2,758
Gantz Sand	2,758	2,846	2,758	2,846
Fifty Foot Sandstone	2,846	2,963	2,846	2,963
Gordon	2,963	3,291	2,963	3,291
Fifth Sandstone	3,291	3,321	3,291	3,321
Bayard	3,321	3,665	3,321	3,668
Warren	3,665	3,893	3,668	3,886
Speechley	3,893	4,410	3,886	4,403
Baltown	4,410	4,737	4,403	4,734
Bradford	4,737	5,258	4,734	5,261
Benson	5,258	5,535	5,261	5,540
Alexander	5,535	7,563	5,540	5,762
Elk	7,563	6,368	5,762	6,378
Rhinestreet	6,368	6,880	6,378	6,919
Sycamore	6,880	7,102	6,919	7,190
Middlesex	7,102	7,253	7,190	7,374
Burkett	7,253	7,279	7,374	7,405
Tully	7,279	7,430	7,405	7,684
Marcellus	7,430	NA	7,684	NA

*Please note Antero determines shallow 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.

RECEIVED

AUG 03 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/30/2013
Job End Date:	11/28/2013
State:	West Virginia
County:	Harrison
API Number:	47-033-05686-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Nellie Unit 1H
Longitude:	-80.56037500
Latitude:	39.25342500
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,475
Total Base Water Volume (gal):	10,731,504
Total Base Non Water Volume:	0



Frac Focus
Chemical Disclosure Registry



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	Water	Water	7732-18-5	100.00000	92.57840	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia	Crystalline Silica, quartz	14808-60-7	99.90000	4.31073	
			Aluminum Oxide	1344-28-1	1.10000	0.04747	
			Titanium Oxide	13463-67-7	0.10000	0.00432	
			Iron Oxide	1309-37-1	0.10000	0.00432	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia	Crystalline Silica, quartz	14808-60-7	99.90000	1.96812	
			Aluminum Oxide	1344-28-1	1.10000	0.02167	
			Titanium Oxide	13463-67-7	0.10000	0.00197	
			Iron Oxide	1309-37-1	0.10000	0.00197	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia	Crystalline Silica, quartz	14808-60-7	99.90000	0.67426	
			Aluminum Oxide	1344-28-1	1.10000	0.00742	

RECEIVED

AUG 03 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

			Iron Oxide	1309-37-1	0.10000	0.00068
		Bulk Acid	Titanium Oxide	13463-67-7	0.10000	0.00068
HCl Acid (12.5%-18.0%)	Nabors Completion and Production Services					
LSG-100L	Nabors Completion and Production Services	Gelling Agents	Hydrogen Chloride	7647-01-0	18.00000	0.05054
WFR-3B	Nabors Completion and Production Services	Friction Reducer	Petroleum Distillates	64742-47-8	70.00000	0.04877
	Nabors Completion and Production Services		Hydrotreated light distillates, non-aromatic, BTEX free	64742-47-8	30.00000	0.02006
			Ethoxylated alcohols	68002-97-1	15.00000	0.01003
			Ethoxylated oleylamine	26635-93-8	5.00000	0.00334
KR-153SL	Nabors Completion and Production Services	Biocides				
			Polyethylene-Glycol	25322-68-3	50.00000	0.00656
			2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00262
OB-2 LT	Nabors Completion and Production Services	Gel Breakers				
			Ammonium Persulfate	7727-54-0	85.00000	0.00705
			Crystalline Silica (in the form of quartz)	14808-60-7	10.00000	0.00083
Super GREEN SOLV	Nabors Completion and Production Services	Paraffin & Scale Additives				
			BTEX Free Aliphatic Hydrocarbon	64742-96-7	100.00000	0.00773
SUPER TSC-LTS	Nabors Completion and Production Services	Paraffin & Scale Additives				
			Water	7732-18-5	60.00000	0.00535
Acid Inhibitor 2 (AI-2)	Nabors Completion and Production Services	Acid Corrosion Inhibitors				
			Propargyl Alcohol	107-19-7	40.00000	0.00021
			Glycol Ethers	111-46-6	40.00000	0.00021
			Isopropyl Alcohol	67-63-0	40.00000	0.00021
			Ethoxylated Nonylphenol	68412-54-4	13.00000	0.00007
EB-4L	Nabors Completion and Production Services	Gel Breakers	Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000	0.00005
			Ethylene Glycol	107-21-1	40.00000	0.00020

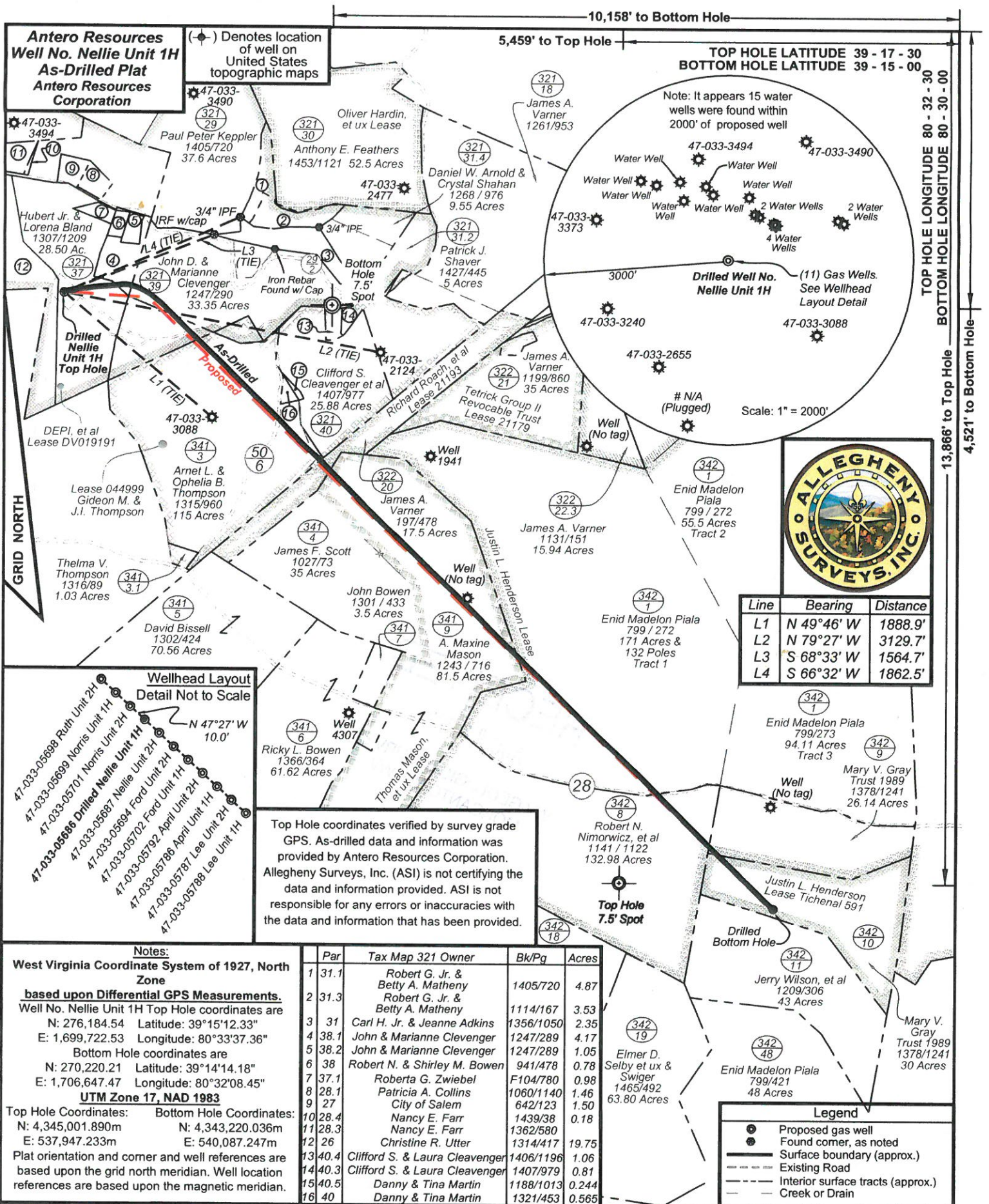
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

Other Ingredients	Nabors Completion and Production Services	Other Ingredients					
		Water	7732-18-5	87.50000	0.24570		
		guar gum	9000-30-0	50.00000	0.03484		
		Anionic Polyacrylamide	910644-97-2	40.00000	0.02675		
		Water	7732-18-5	40.00000	0.02675		
		Water	7732-18-5	80.00000	0.01049		
		Propylene glycol	57-55-6	15.00000	0.01003		
		Water	7732-18-5	60.00000	0.00306		
		Proprietary	Proprietary	50.00000	0.00255		
		Surfactant	68439-51-0	2.00000	0.00139		
		Crystalline Silica (in the form of quartz)	14808-60-7	2.00000	0.00139		
		Proprietary	Proprietary	2.00000	0.00134		
		Proprietary	Proprietary	15.00000	0.00134		
		Proprietary	Proprietary	15.00000	0.00134		
		Proprietary	Proprietary	15.00000	0.00134		
		Alkali Chloride salt	Proprietary	15.00000	0.00124		
		Proprietary	Proprietary	15.00000	0.00077		
		Proprietary	Proprietary	15.00000	0.00077		
		Proprietary	Proprietary	15.00000	0.00077		
		Sugar	57-50-1	100.00000	0.00050		
		Proprietary	Proprietary	100.00000	0.00050		
		Water	7732-18-5	48.00000	0.00025		
		Water	7732-18-5	100.00000	0.00025		
		2-Butoxyethanol	111-76-2	13.00000	0.00007		
		Proprietary	Proprietary	1.00000	0.00001		
		Dioxane	123-91-1	1.00000	0.00001		
		Proprietary	Proprietary	1.00000	0.00001		
		Proprietary	Proprietary	1.00000	0.00001		
		Proprietary	Proprietary	1.00000	0.00001		
		Organophylic Clay	68953-58-2	1.00000	0.00001		

* 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)

RECEIVED
AUG 03 2015
WV GEOLOGICAL SURVEY
MORGANTOWN, WV



Line	Bearing	Distance
L1	N 49°46' W	1888.9'
L2	N 79°27' W	3129.7'
L3	S 68°33' W	1564.7'
L4	S 66°32' W	1862.5'

Par	Tax Map 321 Owner	Bk/Pg	Acres
1 31.1	Robert G. Jr. & Betty A. Matheny	1405/720	4.87
2 31.3	Robert G. Jr. & Betty A. Matheny	1114/167	3.53
3 31	Carl H. Jr. & Jeanne Adkins	1356/1050	2.35
4 38.1	John & Marianne Clevenger	1247/289	4.17
5 38.2	John & Marianne Clevenger	1247/289	1.05
6 38	Robert N. & Shirley M. Bowen	941/478	0.78
7 37.1	Roberta G. Zwiebel	F104/780	0.98
8 28.1	Patricia A. Collins	1060/1140	1.46
9 27	City of Salem	642/123	1.50
10 28.4	Nancy E. Farr	1439/38	0.18
11 28.3	Nancy E. Farr	1362/580	19.75
12 26	Christine R. Utter	1314/417	1.06
13 40.4	Clifford S. & Laura Clevenger	1406/1196	0.81
14 40.3	Clifford S. & Laura Clevenger	1407/979	0.244
15 40.5	Danny & Tina Martin	1188/1013	0.565
16 40	Danny & Tina Martin	1321/453	

Notes:
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
 Well No. Nellie Unit 1H Top Hole coordinates are
 N: 276,184.54 Latitude: 39°15'12.33"
 E: 1,699,722.53 Longitude: 80°33'37.36"
 Bottom Hole coordinates are
 N: 270,220.21 Latitude: 39°14'14.18"
 E: 1,706,647.47 Longitude: 80°32'08.45"
UTM Zone 17, NAD 1983
 Top Hole Coordinates: N: 4,345,001.890m E: 537,947.233m
 Bottom Hole Coordinates: N: 4,343,220.036m E: 540,087.247m
 Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

FILE NO: 70-36-U-12
 DRAWING NO: 70-12 Nellie 1H As-Drilled
 SCALE: 1" = 1200'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: April 2 2015
 OPERATOR'S WELL NO. Nellie Unit 1H
 API WELL NO
 47 - 033 - 05686
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Original - 1398' Existing - 1376' WATERSHED: Tenmile Creek QUADRANGLE: Salem & Big Isaac
 DISTRICT: Tenmile COUNTY: Harrison
 SURFACE OWNER: Hubert Jr. & Lorena Bland Justin L. Henderson; Thomas Mason, et ux; Tichenal 591 ACREAGE: 28.50 80; 30; 1026.936;
 ROYALTY OWNER: DEPI, et al; Gideon M. & J.I. Thompson; Richard Roach, et al LEASE NO: DV019191; 044999 ACREAGE: 283; 144; 17.50
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled TVD 7,392'
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: MD 16,172'

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313