

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

API 47-095-02201 County Tyler District Centerville
Quad Shirley 7.5' Pad Name Pierpoint Pad Field/Pool Name ---
Farm name Lloyd C. Seckman Well Number Ingot Unit 2H
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 4,366,956m Easting 512,154m
Landing Point of Curve Northing 4,366,805.53m Easting 512,005.22m
Bottom Hole Northing 4,364,759m Easting 512,718m

Elevation (ft) 1201' 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 11/19/2014 Date drilling commenced 12/29/2014 Date drilling ceased 6/9/2015
Date completion activities began 8/29/2015 Date completion activities ceased 11/9/2015
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 256', 267' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 889', 2253' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

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Reviewed by:
DmH

02/12/2016

API 47-095 - 02201 Farm name Lloyd C. Seckman Well number Ingot Unit 2H

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#/J-55	N/A	Y
Surface	17-1/2"	13-3/8"	419'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2518'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	13,865'	New	20#/P-110	N/A	Y
Tubing		2-3/8"	6879'		4.7#/N-80	N/A	
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	196 sx	15.6	1.20	38 Cu. Ft.	0'	8 hrs
Surface	Class A	499 sx	15.6	1.18	291 Cu. Ft.	0'	8 hrs
Coal							
Intermediate 1	Class A	980 sx	15.6	1.18	789 Cu. Ft.	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	1016 sx (Lead), 1120 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.3 (Lead), 1.85 (Tail)	2714 Cu. Ft.	~500' into Intermediate Casing	8 hrs
Tubing							

Drillers TD (ft) 13,865' MD, 6747' TVD Loggers TD (ft) 13,816' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6413'

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 None

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API 47- 095 - 02201 Farm name Lloyd C. Seckman Well number Ingot Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6639' (Top)</u> TVD	<u>6934' (Top)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 4100 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 12,186 mcfpd Oil 141 bpd NGL --- bpd Water 1 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	
	<u>0</u>		<u>0</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 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  Title Permitting Agent Date 1/7/2016

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

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API 47-095-02201 Farm Name Lloyd C. Seckman Well Number Ingot Unit 2H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	30-Sep-15	13,608	13,778	60	Marcellus
2	30-Sep-15	13,407	13,577	60	Marcellus
3	30-Sep-15	13,206	13,376	60	Marcellus
4	30-Sep-15	13,005	13,175	60	Marcellus
5	1-Oct-15	12,804	12,974	60	Marcellus
6	1-Oct-15	12,603	12,773	60	Marcellus
7	1-Oct-15	12,402	12,572	60	Marcellus
8	1-Oct-15	12,201	12,371	60	Marcellus
9	2-Oct-15	12,000	12,170	60	Marcellus
10	2-Oct-15	11,799	11,968	60	Marcellus
11	2-Oct-15	11,598	11,767	60	Marcellus
12	2-Oct-15	11,397	11,566	60	Marcellus
13	2-Oct-15	11,196	11,365	60	Marcellus
14	2-Oct-15	10,995	11,164	60	Marcellus
15	3-Oct-15	10,794	10,963	60	Marcellus
16	3-Oct-15	10,593	10,762	60	Marcellus
17	3-Oct-15	10,391	10,561	60	Marcellus
18	3-Oct-15	10,190	10,360	60	Marcellus
19	3-Oct-15	9,989	10,159	60	Marcellus
20	4-Oct-15	9,788	9,958	60	Marcellus
21	4-Oct-15	9,587	9,757	60	Marcellus
22	4-Oct-15	9,386	9,556	60	Marcellus
23	4-Oct-15	9,185	9,355	60	Marcellus
24	4-Oct-15	8,984	9,154	60	Marcellus
25	5-Oct-15	8,783	8,953	60	Marcellus
26	5-Oct-15	8,582	8,751	60	Marcellus
27	5-Oct-15	8,381	8,550	60	Marcellus
28	5-Oct-15	8,180	8,349	60	Marcellus
29	5-Oct-15	7,979	8,148	60	Marcellus
30	5-Oct-15	7,778	7,947	60	Marcellus
31	6-Oct-15	7,577	7,746	60	Marcellus
32	6-Oct-15	7,376	7,545	60	Marcellus
33	6-Oct-15	7,175	7,344	60	Marcellus
34	6-Oct-15	6,973	7,143	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	30-Sep-15	68.2	6,407	N/A	4,638	231,300	6,870	N/A
2	30-Sep-15	72.1	6,843	5,504	4,063	208,130	7,094	N/A
3	30-Sep-15	75.3	6,572	5,472	3,920	86,355	6,574	N/A
4	30-Sep-15	73.0	6,582	5,648	4,406	226,760	6,321	N/A
5	1-Oct-15	73.6	6,536	5,413	4,756	239,870	6,531	N/A
6	1-Oct-15	74.5	6,631	5,407	4,696	200,200	6,759	N/A
7	1-Oct-15	64.2	6,202	5,583	5,053	146,700	7,082	N/A
8	1-Oct-15	76.0	6,720	5,658	3,809	236,330	6,328	N/A
9	2-Oct-15	76.0	6,649	5,675	4,231	221,470	6,189	N/A
10	2-Oct-15	73.4	6,502	5,575	4,957	205,630	6,682	N/A
11	2-Oct-15	71.6	6,455	5,136	4,939	148,200	6,764	N/A
12	2-Oct-15	72.7	6,964	5,726	4,442	183,240	6,408	N/A
13	2-Oct-15	76.0	6,457	6,026	4,435	252,200	6,421	N/A
14	2-Oct-15	74.0	6,548	5,569	4,456	154,710	7,005	N/A
15	3-Oct-15	75.5	6,480	5,218	3,666	251,720	6,483	N/A
16	3-Oct-15	74.7	6,410	5,736	4,424	233,660	6,231	N/A
17	3-Oct-15	75.6	6,444	5,890	5,053	234,400	6,224	N/A
18	3-Oct-15	74.0	6,374	5,908	4,181	229,725	6,669	N/A
19	3-Oct-15	75.0	6,741	6,027	3,977	221,190	6,646	N/A
20	4-Oct-15	75.0	6,314	5,513	3,773	251,650	6,279	N/A
21	4-Oct-15	74.8	6,402	5,665	4,874	251,410	6,367	N/A
22	4-Oct-15	75.7	6,375	5,636	4,545	234,110	6,844	N/A
23	4-Oct-15	75.0	6,478	5,325	4,478	252,010	6,236	N/A
24	4-Oct-15	76.7	6,378	5,238	4,113	252,350	6,221	N/A
25	5-Oct-15	76.0	6,170	5,531	4,036	249,570	6,207	N/A
26	5-Oct-15	76.3	6,199	5,798	5,357	252,100	6,241	N/A
27	5-Oct-15	77.7	6,273	5,540	4,960	245,800	6,776	N/A
28	5-Oct-15	77.4	6,123	5,704	5,007	251,800	6,189	N/A
29	5-Oct-15	77.0	6,083	5,792	4,056	252,595	6,180	N/A
30	5-Oct-15	76.0	6,348	5,847	3,848	250,590	6,143	N/A
31	6-Oct-15	76.5	6,213	5,627	4,181	249,750	6,315	N/A
32	6-Oct-15	77.4	6,130	6,040	4,967	253,900	6,150	N/A
33	6-Oct-15	77.2	6,114	6,212	5,028	252,500	6,138	N/A
34	6-Oct-15	76.6	6,263	6,216	4,238	249,700	6,076	N/A
	AVG=	74.7	6,423	5,662	4,458	7,661,625	219,643	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
Fresh Water	256'	N/A	256'	N/A
Fresh Water	267'	N/A	267'	N/A
Siltstone	0	296	0	296
Siltstone w/trace coal	est 296	316	est 296	316
Siltstone	est 316	336	est 316	336
Sandstone	est 336	376	est 336	376
Siltstone w/trace coal	est 376	466	est 376	466
Sandstone	est 466	716	est 466	716
Sandstone/Siltstone	est 716	956	est 716	956
Limestone/Siltstone	est 956	1,176	est 956	1,176
Siltstone/Sandstone w/trace coal	est 1176	1,216	est 1176	1,216
Siltstone	est 1216	1,356	est 1216	1,356
Sandstone	est 1356	1,496	est 1356	1,496
Siltstone w/trace coal	est 1496	1,516	est 1496	1,516
Sandstone/Siltstone	est 1516	1,916	est 1516	1,916
Sandstone w/trace coal	est 1916	1,956	est 1916	1,956
Sandstone/Siltstone	est 1956	2,106	est 1956	2,108
Big Lime	2,106	2,219	2,108	2,221
Big Injun	2,219	2,718	2,221	2,720
Gantz Sand	2,718	2,849	2,720	2,851
Fifty Foot Sandstone	2,849	2,939	2,851	2,941
Gordon	2,939	3,296	2,941	3,298
Fifth Sandstone	3,296	3,344	3,298	3,346
Bayard	3,344	3,692	3,346	3,694
Warren	3,692	4,093	3,694	4,095
Speechley	4,093	4,796	4,095	4,798
Bradford	4,796	5,203	4,798	5,207
Benson	5,203	5,443	5,207	5,453
Alexander	5,443	5,602	5,453	5,620
Elk	5,602	6,001	5,620	6,057
Rhinestreet	6,001	6,303	6,057	6,394
Sycamore	6,303	6,477	6,394	6,617
Middlesex	6,477	6,575	6,617	6,775
Burkett	6,575	6,600	6,775	6,825
Tully	6,600	6,639	6,825	6,934
Marcellus	6,639	NA	6,934	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.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/30/2015
Job End Date:	10/6/2015
State:	West Virginia
County:	Tyler
API Number:	47-095-02201-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Ingot 2H
Longitude:	-80.85873600
Latitude:	39.45208100
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,747
Total Base Water Volume (gal):	9,530,734
Total Base Non Water Volume:	0

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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	Base Fluid	Water	7732-18-5	100.00000	90.79175	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	8.75135	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.17071	
			Hydrogen Chloride	7647-01-0	18.00000	0.04078	
LGC-15	U.S. Well Services	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.06436	
			Petroleum Distillates	64742-47-8	60.00000	0.06096	
			Suspending agent (solid)	14808-60-7	3.00000	0.00984	
			Surfactant	68439-51-0	3.00000	0.00386	
WFRA-405	U.S. Well Services	Friction Reducer	Anionic Polyacrylamide	Proprietary	40.00000	0.02609	
			Water	7732-18-5	40.00000	0.02609	
			Sodium Chloride	7647-14-5	20.00000	0.01304	
			Petroleum Distillates	64742-47-8	20.00000	0.01050	
			Ethoxylated alcohol blend	Proprietary	5.00000	0.00326	

SI-1100	U.S. Well Services	Scale Inhibitor				
			Water	7732-18-5	80.00000	0.01011
			Ethylene Glycol	107-21-1	25.00000	0.00357
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00149
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	7.50000	0.00128
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	5.00000	0.00082
			Phosphino carboxylic acid polymer	71050-62-9	5.00000	0.00082
			Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5	2.00000	0.00033
K-BAC 1020	U.S. Well Services	Anti-Bacterial Agent				
			2,2-dibromo-3-nitripropionamide	10222-01-2	20.00000	0.00438
			Deionized Water	7732-18-5	28.00000	0.00250
AP One	U.S. Well Services	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00177
AI-301	U.S. Well Services	Acid Corrosion Inhibitors				
			Diethylene Glycol	111-46-6	30.00000	0.00013
			Methenamine	100-97-0	20.00000	0.00010
			Hydrogen Chloride	7647-01-0	10.00000	0.00005
			Polyethylene polyamine	68603-67-8	10.00000	0.00004
			Coco amine	61791-14-8	5.00000	0.00002

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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LATITUDE 39°27'30"

7,221'

5,383' TO BOTTOM HOLE
LATITUDE 39°27'30"

LONGITUDE 80°50'00"

2,308'
LONGITUDE 80°50'00"

9,521' TO BOTTOM HOLE
LONGITUDE 80°50'00"

Antero Resources Corporation
Well No. Ingot Unit 2H
47-095-02201 (AS DRILLED)

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 349,639ft E: 1,616,285ft
LAT: 39°27'07.19" LON: 80°51'32.06"
BOTTOM HOLE INFORMATION:
N: 342,399ft E: 1,618,015ft
LAT: 39°25'55.90" LON: 80°51'08.61"
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 2H TOP HOLE INFORMATION:
N: 4,366,956m E: 512,154m
BOTTOM HOLE INFORMATION:
N: 4,364,759m E: 512,718m

WELL NO. 2H
47-095-02201

2H TOP HOLE

STONE FOUND

REBAR FOUND

2H BOTTOM HOLE

WELL 2H BOTTOM HOLE

WV NORTH ZONE
GRID NORTH

KENNETH MASON ET AL.
D.B. 332 PG. 960
T.M. 27 PAR. 20
269 AC. ±

LLOYD CARL SECKMAN LEASE
LLOYD C. SECKMAN
D.B. 332 PG. 914
T.M. 4 PAR. 3
128.5 AC. ±

ROGER R. WEESE
D.B. 358 PG. 135
T.M. 4 PAR. 04
17 AC. ±

ELIZABETH ANN GARNER LEASE

MICHAEL K. SMITH ET AL.
D.B. 244 PG. 710
T.M. 4 PAR. 2.2
53.07 AC. ±

ROGER R. WEESE
D.B. 343 PG. 444
T.M. 4 PAR. 2
7.25 AC. ±

SCOTT C. BLAIR LEASE
SCOTT C. BLAIR ET AL.
D.B. 296 PG. 593
T.M. 4 PAR. 8.4
64.17 AC. ±

SCOTT C. BLAIR ET AL.
D.B. 296 PG. 593
T.M. 4 PAR. 8
40.3 AC. ±

EVERETT O. WEESE ET AL.
W.B. 31 PG. 346
T.M. 4 PAR. 9.1
44.12 AC. ±

EVERETT O. WEESE
W.B. 31 PG. 346
T.M. 4 PAR. 09.2
39.18 AC. ±

MARSHALL E. BAKER
D.B. 208 PG. 497
T.M. 4 PAR. 04.1
8.34 AC. ±

EVERETT O. WEESE
W.B. 31 PG. 346
T.M. 4 PAR. 09.3
48 AC. ±

JAMES P. SLIDER ET AL.
D.B. 368 PG. 809
T.M. 4 PAR. 10.7
161.49 AC. ±

DAVID N. SMITH ET AL.
D.B. 225 PG. 181
T.M. 4 PAR. 10.3
7.36 AC. ±

EVERETT WEESE ET AL.
D.B. 284 PG. 186
T.M. 4 PAR. 8.1
8.29 AC. ±

SHAWN P. BAKER ET AL.
D.B. 348 PG. 371
T.M. 4 PAR. 10.1
36.97 AC. ±

CHARLES MARRS ET AL.
D.B. 271 PG. 115
T.M. 4 PAR. 10.4
90.56 AC. ±

ROGER L. FERGUSON ET AL.
D.B. 191 PG. 19
T.M. 4 PAR. 10.2
64.17 AC. ±

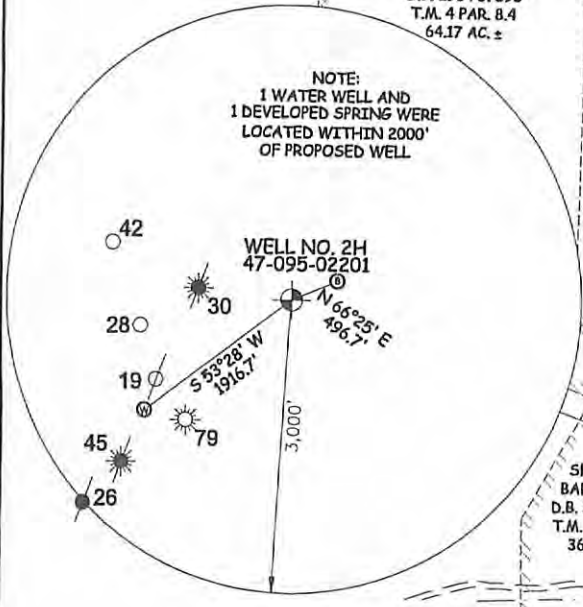
RAYMOND V. UNDERWOOD LEASE
DALE UNDERWOOD ET AL.
D.B. 114 PG. 272
T.M. 4 PAR. 13
96 AC. ±

ROGER L. FERGUSON LEASE

JOHN H. GRAFF II ET AL.
D.B. 224 PG. 187
T.M. 4 PAR. 15
67.9 AC. ±

CEMETERY
T.M. 4 PAR. 11
2 AC. ±

NOTE:
1 WATER WELL AND
1 DEVELOPED SPRING WERE
LOCATED WITHIN 2000'
OF PROPOSED WELL



47 STATE 095 COUNTY 02201 PERMIT



STATE OF WEST VIRGINIA, DIVISION
OF ENVIRONMENTAL PROTECTION,
OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

JOB # 14-058WA
DRAWING # INGOT2HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

LEGEND
— — — Surface Owner Boundary Lines +/-
- - - Interior Surface Tracts +/-
X Existing Fence
⊕ Found monument, as noted
○ Proposed Well Path
⊗ As Drilled Well Path

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

DATE 07/17/15
OPERATOR'S WELL# INGOT UNIT #2H

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1,216' ORIGINAL - 1,201' AS DRILLED WATERSHED OUTLET MIDDLE ISLAND CREEK
QUADRANGLE SHIRLEY 7.5' DISTRICT CENTERVILLE COUNTY TYLER

SURFACE OWNER LLOYD C. SECKMAN ACREAGE 128.5 ACRES +/-
OIL & GAS ROYALTY OWNER LLOYD CARL SECKMAN; ELIZABETH ANN GARNER; LEASE ACREAGE 128.5 AC±; 90.605 AC±;

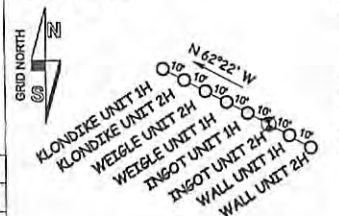
BETTY J. WEESE; SCOTT C. BLAIR; FLORENCE E. DURANT ET AL.; ROGER L. FERGUSON 175.81 AC±; 104.47 AC±; 127.53 AC±; 64.17 AC±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) (X) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,747' TVD 13,865' MD

WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

- NOTE
1. 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.
 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 4. 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.
 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

PAD LAYOUT
NOT TO SCALE



Office of Oil & Gas
JAN 13 2016

02/12/2016

COUNTY NAME PERMIT

LATITUDE 39°27'30"

7,221'

KENNETH MASON ET AL
D.B. 332 PG. 960
T.M. 27 PAR. 20
269 AC. ±

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 349,639ft E: 1,616,285ft
LAT: 39°27'07.19" LON: 80°51'32.06"
BOTTOM HOLE INFORMATION:
N: 342,399ft E: 1,618,015ft
LAT: 39°25'55.90" LON: 80°51'08.61"
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 2H TOP HOLE INFORMATION:
N: 4,366,956m E: 512,154m
BOTTOM HOLE INFORMATION:
N: 4,364,759m E: 512,718m

Antero Resources Corporation
Well No. Ingot Unit 2H
47-095-02201 (AS DRILLED)

WELL NO. 2H
47-095-02201

2H TOP HOLE

LLOYD CARL SECKMAN LEASE
LLOYD C. SECKMAN
D.B. 332 PG. 914
T.M. 4 PAR. 3
128.5 AC. ±

ROGER R. WEESE
D.B. 358 PG. 135
T.M. 4 PAR. 04
17 AC. ±

ELIZABETH ANN GARNER LEASE

MICHAEL K. SMITH ET AL
D.B. 244 PG. 710
T.M. 4 PAR. 2.2
53.07 AC. ±

ROGER R. WEESE
D.B. 343 PG. 444
T.M. 4 PAR. 2
7.25 AC. ±

SCOTT C. BLAIR LEASE
SCOTT C. BLAIR ET AL
D.B. 296 PG. 593
T.M. 4 PAR. 8.4
64.17 AC. ±

EVERETT O. WEESE ET AL
W.B. 31 PG. 346
T.M. 4 PAR. 9.1
44.12 AC. ±

MARSHALL E. BAKER
D.B. 208 PG. 497
T.M. 4 PAR. 04.1
18.34 AC. ±

EVERETT O. WEESE
W.B. 31 PG. 346
T.M. 4 PAR. 09.2
39.18 AC. ±

EVERETT O. WEESE
W.B. 31 PG. 346
T.M. 4 PAR. 09.3
48 AC. ±

SCOTT C. BLAIR ET AL
D.B. 296 PG. 593
T.M. 4 PAR. 8
40.3 AC. ±

JAMES P. SLIDER ET AL
D.B. 368 PG. 809
T.M. 4 PAR. 10.7
161.49 AC. ±

EVERETT WEESE ET AL
D.B. 284 PG. 186
T.M. 4 PAR. 8.1
8.29 AC. ±

DAVID N. SMITH ET AL
D.B. 225 PG. 181
T.M. 4 PAR. 10.3
7.36 AC. ±

CEMETERY
T.M. 4 PAR. 11
2 AC. ±

SHAWN P. BAKER ET AL
D.B. 348 PG. 371
T.M. 4 PAR. 10.1
36.97 AC. ±

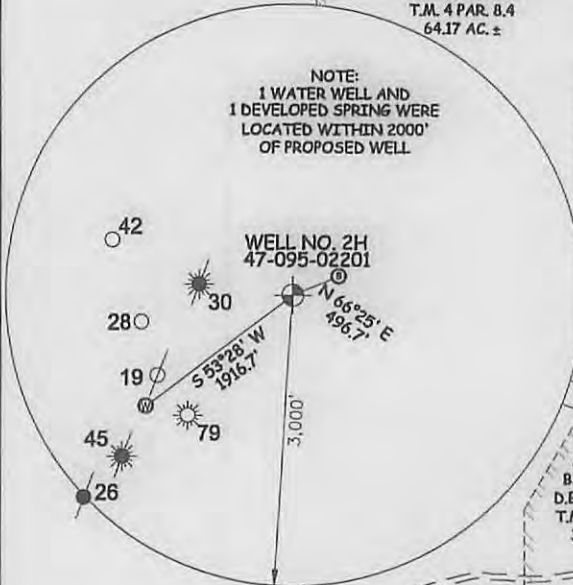
CHARLES MARRS ET AL
D.B. 271 PG. 115
T.M. 4 PAR. 10.4
90.56 AC. ±

ROGER L. FERGUSON ET AL
D.B. 191 PG. 19
T.M. 4 PAR. 10.2
64.17 AC. ±

RAYMOND V. UNDERWOOD LEASE
DALE UNDERWOOD ET AL
D.B. 114 PG. 272
T.M. 4 PAR. 13
96 AC. ±

JOHN H. GRAFF II ET AL
D.B. 224 PG. 187
T.M. 4 PAR. 15
67.9 AC. ±

NOTE:
1 WATER WELL AND 1 DEVELOPED SPRING WERE LOCATED WITHIN 2000' OF PROPOSED WELL



47 - 095 - 02201
STATE COUNTY PERMIT



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 14-058WA
DRAWING # INGOT2HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

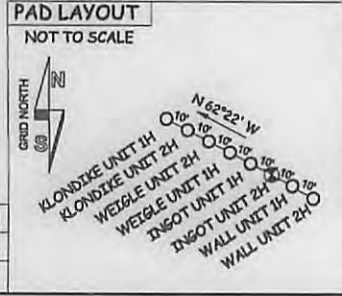
LEGEND
- - - Surface Owner Boundary Lines +/-
- - - Interior Surface Tracts +/-
X Existing Fence
⊕ Found monument, as noted
○ Proposed Well Path
⊗ As Drilled Well Path

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

DATE 07/17/15
OPERATOR'S WELL# INGOT UNIT #2H

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1,216' ORIGINAL - 1,201' AS DRILLED WATERSHED OUTLET MIDDLE ISLAND CREEK
QUADRANGLE SHIRLEY 7.5' DISTRICT CENTERVILLE COUNTY TYLER
SURFACE OWNER LLOYD C. SECKMAN ACREAGE 128.5 ACRES +/-
OIL & GAS ROYALTY OWNER LLOYD CARL SECKMAN; ELIZABETH ANN GARNER; LEASE ACREAGE 128.5 AC±; 90.605 AC±;
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PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL
(SPECIFY) (X) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
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2,308'
LONGITUDE 80°50'00"
9,521' TO BOTTOM HOLE
LONGITUDE 80°50'00"

02/12/2016

COUNTY NAME PERMIT