

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

RECEIVED  
Office of Oil and Gas

NOV 25 2014

API 47 - 033 - 05709 County Harrison District Union  
Quad Big Isaac Pad Name Corder East Field/Pool Name Environmental Protection  
Farm name Corder, Gerald & Louella Well Number Hildred 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 4341558.88 Easting 538537.19  
Landing Point of Curve Northing 4341897.26 Easting 538271.15  
Bottom Hole Northing 4343400.06 Easting 536386.37

Elevation (ft) 1405' 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 Not yet completed  
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 1/29/2013 Date drilling commenced 2/21/2014 Date drilling ceased 6/18/2014  
Date completion activities began WOC Date completion activities ceased N/A  
Verbal plugging (Y/N) N 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 100' 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 340', 420', 900', 1240', 1320', 1680', 1860' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:

12/05/2014

API 47- 033 - 05709 Farm name Corder, Gerald & Louella Well number Hildred 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	106.5#	N/A	Y
Surface	17- 1/2"	13- 3/8"	361'	New	54.5#	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2537'	New	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5-1/2"	16,460'	New	23#	N/A	Y
Tubing							
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	196 sx	15.6	1.18	38	0	8 Hrs.
Surface	Class A	439 sx	15.6	1.18	251	0	8 Hrs.
Coal							
Intermediate 1	Class A	934 sx	15.6	1.18	795	0	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	2496 sx	14.5 Lead 15.2 Tail	1.3 Lead 1.87 Tail	3304	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16,460' MD, 7469' TVD; 7533' TVD (Deepest point drilled) Loggers TD (ft) 16,460'

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

Plug back procedure N/A

Kick off depth (ft) 6852'

\*\* This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Clleta Unit 1H API# 47-033-05659). Please reference the wireline logs submitted with Form WR-35 for the Clleta 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 Waiting on Completion

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS Waiting on Completion

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED Waiting on Completion



API 47- 033 - 05709 Farm name Corder, Gerald & Louella Well number Hildred Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus - WOC</u>	<u>7376'</u> TVD	<u>7559'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

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

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd  
 GAS MEASURED BY  Estimated  Orifice  Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H<sub>2</sub>S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		

**\* PLEASE SEE EXHIBIT 1**

Please insert additional pages as applicable.

Drilling Contractor Patterson - UTI Drilling Company LLC  
 Address 207 Carlton Drive City Eight 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 N/A - WOC  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Ashlie Steele Telephone 303-357-7323  
 Signature *Ashlie Steele* Title Permitting Supervisor Date 11/24/2014

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

12/05/2014

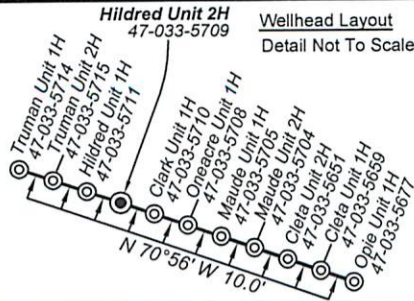
## EXHIBIT 1

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)	ROCK TYPE	FLUID PRODUCED
Undifferentiated Pennsylvanian Sedimentary Sequence	0'	2279'	0'	2279'	Sandstone/Shale/Siltstone	
Big Lime	est. 2280'	2379'	est. 2280'	2379'	Limestone	
Big Injun	est. 2380'	2682'	est. 2380'	2682'	Sandstone/Shale/Siltstone	
Gantz Sand	est. 2683'	2824'	est. 2683'	2824'	Sandstone/Shale/Siltstone	
Fifty Foot Sandstone	est. 2825'	2895'	est. 2825'	2895'	Sandstone/Shale/Siltstone	
Gordon	est. 2896'	3069'	est. 2896'	3069'	Sandstone/Shale/Siltstone	
Fifth Sandstone	est. 3070'	3111'	est. 3070'	3111'	Sandstone/Shale/Siltstone	
Bayard	est. 3112'	3887'	est. 3112'	3887'	Sandstone/Shale/Siltstone	
Speechley	est. 3888'	4142'	est. 3888'	4142'	Sandstone/Shale/Siltstone	
Baltown	est. 4143'	4677'	est. 4143'	4677'	Sandstone/Shale/Siltstone	
Bradford	est. 4678'	5193'	est. 4678'	5193'	Sandstone/Shale/Siltstone	
Benson	est. 5194'	5370'	est. 5194'	5370'	Sandstone/Shale/Siltstone	
Alexander	est. 5371'	5521'	est. 5371'	5521'	Sandstone/Shale/Siltstone	
Elk	est. 5522'	7035'	est. 5522'	7052'	Sandstone/Shale/Siltstone	
Middlesex	7036'	7185'	7053'	7229'	Shale	
Burkett	7186'	7212'	7230'	7265'	Shale	Gas
Tully	7213'	7375'	7266'	7558'	Limestone	N/A
Marcellus	7376'	7533'	7559'		Shale	Gas

\*Please note Antero determines formation tops based on wireline logs that are only run on one well on a multi-well pad (Please reference Cleota Unit 1H #47-033-05659). The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

10,493' to Bottom Hole

Antero Resources  
Well No. Hildred Unit 2H  
As-Drilled Plat  
Antero Resources Corporation



3,536' to Top Hole

LATITUDE 39 - 15 - 00

Notes:  
West Virginia Coordinate System of 1927, North Zone  
based upon Differential GPS Measurements.

Well No. Hildred Unit 2H Top Hole coordinates are  
N: 264,853.94 Latitude: 39°13'20.54"  
E: 1,701,470.12 Longitude: 80°33'13.45"  
Bottom Hole coordinates are  
N: 271,013.57 Latitude: 39°14'20.61"  
E: 1,694,512.97 Longitude: 80°34'42.79"

UTM Zone 17, NAD 1983  
Top Hole Coordinates: Bottom Hole Coordinates:  
N: 4,341,558.879m N: 4,343,400.060m  
E: 538,537.187m E: 536,386.368m

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.

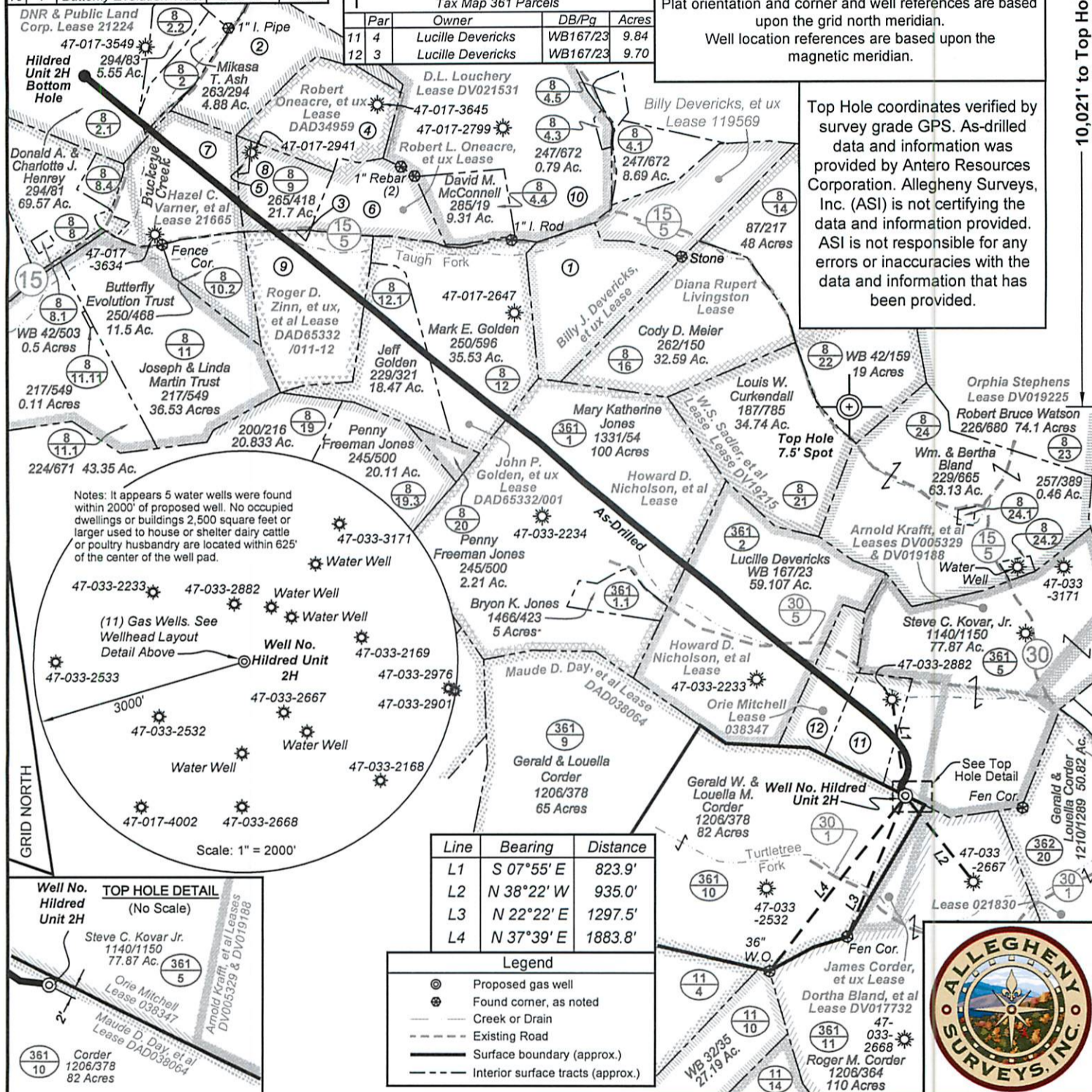
Bottom Hole 7.5' Spot  
(+) Denotes Location of Well on United States Topographic Maps

Tax Map 361 Parcels

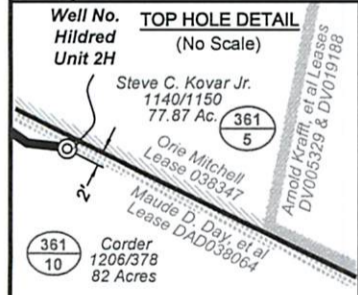
Par	Owner	DB/Pg	Acres
11	4 Lucille Devericks	WB167/23	9.84
12	3 Lucille Devericks	WB167/23	9.70

Tax Map 8 Parcels

Par	Owner	DB/Pg	Acres
1	13 Lucille Devericks	WB42/159	23.0
2	3 Clarence & Mary Mutschelknaus	267/726	22.86
3	10.5 Butterfly Evolution Trust	250/468	0.41
4	10 Butterfly Evolution Trust	250/468	18.05
5	10.4 Butterfly Evolution Trust	250/468	0.76
6	10.1 Barbara Ann Templeton	206/575	12.67
7	9 Jonell L. Carver	265/418	21.7
8	10.6 Butterfly Evolution Trust	250/468	10.66
9	10.3 Butterfly Evolution Trust	250/468	27.8
10	4 Butterfly Evolution Trust	263/40	135.89



Notes: It appears 5 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



Line	Bearing	Distance
L1	S 07°55' E	823.9'
L2	N 38°22' W	935.0'
L3	N 22°22' E	1297.5'
L4	N 37°39' E	1883.8'

Legend

- Proposed gas well
- Found corner, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

FILE NO: 232-30-G-12  
DRAWING NO: 232-12 Hildred As-Built 2H  
SCALE: 1" = 1200'  
MINIMUM DEGREE OF ACCURACY: Submeter  
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

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

DATE: November 4 20 14  
OPERATOR'S WELL NO. Hildred Unit 2H  
API WELL NO: 47 - 033 - 05709  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1405' WATERSHED: Turtletree Fork of Tenmile Creek QUADRANGLE: Big Isaac  
DISTRICT: Union COUNTY: Harrison  
SURFACE OWNER: Gerald & Louella Corder  
ROYALTY OWNER: Maude D. Day, et al; Ori Mitchell; Howard D. Nicholson, et al (2) LEASE NO: DAD038064; 038347 ACREAGE: 82 31.5; 127 54; 23; 27.95  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: TVD 7,469' MD 16,460'

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

