

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

API 47 - 085 - 10143 County Ritchie District Clay
Quad Pennsboro 7.5' Pad Name Annie Horizontal Pad Field/Pool Name ----
Farm name Eddy F. Landrum Well Number Ericson 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 4353115m Easting 506429m
Landing Point of Curve Northing 4352905.29m Easting 506296.52m
Bottom Hole Northing 4349882m Easting 507515m

Elevation (ft) 1004' 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 11/14/2014 Date drilling commenced 2/25/2015 Date drilling ceased 7/8/2015
Date completion activities began 7/30/2015 Date completion activities ceased 9/24/2015
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 216' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2210', 5202' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 176', 316', 516', 976', 1056', 1716' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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APPROVED
NAME: Michael Goff
DATE: 6/13/16
Reviewed by: AX RBMS 09/15/16
09/16/2016

API 47-085 - 10143 Farm name Eddy F. Landrum Well number Ericson 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 | 30" | 20" | 40' | New | 94#/J-55 | N/A | Y |
| Surface | 17-1/2" | 13-3/8" | 365' | New | 48#/H-40 | N/A | Y |
| Coal | | | | | | | |
| Intermediate 1 | 12-1/4" | 9-5/8" | 2525' | New | 36#/J-55 | N/A | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8-3/4"/8-1/2" | 5-1/2" | 17,595' | New | 23#/P-110 | N/A | Y |
| Tubing | | 2-3/8" | 6498' | | 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 | 193 sx | 15.6 | 1.20 | 38 Cu. Ft. | 0' | 8 Hrs. |
| Surface | Class A | 990 sx | 15.6 | 1.18 | 254 Cu. Ft. | 0' | 8 Hrs. |
| Coal | | | | | | | |
| Intermediate 1 | Class A | 988 sx | 15.6 | 1.18 | 791 Cu. Ft. | 0' | 8 Hrs. |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | Class H | 927 sx (Lead), 1800 sx (Tail) | 13.7 (Lead), 14.79 (Tail) | 1.24 (Lead), 1.81 (Tail) | 3567 Cu. Ft. | ~500' into Intermediate Casing | 8 Hrs. |
| Tubing | | | | | | | |

Drillers TD (ft) 17,595' MD, 6348' TVD (BHL), 6349' (Deepest Point Drilled) Loggers TD (ft) 17,545' MD

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

Plug back procedure N/A

Kick off depth (ft) 5516'

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

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Belle Unit 3H API# 47-085-10029). Please reference the wireline logs submitted with Form WR-35 for the Belle Unit 3H. A Cement Bond Log has been included with this submittal.

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

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API 47- 085 - 10143 Farm name Eddy F. Landrum Well number Ericson Unit 2H

PERFORATION RECORD

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|------------------------|------------------|------------------------|----------------------|------------------------|--------------|
| | | | | | |
| SEE ATTACHED EXHIBIT 1 | | | | | |
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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) |
|------------------------|-------------------|---------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| | | | | | | | | |
| SEE ATTACHED EXHIBIT 2 | | | | | | | | |
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API 47- 085 - 10143 Farm name Eddy F. Landrum Well number Ericson Unit 2H

| PRODUCING FORMATION(S) | DEPTHS | |
|------------------------|------------------------|-----------------------|
| <u>Marcellus</u> | <u>6290' (Top)</u> TVD | <u>6694' (Top)</u> MD |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3000 psi Bottom Hole ---- psi DURATION OF TEST ---- hrs

OPEN FLOW Gas 5935 mcfpd Oil 185 bpd NGL ---- bpd Water 213 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> | | |
| | | | | | SEE ATTACHED EXHIBIT 3 |
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Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company, LP
Address 2640 Reach Road City Williamsport State PA Zip 17701

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

Cementing Company Nabors Completion & Production Services, Co. (bought Superior)
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company US Well Services
Address 533 Industrial Park Drive 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 2/5/2016

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API 47-085-10143 Farm Name Eddy F. Landrum Well Number Ericson Unit 2H

EXHIBIT 1

| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formations |
|-----------|------------------|------------------------|----------------------|------------------------|------------|
| 1 | 30-Jul-15 | 17,334 | 17,503 | 60 | Marcellus |
| 2 | 2-Sep-15 | 17,134 | 17,303 | 60 | Marcellus |
| 3 | 2-Sep-15 | 16,934 | 17,103 | 60 | Marcellus |
| 4 | 3-Sep-15 | 16,734 | 16,903 | 60 | Marcellus |
| 5 | 3-Sep-15 | 16,534 | 16,703 | 60 | Marcellus |
| 6 | 3-Sep-15 | 16,334 | 16,503 | 60 | Marcellus |
| 7 | 4-Sep-15 | 16,134 | 16,303 | 60 | Marcellus |
| 8 | 4-Sep-15 | 15,934 | 16,103 | 60 | Marcellus |
| 9 | 4-Sep-15 | 15,734 | 15,903 | 60 | Marcellus |
| 10 | 5-Sep-15 | 15,534 | 15,703 | 60 | Marcellus |
| 11 | 5-Sep-15 | 15,334 | 15,503 | 60 | Marcellus |
| 12 | 5-Sep-15 | 15,134 | 15,303 | 60 | Marcellus |
| 13 | 5-Sep-15 | 14,934 | 15,103 | 60 | Marcellus |
| 14 | 5-Sep-15 | 14,734 | 14,903 | 60 | Marcellus |
| 15 | 6-Sep-15 | 14,534 | 14,703 | 60 | Marcellus |
| 16 | 6-Sep-15 | 14,334 | 14,503 | 60 | Marcellus |
| 17 | 6-Sep-15 | 14,134 | 14,303 | 60 | Marcellus |
| 18 | 6-Sep-15 | 13,934 | 14,103 | 60 | Marcellus |
| 19 | 7-Sep-15 | 13,734 | 13,903 | 60 | Marcellus |
| 20 | 7-Sep-15 | 13,534 | 13,703 | 60 | Marcellus |
| 21 | 7-Sep-15 | 13,334 | 13,503 | 60 | Marcellus |
| 22 | 7-Sep-15 | 13,134 | 13,303 | 60 | Marcellus |
| 23 | 7-Sep-15 | 12,934 | 13,103 | 60 | Marcellus |
| 24 | 8-Sep-15 | 12,734 | 12,903 | 60 | Marcellus |
| 25 | 8-Sep-15 | 12,534 | 12,703 | 60 | Marcellus |
| 26 | 8-Sep-15 | 12,334 | 12,503 | 60 | Marcellus |
| 27 | 8-Sep-15 | 12,134 | 12,303 | 60 | Marcellus |
| 28 | 9-Sep-15 | 11,934 | 12,103 | 60 | Marcellus |
| 29 | 9-Sep-15 | 11,734 | 11,903 | 60 | Marcellus |
| 30 | 9-Sep-15 | 11,534 | 11,703 | 60 | Marcellus |
| 31 | 9-Sep-15 | 11,334 | 11,503 | 60 | Marcellus |
| 32 | 9-Sep-15 | 11,134 | 11,303 | 60 | Marcellus |
| 33 | 10-Sep-15 | 10,934 | 11,102 | 60 | Marcellus |
| 34 | 10-Sep-15 | 10,734 | 10,902 | 60 | Marcellus |
| 35 | 10-Sep-15 | 10,534 | 10,702 | 60 | Marcellus |
| 36 | 10-Sep-15 | 10,334 | 10,502 | 60 | Marcellus |
| 37 | 10-Sep-15 | 10,134 | 10,302 | 60 | Marcellus |
| 38 | 11-Sep-15 | 9,934 | 10,102 | 60 | Marcellus |
| 39 | 11-Sep-15 | 9,734 | 9,902 | 60 | Marcellus |
| 40 | 11-Sep-15 | 9,534 | 9,702 | 60 | Marcellus |
| 41 | 11-Sep-15 | 9,334 | 9,502 | 60 | Marcellus |
| 42 | 12-Sep-15 | 9,134 | 9,302 | 60 | Marcellus |
| 43 | 12-Sep-15 | 8,934 | 9,102 | 60 | Marcellus |
| 44 | 12-Sep-15 | 8,734 | 8,902 | 60 | Marcellus |
| 45 | 12-Sep-15 | 8,534 | 8,702 | 60 | Marcellus |
| 46 | 13-Sep-15 | 8,334 | 8,502 | 60 | Marcellus |
| 47 | 13-Sep-15 | 8,134 | 8,302 | 60 | Marcellus |
| 48 | 13-Sep-15 | 7,934 | 8,102 | 60 | Marcellus |
| 49 | 13-Sep-15 | 7,734 | 7,902 | 60 | Marcellus |
| 50 | 13-Sep-15 | 7,534 | 7,702 | 60 | Marcellus |
| 51 | 13-Sep-15 | 7,334 | 7,502 | 60 | Marcellus |
| 52 | 14-Sep-15 | 7,134 | 7,302 | 60 | Marcellus |
| 53 | 14-Sep-15 | 6,933 | 7,102 | 60 | Marcellus |
| 54 | 14-Sep-15 | 6,733 | 6,902 | 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-Sep-15 | 59.3 | 6,995 | 6,001 | 4,393 | 105,860 | 6,559 | N/A |
| 2 | 2-Sep-15 | 61.8 | 7,082 | 6,305 | 3,826 | 97,880 | 6,110 | N/A |
| 3 | 2-Sep-15 | 56.1 | 6,719 | 5,316 | 4,503 | 234,100 | 6,308 | N/A |
| 4 | 3-Sep-15 | 56.6 | 6,799 | 5,920 | 3,779 | 234,580 | 6,237 | N/A |
| 5 | 3-Sep-15 | 58.2 | 6,733 | 5,156 | 2,822 | 186,540 | 6,586 | N/A |
| 6 | 3-Sep-15 | 56.8 | 6,743 | 5,399 | 3,975 | 234,620 | 6,229 | N/A |
| 7 | 4-Sep-15 | 55.7 | 6,467 | 5,367 | 4,611 | 233,260 | 6,232 | N/A |
| 8 | 4-Sep-15 | 62.5 | 6,269 | 5,226 | 4,011 | 228,600 | 6,088 | N/A |
| 9 | 4-Sep-15 | 60.1 | 6,592 | 5,214 | 3,385 | 234,470 | 6,052 | N/A |
| 10 | 5-Sep-15 | 57.0 | 6,837 | 5,582 | 3,602 | 153,410 | 6,256 | N/A |
| 11 | 5-Sep-15 | 61.5 | 6,321 | 5,136 | 4,455 | 234,690 | 6,015 | N/A |
| 12 | 5-Sep-15 | 62.4 | 6,620 | 5,391 | 4,165 | 186,530 | 6,457 | N/A |
| 13 | 5-Sep-15 | 62.0 | 6,327 | 5,307 | 4,482 | 234,680 | 6,170 | N/A |
| 14 | 5-Sep-15 | 58.0 | 6,260 | 5,714 | 3,884 | 234,260 | 6,087 | N/A |
| 15 | 6-Sep-15 | 56.5 | 6,089 | 5,143 | 4,082 | 227,710 | 6,004 | N/A |
| 16 | 6-Sep-15 | 57.9 | 6,218 | 5,701 | 4,353 | 126,710 | 6,494 | N/A |
| 17 | 6-Sep-15 | 59.0 | 6,330 | 5,627 | 3,378 | 200,680 | 6,463 | N/A |
| 18 | 6-Sep-15 | 58.0 | 6,579 | 5,570 | 3,362 | 195,850 | 6,474 | N/A |
| 19 | 7-Sep-15 | 58.4 | 6,271 | 5,376 | 3,454 | 234,500 | 5,915 | N/A |
| 20 | 7-Sep-15 | 57.7 | 6,374 | 5,164 | 4,292 | 180,040 | 5,567 | N/A |
| 21 | 7-Sep-15 | 59.8 | 6,218 | 5,273 | 3,444 | 234,020 | 5,900 | N/A |
| 22 | 7-Sep-15 | 58.0 | 6,605 | 5,429 | 3,062 | 234,080 | 5,945 | N/A |
| 23 | 7-Sep-15 | 59.0 | 6,767 | 5,415 | 4,425 | 167,330 | 6,408 | N/A |
| 24 | 8-Sep-15 | 58.8 | 6,768 | 5,332 | 3,593 | 176,660 | 6,401 | N/A |
| 25 | 8-Sep-15 | 61.9 | 6,399 | 5,350 | 3,783 | 234,680 | 5,873 | N/A |
| 26 | 8-Sep-15 | 57.0 | 6,705 | 5,582 | 3,524 | 191,420 | 5,784 | N/A |
| 27 | 8-Sep-15 | 58.0 | 6,744 | 5,436 | 3,842 | 187,650 | 6,377 | N/A |
| 28 | 9-Sep-15 | 57.0 | 6,395 | 5,442 | 3,451 | 233,000 | 5,864 | N/A |
| 29 | 9-Sep-15 | 59.6 | 6,320 | 5,578 | 3,400 | 234,200 | 5,843 | N/A |
| 30 | 9-Sep-15 | 59.0 | 6,414 | 5,744 | 3,898 | 201,200 | 6,365 | N/A |
| 31 | 9-Sep-15 | 60.0 | 6,615 | 5,225 | 3,119 | 234,550 | 6,017 | N/A |
| 32 | 9-Sep-15 | 58.0 | 6,283 | 5,303 | 3,205 | 234,220 | 5,795 | N/A |
| 33 | 10-Sep-15 | 60.0 | 6,358 | 5,556 | 3,626 | 234,540 | 5,879 | N/A |
| 34 | 10-Sep-15 | 59.9 | 6,377 | 5,433 | 3,686 | 225,200 | 6,316 | N/A |
| 35 | 10-Sep-15 | 60.3 | 6,224 | 5,495 | 4,061 | 234,280 | 5,786 | N/A |
| 36 | 10-Sep-15 | 59.0 | 6,222 | 5,781 | 3,385 | 234,330 | 5,762 | N/A |
| 37 | 10-Sep-15 | 58.0 | 6,065 | 5,396 | 4,312 | 227,390 | 6,214 | N/A |
| 38 | 11-Sep-15 | 58.6 | 6,333 | 5,636 | 3,919 | 226,600 | 5,721 | N/A |
| 39 | 11-Sep-15 | 60.2 | 6,273 | 5,516 | 4,603 | 234,140 | 5,876 | N/A |
| 40 | 11-Sep-15 | 59.0 | 6,012 | 5,508 | 4,771 | 234,740 | 5,731 | N/A |
| 41 | 11-Sep-15 | 59.0 | 6,027 | 5,860 | 3,154 | 234,960 | 5,721 | N/A |
| 42 | 12-Sep-15 | 55.6 | 5,904 | 6,282 | 5,028 | 142,920 | 5,913 | N/A |
| 43 | 12-Sep-15 | 60.3 | 6,025 | 6,888 | 4,529 | 233,760 | 5,702 | N/A |
| 44 | 12-Sep-15 | 61.0 | 6,308 | 6,046 | 4,165 | 177,000 | 5,685 | N/A |
| 45 | 12-Sep-15 | 59.0 | 6,303 | 6,212 | 3,328 | 234,430 | 5,705 | N/A |
| 46 | 13-Sep-15 | 59.0 | 6,728 | 5,728 | 4,235 | 159,600 | 6,180 | N/A |
| 47 | 13-Sep-15 | 60.3 | 5,911 | 5,513 | 4,079 | 234,940 | 5,675 | N/A |
| 48 | 13-Sep-15 | 58.6 | 6,270 | 6,271 | 4,272 | 202,240 | 5,918 | N/A |
| 49 | 13-Sep-15 | 63.0 | 6,017 | 6,072 | 3,599 | 235,260 | 6,121 | N/A |
| 50 | 13-Sep-15 | 59.0 | 6,228 | 5,883 | 4,080 | 197,920 | 5,507 | N/A |
| 51 | 13-Sep-15 | 61.0 | 5,863 | 5,440 | 3,202 | 234,770 | 5,654 | N/A |
| 52 | 14-Sep-15 | 58.4 | 5,870 | 6,847 | 3,206 | 240,680 | 5,725 | N/A |
| 53 | 14-Sep-15 | 57.7 | 6,022 | 5,827 | 4,156 | 225,080 | 6,073 | N/A |
| 54 | 14-Sep-15 | 62.2 | 5,693 | 5,648 | 3,182 | 235,130 | 5,533 | N/A |
| | AVG= | 59.1 | 6,368 | 5,622 | 3,854 | 11,401,890 | 325,272 | 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 | 216' | N/A | 216' | N/A |
| Silty Shale | 0 | 176 | 0 | 176 |
| Coal | est 176 | 236 | est 176 | 236 |
| Sandstone | est 236 | 316 | est 236 | 316 |
| Coal | est 316 | 376 | est 316 | 376 |
| Sandstone | est 376 | 396 | est 376 | 396 |
| Silty Shale | est 396 | 416 | est 396 | 416 |
| Sandstone | est 416 | 516 | est 416 | 516 |
| Coal | est 516 | 576 | est 516 | 576 |
| Sandstone | est 576 | 616 | est 576 | 616 |
| Sandy Shale | est 616 | 736 | est 616 | 736 |
| Shale | est 736 | 776 | est 736 | 776 |
| Sandy Siltstone | est 776 | 876 | est 776 | 876 |
| Shale | est 876 | 926 | est 876 | 926 |
| Sandstone | est 926 | 976 | est 926 | 976 |
| Coal | est 976 | 1,036 | est 976 | 1,036 |
| Shale | est 1036 | 1,056 | est 1036 | 1,056 |
| Coal | est 1056 | 1,246 | est 1056 | 1,246 |
| Shale | est 1246 | 1,336 | est 1246 | 1,336 |
| Sandstone | est 1336 | 1,416 | est 1336 | 1,416 |
| Shale | est 1416 | 1,516 | est 1416 | 1,516 |
| Sandy Siltstone/Coal | est 1516 | 1,596 | est 1516 | 1,596 |
| Silty Sandstone | est 1596 | 1,716 | est 1596 | 1,716 |
| Coal | est 1716 | 1,776 | est 1716 | 1,776 |
| Sandy Shale/Coal | est 1776 | 1,877 | est 1776 | 1,880 |
| Big Lime | 1,877 | 2,018 | 1,880 | 2,021 |
| Big Injun | 2,018 | 2,744 | 2,021 | 2,747 |
| Fifty Foot Sandstone | 2,744 | 2,861 | 2,747 | 2,864 |
| Gordon | 2,861 | 3,301 | 2,864 | 3,304 |
| Bayard | 3,301 | 4,040 | 3,304 | 4,043 |
| Baltown | 4,040 | 4,512 | 4,043 | 4,515 |
| Bradford | 4,512 | 4,889 | 4,515 | 4,892 |
| Benson | 4,889 | 5,130 | 4,892 | 5,133 |
| Alexander | 5,130 | 6,033 | 5,133 | 6,128 |
| Sycamore | 6,033 | 6,130 | 6,128 | 6,288 |
| Middlesex | 6,130 | 6,237 | 6,288 | 6,507 |
| Burkett | 6,237 | 6,268 | 6,507 | 6,600 |
| Tully | 6,268 | 6,290 | 6,600 | 6,694 |
| Marcellus | 6,290 | NA | 6,694 | 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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Ericson Unit 2H
Ritchie County WV
 Northing: 14281131.53
 Easting: 1661460.71
 As Drilled



To convert Magnetic North to Grid, Subtract 8.45°
 To convert True North to Grid, Subtract 0.05°

Azimuths to Grid North
 True North: -0.05°
 Magnetic North: -8.45°
 Magnetic Field
 Strength: 52165.4snT
 Dip Angle: 66.83°
 Date: 6/22/2015
 Model: BGGM2014

Precision 523: GL 1004' + KB 10' @ 1023.0usft
 Gr: 1004.0



| | | WELL DETAILS Ericson Unit 2H | | | |
|-------|-------|------------------------------|------------|------------------|------------------|
| | | Ground Level: 1004.0 | | | |
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| 0.0 | 0.0 | 14281131.53 | 1661460.71 | 39° 19' 38.448 N | 80° 55' 32.100 W |

Genie Lightfoot
 11.02, July 07 2015
 Scientific Drilling
 11220 NW 10th Street
 Yukon OK 73099

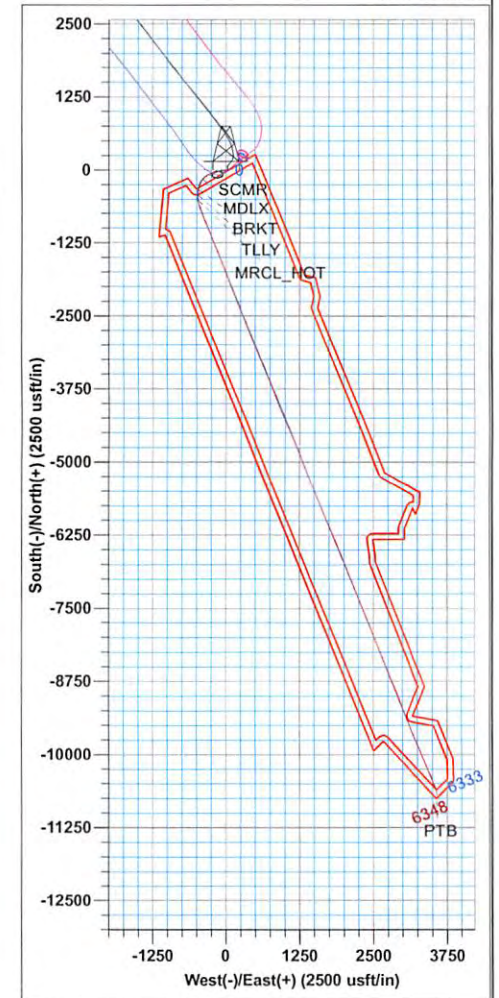
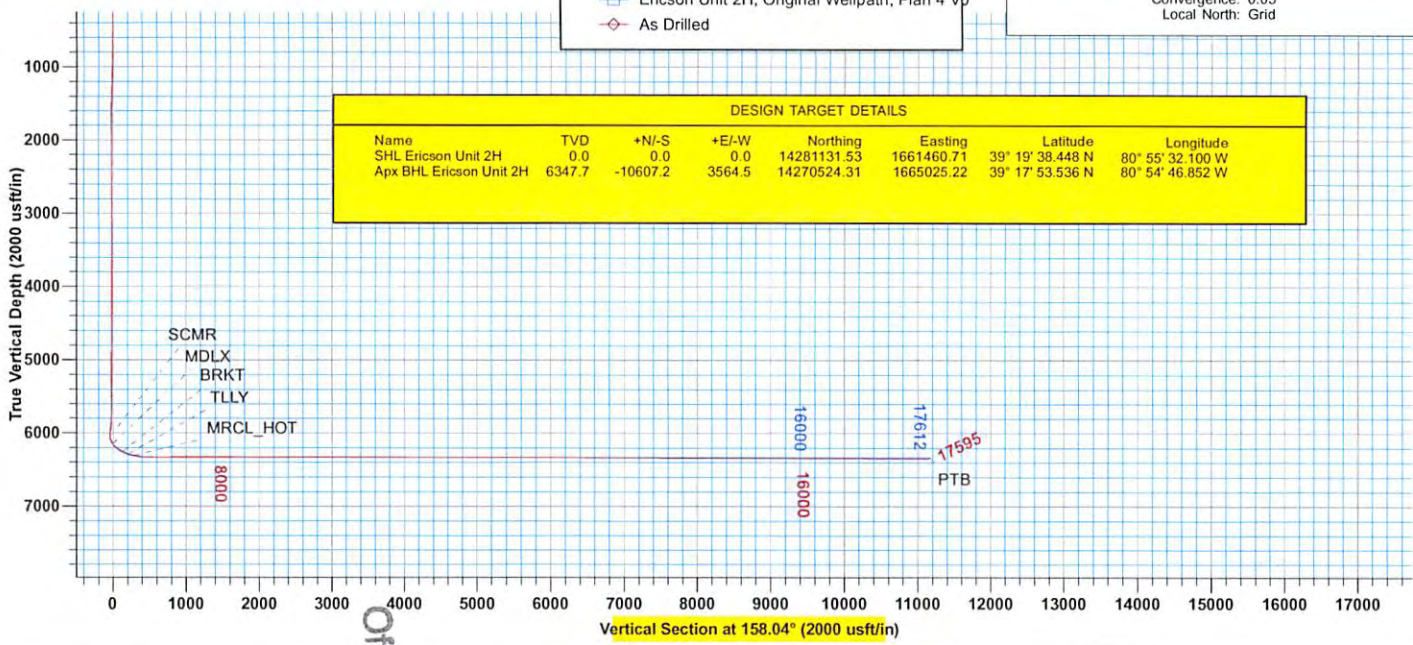
PROJECT DETAILS: Ritchie County WV
 Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Zone 17N (84 W to 78 W)
 System Datum: Mean Sea Level

LEGEND

- △ Belle Unit 3H, Original Wellpath, As Drilled VO
- Belle Unit 1H, Original Wellpath, As Drilled VO
- Belle Unit 2H, Original Wellpath, As Drilled VO
- ◇ Ericson Unit 2H, Original Wellpath, Plan 4 VO
- ◇ As Drilled

SITE DETAILS: Annie Horizontal Pad: Belle/Ericson
 SHL Belle Unit 3H
 Site Center
 Site Centre Northing: 14281134.20
 Easting: 1661500.66
 Positional Uncertainty: 0.0
 Convergence: 0.05
 Local North: Grid

| DESIGN TARGET DETAILS | | | | | | | |
|-------------------------|--------|----------|--------|-------------|------------|------------------|------------------|
| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| SHL Ericson Unit 2H | 0.0 | 0.0 | 0.0 | 14281131.53 | 1661460.71 | 39° 19' 38.448 N | 80° 55' 32.100 W |
| Apx BHL Ericson Unit 2H | 6347.7 | -10607.2 | 3564.5 | 14270524.31 | 1665025.22 | 39° 17' 53.536 N | 80° 54' 46.852 W |



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Antero

Ritchie County WV
Annie Horizontal Pad: Belle/Ericson
Ericson Unit 2H
Original Wellpath

Design: As Drilled

EOW Completion Report

07 July, 2015

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09/16/2016



| | | | |
|------------------|-------------------------------------|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Ericson Unit 2H |
| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | Ritchie County WV, Ritchie County WV, WV North | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD 1927 (NADCON CONUS) | | |
| Map Zone: | Zone 17N (84 W to 78 W) | | |

| | | | | | |
|------------------------------|--|---------------------|-------------------|--------------------------|--------|
| Site | Annie Horizontal Pad: Belle/Ericson, SHL Belle Unit 3H | | | | |
| Site Position: | Northing: | 14,281,134.20 usft | Latitude: | 39° 19' 38.474 N | |
| From: | Easting: | 1,661,500.66 usft | Longitude: | 80° 55' 31.591 W | |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 13-3/16" | Grid Convergence: | 0.05 ° |

| | | | | |
|-----------------------------|----------------------------|----------|----------------------------|--------------------|
| Well | Ericson Unit 2H, Marcellus | | | |
| Well Position | +N/-S | 0.0 usft | Northing: | 14,281,131.53 usft |
| | +E/-W | 0.0 usft | Easting: | 1,661,460.71 usft |
| Position Uncertainty | | 2.0 usft | Wellhead Elevation: | 1,023.0 usft |
| | | | Ground Level: | 1,004.0 usft |

| | | | | |
|-----------------|-------------------|--|--|--|
| Wellbore | Original Wellpath | | | |
|-----------------|-------------------|--|--|--|

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
| | BGGM2014 | 6/22/2015 | -8.40 | 66.83 | 52,165 |

| | | | | |
|---------------|------------|--|--|--|
| Design | As Drilled | | | |
|---------------|------------|--|--|--|

| | | | | | |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|-----|
| Audit Notes: | | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.0 | 0.0 | 0.0 | 158.04 | |

| Survey Program | Date 7/7/2015 | | | | |
|-----------------------|---------------|---|---------------------|--|--|
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description | |
| 106.0 | 5,406.0 | Survey #7 Def Gyro to KOP (Original Well) | Standard Keeper 104 | Standard Wireline Keeper ver 1.0.4 | |
| 5,406.0 | 17,595.0 | Survey #8 SDI MWD (Original Wellpath) | SDI MWD | Scientific Drilling Intl. MWD - Standard ver 1.0.1 | |

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 |
| 106.0 | 0.43 | 194.06 | 106.0 | -0.4 | -0.1 | 0.3 | 0.41 |
| 131.0 | 0.28 | 192.72 | 131.0 | -0.5 | -0.1 | 0.4 | 0.60 |
| 156.0 | 0.42 | 188.59 | 156.0 | -0.7 | -0.2 | 0.5 | 0.57 |
| 181.0 | 0.41 | 188.28 | 181.0 | -0.9 | -0.2 | 0.7 | 0.04 |
| 206.0 | 0.27 | 202.74 | 206.0 | -1.0 | -0.2 | 0.9 | 0.65 |
| 231.0 | 0.42 | 189.40 | 231.0 | -1.2 | -0.3 | 1.0 | 0.68 |
| 256.0 | 0.41 | 211.19 | 256.0 | -1.3 | -0.3 | 1.1 | 0.63 |
| 281.0 | 0.37 | 169.46 | 281.0 | -1.5 | -0.4 | 1.2 | 1.12 |
| 306.0 | 0.38 | 186.91 | 306.0 | -1.6 | -0.3 | 1.4 | 0.46 |
| 331.0 | 0.38 | 191.88 | 331.0 | -1.8 | -0.4 | 1.5 | 0.13 |

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| | | | |
|------------------|-------------------------------------|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Ericson Unit 2H |
| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

| Survey | | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | | |
| 356.0 | 0.52 | 189.25 | 356.0 | -2.0 | -0.4 | 1.7 | 0.57 | | |
| 381.0 | 0.44 | 199.43 | 381.0 | -2.2 | -0.5 | 1.9 | 0.47 | | |
| 406.0 | 0.43 | 211.97 | 406.0 | -2.4 | -0.5 | 2.0 | 0.38 | | |
| 431.0 | 0.41 | 200.86 | 431.0 | -2.5 | -0.6 | 2.1 | 0.33 | | |
| 456.0 | 0.45 | 205.35 | 456.0 | -2.7 | -0.7 | 2.2 | 0.21 | | |
| 481.0 | 0.74 | 233.57 | 481.0 | -2.9 | -0.9 | 2.4 | 1.62 | | |
| 506.0 | 1.38 | 246.38 | 506.0 | -3.1 | -1.3 | 2.4 | 2.71 | | |
| 531.0 | 1.97 | 251.80 | 531.0 | -3.4 | -2.0 | 2.4 | 2.44 | | |
| 556.0 | 2.62 | 256.04 | 556.0 | -3.6 | -2.9 | 2.3 | 2.69 | | |
| 581.0 | 3.01 | 259.04 | 580.9 | -3.9 | -4.1 | 2.1 | 1.67 | | |
| 606.0 | 3.31 | 259.43 | 605.9 | -4.2 | -5.5 | 1.8 | 1.20 | | |
| 631.0 | 3.93 | 261.27 | 630.8 | -4.4 | -7.0 | 1.5 | 2.52 | | |
| 656.0 | 4.39 | 263.25 | 655.8 | -4.7 | -8.8 | 1.0 | 1.93 | | |
| 681.0 | 4.79 | 262.94 | 680.7 | -4.9 | -10.8 | 0.5 | 1.60 | | |
| 706.0 | 5.40 | 264.21 | 705.6 | -5.1 | -13.0 | -0.1 | 2.48 | | |
| 731.0 | 5.64 | 265.14 | 730.5 | -5.4 | -15.4 | -0.8 | 1.02 | | |
| 756.0 | 5.77 | 265.40 | 755.4 | -5.6 | -17.9 | -1.5 | 0.53 | | |
| 781.0 | 5.82 | 265.44 | 780.2 | -5.8 | -20.4 | -2.3 | 0.20 | | |
| 806.0 | 5.89 | 265.17 | 805.1 | -6.0 | -22.9 | -3.0 | 0.30 | | |
| 831.0 | 5.89 | 264.72 | 830.0 | -6.2 | -25.5 | -3.8 | 0.18 | | |
| 856.0 | 5.94 | 265.14 | 854.8 | -6.4 | -28.1 | -4.5 | 0.26 | | |
| 881.0 | 5.94 | 265.16 | 879.7 | -6.7 | -30.6 | -5.3 | 0.01 | | |
| 906.0 | 5.99 | 264.71 | 904.6 | -6.9 | -33.2 | -6.0 | 0.27 | | |
| 931.0 | 6.04 | 264.96 | 929.4 | -7.1 | -35.8 | -6.8 | 0.23 | | |
| 956.0 | 5.95 | 265.05 | 954.3 | -7.3 | -38.4 | -7.6 | 0.36 | | |
| 981.0 | 5.62 | 265.32 | 979.2 | -7.6 | -41.0 | -8.3 | 1.32 | | |
| 1,006.0 | 5.59 | 265.39 | 1,004.0 | -7.8 | -43.4 | -9.0 | 0.12 | | |
| 1,031.0 | 4.81 | 264.92 | 1,028.9 | -7.9 | -45.6 | -9.7 | 3.12 | | |
| 1,056.0 | 4.60 | 265.34 | 1,053.8 | -8.1 | -47.7 | -10.3 | 0.85 | | |
| 1,081.0 | 4.25 | 264.88 | 1,078.8 | -8.3 | -49.6 | -10.9 | 1.41 | | |
| 1,106.0 | 3.87 | 265.17 | 1,103.7 | -8.4 | -51.4 | -11.4 | 1.52 | | |
| 1,131.0 | 3.52 | 265.31 | 1,128.7 | -8.6 | -53.0 | -11.9 | 1.40 | | |
| 1,156.0 | 3.36 | 265.65 | 1,153.6 | -8.7 | -54.5 | -12.3 | 0.65 | | |
| 1,181.0 | 2.99 | 265.68 | 1,178.6 | -8.8 | -55.9 | -12.7 | 1.48 | | |
| 1,206.0 | 2.70 | 266.21 | 1,203.5 | -8.9 | -57.1 | -13.1 | 1.16 | | |
| 1,231.0 | 2.36 | 265.99 | 1,228.5 | -9.0 | -58.2 | -13.5 | 1.36 | | |
| 1,256.0 | 2.17 | 265.34 | 1,253.5 | -9.0 | -59.2 | -13.8 | 0.67 | | |
| 1,281.0 | 1.89 | 267.24 | 1,278.5 | -9.1 | -60.1 | -14.0 | 1.15 | | |
| 1,306.0 | 1.71 | 266.53 | 1,303.5 | -9.1 | -60.9 | -14.3 | 0.73 | | |
| 1,331.0 | 1.46 | 265.42 | 1,328.5 | -9.2 | -61.5 | -14.5 | 1.01 | | |
| 1,356.0 | 1.36 | 263.87 | 1,353.5 | -9.2 | -62.2 | -14.7 | 0.43 | | |
| 1,381.0 | 1.25 | 264.23 | 1,378.5 | -9.3 | -62.7 | -14.8 | 0.44 | | |
| 1,406.0 | 0.95 | 268.64 | 1,403.4 | -9.3 | -63.2 | -15.0 | 1.25 | | |
| 1,431.0 | 0.93 | 267.85 | 1,428.4 | -9.3 | -63.6 | -15.1 | 0.10 | | |

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|------------------|-------------------------------------|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Ericson Unit 2H |
| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 1,456.0 | 0.87 | 266.90 | 1,453.4 | -9.4 | -64.0 | -15.3 | 0.25 |
| 1,481.0 | 0.82 | 262.70 | 1,478.4 | -9.4 | -64.4 | -15.4 | 0.32 |
| 1,506.0 | 0.77 | 265.23 | 1,503.4 | -9.4 | -64.7 | -15.5 | 0.24 |
| 1,531.0 | 0.75 | 268.47 | 1,528.4 | -9.4 | -65.0 | -15.6 | 0.19 |
| 1,556.0 | 0.84 | 264.51 | 1,553.4 | -9.5 | -65.4 | -15.7 | 0.42 |
| 1,581.0 | 0.88 | 263.96 | 1,578.4 | -9.5 | -65.8 | -15.8 | 0.16 |
| 1,606.0 | 0.74 | 265.06 | 1,603.4 | -9.5 | -66.1 | -15.9 | 0.56 |
| 1,631.0 | 0.62 | 263.40 | 1,628.4 | -9.6 | -66.4 | -16.0 | 0.49 |
| 1,656.0 | 0.58 | 267.12 | 1,653.4 | -9.6 | -66.7 | -16.0 | 0.22 |
| 1,681.0 | 0.53 | 261.92 | 1,678.4 | -9.6 | -66.9 | -16.1 | 0.28 |
| 1,706.0 | 0.64 | 268.64 | 1,703.4 | -9.6 | -67.2 | -16.2 | 0.52 |
| 1,731.0 | 0.60 | 257.83 | 1,728.4 | -9.7 | -67.4 | -16.3 | 0.49 |
| 1,756.0 | 0.48 | 239.48 | 1,753.4 | -9.7 | -67.7 | -16.3 | 0.84 |
| 1,781.0 | 0.52 | 233.35 | 1,778.4 | -9.9 | -67.8 | -16.2 | 0.27 |
| 1,806.0 | 0.47 | 227.12 | 1,803.4 | -10.0 | -68.0 | -16.1 | 0.29 |
| 1,831.0 | 0.60 | 232.51 | 1,828.4 | -10.2 | -68.2 | -16.1 | 0.56 |
| 1,856.0 | 0.55 | 233.68 | 1,853.4 | -10.3 | -68.4 | -16.0 | 0.21 |
| 1,881.0 | 0.58 | 232.52 | 1,878.4 | -10.5 | -68.6 | -15.9 | 0.13 |
| 1,906.0 | 0.54 | 230.58 | 1,903.4 | -10.6 | -68.8 | -15.9 | 0.18 |
| 1,931.0 | 0.55 | 230.07 | 1,928.4 | -10.8 | -68.9 | -15.8 | 0.04 |
| 1,956.0 | 0.54 | 231.24 | 1,953.4 | -10.9 | -69.1 | -15.7 | 0.06 |
| 1,981.0 | 0.56 | 230.58 | 1,978.4 | -11.1 | -69.3 | -15.7 | 0.08 |
| 2,006.0 | 0.51 | 230.71 | 2,003.4 | -11.2 | -69.5 | -15.6 | 0.20 |
| 2,031.0 | 0.47 | 237.66 | 2,028.4 | -11.3 | -69.7 | -15.5 | 0.29 |
| 2,056.0 | 0.39 | 221.11 | 2,053.4 | -11.5 | -69.8 | -15.5 | 0.59 |
| 2,081.0 | 0.26 | 210.93 | 2,078.4 | -11.6 | -69.9 | -15.4 | 0.57 |
| 2,106.0 | 0.18 | 150.54 | 2,103.4 | -11.6 | -69.9 | -15.3 | 0.93 |
| 2,131.0 | 0.07 | 271.19 | 2,128.4 | -11.7 | -69.9 | -15.3 | 0.90 |
| 2,156.0 | 0.10 | 131.25 | 2,153.4 | -11.7 | -69.9 | -15.3 | 0.64 |
| 2,181.0 | 0.03 | 70.35 | 2,178.4 | -11.7 | -69.9 | -15.3 | 0.36 |
| 2,206.0 | 0.02 | 170.32 | 2,203.4 | -11.7 | -69.9 | -15.3 | 0.16 |
| 2,231.0 | 0.12 | 121.28 | 2,228.4 | -11.7 | -69.9 | -15.2 | 0.43 |
| 2,256.0 | 0.11 | 121.33 | 2,253.4 | -11.8 | -69.8 | -15.2 | 0.04 |
| 2,281.0 | 0.07 | 95.18 | 2,278.4 | -11.8 | -69.8 | -15.2 | 0.23 |
| 2,306.0 | 0.05 | 196.14 | 2,303.4 | -11.8 | -69.8 | -15.2 | 0.37 |
| 2,331.0 | 0.09 | 140.72 | 2,328.4 | -11.8 | -69.8 | -15.1 | 0.30 |
| 2,356.0 | 0.07 | 111.39 | 2,353.4 | -11.8 | -69.7 | -15.1 | 0.18 |
| 2,381.0 | 0.09 | 223.02 | 2,378.4 | -11.8 | -69.7 | -15.1 | 0.53 |
| 2,406.0 | 0.08 | 79.65 | 2,403.4 | -11.9 | -69.7 | -15.1 | 0.65 |
| 2,431.0 | 0.04 | 233.49 | 2,428.4 | -11.9 | -69.7 | -15.1 | 0.47 |
| 2,456.0 | 0.14 | 110.64 | 2,453.4 | -11.9 | -69.7 | -15.0 | 0.66 |
| 2,481.0 | 0.05 | 186.97 | 2,478.4 | -11.9 | -69.7 | -15.0 | 0.55 |
| 2,506.0 | 0.22 | 90.50 | 2,503.4 | -11.9 | -69.6 | -15.0 | 0.92 |
| 2,531.0 | 0.22 | 93.12 | 2,528.4 | -11.9 | -69.5 | -15.0 | 0.04 |
| 2,556.0 | 0.11 | 94.56 | 2,553.4 | -11.9 | -69.4 | -14.9 | 0.44 |

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|------------------|-------------------------------------|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Ericson Unit 2H |
| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

| Survey | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 2,581.0 | 0.11 | 93.82 | 2,578.4 | -11.9 | -69.4 | -14.9 | 0.01 | |
| 2,606.0 | 0.17 | 95.38 | 2,603.4 | -11.9 | -69.3 | -14.9 | 0.24 | |
| 2,631.0 | 0.18 | 92.63 | 2,628.4 | -11.9 | -69.3 | -14.8 | 0.05 | |
| 2,656.0 | 0.09 | 92.43 | 2,653.4 | -11.9 | -69.2 | -14.8 | 0.36 | |
| 2,681.0 | 0.15 | 104.42 | 2,678.4 | -11.9 | -69.2 | -14.8 | 0.26 | |
| 2,706.0 | 0.16 | 93.41 | 2,703.4 | -12.0 | -69.1 | -14.8 | 0.13 | |
| 2,731.0 | 0.13 | 95.98 | 2,728.4 | -12.0 | -69.0 | -14.7 | 0.12 | |
| 2,756.0 | 0.17 | 102.84 | 2,753.4 | -12.0 | -69.0 | -14.7 | 0.18 | |
| 2,781.0 | 0.11 | 89.44 | 2,778.4 | -12.0 | -68.9 | -14.7 | 0.27 | |
| 2,806.0 | 0.16 | 98.31 | 2,803.4 | -12.0 | -68.8 | -14.6 | 0.22 | |
| 2,831.0 | 0.16 | 89.17 | 2,828.4 | -12.0 | -68.8 | -14.6 | 0.10 | |
| 2,856.0 | 0.12 | 97.58 | 2,853.4 | -12.0 | -68.7 | -14.6 | 0.18 | |
| 2,881.0 | 0.04 | 86.33 | 2,878.4 | -12.0 | -68.7 | -14.6 | 0.32 | |
| 2,906.0 | 0.04 | 135.48 | 2,903.4 | -12.0 | -68.7 | -14.6 | 0.13 | |
| 2,931.0 | 0.04 | 121.92 | 2,928.4 | -12.0 | -68.6 | -14.5 | 0.04 | |
| 2,956.0 | 0.19 | 93.78 | 2,953.4 | -12.0 | -68.6 | -14.5 | 0.62 | |
| 2,981.0 | 0.14 | 81.45 | 2,978.4 | -12.0 | -68.5 | -14.5 | 0.24 | |
| 3,006.0 | 0.09 | 106.52 | 3,003.4 | -12.0 | -68.5 | -14.5 | 0.28 | |
| 3,031.0 | 0.11 | 102.90 | 3,028.4 | -12.0 | -68.4 | -14.4 | 0.08 | |
| 3,056.0 | 0.15 | 108.09 | 3,053.4 | -12.0 | -68.4 | -14.4 | 0.17 | |
| 3,081.0 | 0.07 | 102.39 | 3,078.4 | -12.1 | -68.3 | -14.4 | 0.32 | |
| 3,106.0 | 0.15 | 109.91 | 3,103.4 | -12.1 | -68.3 | -14.3 | 0.32 | |
| 3,131.0 | 0.18 | 111.88 | 3,128.4 | -12.1 | -68.2 | -14.3 | 0.12 | |
| 3,156.0 | 0.10 | 125.79 | 3,153.4 | -12.1 | -68.2 | -14.3 | 0.35 | |
| 3,181.0 | 0.15 | 109.86 | 3,178.4 | -12.1 | -68.1 | -14.2 | 0.24 | |
| 3,206.0 | 0.15 | 120.14 | 3,203.4 | -12.2 | -68.1 | -14.2 | 0.11 | |
| 3,231.0 | 0.10 | 123.67 | 3,228.4 | -12.2 | -68.0 | -14.1 | 0.20 | |
| 3,256.0 | 0.07 | 105.15 | 3,253.4 | -12.2 | -68.0 | -14.1 | 0.16 | |
| 3,281.0 | 0.13 | 124.55 | 3,278.4 | -12.2 | -67.9 | -14.1 | 0.27 | |
| 3,306.0 | 0.17 | 110.75 | 3,303.4 | -12.3 | -67.9 | -14.0 | 0.21 | |
| 3,331.0 | 0.08 | 91.27 | 3,328.4 | -12.3 | -67.8 | -14.0 | 0.39 | |
| 3,356.0 | 0.22 | 107.33 | 3,353.4 | -12.3 | -67.8 | -13.9 | 0.58 | |
| 3,381.0 | 0.15 | 114.79 | 3,378.4 | -12.3 | -67.7 | -13.9 | 0.30 | |
| 3,406.0 | 0.16 | 123.41 | 3,403.4 | -12.4 | -67.6 | -13.8 | 0.10 | |
| 3,431.0 | 0.15 | 104.94 | 3,428.4 | -12.4 | -67.6 | -13.8 | 0.20 | |
| 3,456.0 | 0.17 | 120.20 | 3,453.4 | -12.4 | -67.5 | -13.7 | 0.19 | |
| 3,481.0 | 0.17 | 98.54 | 3,478.4 | -12.4 | -67.4 | -13.7 | 0.26 | |
| 3,506.0 | 0.21 | 95.72 | 3,503.4 | -12.4 | -67.4 | -13.6 | 0.16 | |
| 3,531.0 | 0.19 | 97.90 | 3,528.4 | -12.5 | -67.3 | -13.6 | 0.09 | |
| 3,556.0 | 0.23 | 96.94 | 3,553.4 | -12.5 | -67.2 | -13.6 | 0.16 | |
| 3,581.0 | 0.20 | 89.26 | 3,578.4 | -12.5 | -67.1 | -13.5 | 0.17 | |
| 3,606.0 | 0.18 | 86.57 | 3,603.4 | -12.5 | -67.0 | -13.5 | 0.09 | |
| 3,631.0 | 0.16 | 83.17 | 3,628.4 | -12.5 | -66.9 | -13.5 | 0.09 | |
| 3,656.0 | 0.21 | 70.86 | 3,653.4 | -12.4 | -66.9 | -13.5 | 0.25 | |

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|------------------|-------------------------------------|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Ericson Unit 2H |
| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

| Survey | | | | | | | | | |
|-----------|---------|-------------------|--|------------|------------|------------|---------------|------------------|------|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | |
| 3,681.0 | 0.23 | 67.29 | | 3,678.4 | -12.4 | -66.8 | -13.5 | | 0.10 |
| 3,706.0 | 0.24 | 47.69 | | 3,703.4 | -12.4 | -66.7 | -13.5 | | 0.32 |
| 3,731.0 | 0.25 | 64.10 | | 3,728.4 | -12.3 | -66.6 | -13.5 | | 0.28 |
| 3,756.0 | 0.25 | 55.76 | | 3,753.4 | -12.2 | -66.5 | -13.5 | | 0.15 |
| 3,781.0 | 0.21 | 46.98 | | 3,778.4 | -12.2 | -66.4 | -13.5 | | 0.21 |
| 3,806.0 | 0.20 | 45.77 | | 3,803.4 | -12.1 | -66.4 | -13.6 | | 0.04 |
| 3,831.0 | 0.24 | 51.66 | | 3,828.4 | -12.1 | -66.3 | -13.6 | | 0.18 |
| 3,856.0 | 0.17 | 37.73 | | 3,853.4 | -12.0 | -66.2 | -13.6 | | 0.34 |
| 3,881.0 | 0.18 | 43.47 | | 3,878.4 | -11.9 | -66.2 | -13.7 | | 0.08 |
| 3,906.0 | 0.27 | 50.69 | | 3,903.4 | -11.9 | -66.1 | -13.7 | | 0.38 |
| 3,931.0 | 0.26 | 41.26 | | 3,928.4 | -11.8 | -66.0 | -13.8 | | 0.18 |
| 3,956.0 | 0.23 | 44.71 | | 3,953.4 | -11.7 | -65.9 | -13.8 | | 0.13 |
| 3,981.0 | 0.22 | 33.29 | | 3,978.4 | -11.6 | -65.9 | -13.8 | | 0.18 |
| 4,006.0 | 0.31 | 48.89 | | 4,003.4 | -11.5 | -65.8 | -13.9 | | 0.46 |
| 4,031.0 | 0.32 | 37.82 | | 4,028.4 | -11.5 | -65.7 | -14.0 | | 0.25 |
| 4,056.0 | 0.39 | 46.39 | | 4,053.4 | -11.3 | -65.6 | -14.0 | | 0.35 |
| 4,081.0 | 0.46 | 49.00 | | 4,078.4 | -11.2 | -65.5 | -14.1 | | 0.29 |
| 4,106.0 | 0.39 | 45.67 | | 4,103.4 | -11.1 | -65.3 | -14.1 | | 0.30 |
| 4,131.0 | 0.43 | 54.50 | | 4,128.4 | -11.0 | -65.2 | -14.2 | | 0.30 |
| 4,156.0 | 0.41 | 55.11 | | 4,153.4 | -10.9 | -65.0 | -14.2 | | 0.08 |
| 4,181.0 | 0.44 | 50.04 | | 4,178.4 | -10.8 | -64.9 | -14.3 | | 0.19 |
| 4,206.0 | 0.45 | 48.26 | | 4,203.4 | -10.6 | -64.7 | -14.4 | | 0.07 |
| 4,231.0 | 0.49 | 58.15 | | 4,228.4 | -10.5 | -64.6 | -14.4 | | 0.36 |
| 4,256.0 | 0.50 | 50.88 | | 4,253.4 | -10.4 | -64.4 | -14.5 | | 0.25 |
| 4,281.0 | 0.50 | 54.28 | | 4,278.4 | -10.2 | -64.2 | -14.5 | | 0.12 |
| 4,306.0 | 0.57 | 56.29 | | 4,303.4 | -10.1 | -64.0 | -14.6 | | 0.29 |
| 4,331.0 | 0.51 | 54.06 | | 4,328.4 | -10.0 | -63.8 | -14.6 | | 0.25 |
| 4,356.0 | 0.57 | 58.06 | | 4,353.4 | -9.8 | -63.7 | -14.7 | | 0.28 |
| 4,381.0 | 0.55 | 57.88 | | 4,378.4 | -9.7 | -63.4 | -14.7 | | 0.08 |
| 4,406.0 | 0.59 | 51.99 | | 4,403.4 | -9.6 | -63.2 | -14.8 | | 0.28 |
| 4,431.0 | 0.59 | 59.86 | | 4,428.4 | -9.4 | -63.0 | -14.8 | | 0.32 |
| 4,456.0 | 0.57 | 57.70 | | 4,453.4 | -9.3 | -62.8 | -14.9 | | 0.12 |
| 4,481.0 | 0.61 | 56.18 | | 4,478.4 | -9.2 | -62.6 | -14.9 | | 0.17 |
| 4,506.0 | 0.59 | 57.22 | | 4,503.4 | -9.0 | -62.4 | -15.0 | | 0.09 |
| 4,531.0 | 0.57 | 52.42 | | 4,528.4 | -8.9 | -62.2 | -15.0 | | 0.21 |
| 4,556.0 | 0.62 | 56.88 | | 4,553.4 | -8.7 | -62.0 | -15.1 | | 0.27 |
| 4,581.0 | 0.62 | 60.31 | | 4,578.4 | -8.6 | -61.7 | -15.1 | | 0.15 |
| 4,606.0 | 0.74 | 54.85 | | 4,603.4 | -8.4 | -61.5 | -15.2 | | 0.54 |
| 4,631.0 | 0.63 | 53.40 | | 4,628.4 | -8.2 | -61.2 | -15.3 | | 0.45 |
| 4,656.0 | 0.70 | 56.23 | | 4,653.4 | -8.1 | -61.0 | -15.3 | | 0.31 |
| 4,681.0 | 0.75 | 56.38 | | 4,678.4 | -7.9 | -60.7 | -15.4 | | 0.20 |
| 4,706.0 | 0.70 | 56.33 | | 4,703.4 | -7.7 | -60.5 | -15.4 | | 0.20 |
| 4,731.0 | 0.65 | 56.77 | | 4,728.4 | -7.6 | -60.2 | -15.5 | | 0.20 |
| 4,756.0 | 0.74 | 57.80 | | 4,753.4 | -7.4 | -60.0 | -15.6 | | 0.36 |

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|------------------|-------------------------------------|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Ericson Unit 2H |
| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

| Survey | | | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|--|--|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) | | |
| 4,781.0 | 0.68 | 59.25 | 4,778.4 | -7.2 | -59.7 | -15.6 | 0.25 | | |
| 4,806.0 | 0.62 | 57.09 | 4,803.4 | -7.1 | -59.5 | -15.7 | 0.26 | | |
| 4,831.0 | 0.84 | 64.49 | 4,828.4 | -6.9 | -59.2 | -15.7 | 0.96 | | |
| 4,856.0 | 0.75 | 65.73 | 4,853.4 | -6.8 | -58.9 | -15.7 | 0.37 | | |
| 4,881.0 | 0.75 | 62.24 | 4,878.3 | -6.6 | -58.6 | -15.7 | 0.18 | | |
| 4,906.0 | 0.78 | 60.32 | 4,903.3 | -6.5 | -58.3 | -15.8 | 0.16 | | |
| 4,931.0 | 0.74 | 62.67 | 4,928.3 | -6.3 | -58.0 | -15.8 | 0.20 | | |
| 4,956.0 | 0.81 | 67.36 | 4,953.3 | -6.2 | -57.7 | -15.8 | 0.38 | | |
| 4,981.0 | 0.86 | 64.18 | 4,978.3 | -6.0 | -57.4 | -15.8 | 0.27 | | |
| 5,006.0 | 0.80 | 63.08 | 5,003.3 | -5.9 | -57.0 | -15.9 | 0.25 | | |
| 5,031.0 | 0.76 | 64.75 | 5,028.3 | -5.7 | -56.7 | -15.9 | 0.18 | | |
| 5,056.0 | 0.84 | 65.66 | 5,053.3 | -5.6 | -56.4 | -15.9 | 0.32 | | |
| 5,081.0 | 0.91 | 60.50 | 5,078.3 | -5.4 | -56.1 | -16.0 | 0.42 | | |
| 5,106.0 | 0.90 | 65.14 | 5,103.3 | -5.2 | -55.7 | -16.0 | 0.30 | | |
| 5,131.0 | 0.90 | 66.05 | 5,128.3 | -5.1 | -55.4 | -16.0 | 0.06 | | |
| 5,156.0 | 0.83 | 61.90 | 5,153.3 | -4.9 | -55.0 | -16.0 | 0.38 | | |
| 5,181.0 | 0.88 | 60.81 | 5,178.3 | -4.7 | -54.7 | -16.1 | 0.21 | | |
| 5,206.0 | 0.84 | 62.96 | 5,203.3 | -4.5 | -54.4 | -16.1 | 0.21 | | |
| 5,231.0 | 0.80 | 57.20 | 5,228.3 | -4.4 | -54.1 | -16.2 | 0.37 | | |
| 5,256.0 | 0.80 | 54.23 | 5,253.3 | -4.2 | -53.8 | -16.2 | 0.17 | | |
| 5,281.0 | 0.70 | 54.98 | 5,278.3 | -4.0 | -53.5 | -16.3 | 0.40 | | |
| 5,306.0 | 0.77 | 47.05 | 5,303.3 | -3.8 | -53.3 | -16.4 | 0.49 | | |
| 5,331.0 | 0.70 | 57.07 | 5,328.3 | -3.6 | -53.0 | -16.5 | 0.58 | | |
| 5,356.0 | 0.66 | 51.88 | 5,353.3 | -3.4 | -52.8 | -16.6 | 0.29 | | |
| 5,381.0 | 0.73 | 57.20 | 5,378.3 | -3.2 | -52.5 | -16.6 | 0.38 | | |
| 5,406.0 | 0.70 | 58.48 | 5,403.3 | -3.1 | -52.2 | -16.7 | 0.14 | | |
| 5,437.0 | 0.85 | 66.29 | 5,434.3 | -2.9 | -51.9 | -16.7 | 0.59 | | |
| 5,466.0 | 0.64 | 40.47 | 5,463.3 | -2.7 | -51.6 | -16.8 | 1.35 | | |
| 5,496.0 | 0.67 | 77.16 | 5,493.3 | -2.5 | -51.3 | -16.9 | 1.38 | | |
| 5,526.0 | 0.74 | 74.54 | 5,523.3 | -2.4 | -50.9 | -16.8 | 0.26 | | |
| 5,556.0 | 0.65 | 48.15 | 5,553.3 | -2.2 | -50.6 | -16.8 | 1.10 | | |
| 5,586.0 | 0.50 | 41.25 | 5,583.3 | -2.0 | -50.4 | -17.0 | 0.55 | | |
| 5,616.0 | 1.34 | 249.71 | 5,613.3 | -2.1 | -50.7 | -17.0 | 5.98 | | |
| 5,645.0 | 4.50 | 247.76 | 5,642.2 | -2.6 | -52.0 | -17.0 | 10.90 | | |
| 5,675.0 | 8.17 | 248.63 | 5,672.1 | -3.8 | -55.1 | -17.4 | 12.24 | | |
| 5,705.0 | 11.63 | 253.91 | 5,701.6 | -5.4 | -60.0 | -17.4 | 11.91 | | |
| 5,735.0 | 14.75 | 255.24 | 5,730.8 | -7.3 | -66.6 | -18.2 | 10.45 | | |
| 5,765.0 | 18.54 | 254.68 | 5,759.5 | -9.5 | -74.9 | -19.2 | 12.64 | | |
| 5,795.0 | 21.93 | 253.31 | 5,787.7 | -12.4 | -84.9 | -20.3 | 11.41 | | |
| 5,824.0 | 24.67 | 250.57 | 5,814.3 | -15.9 | -95.8 | -21.0 | 10.16 | | |
| 5,854.0 | 27.86 | 250.66 | 5,841.2 | -20.3 | -108.3 | -21.6 | 10.63 | | |
| 5,884.0 | 31.22 | 251.44 | 5,867.3 | -25.1 | -122.3 | -22.4 | 11.27 | | |
| 5,914.0 | 34.35 | 252.79 | 5,892.5 | -30.1 | -137.7 | -23.6 | 10.71 | | |
| 5,944.0 | 38.27 | 253.94 | 5,916.7 | -35.2 | -154.7 | -25.2 | 13.26 | | |

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|------------------|-------------------------------------|-------------------------------------|---|
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| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 5,974.0 | 41.41 | 255.93 | 5,939.7 | -40.2 | -173.3 | -27.6 | 11.30 |
| 6,004.0 | 44.47 | 256.53 | 5,961.7 | -45.0 | -193.2 | -30.5 | 10.29 |
| 6,034.0 | 48.54 | 256.62 | 5,982.3 | -50.1 | -214.3 | -33.7 | 13.57 |
| 6,064.0 | 51.76 | 256.17 | 6,001.6 | -55.5 | -236.7 | -37.0 | 10.79 |
| 6,093.0 | 52.87 | 251.95 | 6,019.3 | -61.8 | -258.8 | -39.4 | 12.13 |
| 6,123.0 | 52.06 | 247.13 | 6,037.6 | -70.1 | -281.0 | -40.1 | 13.02 |
| 6,147.0 | 51.60 | 242.90 | 6,052.4 | -78.1 | -298.1 | -39.1 | 14.00 |
| SCMR | | | | | | | |
| 6,153.0 | 51.51 | 241.83 | 6,056.1 | -80.3 | -302.3 | -38.6 | 14.00 |
| 6,183.0 | 51.33 | 237.14 | 6,074.9 | -92.2 | -322.5 | -35.1 | 12.23 |
| 6,213.0 | 52.17 | 232.89 | 6,093.4 | -105.7 | -341.8 | -29.8 | 11.47 |
| 6,243.0 | 53.20 | 228.15 | 6,111.6 | -120.8 | -360.2 | -22.6 | 13.02 |
| 6,272.0 | 53.75 | 223.39 | 6,128.9 | -137.1 | -376.9 | -13.8 | 13.32 |
| 6,302.0 | 54.50 | 218.74 | 6,146.5 | -155.4 | -392.8 | -2.8 | 12.80 |
| 6,307.0 | 54.80 | 217.99 | 6,149.4 | -158.6 | -395.4 | -0.8 | 13.57 |
| MDLX | | | | | | | |
| 6,332.0 | 56.37 | 214.35 | 6,163.5 | -175.3 | -407.5 | 10.1 | 13.57 |
| 6,362.0 | 58.27 | 211.25 | 6,179.7 | -196.5 | -421.2 | 24.7 | 10.76 |
| 6,392.0 | 59.44 | 206.44 | 6,195.2 | -219.0 | -433.6 | 40.9 | 14.26 |
| 6,422.0 | 60.40 | 201.80 | 6,210.3 | -242.6 | -444.2 | 58.9 | 13.76 |
| 6,452.0 | 61.87 | 197.83 | 6,224.8 | -267.4 | -453.1 | 78.5 | 12.58 |
| 6,482.0 | 64.08 | 194.01 | 6,238.4 | -293.0 | -460.4 | 99.6 | 13.52 |
| 6,512.0 | 66.47 | 191.07 | 6,250.9 | -319.6 | -466.3 | 122.1 | 11.95 |
| 6,526.0 | 67.56 | 189.86 | 6,256.4 | -332.3 | -468.6 | 133.0 | 11.10 |
| BRKT | | | | | | | |
| 6,542.0 | 68.81 | 188.51 | 6,262.4 | -347.0 | -471.0 | 145.7 | 11.10 |
| 6,571.0 | 70.86 | 185.86 | 6,272.4 | -374.0 | -474.4 | 169.4 | 11.11 |
| 6,601.0 | 73.17 | 183.84 | 6,281.6 | -402.4 | -476.8 | 194.9 | 10.01 |
| 6,619.0 | 74.15 | 182.69 | 6,286.7 | -419.7 | -477.8 | 210.5 | 8.21 |
| TLLY | | | | | | | |
| 6,631.0 | 74.81 | 181.93 | 6,289.9 | -431.2 | -478.3 | 221.1 | 8.21 |
| 6,661.0 | 76.20 | 179.83 | 6,297.4 | -460.3 | -478.7 | 247.8 | 8.21 |
| 6,691.0 | 76.82 | 177.95 | 6,304.4 | -489.4 | -478.1 | 275.1 | 6.43 |
| 6,713.0 | 77.25 | 175.78 | 6,309.3 | -510.8 | -477.0 | 295.4 | 9.82 |
| MRCL_HOT | | | | | | | |
| 6,721.0 | 77.41 | 174.99 | 6,311.1 | -518.6 | -476.3 | 302.8 | 9.82 |
| 6,751.0 | 78.68 | 171.83 | 6,317.3 | -547.8 | -473.0 | 331.1 | 11.14 |
| 6,781.0 | 79.50 | 168.69 | 6,323.0 | -576.8 | -468.0 | 359.9 | 10.63 |
| 6,810.0 | 80.99 | 166.18 | 6,327.9 | -604.7 | -461.8 | 388.1 | 9.96 |
| 6,840.0 | 83.00 | 163.24 | 6,332.1 | -633.3 | -453.9 | 417.6 | 11.79 |
| 6,870.0 | 86.48 | 159.05 | 6,334.8 | -661.6 | -444.3 | 447.4 | 18.11 |
| 6,899.0 | 90.13 | 157.94 | 6,335.7 | -688.5 | -433.7 | 476.4 | 13.15 |
| 6,915.0 | 91.31 | 157.72 | 6,335.5 | -703.4 | -427.6 | 492.4 | 7.50 |
| 6,988.0 | 91.14 | 159.08 | 6,333.9 | -771.2 | -400.7 | 565.4 | 1.88 |
| 7,078.0 | 90.13 | 159.75 | 6,332.9 | -855.5 | -369.1 | 655.4 | 1.35 |

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|------------------|-------------------------------------|-------------------------------------|---|
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| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

| Survey | | | | | | | |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
| 7,167.0 | 90.64 | 158.02 | 6,332.3 | -938.5 | -337.0 | 744.4 | 2.03 |
| 7,257.0 | 90.00 | 157.67 | 6,331.8 | -1,021.8 | -303.1 | 834.3 | 0.81 |
| 7,346.0 | 90.47 | 157.91 | 6,331.5 | -1,104.2 | -269.5 | 923.3 | 0.59 |
| 7,436.0 | 90.24 | 156.98 | 6,330.9 | -1,187.3 | -234.9 | 1,013.3 | 1.06 |
| 7,525.0 | 90.60 | 156.59 | 6,330.3 | -1,269.1 | -199.9 | 1,102.3 | 0.60 |
| 7,615.0 | 89.90 | 157.18 | 6,329.9 | -1,351.9 | -164.5 | 1,192.3 | 1.02 |
| 7,704.0 | 89.60 | 158.20 | 6,330.3 | -1,434.2 | -130.7 | 1,281.3 | 1.19 |
| 7,794.0 | 89.73 | 157.49 | 6,330.8 | -1,517.6 | -96.8 | 1,371.3 | 0.80 |
| 7,884.0 | 90.44 | 159.49 | 6,330.6 | -1,601.3 | -63.8 | 1,461.3 | 2.36 |
| 7,973.0 | 90.77 | 159.57 | 6,329.7 | -1,684.7 | -32.7 | 1,550.2 | 0.38 |
| 8,062.0 | 90.13 | 157.44 | 6,329.0 | -1,767.5 | -0.1 | 1,639.2 | 2.50 |
| 8,152.0 | 90.77 | 158.36 | 6,328.3 | -1,850.9 | 33.8 | 1,729.2 | 1.25 |
| 8,242.0 | 89.03 | 157.98 | 6,328.5 | -1,934.4 | 67.2 | 1,819.2 | 1.98 |
| 8,331.0 | 88.99 | 157.91 | 6,330.0 | -2,016.9 | 100.7 | 1,908.2 | 0.09 |
| 8,421.0 | 90.34 | 157.27 | 6,330.5 | -2,100.1 | 135.0 | 1,998.2 | 1.66 |
| 8,510.0 | 90.54 | 158.30 | 6,329.8 | -2,182.5 | 168.6 | 2,087.2 | 1.18 |
| 8,600.0 | 89.87 | 159.89 | 6,329.5 | -2,266.6 | 200.7 | 2,177.2 | 1.92 |
| 8,689.0 | 89.83 | 159.57 | 6,329.7 | -2,350.1 | 231.6 | 2,266.1 | 0.36 |
| 8,779.0 | 90.03 | 158.98 | 6,329.9 | -2,434.2 | 263.4 | 2,356.1 | 0.69 |
| 8,869.0 | 89.70 | 158.29 | 6,330.1 | -2,518.0 | 296.2 | 2,446.1 | 0.85 |
| 8,958.0 | 90.10 | 157.66 | 6,330.2 | -2,600.6 | 329.6 | 2,535.1 | 0.84 |
| 9,048.0 | 90.54 | 157.61 | 6,329.7 | -2,683.8 | 363.8 | 2,625.1 | 0.49 |
| 9,137.0 | 89.70 | 156.90 | 6,329.5 | -2,765.9 | 398.2 | 2,714.1 | 1.24 |
| 9,227.0 | 89.53 | 157.81 | 6,330.1 | -2,848.9 | 432.9 | 2,804.1 | 1.03 |
| 9,316.0 | 90.03 | 158.24 | 6,330.5 | -2,931.4 | 466.2 | 2,893.1 | 0.74 |
| 9,406.0 | 89.19 | 157.80 | 6,331.1 | -3,014.9 | 499.9 | 2,983.1 | 1.05 |
| 9,495.0 | 89.56 | 157.88 | 6,332.1 | -3,097.3 | 533.4 | 3,072.1 | 0.43 |
| 9,585.0 | 90.20 | 157.78 | 6,332.3 | -3,180.7 | 567.4 | 3,162.1 | 0.72 |
| 9,675.0 | 89.46 | 158.71 | 6,332.5 | -3,264.3 | 600.8 | 3,252.1 | 1.32 |
| 9,764.0 | 90.70 | 160.38 | 6,332.4 | -3,347.6 | 631.9 | 3,341.0 | 2.34 |
| 9,854.0 | 90.30 | 158.89 | 6,331.6 | -3,432.0 | 663.2 | 3,431.0 | 1.71 |
| 9,943.0 | 89.70 | 156.59 | 6,331.6 | -3,514.4 | 696.9 | 3,520.0 | 2.67 |
| 10,033.0 | 90.30 | 156.15 | 6,331.6 | -3,596.8 | 733.0 | 3,610.0 | 0.83 |
| 10,122.0 | 89.80 | 156.49 | 6,331.5 | -3,678.3 | 768.7 | 3,698.9 | 0.68 |
| 10,212.0 | 90.30 | 158.34 | 6,331.5 | -3,761.4 | 803.3 | 3,788.9 | 2.13 |
| 10,302.0 | 90.27 | 160.87 | 6,331.0 | -3,845.8 | 834.6 | 3,878.9 | 2.81 |
| 10,391.0 | 90.81 | 162.07 | 6,330.2 | -3,930.2 | 862.9 | 3,967.7 | 1.48 |
| 10,480.0 | 89.36 | 158.65 | 6,330.0 | -4,014.0 | 892.8 | 4,056.6 | 4.17 |
| 10,570.0 | 89.43 | 158.32 | 6,331.0 | -4,097.7 | 925.8 | 4,146.6 | 0.37 |
| 10,659.0 | 90.74 | 158.56 | 6,330.9 | -4,180.5 | 958.5 | 4,235.6 | 1.50 |
| 10,749.0 | 90.37 | 155.85 | 6,330.0 | -4,263.4 | 993.4 | 4,325.6 | 3.04 |
| 10,838.0 | 90.64 | 156.86 | 6,329.2 | -4,344.9 | 1,029.1 | 4,414.5 | 1.17 |
| 10,928.0 | 89.16 | 157.98 | 6,329.4 | -4,428.0 | 1,063.6 | 4,504.5 | 2.06 |
| 11,018.0 | 88.59 | 154.93 | 6,331.1 | -4,510.5 | 1,099.6 | 4,594.5 | 3.45 |

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| | | | |
|------------------|-------------------------------------|-------------------------------------|---|
| Company: | Antero | Local Co-ordinate Reference: | Well Ericson Unit 2H |
| Project: | Ritchie County WV | TVD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: | Annie Horizontal Pad: Belle/Ericson | MD Reference: | Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: | Ericson Unit 2H | North Reference: | Grid |
| Wellbore: | Original Wellpath | Survey Calculation Method: | Minimum Curvature |
| Design: | As Drilled | Database: | Antero NE |

Survey

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 11,107.0 | 90.77 | 155.21 | 6,331.6 | -4,591.2 | 1,137.1 | 4,683.3 | 2.47 |
| 11,197.0 | 90.24 | 157.01 | 6,330.8 | -4,673.5 | 1,173.5 | 4,773.3 | 2.08 |
| 11,287.0 | 90.30 | 158.49 | 6,330.4 | -4,756.8 | 1,207.6 | 4,863.3 | 1.65 |
| 11,376.0 | 88.52 | 157.61 | 6,331.3 | -4,839.3 | 1,240.9 | 4,952.3 | 2.23 |
| 11,466.0 | 88.59 | 157.02 | 6,333.6 | -4,922.3 | 1,275.6 | 5,042.2 | 0.66 |
| 11,555.0 | 90.70 | 159.12 | 6,334.1 | -5,004.9 | 1,308.8 | 5,131.2 | 3.34 |
| 11,645.0 | 89.76 | 157.52 | 6,333.8 | -5,088.5 | 1,342.1 | 5,221.2 | 2.06 |
| 11,734.0 | 90.17 | 158.59 | 6,333.8 | -5,171.1 | 1,375.3 | 5,310.2 | 1.29 |
| 11,823.0 | 90.37 | 158.41 | 6,333.4 | -5,253.9 | 1,407.9 | 5,399.2 | 0.30 |
| 11,913.0 | 89.93 | 157.12 | 6,333.2 | -5,337.2 | 1,442.0 | 5,489.2 | 1.51 |
| 12,003.0 | 90.24 | 157.32 | 6,333.0 | -5,420.2 | 1,476.8 | 5,579.2 | 0.41 |
| 12,092.0 | 90.30 | 159.37 | 6,332.6 | -5,502.9 | 1,509.7 | 5,668.2 | 2.30 |
| 12,182.0 | 89.26 | 158.97 | 6,333.0 | -5,587.0 | 1,541.7 | 5,758.2 | 1.24 |
| 12,271.0 | 89.33 | 158.08 | 6,334.1 | -5,669.8 | 1,574.3 | 5,847.1 | 1.00 |
| 12,361.0 | 89.20 | 158.78 | 6,335.2 | -5,753.5 | 1,607.3 | 5,937.1 | 0.79 |
| 12,450.0 | 89.26 | 158.26 | 6,336.4 | -5,836.3 | 1,639.9 | 6,026.1 | 0.59 |
| 12,540.0 | 89.60 | 157.94 | 6,337.3 | -5,919.8 | 1,673.5 | 6,116.1 | 0.52 |
| 12,629.0 | 89.93 | 158.17 | 6,337.7 | -6,002.4 | 1,706.8 | 6,205.1 | 0.45 |
| 12,719.0 | 90.17 | 157.54 | 6,337.6 | -6,085.7 | 1,740.7 | 6,295.1 | 0.75 |
| 12,808.0 | 89.03 | 157.18 | 6,338.2 | -6,167.9 | 1,774.9 | 6,384.1 | 1.34 |
| 12,898.0 | 89.56 | 156.72 | 6,339.3 | -6,250.7 | 1,810.2 | 6,474.1 | 0.78 |
| 12,987.0 | 89.97 | 157.55 | 6,339.7 | -6,332.7 | 1,844.8 | 6,563.1 | 1.04 |
| 13,076.0 | 89.36 | 157.93 | 6,340.2 | -6,415.0 | 1,878.5 | 6,652.1 | 0.81 |
| 13,166.0 | 89.30 | 157.23 | 6,341.3 | -6,498.2 | 1,912.8 | 6,742.1 | 0.78 |
| 13,255.0 | 89.70 | 158.16 | 6,342.0 | -6,580.6 | 1,946.6 | 6,831.1 | 1.14 |
| 13,345.0 | 90.07 | 159.74 | 6,342.2 | -6,664.6 | 1,978.9 | 6,921.0 | 1.80 |
| 13,434.0 | 90.33 | 158.92 | 6,341.9 | -6,747.8 | 2,010.3 | 7,010.0 | 0.97 |
| 13,523.0 | 90.74 | 158.69 | 6,341.1 | -6,830.8 | 2,042.5 | 7,099.0 | 0.53 |
| 13,613.0 | 90.17 | 158.45 | 6,340.4 | -6,914.6 | 2,075.4 | 7,189.0 | 0.69 |
| 13,702.0 | 90.47 | 158.63 | 6,339.9 | -6,997.4 | 2,107.9 | 7,278.0 | 0.39 |
| 13,792.0 | 90.03 | 157.78 | 6,339.5 | -7,081.0 | 2,141.3 | 7,368.0 | 1.06 |
| 13,881.0 | 90.03 | 158.14 | 6,339.4 | -7,163.5 | 2,174.7 | 7,457.0 | 0.40 |
| 13,971.0 | 89.26 | 156.92 | 6,340.0 | -7,246.6 | 2,209.1 | 7,547.0 | 1.60 |
| 14,060.0 | 90.33 | 157.10 | 6,340.3 | -7,328.6 | 2,243.9 | 7,636.0 | 1.22 |
| 14,149.0 | 89.56 | 158.28 | 6,340.4 | -7,410.9 | 2,277.7 | 7,725.0 | 1.58 |
| 14,239.0 | 89.40 | 157.35 | 6,341.2 | -7,494.2 | 2,311.7 | 7,815.0 | 1.05 |
| 14,329.0 | 90.20 | 159.34 | 6,341.5 | -7,577.9 | 2,344.9 | 7,905.0 | 2.38 |
| 14,418.0 | 90.27 | 159.39 | 6,341.2 | -7,661.2 | 2,376.2 | 7,993.9 | 0.10 |
| 14,508.0 | 90.30 | 158.46 | 6,340.7 | -7,745.1 | 2,408.6 | 8,083.9 | 1.03 |
| 14,597.0 | 89.46 | 157.05 | 6,340.9 | -7,827.5 | 2,442.3 | 8,172.9 | 1.84 |
| 14,687.0 | 90.20 | 158.38 | 6,341.2 | -7,910.8 | 2,476.4 | 8,262.9 | 1.69 |
| 14,776.0 | 89.53 | 157.52 | 6,341.4 | -7,993.3 | 2,509.8 | 8,351.9 | 1.22 |
| 14,866.0 | 88.89 | 158.06 | 6,342.6 | -8,076.6 | 2,543.9 | 8,441.9 | 0.93 |
| 14,955.0 | 89.70 | 158.96 | 6,343.7 | -8,159.4 | 2,576.5 | 8,530.9 | 1.36 |

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| | |
|--|---|
| Company: Antero | Local Co-ordinate Reference: Well Ericson Unit 2H |
| Project: Ritchie County WV | TVD Reference: Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Site: Annie Horizontal Pad: Belle/Ericson | MD Reference: Precision 523: GL 1004' + KB 19' @ 1023.0usft |
| Well: Ericson Unit 2H | North Reference: Grid |
| Wellbore: Original Wellpath | Survey Calculation Method: Minimum Curvature |
| Design: As Drilled | Database: Antero NE |

| MD (usft) | Inc (°) | Azi (azimuth) (°) | TVD (usft) | N/S (usft) | E/W (usft) | V. Sec (usft) | DLeg (°/100usft) |
|-----------|---------|-------------------|------------|------------|------------|---------------|------------------|
| 15,045.0 | 89.93 | 159.04 | 6,344.0 | -8,243.4 | 2,608.7 | 8,620.9 | 0.27 |
| 15,135.0 | 90.17 | 158.33 | 6,343.9 | -8,327.3 | 2,641.4 | 8,710.9 | 0.83 |
| 15,224.0 | 90.44 | 158.85 | 6,343.4 | -8,410.1 | 2,673.9 | 8,799.9 | 0.66 |
| 15,314.0 | 89.87 | 157.66 | 6,343.2 | -8,493.7 | 2,707.3 | 8,889.9 | 1.47 |
| 15,403.0 | 90.00 | 157.36 | 6,343.3 | -8,575.9 | 2,741.3 | 8,978.8 | 0.37 |
| 15,493.0 | 90.03 | 156.70 | 6,343.3 | -8,658.8 | 2,776.4 | 9,068.8 | 0.73 |
| 15,582.0 | 89.93 | 156.03 | 6,343.3 | -8,740.3 | 2,812.1 | 9,157.8 | 0.76 |
| 15,672.0 | 89.87 | 158.48 | 6,343.5 | -8,823.3 | 2,846.9 | 9,247.8 | 2.72 |
| 15,761.0 | 90.03 | 158.13 | 6,343.5 | -8,906.0 | 2,879.8 | 9,336.8 | 0.43 |
| 15,851.0 | 90.34 | 158.23 | 6,343.3 | -8,989.6 | 2,913.2 | 9,426.8 | 0.36 |
| 15,940.0 | 90.74 | 158.89 | 6,342.4 | -9,072.4 | 2,945.8 | 9,515.8 | 0.87 |
| 16,030.0 | 90.27 | 159.71 | 6,341.6 | -9,156.6 | 2,977.6 | 9,605.7 | 1.05 |
| 16,119.0 | 89.40 | 158.62 | 6,341.9 | -9,239.8 | 3,009.2 | 9,694.7 | 1.57 |
| 16,209.0 | 89.66 | 158.45 | 6,342.6 | -9,323.5 | 3,042.2 | 9,784.7 | 0.35 |
| 16,298.0 | 89.80 | 157.73 | 6,343.0 | -9,406.1 | 3,075.4 | 9,873.7 | 0.82 |
| 16,388.0 | 89.26 | 157.38 | 6,343.8 | -9,489.3 | 3,109.7 | 9,963.7 | 0.71 |
| 16,477.0 | 89.50 | 156.87 | 6,344.7 | -9,571.3 | 3,144.3 | 10,052.7 | 0.63 |
| 16,567.0 | 89.87 | 156.15 | 6,345.2 | -9,653.8 | 3,180.2 | 10,142.7 | 0.90 |
| 16,657.0 | 90.07 | 159.05 | 6,345.3 | -9,737.0 | 3,214.5 | 10,232.6 | 3.23 |
| 16,746.0 | 89.70 | 158.72 | 6,345.5 | -9,820.0 | 3,246.6 | 10,321.6 | 0.56 |
| 16,836.0 | 90.03 | 158.43 | 6,345.7 | -9,903.8 | 3,279.4 | 10,411.6 | 0.49 |
| 16,925.0 | 89.36 | 158.94 | 6,346.1 | -9,986.7 | 3,311.8 | 10,500.6 | 0.95 |
| 17,015.0 | 89.53 | 158.05 | 6,347.0 | -10,070.5 | 3,344.8 | 10,590.6 | 1.01 |
| 17,104.0 | 89.80 | 157.83 | 6,347.5 | -10,152.9 | 3,378.2 | 10,679.6 | 0.39 |
| 17,194.0 | 89.76 | 157.33 | 6,347.9 | -10,236.1 | 3,412.5 | 10,769.6 | 0.56 |
| 17,283.0 | 89.66 | 157.94 | 6,348.3 | -10,318.4 | 3,446.4 | 10,858.6 | 0.69 |
| 17,373.0 | 90.00 | 158.10 | 6,348.6 | -10,401.9 | 3,480.1 | 10,948.6 | 0.42 |
| 17,462.0 | 90.10 | 157.41 | 6,348.5 | -10,484.3 | 3,513.8 | 11,037.6 | 0.78 |
| 17,536.0 | 90.44 | 157.64 | 6,348.2 | -10,552.7 | 3,542.1 | 11,111.6 | 0.55 |
| 17,595.0 | 90.44 | 157.64 | 6,347.7 | -10,607.2 | 3,564.5 | 11,170.6 | 0.00 |

PTB

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|----------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 6,147.0 | 6,052.4 | -78.1 | -298.1 | SCMR |
| 6,307.0 | 6,149.4 | -158.6 | -395.4 | MDLX |
| 6,526.0 | 6,256.4 | -332.3 | -468.6 | BRKT |
| 6,619.0 | 6,286.7 | -419.7 | -477.8 | TLLY |
| 6,713.0 | 6,309.3 | -510.8 | -477.0 | MRCL_HOT |
| 17,595.0 | 6,347.7 | -10,607.2 | 3,564.5 | PTB |

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Checked By: _____ Approved By: _____ Date: _____

Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|------------------------------|
| Job Start Date: | 9/2/2015 |
| Job End Date: | 9/14/2015 |
| State: | West Virginia |
| County: | Ritchie |
| API Number: | 47-085-10143-00-00 |
| Operator Name: | Antero Resources Corporation |
| Well Name and Number: | Ericson 2H |
| Longitude: | -80.92541100 |
| Latitude: | 39.32742500 |
| Datum: | NAD83 |
| Federal/Tribal Well: | NO |
| True Vertical Depth: | 6,349 |
| Total Base Water Volume (gal): | 14,394,748 |
| 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 | Base Fluid | | | | | |
| | | | Water | 7732-18-5 | 100.00000 | 90.72801 | |
| Sand | U.S. Well Services, LLC | Proppant | | | | | |
| | | | Crystalline Silica, quartz | 14808-60-7 | 100.00000 | 8.61684 | |
| HCL Acid (12.6%-18.0%) | U.S. Well Services, LLC | Bulk Acid | | | | | |
| | | | Water | 7732-18-5 | 87.50000 | 0.29200 | |
| | | | Hydrogen Chloride | 7647-01-0 | 18.00000 | 0.06975 | |
| LGC-15 | U.S. Well Services | Gelling Agents | | | | | |
| | | | Guar Gum | 9000-30-0 | 50.00000 | 0.08377 | |
| | | | Petroleum Distillates | 64742-47-8 | 60.00000 | 0.07933 | |
| | | | Suspending agent (solid) | 14808-60-7 | 3.00000 | 0.01281 | |
| | | | Surfactant | 68439-51-0 | 3.00000 | 0.00503 | |
| WFRA-405 | U.S. Well Services | Friction Reducer | | | | | |
| | | | Water | 7732-18-5 | 40.00000 | 0.02793 | |
| | | | Anionic Polyacrylamide | Proprietary | 40.00000 | 0.02793 | |
| | | | Sodium Chloride | 7647-14-5 | 20.00000 | 0.01397 | |
| | | | Petroleum Distillates | 64742-47-8 | 20.00000 | 0.01124 | |
| | | | Ethoxylated alcohol blend | Proprietary | 5.00000 | 0.00349 | |

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|------------|--------------------|---------------------------|---|------------|-----------|---------|
| SI-1100 | U.S. Well Services | Scale Inhibitor | | | | |
| | | | Water | 7732-18-5 | 80.00000 | 0.01021 |
| | | | Ethylene Glycol | 107-21-1 | 25.00000 | 0.00360 |
| | | | Copolymer of Maleic and Acrylic acid | 52255-49-9 | 10.00000 | 0.00151 |
| | | | Potassium salt of diethylene triamine penta (methylene phosphonic acid) | 15827-60-8 | 7.50000 | 0.00129 |
| | | | Phosphino carboxylic acid polymer | 71050-62-9 | 5.00000 | 0.00083 |
| | | | Hexamethylene tramine penta (methylene phosphonic acid) | 34690-00-1 | 5.00000 | 0.00083 |
| | | | 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-nitrilopropionamide | 10222-01-2 | 20.00000 | 0.00418 |
| | | | Deionized Water | 7732-18-5 | 28.00000 | 0.00239 |
| AP One | U.S. Well Services | Gel Breakers | | | | |
| | | | Ammonium Persulfate | 7727-54-0 | 100.00000 | 0.00215 |
| AI-301 | U.S. Well Services | Acid Corrosion Inhibitors | | | | |
| | | | Diethylene Glycol | 111-46-6 | 30.00000 | 0.00022 |
| | | | Methenamine | 100-97-0 | 20.00000 | 0.00018 |
| | | | Hydrogen Chloride | 7647-01-0 | 10.00000 | 0.00008 |
| | | | Polyethylene polyamine | 68603-67-8 | 10.00000 | 0.00007 |
| | | | Coco amine | 61791-14-8 | 5.00000 | 0.00003 |

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)

Office of
 Received
 FEB 11 2016
 Case

LATITUDE 39°20'00" 2,522'

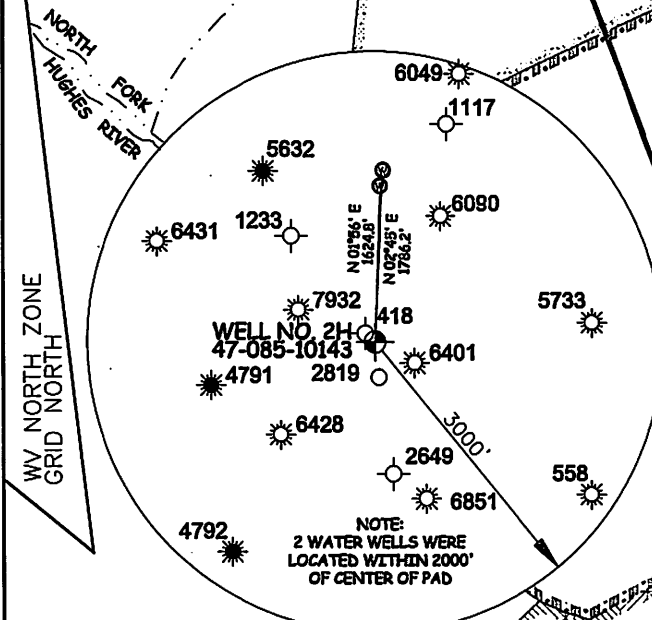
LONGITUDE 80°52'30" 2,181'
LONGITUDE 80°55'00"

10,758' TO BOTTOM HOLE

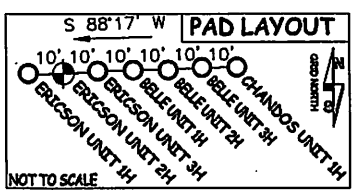
LATITUDE 39°20'00"

Antero Resources Corporation
Well No. Ericson Unit 2H
API #47-085-10143

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 304,536ft E: 1,596,738ft
LAT: 39°19'38.45" LON: 80°55'32.10"
BOTTOM HOLE INFORMATION:
N: 293,867ft E: 1,600,126ft
LAT: 39°17'53.54" LON: 80°54'46.85"
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: 4,353,115m E: 506,429m
BOTTOM HOLE INFORMATION:
N: 4,349,882m E: 507,515m



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 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.



DATE 01/20/16
OPERATOR'S WELL# ERICSON UNIT #2H
API WELL # 47 - 085 - 10143
STATE COUNTY PERMIT
JOB # 12-129WA
DRAWING # ERICSON2HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1,005 ORIGINAL - 1,004 AS-DRILLED WATERSHED NORTH FORK HUGHES RIVER
QUADRANGLE PENNSBORO 7.5 DISTRICT CLAY COUNTY RITCHIE
SURFACE OWNER EDDY F. LANDRUM ACREAGE 637.095 ACRES +/-
OIL & GAS ROYALTY OWNER HARVEY K. HAMMOND ET UX; HAROLD H. BLOCH ET AL; CLIFTON L. WILSON; LEASE ACREAGE 33 AC +/- 28 AC +/- 71 AC +/-
FLOYD H. TAYLOR ET UX; CHARLES M. COYNE ET AL; ROBERT Y. DOAK ET UX; DANIEL T. DEPINHO ET AL; CAROLYN D. TAYLOR ET UX; JOHN H. POOLE ET AL 150 AC +/- 73 AC +/- 29 AC +/- 112 AC +/- 13 AC +/- 75 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
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,348' TVD 17,595' MD
WELL OPERATOR ANTERO RESOURCES CORPORATION DESIGNATED AGENT CT CORPORATION SYSTEM
ADDRESS 1815 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313

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



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

Received Office
FEB 1 2016

09/16/2016

LATITUDE 39°20'00" 2,522'

LONGITUDE 80°52'30"

LONGITUDE 80°55'00"

12,795' TO BOTTOM HOLE

COUNTY NAME PERMIT

10,758' TO BOTTOM HOLE

Antero Resources Corporation
Well No. Ericson Unit 2H
API #47-085-10143

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 304,536ft E: 1,596,738ft
LAT: 39°19'38.45" LON: 80°55'32.10"
BOTTOM HOLE INFORMATION:
N: 293,867ft E: 1,600,126ft
LAT: 39°17'53.54" LON: 80°54'46.85"

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: 4,353,115m E: 506,429m
BOTTOM HOLE INFORMATION:
N: 4,349,882m E: 507,515m

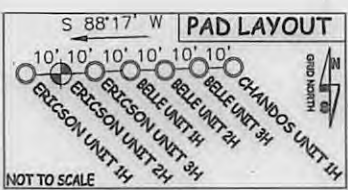
NORTH FORK HUGHES RIVER

WV NORTH ZONE GRID NORTH



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.



DATE 01/20/16

OPERATOR'S WELL# ERICSON UNIT #2H

API WELL # 47 - 085 - 10143

STATE COUNTY PERMIT

JOB # 12-129WA

DRAWING # ERICSON2HAD

SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY SUBMETER

PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

LEGEND

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



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 1,005' ORIGINAL - 1,004' AS-DRILLED WATERSHED NORTH FORK HUGHES RIVER
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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

TARGET FORMATION MARCELLUS PLUG & ABANDON CLEAN OUT & REPLUG

ESTIMATED DEPTH 6,348' TVD 17,595' MD

WELL OPERATOR ANTERO RESOURCES CORPORATION DESIGNATED AGENT CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP ST. DENVER, CO 80202 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

09/16/2016