



Regulatory Department

August 21, 2014

VIA UPS NEXT DAY AIR

Mr. Gene Smith
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Re: WR-35 – Van Aston MSH 5H

Dear Mr. Smith:

Chesapeake Appalachia, L.L.C. submits the *Operator's Interim Report of Well Work* in duplicate for the above captioned well(s) located in Marshall County.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete.

If you have any questions or require additional information please feel free to contact me at (405)935-4158 or marlene.williams@chk.com.

Sincerely,

Chesapeake Appalachia, L.L.C

A handwritten signature in cursive script that reads "Marlene Williams".

Marlene Williams
Regulatory Analyst II

Enclosure(s)

cc: West Virginia Geological and Economic Survey

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

API 47-051-01631 County Marshall District Cameron
Quad Glen Easton Pad Name Van Aston MSH Field/Pool Name _____
Farm name Van Aston MSH 5H Well Number 837625
Operator (as registered with the OOG) Chesapeake Appalachia, L.L.C.
Address P.O. Box 18496 City Oklahoma City State OK Zip 73154-0496

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 493086.0 Easting 1645511.3
Landing Point of Curve Northing 493130.8 Easting 1646743.7
Bottom Hole Northing 493580.2 Easting 1646524.5

Elevation (ft) 1,152' 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)
SOBM

Date permit issued 3/31/14 Date drilling commenced 12/20/13 Date drilling ceased 1/23/14
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

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

Freshwater depth(s) ft 336' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,060' Void(s) encountered (Y/N) depths Y 770'
Coal depth(s) ft 770' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) Y

Reviewed by:

API 47-051 - 01631 Farm name Van Aston MSH 5H Well number 837625

| 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 | 26" | 20" | 122' | New | K-55 94# | | Y |
| Surface | 17 1/2" | 13 3/8" | 822' | New | J-55 54.5# | | Y |
| Coal | | | | | | | |
| Intermediate 1 | 12 1/4" | 9 5/8" | 2,246' | New | J-55 40# | | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8 3/4" / 8 1/2" | 5 1/2" | 15,486' | New | P-110 20# | | Y |
| Tubing | | | | | | | |
| Packer type and depth set | | | | | | | |

Comment Details _____

| CEMENT DATA | Class/Type of Cement | Number of Sacks | Slurry wt (ppg) | Yield (ft ³ /sks) | Volume (ft ³) | Cement Top (MD) | WOC (hrs) |
|----------------|----------------------|-----------------|-----------------|------------------------------|---------------------------|-----------------|-----------|
| Conductor | Class A | 200 | 15.60 | 1.18 | 236 | Surface | 8 |
| Surface | Class A | 737 | 15.60 | 1.20 | 884.4 | Surface | 8 |
| Coal | | | | | | | |
| Intermediate 1 | Class A | 783 | 15.60 | 1.19 | 931.77 | Surface | 8 |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | Class H | 3,165 | 14.50 | 1.18 | 3,734.7 | 870' | 8 |
| Tubing | | | | | | | |

Drillers TD (ft) 15,486' Loggers TD (ft) _____
 Deepest formation penetrated _____ Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) 5,950'

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 _____

Surface / Coal - Run centralizers in the middle and top of the first joint, top of the third jt and every 4th joint to surface.

Production - Run 1st centralizer 3' from Shoe, 2nd at top of the first joint and then one every 3rd joint to TOC.

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 _____

API 47- 051 - 01631 Farm name Van Aston MSH 5H Well number _____

| PRODUCING FORMATION(S) | DEPTHS | |
|------------------------|--------|----|
| W/O Completion | TVD | 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

| LITHOLOGY/ FORMATION | TOP DEPTH IN FT NAME TVD | BOTTOM DEPTH IN FT TVD | TOP DEPTH IN FT MD | BOTTOM DEPTH IN FT MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC) |
|-------------------------|--------------------------------|------------------------------|--------------------------|-----------------------------|--|
| | 0 | | 0 | | |
| LS/Sh | 0 | 770 | 0 | 770 | Predominately limestone with small amounts of shale |
| Pittsburgh Coal | 770 | 790 | 770 | 790 | Pittsburgh Coal |
| LS | 790 | 1060 | 790 | 1060 | Limestone |
| LS/Sh | 1060 | 1500 | 1060 | 1500 | Limestone and shale |
| Sh/SS | 1500 | 1650 | 1500 | 1650 | Shale and stone |
| Big Lime | 1650 | 1820 | 1650 | 1820 | Sandstone |
| Big Injun | 1820 | 2085 | 1820 | 2085 | Big Injun Sandstone |
| Sh | 2085 | 6420 | 2085 | 6420 | Shale |
| Geneseo | 6420 | 6458 | 6735 | 6773 | Geneseo Shale |
| Tully | 6458 | 6487 | 6773 | 6832 | Tully Limestone |
| Hamilton | 6487 | 6576 | 6832 | 7104 | Hamilton Shale |
| Marcellus | 6576 | TD | 7104 | TD | Marcellus Shale |
| TD | | 6615 | | 15,486 | TD |

Please insert additional pages as applicable.

Drilling Contractor Nomac Drilling
Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Logging Company Nomac Drilling
Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Cementing Company Schlumberger
Address 1080 U.S. 33 City Weston State WV Zip 26452

Stimulating Company _____
Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Marlene Williams Telephone 405-935-4158
Signature Marlene Williams Title Regulatory Analyst II Date 8/18/14

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

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
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| PRODUCING FORMATION(S) | DEPTHS | |
|------------------------|--------|-------|
| W/O Completion | TVD | MD |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Please insert additional pages as applicable.

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| Marcellus | 6576 | TD | 7104 | TD | Marcellus Shale |
| TD | | 6615 | | 15,486 | TD |

Please insert additional pages as applicable.

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 Address 1080 U.S. 33 City Weston State WV Zip 26452

Stimulating Company _____
 Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Marlene Williams Telephone 405-935-4158
 Signature Marlene Williams Title Regulatory Analyst II Date 8/18/14

**UPS Shipping Form**

Request ID: 00093614

Carrier Information

Carrier UPS
Destination Domestic

Addressee

Company Shipping To WV DEP
Attention To Mr. Gene Smith
Address: Office of Oil & Gas
601 57th Street
City Charleston
State WV
Country US
Postal Code 25304
Phone 3049260499
Email Gene.C.Smith@wv.gov

Service Type

Next Day Air

Delivery typically by 10:30 a.m.

This service provides guaranteed next-business-day delivery from and to most addresses in the US 50 and Puerto Rico, with some limitations in Alaska and Hawaii.

Shipment Details

Package Reference 1 Interim completion

 Signature Required**Sender Info**

Sender Name Marlene Williams
Sender Email marlene.williams@chk.com

Van Aston MSH 5H