

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

API 47 - 051 - 01833 County Marshall District Clay
Quad Powhatan Point Pad Name MND 1 Field/Pool Name Marcellus
Farm name CNX Gas Company, LLC ET AL Well Number MND 1 LHS
Operator (as registered with the OOG) Noble Energy, Inc.
Address 1001 Noble Energy Way City Houston State Texas Zip 77070

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 39.849833 Easting -80.774281
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1152.08 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)

Date permit issued 05/27/2015 Date drilling commenced 07/31/2015 Date drilling ceased 07/31/2015
Date completion activities began na Date completion activities ceased na
Verbal plugging (Y/N) 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 521' Open mine(s) (Y/N) depths na
Salt water depth(s) ft na Void(s) encountered (Y/N) depths na
Coal depth(s) ft 687-697 Cavern(s) encountered (Y/N) depths na

Is coal being mined in area (Y/N) Yes

APPROVED
NAME: Jan Tucker
DATE: 8/17/2017

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Reviewed by: _____

API 47-051 - 01833 Farm name CNX Gas Company, LLC ET AL Well number MND 1 LHS

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	36"	30"	40'	New	LS/117#		
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

Comment Details *set only the conductor.

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							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

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Drillers TD (ft) 40' _____ Loggers TD (ft) 40' _____
 Deepest formation penetrated _____ Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) NA _____

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 _____

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 _____

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
NA					

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)
NA								

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Please insert additional pages as applicable.

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PRODUCING FORMATION(S)

DEPTHS

NA	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)
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Please insert additional pages as applicable.

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

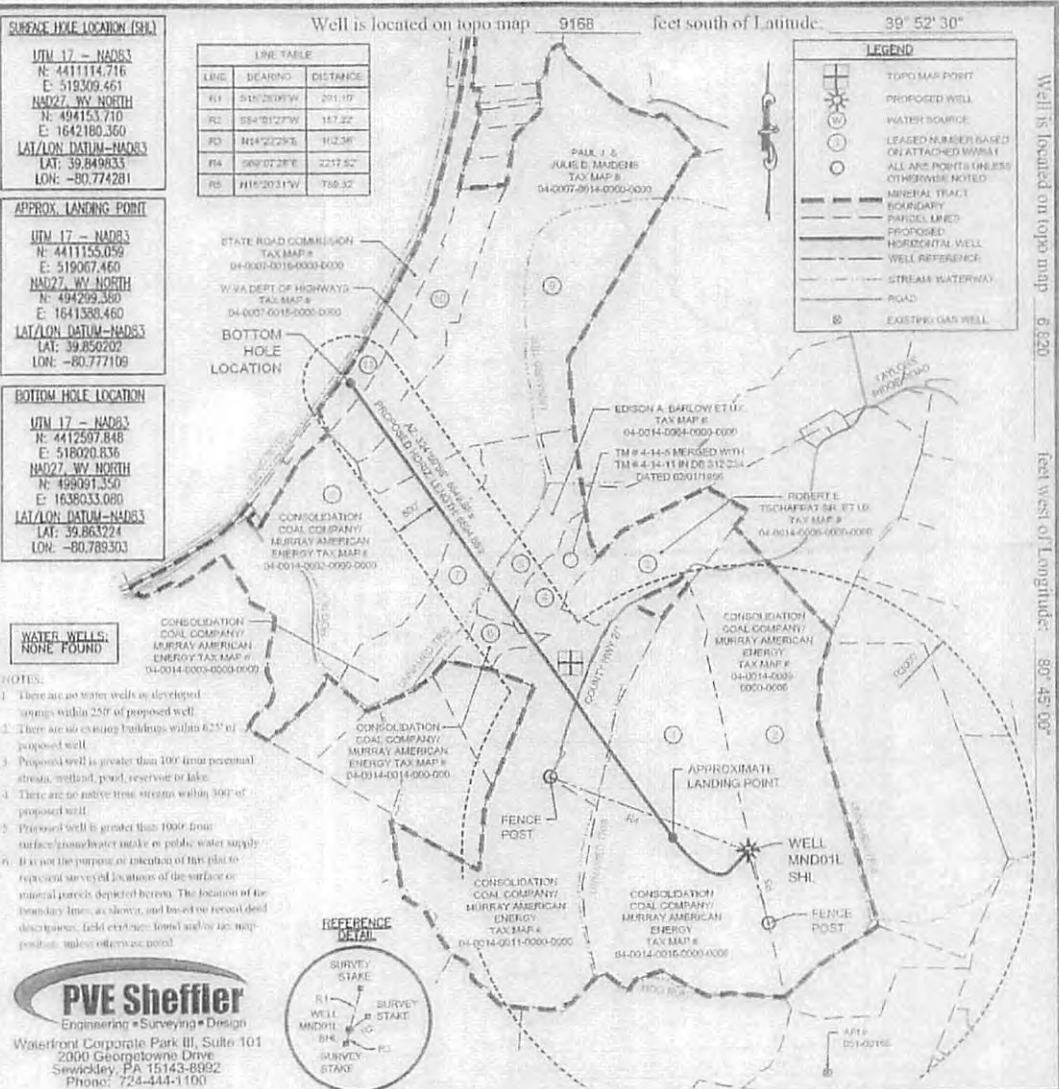
Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company _____
Address _____ City _____ State _____ Zip _____

Stimulating Company _____
Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Dee Swiger Telephone 724-820-3061
Signature  Title Regulatory Analyst, III Date 06/19/2017



SURFACE HOLE LOCATION (SHA)
 UTM 17 - NAD83
 N: 4411114.716
 E: 519009.461
 NAD02, WY NORTH
 N: 494153.710
 E: 1642180.360
 LAT/LON DATUM-NAD83
 LAT: 39.849833
 LON: -80.774281

APPROX. LANDING POINT
 UTM 17 - NAD83
 N: 4411155.059
 E: 519067.460
 NAD02, WY NORTH
 N: 494299.360
 E: 1641386.460
 LAT/LON DATUM-NAD83
 LAT: 39.856202
 LON: -80.777109

BOTTOM HOLE LOCATION
 UTM 17 - NAD83
 N: 4412507.848
 E: 518020.836
 NAD02, WY NORTH
 N: 498091.250
 E: 1638033.080
 LAT/LON DATUM-NAD83
 LAT: 39.863224
 LON: -80.789303

**WATER WELLS:
 NONE FOUND**

- NOTES:**
1. There are no water wells or developed sources within 250' of proposed well.
 2. There are no existing buildings within 625' of proposed well.
 3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 4. There are no native trout streams within 300' of proposed well.
 5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 6. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted herein. The location of its boundary lines, as shown, and based on recent deed descriptions, field evidence, town and/or county records, unless otherwise noted.

PVE Sheffler
 Engineering • Surveying • Design
 Waterfront Corporate Park III, Suite 101
 2000 Georgetown Drive
 Sewickley, PA 15143-8992
 Phone: 724-444-1100

FILE # MND 01 LHS
 DRAWING # MND 01 LHS
 SCALE 1"=1500'
 MINIMUM DEGREE OF ACCURACY 1/2500
 PROVEN SOURCE U.S.G.S. MONUMENT
 OF ELEVATION H 138: 636.56'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED: *[Signature]*
 R.P.E.: 16766 L.L.S.: P.S. NO.

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: FEBRUARY 12, 2015 - REV FEBRUARY 24, 2015
 OPERATOR'S WELL #: MND 01 LHS
 API WELL # 47 051 01833 *HA*
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow
 WATERSHED: SHORT CREEK-OHIO RIVER
 COUNTY/DISTRICT: MARSHALL / CLAY
 SURFACE OWNER: CONSOLIDATION COAL COMPANY/ MURRAY ENERGY
 OIL & GAS ROYALTY OWNER: CINX GAS COMPANY, LLC ET AL
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)
 TARGET FORMATION: MARCELLUS
 WELL OPERATOR: NOBLE ENERGY, INC.
 Address: 1000 NOBLE ENERGY DRIVE
 City: CANNONSBURG State: PA Zip Code: 15317

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ESTIMATED DEPTH: TVD: 6,360' ±
 DESIGNATED AGENT: JESSICA ALGOP
 Address: 301 GOLDEN EAGLE DRIVE
 City: MORGANTOWN State: WV Zip Code: 26508