

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

API 47 - 085 - 10386 County RITCHIE District UNION  
Quad BURNTHOUSE 7.5 Pad Name DRILCO 2018 1V/1H Field/Pool Name AUBURN  
Farm name KENSLER, SAMUEL AND BARBARA Well Number DRILCO 2018 1H  
Operator (as registered with the OOG) DD OIL CO  
Address PO BOX 406 City SPENCER State WV Zip 25276

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4326287 Easting 510699  
Landing Point of Curve Northing 4326167 Easting 510838  
Bottom Hole Northing 4325671 Easting 511316

Elevation (ft) 1245 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)  
LATERAL DRILLED WITH AIR BENTONITE CLAY

Date permit issued 3-07-19 Date drilling commenced 03-9-19 Date drilling ceased 3-15-19  
Date completion activities began 03-18-19 Date completion activities ceased 03/20-19  
Verbal plugging (Y/N) NO 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 NONE ENCOUNTERED Open mine(s) (Y/N) depths NO  
Salt water depth(s) ft NONE ENCOUNTERED Void(s) encountered (Y/N) depths NONE  
Coal depth(s) ft NONE Cavern(s) encountered (Y/N) depths NONE  
Is coal being mined in area (Y/N) NO

Reviewed by:  
\_\_\_\_\_

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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	20"	16"	20 FT	NEW	H40	TOP	YES
Surface	17 1/2"	13 3/8"	435.60	NEW	H40	TOP	YES
Coal							
Intermediate 1	12 1/4"	9 5/8"	1699.20	NEW	J55	TOP	YES
Intermediate 2							
Intermediate 3							
Production	7 7/8"	4 1/2"	4335.40	NEW	N80	TOP JOINT	YES
Tubing							
Packer type and depth set							

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	30	14.5	1.118	35 FT	CTS	12
Surface	CLASS A	302	14.5	1.118	302 FT	CTS	12
Coal							
Intermediate 1	CLASS A	575	14.5	1.118	678 FT	CTS	12
Intermediate 2							
Intermediate 3							
Production	CLASS A	943	14.5	1.118	1113 FT	CTS	48
Tubing							

Drillers TD (ft) 4350 Loggers TD (ft) 4350  
 Deepest formation penetrated WEIR Plug back to (ft) \_\_\_\_\_  
 Plug back procedure N/A

Kick off depth (ft) 1820

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 \_\_\_\_\_  
 TOP JOINT CONDUCTOR \_\_\_\_\_  
 TOP JOINT 13 3/8, TOP JOINT 9 5/8, \_\_\_\_\_  
 3 ON 4 1/2" CASING (1650 FT, 1100 FT, TOP JOINT SURFACE) \_\_\_\_\_

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)
					<b>WEIR</b>
TOE	OCT 9	4300	TOE	5 SHOT	
2	OCT 9	4210	4027	CLUSTER	
3	OCT 9	3975	3775	25' PER	
4	OCT 10	3725	3526	STAGE	
5	OCT 10	3500	3275		
6	OCT 10	3075	3250		
7	OCT 10	3050	2875		
8	OCT 10	2826	2675		

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)
TOE	OCT 9	60	3500	4100	635	35000	300	<b>NONE</b>
2	OCT 9	60	3500	4100	635	50000	400	
3	OCT 9	60	3500	4100	635	50000	400	
4	OCT 10	60	3500	4100	635	50000	400	
5	OCT 10	60	3500	4100	635	50000	400	
6	OCT 10	60	3500	4100	635	50000	400	
7	OCT 10	60	3500	4100	635	50000	400	
8	OCT 10	60	3500	4100	635	50000	400	

Please insert additional pages as applicable.





DRILCO OIL AND GAS  
—drilcooilgas.com—

BOX 385 GRANTSVILLE, WV 26147 304-354-9516

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**LITHOLOGY ADDENDUM    API # 047-085-10386**

<b>LITHOLOGY FORMATION</b>	<b>TOP (ft)</b>	<b>BOTTOM (ft)</b>
Clay	0	10
Sand	10	65
R&R	65	95
Sand	95	180
Slate	180	210
Sand	210	550
R&R	550	620
Sand	620	845
Sand/Shale	845	1125
Sand	1125	1750
Shale	1750	1836
Little Lime	1836	2040
Big Lime	2040	2206
Big Injun	2206	2254
Brown Shale	2254	2420
Weir	2420	2492

Hugh D. Dale, Jr., President    Drilco Oil & Gas Corporation