

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

DATE: _____
API #: 47-103-02637

Well Operator's Report of Well Work

Farm name: DALLISON LUMBER INC
LS Hoyt Operator Well No.: 401-3H LS Hoyt + 401 3H

LOCATION: Elevation: 1375' Quadrangle: PINE GROVE 7.5'

District: GRANT County: WETZEL
Latitude: 8249 Feet South of 37 Deg. 37 Min. 30 Sec.
Longitude 5057 Feet West of 80 Deg. 37 Min. 30 Sec.

Company: HG ENERGY, LLC.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>5260 DUPONT ROAD</u> <u>PARKERSBURG, WV 26101</u>	<u>20" CASING</u>	<u>20'</u>	<u>20'</u>	<u>N/A</u>
Agent: <u>MIKE KIRSCH</u>	<u>9 1/2" H-40</u>			<u>DRILLED IN</u>
Inspector: <u>DEREK HAUGHT</u>				
Date Permit Issued: <u>7/18/2011</u>	<u>13 3/8" CASING</u>	<u>485.25'</u>	<u>485.25'</u>	<u>CEMENT TO SURFACE</u>
Date Well Work Commenced: <u>12/16/2011</u>	<u>54.5" J55</u>			<u>500 SKS</u>
Date Well Work Completed: <u>4/24/2013</u>				
Verbal Plugging:	<u>4 1/2" CASING</u>	<u>3391'</u>	<u>3391'</u>	<u>CEMENT TO SURFACE</u>
Date Permission granted on:	<u>40" J55</u>			<u>1036 SKS</u>
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>7395.66'</u>	<u>5 1/2" CASING</u>	<u>14,240</u>	<u>14,240</u>	<u>CEMENT TO SURFACE</u>
Total Measured Depth (ft): <u>14,279'</u>	<u>20" P110</u>			<u>2309 SKS</u>
Fresh Water Depth (ft): <u>115' 415'</u>				
Salt Water Depth (ft): <u>1915'</u>	<u>2 1/8" TUBING</u>	<u>8063.50'</u>	<u>8063.50'</u>	<u>N/A</u>
Is coal being mined in area (N/YY) <u>NO</u>	<u>4 1/2" L-80</u>			
Coal Depths (ft): <u>910' 1005' 1144'</u>				
Void(s) encountered (N/YY) Depth(s) <u>N, N/A</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Shale Pay zone depth (ft) 7395.66'
Gas: Initial open flow 8.1M MCF/d Oil: Initial open flow 125 Bbl/d
Final open flow 8.1M MCF/d Final open flow 125 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 3,100 psig (surface pressure) after 24 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

DCW for Josh Hinton
Signature

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APPROVED

NAME: Jacqueline Thornton
DATE: 3/28/2016

04/01/2016

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list MWD LOGS AND REAL TIME MWD GAMMA RAY LOGS WHILE WE DRILLED THE CURVES AND LATERAL PORTIONS OF THE WELL.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

- SEE ATTACHED SHEETS -

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: _____ **Top Depth** _____ **Bottom Depth** _____
Surface: _____

	TVD TOPS	BOTTOM
BIG LIME	2367	2437
BIG INJUN	2437	2659
GORDON STRAY	3223	3254
GORDON	3254	3275
TULLY	7863	7915
HAMILTON	7917	8131
MARCELLUS	8131	TD

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L.S Hoyt 4013H 47-103-02637 - Frac Summary

Stage	# of Perfs	Total Acid (gal)	Total Water (bbl)	Total Sand (lbs)	Total Slurry (bbl)	Pad Vol (bbl)	100 Mesh (lbs)	40/70 Mesh (lbs)	40/70 RCS (lbs)	30/50 Mesh (lbs)	BDP (psi)	ISIP (psi)	1 Min SIP (psi)	2 Min SIP (psi)	5 Min SIP (psi)	ATP (psi)	Avg Rate (bbl/min)	PUMP DOWN (bbl)
1	N/A	1,000	5,732	191,700	6,065	1,214	50,400	141,300		-	N/A	3,767	3,422	3,306	3,146	7,633	75	N/A
2	60	1,000	9,949	874,100	10,087	1,132	50,400	163,700	160,000		4,893	4,286	3,838	3,726	3,490	7,726	71	455
3	60	1,000	8,976	425,300	9,809	1,188	50,400	151,900		223,900	N/A	4,458	3,948	3,782	3,557	7,684	70	983
4	60	1,000	9,270	331,700	9,965	1,178		153,700		178,000	N/A	4,367	3,923	3,766	3,543	7,098	71	345
5	60	1,000	7,997	298,500	8,107	1,225	74,800	125,800		97,700	5,015	4,652	4,131	3,965	3,713	6,582	70	914
6	60	1,000	8,789	348,000	9,346	1,285	100,200	99,800		148,000	N/A	4,158	3,803	3,637	3,401	6,767	72	300
7	60	1,000	9,027	346,300	9,613	1,284	100,200	99,800		146,300	N/A	3,913	3,510	3,416	3,238	7,113	72	281
8	60	1,000	9,020	347,200	9,630	1,233	100,200	150,000		97,000	N/A	3,952	3,519	3,353	3,161	6,327	73	237
9	60	1,000	8,633	400,400	9,284	832	100,200	145,200		155,000	N/A	3,829	3,361	3,215	3,071	6,495	75	246
10	60	1,000	9,455	424,000	10,182	649	100,200	150,000		178,800	N/A	4,232	3,653	3,484	3,304	6,465	73	228
11	60	1,000	9,167	355,200	9,778	955	100,200	150,000		105,000	N/A	4,031	3,448	3,296	3,174	6,898	73	187
12	60	1,000	8,820	335,500	9,398	790	120,100	150,000		65,400	5,151	3,658	3,410	3,255	3,074	6,491	74	176
13	60	1,000	9,446	423,800	10,168	808	120,000	150,000		153,800	5,818	3,948	3,513	3,318	3,102	6,792	73	149
14	60	1,000	7,982	420,700	8,650	773	120,000	150,000		150,700	N/A	4,224	3,733	3,498	3,239	6,764	75	140
15	60	1,000	7,926	416,900	8,598	819	120,000	150,200		146,700	5,387	4,098	3,735	3,552	3,334	6,554	74	128
16	60	1,000	7,610	367,000	8,224	819	110,000	150,200		96,800	5,852	N/A	N/A	N/A	N/A	6,605	69	89
17	60	1,000	8,088	420,900	8,711	893	116,800	153,400		150,700	5,148	3,777	3,489	3,345	3,193	6,570	64	104
18	60	1,000	8,007	415,400	8,669	821	120,200	149,900		145,300	5,369	4,459	3,828	3,639	3,515	6,727	66	82
19	60	1,000	7,481	367,000	8,047	816	120,200	150,200		96,600	N/A	4,252	3,715	3,493	3,238	6,783	68	61
TOTAL / AVG	1,080	19,000	160,560	7,009,400	172,331	18,368	1,784,500	2,734,200	160,000	2,330,700	5,329	4,115	3,668	3,503	3,311	6,853	71	8,855

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LS Hoyt 401.3H 47-103-02637 - Perforating Detail

Stage 1						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
N/A	14200	N/A	N/A	N/A	N/A	N/A
Stage 2						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
14130	14075-76	14015-16	13955-56	13895-96	13835-36	PD
Stage 3						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
13785	13735-36	13675-76	13615-16	13555-56	13495-96	PD
Stage 4						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
13457	13395-96	13335-36	13275-76	13215-22	13155-56	PD
Stage 5						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
13105	13055-56	12995-96	12935-36	12875-76	12815-16	PD
Stage 6						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
12765	12715-16	12655-56	12595-96	12535-36	12475-76	PD
Stage 7						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
12425	12375-76	12315-16	12255-56	12195-96	12135-36	PD
Stage 8						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
12085	12035-36	11975-76	11915-16	11855-56	11795-96	PD
Stage 9						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
11745	11695-96	11635-36	11575-76	11515-16	11455-56	PD
Stage 10						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
11405	11355-56	11295-96	11235-36	11175-76	11115-16	PD
Stage 11						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
11065	11015-16	10955-56	10895-96	10835-36	10775-76	PD
Stage 12						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
10725	10675-76	10615-16	10555-56	10495-96	10435-36	PD
Stage 13						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
10385	10335-36	10275-76	10215-16	10155-56	10095-96	PD
Stage 14						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
10045	9995-96	9935-36	9875-76	9815-16	9755-56	PD
Stage 15						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
9710	9655-56	9595-96	9535-36	9475-76	9415-16	PD
Stage 16						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
9365	9315-16	9255-56	9195-96	9135-36	9075-76	PD
Stage 17						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
9020	8975-76	8915-16	8855-56	8795-96	8735-36	PD
Stage 18						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
8685	8635-36	8575-76	8515-16	8455-56	8395-96	PD
Stage 19						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
8358	8335-36	8295-96	8235-36	Mts Fire	8145-46	PD

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