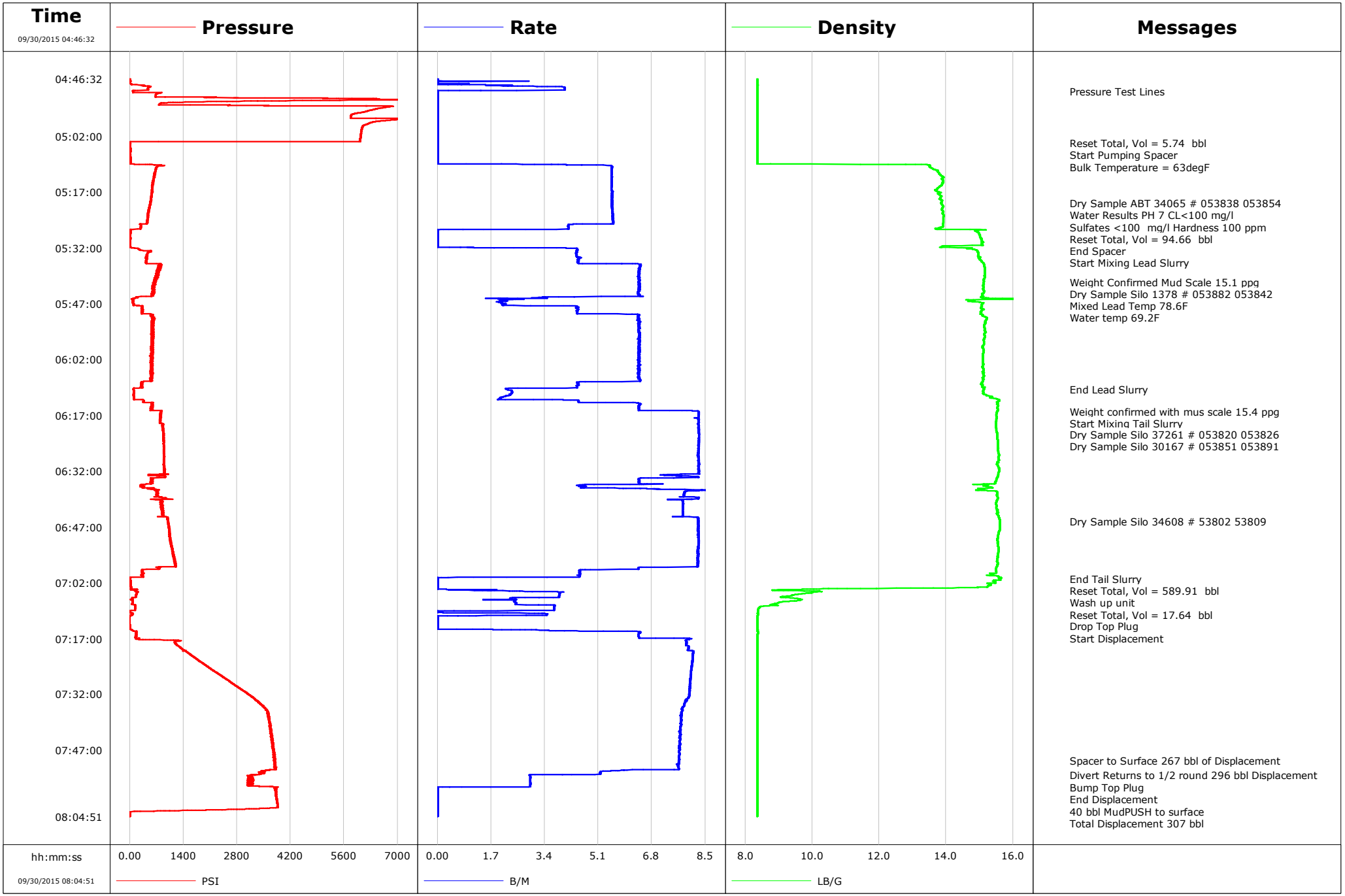
Schlumberger

Cementing Job Report

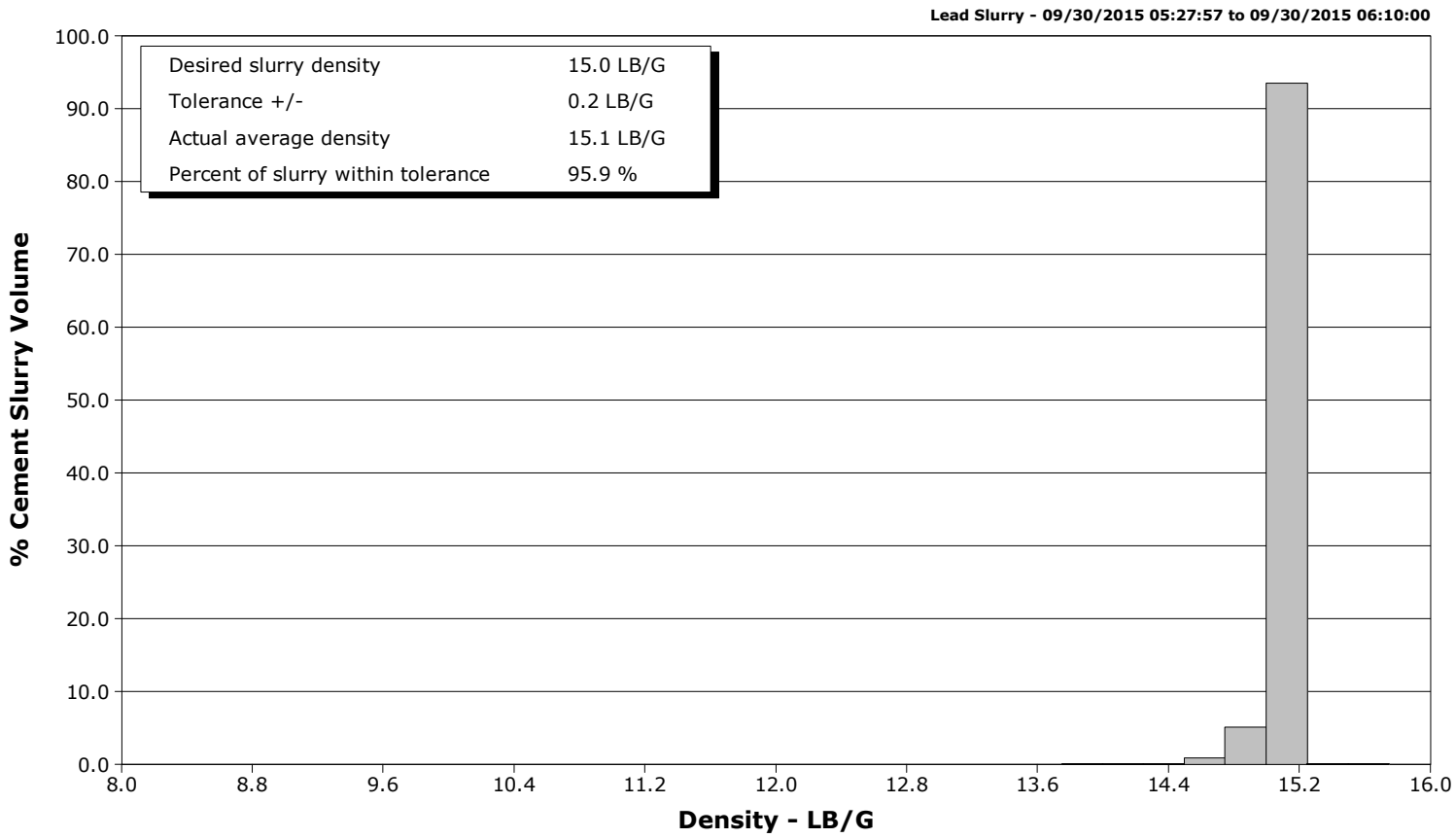
CemCAT v1.6

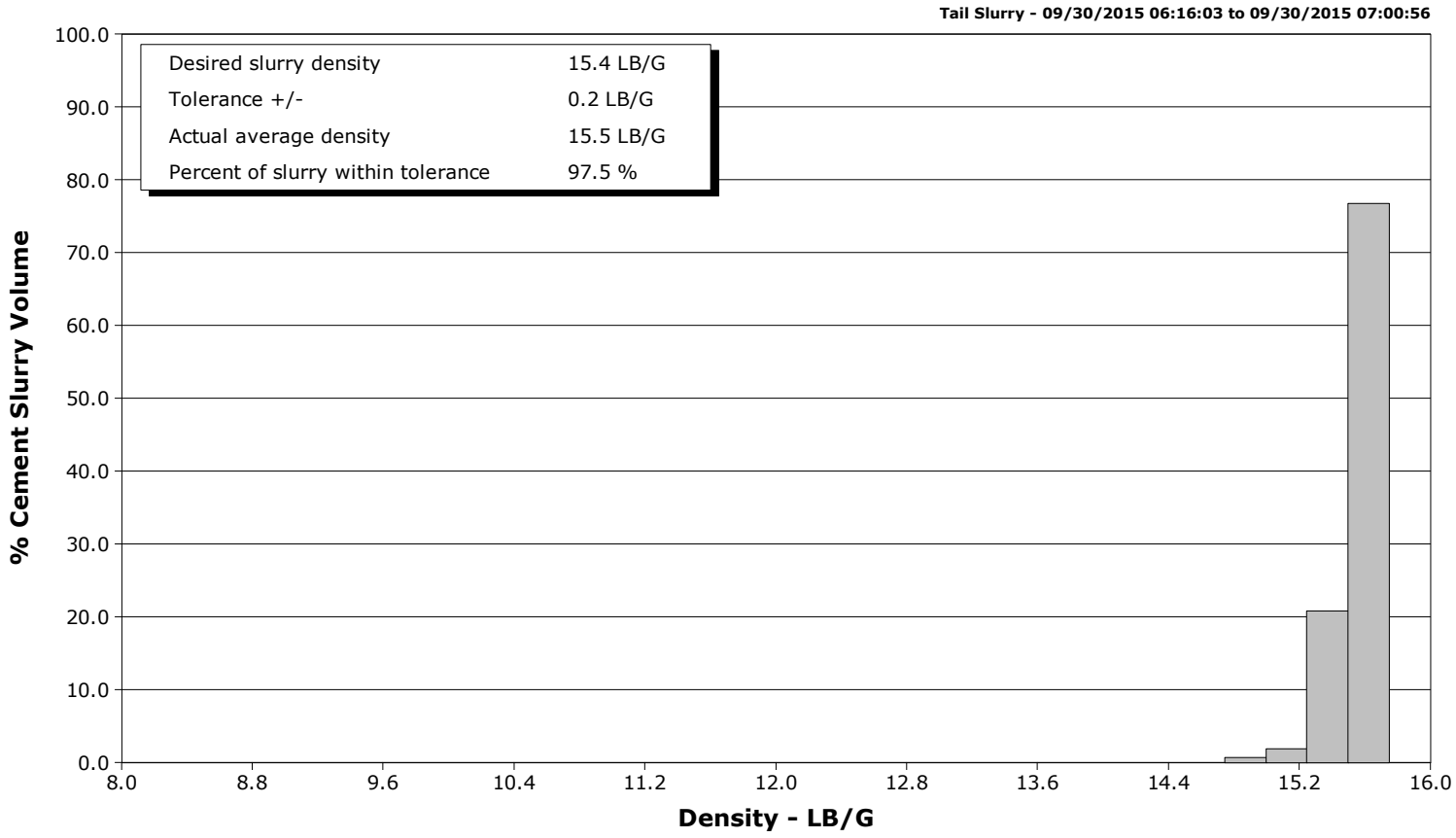
Well	MIP Unit 3H	**Client**	Northeastern Natural Energy
Field	Undesignated	**SIR No.**	DGE7-00001
Engineer	Donald Casler	**Job Type**	Cem Prod Casing
Country	United States	**Job Date**	09-30-2015



Cementing Qa/Qc Density Report

Well	MIP Unit	**Client**	Northeastern Natural Energy
Field	Undesignated	**SIR No.**	DGE7-00001
Engineer	Donald Casler	**Job Type**	Cem Prod Casing
Country	United States	**Job Date**	09-30-2015





Schlumberger

Cementing Service Report

Customer	Job Number
Northeastern Natural Energy	DGE7-00001

Well	Location (legal)	Schlumberger Location	Job Start
MIP Unit 3H		Weston, WV	Sep/30/2015

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
Undesignated	Marcellus/Shale	92 deg	8.8 in	13872.0 ft	7482.0 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Monogalia	WV	7000 psi	149 degF	143 degF	7.70 lb/gal
Well Master 62008796	**API/UWI** 4706101707H0000				

Rig Name	Drilled For	Service Via
Patterson # 254	Gas	Land

Offshore Zone	Well Class	Well Type
	New	Development

Drilling Fluid Type	Max. Density	Plastic Viscosity
SBM	12.70 lb/gal	26.000 cP

Service Line	Job Type
Cementing	Cem Prod Casing

Max. Allowed Tub. Press	Max. Allowed Ann. Press	WH Connection
psi	psi	Double Cement head

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
13872.0	5.5	20.0	110	BUTT
0.0	0.0	0.0		

Tubing/Drill Pipe

T/D	Depth, ft	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	shot/ft	No. of Shots	Total Interval
ft	ft			ft
ft	ft			Diameter
ft	ft			in

Service Instructions

Northeast Natural Energy
MIP 3H 5.5 inch Primary Cement Job
Pump 100 bbl MudPUSH @ 13.8 ppg
Pump Lead Flex 222 bbl @ 15.0 ppg
Sks 990 Yield 1.26 H2o 4.268
Pump Tail CSlurry 367 @ 15.4 ppg
Sks 1690 Yield 1.22 H2O 5.497
Drop Top Plug (3rd Party)
Displace H2O 307.3

Treat Down	Displacement	Packer Type	Packer Depth
Casing	307.0 bbl	None	0.0 ft

Tubing Vol.	Casing Vol.	Annular Vol.	Openhole Vol.
bbl	307.0 bbl	571.0 bbl	927.0 bbl

Casing/Tubing Secured	1 Hole Vol. Circulated prior to Cement	Casing Tools	Squeeze Job
X	X		

Lift Pressure	11685 psi	Shoe Type	Float
Pipe Rotated ☐	Pipe Reciprocated ☐	Shoe Depth	13872.0 ft
No. Centralizers	Top Plugs 1	Bottom Plugs	Stage Tool Type none
Cement Head Type	Double	Stage Tool Depth	0.0 ft
Job Scheduled For: Sep/30/2015 19:00	Arrived on Location: Sep/30/2015 19:00	Leave Location: Oct/01/2015 12:00	Collar Type: Float
			Collar Depth: 13861.0 ft

Squeeze Type			
Tool Type			
Tool Depth	ft		
Tail Pipe Size	in		
Tail Pipe Depth	ft		
Sqz. Total Vol.	bbl		

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Displacement Volume BBL	Total Slurry Volume BBL	Message
09/30/2015	04:46:32	1	0.0	8.37	0.0	0.0	0.0	Started Acquisition
09/30/2015	04:47:12	12	1.9	8.37	0.0	0.0	0.2	
09/30/2015	04:47:52	24	1.0	8.36	0.0	0.0	0.3	
09/30/2015	04:48:32	524	3.0	8.36	0.7	0.0	1.4	
09/30/2015	04:49:12	470	4.0	8.36	3.4	0.0	4.0	
09/30/2015	04:49:52	82	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:49:54	82	0.0	8.36	5.2	0.0	5.7	Pressure Test Lines
09/30/2015	04:50:32	710	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:51:12	674	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:51:52	6455	0.0	8.37	5.2	0.0	5.7	
09/30/2015	04:52:32	3002	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:53:12	794	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:53:52	6822	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:54:32	6477	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:55:12	6200	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:55:52	5874	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:56:32	5771	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:57:12	7308	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:57:52	6557	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:58:32	6239	0.0	8.36	5.2	0.0	5.7	
09/30/2015	04:59:12	6086	0.0	8.36	5.2	0.0	5.7	

Well	Field	Job Start	Customer	Job Number
MIP Unit 3H	Undesignated	Sep/30/2015	Northeastern Natural Energy	DGE7-00001

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Displacement Volume BBL	Total Slurry Volume BBL	Message
09/30/2015	05:00:32	6046	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:01:12	6034	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:01:52	6026	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:02:32	6019	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:03:12	6011	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:03:51	7	0.0	8.36	5.2	0.0	5.7	Reset Total, Vol = 5.74 bbl
09/30/2015	05:03:52	5	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:03:56	9	0.0	8.36	5.2	0.0	5.7	Start Pumping Spacer
09/30/2015	05:04:32	7	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:05:12	14	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:05:52	14	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:06:00	13	0.0	8.36	5.2	0.0	5.7	Bulk Temperature = 63degF
09/30/2015	05:06:32	12	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:07:12	13	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:07:52	15	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:08:32	15	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:09:12	15	0.0	8.36	5.2	0.0	5.7	
09/30/2015	05:09:52	871	5.5	13.52	7.0	0.0	7.6	
09/30/2015	05:10:32	683	5.5	13.56	10.6	0.0	11.3	
09/30/2015	05:11:12	675	5.5	13.75	14.3	0.0	15.0	
09/30/2015	05:11:52	664	5.5	13.78	18.0	0.0	18.7	
09/30/2015	05:12:32	638	5.5	13.84	21.7	0.0	22.4	
09/30/2015	05:13:12	625	5.5	13.90	25.4	0.0	26.0	
09/30/2015	05:13:52	604	5.5	13.90	29.1	0.0	29.7	
09/30/2015	05:14:32	609	5.5	13.89	32.7	0.0	33.4	
09/30/2015	05:15:12	599	5.5	13.85	36.4	0.0	37.1	
09/30/2015	05:15:52	590	5.5	13.74	40.1	0.0	40.8	
09/30/2015	05:16:32	591	5.5	13.67	43.8	0.0	44.4	
09/30/2015	05:17:12	584	5.5	13.83	47.5	0.0	48.1	
09/30/2015	05:17:52	572	5.5	13.82	51.2	0.0	51.8	
09/30/2015	05:18:32	570	5.5	13.82	54.9	0.0	55.5	
09/30/2015	05:19:12	556	5.5	13.88	58.5	0.0	59.2	
09/30/2015	05:19:52	548	5.5	13.84	62.2	0.0	62.9	
09/30/2015	05:19:58	543	5.5	13.85	62.8	0.0	63.4	Dry Sample ABT 34065 # 053838 053854
09/30/2015	05:20:32	534	5.5	13.89	65.9	0.0	66.6	
09/30/2015	05:20:54	519	5.5	13.91	67.9	0.0	68.6	Water Results PH 7 CL<100 mg/l
09/30/2015	05:21:12	516	5.5	13.88	69.6	0.0	70.3	
09/30/2015	05:21:23	508	5.5	13.88	70.6	0.0	71.3	Sulfates <100 mg/l Hardness 100 ppm
09/30/2015	05:21:52	498	5.5	13.88	73.3	0.0	74.0	
09/30/2015	05:22:32	497	5.5	13.90	77.0	0.0	77.7	
09/30/2015	05:23:12	483	5.5	13.92	80.7	0.0	81.4	
09/30/2015	05:23:52	480	5.6	13.91	84.4	0.0	85.1	
09/30/2015	05:24:32	471	5.6	13.91	88.1	0.0	88.8	
09/30/2015	05:25:12	458	5.6	13.91	91.8	0.0	92.5	
09/30/2015	05:25:52	289	4.2	13.90	95.1	0.0	95.8	
09/30/2015	05:26:32	282	4.1	13.84	97.9	0.0	98.5	
09/30/2015	05:27:12	19	0.0	15.04	99.8	0.0	100.4	
09/30/2015	05:27:52	13	0.0	14.97	99.8	0.0	100.4	
09/30/2015	05:27:54	13	0.0	14.97	99.8	0.0	100.4	Reset Total, Vol = 94.66 bbl
09/30/2015	05:27:55	14	0.0	14.97	99.8	0.0	100.4	End Spacer
09/30/2015	05:27:57	13	0.0	14.97	99.8	0.0	100.4	Start Mixing Lead Slurry
09/30/2015	05:28:32	13	0.0	15.01	99.8	0.0	100.4	
09/30/2015	05:29:12	13	0.0	15.02	99.8	0.0	100.4	
09/30/2015	05:29:52	11	0.0	15.05	99.8	0.0	100.4	

Well	Field	Job Start	Customer	Job Number
MIP Unit 3H	Undesignated	Sep/30/2015	Northeastern Natural Energy	DGE7-00001

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Displacement Volume BBL	Total Slurry Volume BBL	Message
09/30/2015	05:31:12	11	0.0	15.05	99.8	0.0	100.4	
09/30/2015	05:31:52	6	1.0	14.10	99.9	0.0	100.5	
09/30/2015	05:32:32	268	4.4	14.90	102.5	0.0	103.1	
09/30/2015	05:33:12	477	4.4	14.96	105.4	0.0	106.1	
09/30/2015	05:33:52	453	4.4	14.95	108.4	0.0	109.0	
09/30/2015	05:34:32	426	4.5	15.00	111.3	0.0	112.0	
09/30/2015	05:35:12	433	4.4	15.02	114.3	0.0	115.0	
09/30/2015	05:35:52	418	4.5	15.08	117.3	0.0	117.9	
09/30/2015	05:36:32	819	6.4	15.14	120.9	0.0	121.6	
09/30/2015	05:37:12	755	6.4	15.15	125.2	0.0	125.9	
09/30/2015	05:37:52	749	6.4	15.15	129.5	0.0	130.1	
09/30/2015	05:38:32	759	6.4	15.15	133.6	0.0	134.4	
09/30/2015	05:39:12	736	6.4	15.15	138.0	0.0	138.7	
09/30/2015	05:39:52	710	6.4	15.16	142.2	0.0	142.9	
09/30/2015	05:40:32	640	6.4	15.11	146.5	0.0	147.2	
09/30/2015	05:41:12	643	6.4	15.11	150.8	0.0	151.4	Weight Confirmed Mud Scale 15.1 ppg
09/30/2015	05:41:47	659	6.4	15.11	154.5	0.0	155.2	Dry Sample Silo 1378 # 053882 053842
09/30/2015	05:41:52	611	6.4	15.11	155.0	0.0	155.7	
09/30/2015	05:42:32	630	6.4	15.11	159.3	0.0	160.0	
09/30/2015	05:43:12	655	6.4	15.11	163.6	0.0	164.2	
09/30/2015	05:43:52	632	6.4	15.12	167.8	0.0	168.5	
09/30/2015	05:44:32	610	6.4	15.07	172.1	0.0	172.7	
09/30/2015	05:44:55	605	6.4	15.09	174.5	0.0	175.2	Mixed Lead Temp 78.6F
09/30/2015	05:45:12	187	3.3	15.05	176.0	0.0	176.6	
09/30/2015	05:45:46	88	2.5	18.06	177.6	0.0	178.2	Water temp 69.2F
09/30/2015	05:45:52	91	2.3	15.14	177.8	0.0	178.4	
09/30/2015	05:46:32	80	1.9	14.99	179.2	0.0	179.8	
09/30/2015	05:47:12	104	2.1	15.06	180.6	0.0	181.2	
09/30/2015	05:47:52	314	4.4	15.04	182.7	0.0	183.4	
09/30/2015	05:48:32	330	4.5	15.11	185.7	0.0	186.3	
09/30/2015	05:49:12	308	4.4	15.02	188.6	0.0	189.3	
09/30/2015	05:49:52	574	6.4	15.06	191.8	0.0	192.5	
09/30/2015	05:50:32	607	6.4	15.17	196.1	0.0	196.8	
09/30/2015	05:51:12	583	6.3	15.20	200.3	0.0	201.0	
09/30/2015	05:51:52	637	6.4	15.17	204.6	0.0	205.3	
09/30/2015	05:52:32	570	6.4	15.14	208.8	0.0	209.5	
09/30/2015	05:53:12	590	6.4	15.13	213.1	0.0	213.8	
09/30/2015	05:53:52	634	6.4	15.15	217.4	0.0	218.0	
09/30/2015	05:54:32	605	6.4	15.17	221.6	0.0	222.3	
09/30/2015	05:55:12	552	6.4	15.14	225.9	0.0	226.6	
09/30/2015	05:55:52	585	6.4	15.15	230.2	0.0	230.8	
09/30/2015	05:56:32	567	6.3	15.13	234.4	0.0	235.1	
09/30/2015	05:57:12	594	6.4	15.13	238.7	0.0	239.4	
09/30/2015	05:57:52	606	6.4	15.13	243.0	0.0	243.6	
09/30/2015	05:58:32	594	6.4	15.09	247.2	0.0	247.9	
09/30/2015	05:59:12	603	6.4	15.11	251.5	0.0	252.2	
09/30/2015	05:59:52	566	6.4	15.11	255.7	0.0	256.4	
09/30/2015	06:00:32	568	6.4	15.10	260.0	0.0	260.7	
09/30/2015	06:01:12	560	6.4	15.09	264.3	0.0	264.9	
09/30/2015	06:01:52	569	6.4	15.09	268.5	0.0	269.2	
09/30/2015	06:02:32	588	6.4	15.09	272.8	0.0	273.5	
09/30/2015	06:03:12	560	6.4	15.11	277.0	0.0	277.7	
09/30/2015	06:03:52	553	6.4	15.08	281.3	0.0	282.0	
09/30/2015	06:04:32	601	6.4	15.10	285.5	0.0	286.2	

Well	Field	Job Start	Customer	Job Number
MIP Unit 3H	Undesignated	Sep/30/2015	Northeastern Natural Energy	DGE7-00001

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Displacement Volume BBL	Total Slurry Volume BBL	Message
09/30/2015	06:05:52	551	6.4	15.11	294.1	0.0	294.7	
09/30/2015	06:06:32	576	6.4	15.11	298.3	0.0	299.0	
09/30/2015	06:07:12	605	6.4	15.11	302.6	0.0	303.2	
09/30/2015	06:07:52	552	6.4	15.09	306.9	0.0	307.5	
09/30/2015	06:08:32	318	4.5	15.04	310.0	0.0	310.6	
09/30/2015	06:09:12	335	4.4	15.07	312.9	0.0	313.6	
09/30/2015	06:09:52	98	2.2	15.13	315.5	0.0	316.1	
09/30/2015	06:10:00	97	2.2	15.12	315.7	0.0	316.3	End Lead Slurry
09/30/2015	06:10:32	104	2.4	15.10	317.0	0.0	317.6	
09/30/2015	06:11:12	107	2.3	15.11	318.5	0.0	319.2	
09/30/2015	06:11:52	104	2.2	15.32	320.1	0.0	320.7	
09/30/2015	06:12:32	107	2.0	15.49	321.4	0.0	322.0	
09/30/2015	06:13:12	367	4.5	15.57	323.7	0.0	324.3	
09/30/2015	06:13:52	571	6.4	15.53	327.3	0.0	327.9	
09/30/2015	06:14:32	589	6.4	15.54	331.5	0.0	332.2	
09/30/2015	06:15:12	556	6.4	15.53	335.8	0.0	336.5	
09/30/2015	06:15:52	823	8.3	15.52	340.3	0.0	341.0	
09/30/2015	06:15:56	819	8.3	15.52	340.9	0.0	341.6	Weight confirmed with mus scale 15.4 ppg
09/30/2015	06:16:03	825	8.3	15.51	341.8	0.0	342.5	Start Mixing Tail Slurry
09/30/2015	06:16:32	801	8.3	15.51	345.8	0.0	346.5	
09/30/2015	06:17:12	818	8.3	15.49	351.3	0.0	352.0	
09/30/2015	06:17:52	796	8.3	15.50	356.9	0.0	357.6	
09/30/2015	06:18:32	792	8.3	15.49	362.4	0.0	363.1	
09/30/2015	06:19:12	853	8.3	15.47	367.9	0.0	368.6	
09/30/2015	06:19:52	875	8.3	15.48	373.4	0.0	374.1	
09/30/2015	06:20:32	861	8.3	15.48	378.9	0.0	379.6	
09/30/2015	06:21:12	866	8.3	15.50	384.4	0.0	385.1	
09/30/2015	06:21:52	875	8.3	15.52	390.0	0.0	390.7	
09/30/2015	06:22:08	874	8.3	15.52	392.2	0.0	392.9	Dry Sample Silo 37261 # 053820 053826
09/30/2015	06:22:32	887	8.3	15.52	395.5	0.0	396.2	
09/30/2015	06:23:12	873	8.3	15.52	401.0	0.0	401.7	
09/30/2015	06:23:52	877	8.3	15.54	406.5	0.0	407.2	
09/30/2015	06:24:32	879	8.3	15.53	412.1	0.0	412.8	
09/30/2015	06:24:35	878	8.3	15.53	412.5	0.0	413.2	Dry Sample Silo 30167 # 053851 053891
09/30/2015	06:25:12	897	8.3	15.53	417.6	0.0	418.3	
09/30/2015	06:25:52	896	8.3	15.54	423.1	0.0	423.8	
09/30/2015	06:26:32	887	8.3	15.54	428.6	0.0	429.3	
09/30/2015	06:27:12	890	8.3	15.56	434.1	0.0	434.8	
09/30/2015	06:27:52	899	8.3	15.57	439.6	0.0	440.3	
09/30/2015	06:28:32	893	8.3	15.56	445.1	0.0	445.8	
09/30/2015	06:29:12	902	8.3	15.56	450.7	0.0	451.4	
09/30/2015	06:29:52	883	8.3	15.53	456.2	0.0	456.9	
09/30/2015	06:30:32	901	8.3	15.54	461.7	0.0	462.4	
09/30/2015	06:31:12	903	8.3	15.57	467.2	0.0	467.9	
09/30/2015	06:31:52	907	8.3	15.58	472.7	0.0	473.4	
09/30/2015	06:32:32	913	8.3	15.55	478.3	0.0	479.0	
09/30/2015	06:33:12	832	7.7	15.54	483.4	0.0	484.1	
09/30/2015	06:33:52	555	6.4	15.50	488.7	0.0	489.4	
09/30/2015	06:34:32	544	6.4	15.49	493.0	0.0	493.7	
09/30/2015	06:35:12	577	6.4	15.46	497.2	0.0	497.9	
09/30/2015	06:35:52	330	4.5	15.19	501.1	0.0	501.7	
09/30/2015	06:36:32	468	5.4	15.37	504.1	0.0	504.8	
09/30/2015	06:37:12	668	8.3	15.16	509.0	0.0	509.7	
09/30/2015	06:37:52	718	7.8	15.53	514.3	0.0	514.9	

Well	Field	Job Start	Customer	Job Number
MIP Unit 3H	Undesignated	Sep/30/2015	Northeastern Natural Energy	DGE7-00001

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Displacement Volume BBL	Total Slurry Volume BBL	Message
09/30/2015	06:39:12	936	8.3	15.54	524.8	0.0	525.5	
09/30/2015	06:39:52	805	7.8	15.51	530.1	0.0	530.8	
09/30/2015	06:40:32	837	7.8	15.48	535.3	0.0	536.0	
09/30/2015	06:41:12	869	7.8	15.50	540.5	0.0	541.2	
09/30/2015	06:41:52	833	7.8	15.49	545.7	0.0	546.4	
09/30/2015	06:42:32	840	7.8	15.52	550.9	0.0	551.5	
09/30/2015	06:43:12	881	7.8	15.55	556.0	0.0	556.7	
09/30/2015	06:43:52	864	7.8	15.55	561.2	0.0	561.9	
09/30/2015	06:44:32	980	8.3	15.57	566.5	0.0	567.2	
09/30/2015	06:45:12	996	8.3	15.59	572.0	0.0	572.7	
09/30/2015	06:45:24	994	8.3	15.59	573.7	0.0	574.4	Dry Sample Silo 34608 # 53802 53809
09/30/2015	06:45:52	1006	8.3	15.60	577.5	0.0	578.2	
09/30/2015	06:46:32	1009	8.3	15.60	583.0	0.0	583.7	
09/30/2015	06:47:12	1019	8.3	15.59	588.5	0.0	589.2	
09/30/2015	06:47:52	1025	8.3	15.59	594.1	0.0	594.8	
09/30/2015	06:48:32	1046	8.3	15.57	599.6	0.0	600.3	
09/30/2015	06:49:12	1047	8.3	15.54	605.1	0.0	605.8	
09/30/2015	06:49:52	1038	8.3	15.54	610.6	0.0	611.3	
09/30/2015	06:50:32	1051	8.3	15.53	616.1	0.0	616.8	
09/30/2015	06:51:12	1072	8.3	15.53	621.6	0.0	622.3	
09/30/2015	06:51:52	1096	8.3	15.53	627.1	0.0	627.8	
09/30/2015	06:52:32	1092	8.3	15.56	632.6	0.0	633.3	
09/30/2015	06:53:12	1103	8.3	15.56	638.2	0.0	638.9	
09/30/2015	06:53:52	1125	8.3	15.55	643.7	0.0	644.4	
09/30/2015	06:54:32	1152	8.3	15.54	649.2	0.0	649.9	
09/30/2015	06:55:12	1161	8.2	15.54	654.7	0.0	655.4	
09/30/2015	06:55:52	1155	8.2	15.52	660.2	0.0	660.9	
09/30/2015	06:56:32	1167	8.2	15.53	665.7	0.0	666.4	
09/30/2015	06:57:12	1197	8.3	15.53	671.2	0.0	671.9	
09/30/2015	06:57:52	730	6.4	15.49	676.5	0.0	677.2	
09/30/2015	06:58:32	341	4.5	15.48	680.6	0.0	681.3	
09/30/2015	06:59:12	312	4.5	15.49	683.6	0.0	684.3	
09/30/2015	06:59:52	339	4.5	15.32	686.7	0.0	687.3	
09/30/2015	07:00:32	48	2.2	15.57	689.6	0.0	690.2	
09/30/2015	07:00:56	11	0.0	15.62	689.7	0.0	690.3	End Tail Slurry
09/30/2015	07:01:00	10	0.0	15.61	689.7	0.0	690.3	Reset Total, Vol = 589.91 bbl
09/30/2015	07:01:12	10	0.0	15.58	689.7	0.0	690.3	
09/30/2015	07:01:52	18	0.0	15.46	689.7	0.0	690.3	
09/30/2015	07:02:00	19	0.0	15.45	689.7	0.0	690.3	Wash up unit
09/30/2015	07:02:32	16	0.0	15.33	689.7	0.0	690.3	
09/30/2015	07:03:12	45	0.0	15.21	689.7	0.0	690.3	
09/30/2015	07:03:52	200	1.8	9.29	689.8	0.0	690.4	
09/30/2015	07:04:32	202	4.0	10.05	691.3	0.0	691.9	
09/30/2015	07:05:12	173	3.9	9.50	693.9	0.0	694.5	
09/30/2015	07:05:52	155	3.9	9.05	696.5	0.0	697.1	
09/30/2015	07:06:32	39	2.2	9.68	698.2	0.0	698.8	
09/30/2015	07:07:12	66	2.5	9.06	699.8	0.0	700.4	
09/30/2015	07:07:52	64	2.5	8.80	701.4	0.0	702.0	
09/30/2015	07:08:32	143	3.7	8.44	703.8	0.0	704.4	
09/30/2015	07:09:12	142	3.7	8.39	706.3	0.0	706.9	
09/30/2015	07:09:29	41	3.4	8.38	707.3	0.0	707.9	Reset Total, Vol = 17.64 bbl
09/30/2015	07:09:31	17	1.9	8.38	707.4	0.0	708.0	Drop Top Plug
09/30/2015	07:09:32	9	1.0	8.38	707.5	0.0	708.0	Start Displacement
09/30/2015	07:09:52	3	0.0	8.38	707.5	0.1	708.1	

Well	Field	Job Start	Customer	Job Number
MIP Unit 3H	Undesignated	Sep/30/2015	Northeastern Natural Energy	DGE7-00001

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Displacement Volume BBL	Total Slurry Volume BBL	Message
09/30/2015	07:11:12	-2	0.0	8.37	710.0	2.5	710.5	
09/30/2015	07:11:52	-4	0.0	8.37	710.0	2.5	710.5	
09/30/2015	07:12:32	-5	0.0	8.37	710.0	2.5	710.5	
09/30/2015	07:13:12	-3	0.0	8.37	710.0	2.5	710.5	
09/30/2015	07:13:52	7	0.0	8.37	710.0	2.5	710.5	
09/30/2015	07:14:32	17	1.1	8.37	710.0	2.5	710.6	
09/30/2015	07:15:12	174	6.4	8.39	712.6	5.2	713.3	
09/30/2015	07:15:52	174	6.4	8.37	716.9	9.5	717.6	
09/30/2015	07:16:32	163	6.4	8.37	721.2	13.7	721.8	
09/30/2015	07:17:12	237	8.0	8.36	725.8	18.4	726.5	
09/30/2015	07:17:52	1189	7.9	8.36	731.1	23.7	731.8	
09/30/2015	07:18:32	1214	7.9	8.36	736.4	28.9	737.1	
09/30/2015	07:19:12	1294	8.0	8.36	741.6	34.2	742.3	
09/30/2015	07:19:52	1370	7.9	8.37	746.9	39.5	747.6	
09/30/2015	07:20:32	1484	8.1	8.37	752.3	44.8	753.0	
09/30/2015	07:21:12	1582	8.1	8.36	757.7	50.2	758.4	
09/30/2015	07:21:52	1666	8.1	8.36	763.1	55.6	763.8	
09/30/2015	07:22:32	1746	8.1	8.36	768.5	61.0	769.2	
09/30/2015	07:23:12	1849	8.1	8.37	773.9	66.4	774.6	
09/30/2015	07:23:52	1947	8.1	8.37	779.2	71.8	779.9	
09/30/2015	07:24:32	2032	8.1	8.37	784.6	77.2	785.3	
09/30/2015	07:25:12	2114	8.0	8.37	790.0	82.6	790.7	
09/30/2015	07:25:52	2214	8.0	8.37	795.4	87.9	796.1	
09/30/2015	07:26:32	2327	8.0	8.37	800.7	93.3	801.4	
09/30/2015	07:27:12	2419	8.0	8.37	806.1	98.6	806.8	
09/30/2015	07:27:52	2510	8.0	8.37	811.4	104.0	812.1	
09/30/2015	07:28:32	2605	8.0	8.37	816.8	109.3	817.5	
09/30/2015	07:29:12	2712	8.0	8.37	822.1	114.7	822.8	
09/30/2015	07:29:52	2807	8.0	8.37	827.4	120.0	828.1	
09/30/2015	07:30:32	2885	8.0	8.37	832.8	125.3	833.5	
09/30/2015	07:31:12	2988	8.0	8.37	838.1	130.7	838.8	
09/30/2015	07:31:52	3073	8.0	8.37	843.4	136.0	844.1	
09/30/2015	07:32:32	3173	8.0	8.37	848.8	141.3	849.5	
09/30/2015	07:33:12	3262	7.9	8.36	854.1	146.6	854.8	
09/30/2015	07:33:52	3345	7.9	8.37	859.3	151.9	860.0	
09/30/2015	07:34:32	3417	7.8	8.37	864.6	157.1	865.2	
09/30/2015	07:35:12	3474	7.8	8.37	869.8	162.3	870.5	
09/30/2015	07:35:52	3539	7.7	8.37	874.9	167.5	875.6	
09/30/2015	07:36:32	3601	7.8	8.37	880.1	172.7	880.8	
09/30/2015	07:37:12	3614	7.7	8.37	885.3	177.8	886.0	
09/30/2015	07:37:52	3636	7.7	8.37	890.4	183.0	891.1	
09/30/2015	07:38:32	3646	7.7	8.37	895.6	188.1	896.3	
09/30/2015	07:39:12	3647	7.7	8.37	900.7	193.3	901.4	
09/30/2015	07:39:52	3674	7.7	8.37	905.9	198.4	906.6	
09/30/2015	07:40:32	3650	7.7	8.37	911.0	203.6	911.7	
09/30/2015	07:41:12	3674	7.7	8.37	916.2	208.7	916.9	
09/30/2015	07:41:52	3685	7.7	8.37	921.3	213.9	922.0	
09/30/2015	07:42:32	3688	7.7	8.37	926.4	219.0	927.1	
09/30/2015	07:43:12	3713	7.7	8.37	931.6	224.1	932.3	
09/30/2015	07:43:52	3723	7.7	8.37	936.7	229.2	937.4	
09/30/2015	07:44:32	3725	7.7	8.37	941.8	234.4	942.5	
09/30/2015	07:45:12	3743	7.7	8.37	946.9	239.5	947.6	
09/30/2015	07:45:52	3722	7.7	8.37	952.0	244.6	952.7	
09/30/2015	07:46:32	3746	7.7	8.36	957.2	249.7	957.9	

Well	Field	Job Start	Customer	Job Number
MIP Unit 3H	Undesignated	Sep/30/2015	Northeastern Natural Energy	DGE7-00001

Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Displacement Volume BBL	Total Slurry Volume BBL	Message
09/30/2015	07:47:52	3765	7.7	8.37	967.4	259.9	968.1	
09/30/2015	07:48:32	3763	7.7	8.37	972.5	265.1	973.2	
09/30/2015	07:49:12	3765	7.7	8.37	977.6	270.2	978.3	
09/30/2015	07:49:41	3756	7.7	8.37	981.3	273.9	982.0	Spacer to Surface 267 bbl of Displacement
09/30/2015	07:49:52	3785	7.7	8.37	982.7	275.3	983.4	
09/30/2015	07:50:32	3785	7.7	8.37	987.8	280.4	988.5	
09/30/2015	07:51:12	3776	7.6	8.37	992.9	285.5	993.6	
09/30/2015	07:51:52	3820	7.6	8.37	998.0	290.6	998.7	
09/30/2015	07:52:32	3459	5.6	8.37	1002.7	295.2	1003.3	
09/30/2015	07:53:12	3466	5.2	8.37	1006.1	298.7	1006.8	
09/30/2015	07:53:32	3267	4.3	8.37	1007.9	300.4	1008.5	Divert Returns to 1/2 round 296 bbl Displacement
09/30/2015	07:53:52	3078	2.9	8.37	1008.9	301.5	1009.5	
09/30/2015	07:54:32	3168	2.9	8.37	1010.9	303.5	1011.5	
09/30/2015	07:55:12	3064	2.9	8.37	1012.9	305.4	1013.5	
09/30/2015	07:55:52	3140	2.9	8.37	1014.8	307.4	1015.4	
09/30/2015	07:56:32	3071	2.9	8.37	1016.8	309.4	1017.4	
09/30/2015	07:57:00	3794	0.0	8.37	1017.9	310.4	1018.4	Bump Top Plug
09/30/2015	07:57:02	3834	0.0	8.37	1017.9	310.4	1018.4	End Displacement
09/30/2015	07:57:12	3805	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	07:57:52	3804	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	07:58:21	3811	0.0	8.37	1017.9	310.4	1018.4	40 bbl MudPUSH to surface
09/30/2015	07:58:30	3808	0.0	8.37	1017.9	310.4	1018.4	Total Displacement 307 bbl
09/30/2015	07:58:32	3809	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	07:59:12	3821	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	07:59:52	3828	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	08:00:00	3836	0.0	8.37	1017.9	310.4	1018.4	Floats held
09/30/2015	08:00:32	3838	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	08:01:12	3847	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	08:01:52	3857	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	08:02:32	3738	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	08:03:12	1511	0.0	8.37	1017.9	310.4	1018.4	
09/30/2015	08:03:44	4	0.0	8.37	1017.9	310.4	1018.4	Volume returned to tanks when checking floats = 4bbls
09/30/2015	08:03:52	2	0.0	8.37	1017.9	310.4	1018.4	

Post Job Summary

Average Pump Rates, bbl/min				Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2
6.5			9.2	589.0	0.0	100.0	

Treating Pressure Summary, psi					Breakdown Fluid		
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density
7579	4	1444	4200			bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume	bbl
%	589.0 bbl	307.0 bbl	68 degF	Washed Thru Perfs [X]	To	ft

Customer or Authorized Representative	Schlumberger Supervisor	Circulation Lost	Job Completed
Brad Chadwick	Donald Casler	-	-