



## Pumping Service Report

9203736

Client Name NGL Water Solutions DJ, LLC	Well Name NGL C10	Rig Ensign Drilling Inc. 138	Job Date March 25,2015	Call Sheet 1056906
Client Representative Mr. Red Benge	Surface Well Location SW SW Sec 29:T2N:R64W	Down Hole Well Location	Job Type Intermediate Casing	Lead Supervisor Ripka, Robert (23825)

### Well Profile

Well Type: Oil

Maximum Treating Pressure (psi): ---

Predicted Bottom Hole Static Temperature (°F): --- @ --

Bottom Hole Circulating Temperature (°F): --- @ --

Bottom Hole Logged Temperature (°F): --- @ --

Size	Weight	Grade	Collapse Pressure	Internal Yield Pressure	Capacity	I.D.	O.D.	Depth From	Depth To
(in)	(lb/ft)		(psi)	(psi)	(bbl)	(in)	(in)	(ft)	(ft)
7.000	26.000	---	--	--	--	--	--	0.0	8,872.0

### Products

#### Stage 1

From Depth (ft): 8882

To Depth (ft): 7417

##### Acids/Blends/Fluids :

Tail: 156 Sacks of 50% Class G / 50% Poz (1-1-0 G), Density = 13.5 lb/gal, Volume Pumped = 49 (bbl)

Water Temperature(°F) = 50 , Bulk Temperature(°F) = 28 , Slurry Temperature(°F) = 73

- + 20 % of Silica Flour (Preblend),
- + 8 % of SilFume (Preblend),
- + 0.3 % of CFR (Preblend),
- + 0.8 % of CFL-4 (Preblend),
- + 1.5 % of Gel (Preblend),
- + 0.25 lb/sack of Polyflake (Preblend),
- + 0.1 % of LTR (Preblend)

#### Stage 2

From Depth (ft): 6275

To Depth (ft): 0

##### Acids/Blends/Fluids :

Lead 1: 600 Sacks of 50% Class III / 50% Poz (1-1-0 III), Density = 12 lb/gal, Volume Pumped = 208 (bbl)

Water Temperature(°F) = 50 , Bulk Temperature(°F) = 28 , Slurry Temperature(°F) = 72

- + 0.5 % of CFL-4 (Preblend),
- + 0.2 % of ASM-3 (Preblend),
- + 2 % of FWC-2 (Preblend)

#### Stage 3

From Depth (ft): 7417

To Depth (ft): 6275

##### Acids/Blends/Fluids :

Tail: 120 Sacks of 50% Class G / 50% Poz (1-1-0 G), Density = 13.5 lb/gal, Volume Pumped = 38 (bbl)

Water Temperature(°F) = 50 , Bulk Temperature(°F) = 30 , Slurry Temperature(°F) = 75

- + 20 % of Silica Flour (Preblend),
- + 8 % of SilFume (Preblend),
- + 0.3 % of CFR (Preblend),
- + 0.8 % of CFL-4 (Preblend),
- + 1.5 % of Gel (Preblend),
- + 0.25 lb/sack of Polyflake (Preblend),
- + 0.1 % of LTR (Preblend)



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Fluid & Cement Data					
Expected Cement Top: --					
<b>Wellbore Fluid</b>					
<u>Fluid Type</u>	<u>Viscosity (cP)</u>	<u>Density (lbs/gal)</u>	<u>Yield Point (psi)</u>	<u>Temperature (°F)</u>	<u>Recorded@</u>
Water	--	--	--	--	Mar 25, 2015 16:39
Water Based Mud	--	--	--	--	Mar 25, 2015 16:39

Attachment & Tools		
<b>Tubular Plugs</b>		
<u>Tubular Plug Type</u>	<u>Size (in)</u>	<u>Supplier</u>
Rubber Top	7.000	Client

Units & Personnel							
<b>Units</b>							
<u>Truck Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Tractor Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Time On Location</u>	<u>Time Off Location</u>
201009	PICKUP	1 Ton	449087	TRAILER	Utility Trailer	03/26/2015 01:00	03/26/2015 15:30
445070	TRAILER	SCM Twin	745070	TRACTOR	Tandem - Tractor	03/26/2015 01:00	03/26/2015 15:30
200910	PICKUP	1/2 Ton				03/26/2015 01:00	03/26/2015 15:30
<b>Crew and Bonuses</b>							
<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>			
Ripka, Robert (23825)	03/26/2015 01:00	03/26/2015 15:30					
Hilt, Brandon (30128)	03/26/2015 01:00	03/26/2015 15:30					
Cox, Brandon (27419)	03/26/2015 01:00	03/26/2015 15:30					
Meade, James (29964)	03/26/2015 01:00	03/26/2015 15:30					
Spirek, Matthew (26921)	03/26/2015 01:00	03/26/2015 15:30					

Treatment Reports & Remarks								
<b>Treatment Report</b>								
<u>Event #</u>	<u>Event Time</u>	<u>Event Description</u>	<u>Fluid Type</u>	<u>Rate</u>	<u>Tubular Pressure</u>	<u>Annular Pressure</u>	<u>Stage Volume</u>	<u>Total Volume</u>
				<u>(bbl/min)</u>	<u>(psi)</u>	<u>(psi)</u>	<u>(bbl)</u>	<u>(bbl)</u>
1	Mar 26,2015 01:00	Arrive On Location		--	--	--	--	0.00
2	Mar 26,2015 01:30	Crew Briefing (Rig in)		--	--	--	--	0.00
3	Mar 26,2015 05:15	Rig in Complete		--	--	--	--	0.00
4	Mar 26,2015 05:20	Crew Briefing (Pre Job)		--	--	--	--	0.00
5	Mar 26,2015 05:58	Pressure Test Start		--	4,500.0	--	--	0.00
6	Mar 26,2015 06:00	Pressure Test Complete		--	--	--	--	0.00
7	Mar 26,2015 06:02	Pump Preflush	Water	4.00	500.0	--	20.00	20.00
		Remarks: + mudflush						
8	Mar 26,2015 06:06	Pump Spacer	Water	4.00	600.0	--	20.00	40.00
9	Mar 26,2015 06:15	Mix Cement	50% Class G / 50% Poz (1-1-0 G)	5.00	800.0	--	49.00	89.00
		Remarks: 156 SKS						
10	Mar 26,2015 06:25	Drop Plug		--	--	--	--	89.00

Acidizing • Cementing • Coiled Tubing • Fracturing • Nitrogen

Canada • USA • International

Print Date: March 26, 2015

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Treatment Report								
Event #	Event Time	Event Description	Fluid Type	Rate (bbl/min)	Tubular Pressure (psi)	Annular Pressure (psi)	Stage Volume (bbl)	Total Volume (bbl)
11	Mar 26,2015 06:31	Displace Fluid	Water Based Mud	5.00	800.0	--	336.00	425.00
12	Mar 26,2015 07:51	Bump Plug Remarks: BUMP PLUG 1700 PSI		--	1,200.0	--	--	425.00
13	Mar 26,2015 07:53	Check Float Remarks: FLOAT HELD		--	--	--	--	425.00
14	Mar 26,2015 07:55	N/A Remarks: DROP DART		--	--	--	--	425.00
15	Mar 26,2015 08:40	Set Selective Tool Remarks: OPENED DV TOOL	Water	--	1,200.0	--	--	425.00
16	Mar 26,2015 08:45	Job Complete		--	--	--	--	425.00
17	Mar 26,2015 11:53	Pressure Test		--	4,500.0	--	--	0.00
18	Mar 26,2015 11:55	Pump Preflush Remarks: + mudflush		3.00	300.0	--	40.00	40.00
19	Mar 26,2015 12:11	Pump Preflush Remarks: VISWEEP	50% Class III / 50% Poz (1-1-0 III)	3.00	300.0	--	20.00	60.00
20	Mar 26,2015 12:17	Mix Cement Remarks: 600 SKS		7.00	800.0	--	208.00	268.00
21	Mar 26,2015 12:47	Mix Cement Remarks: 120 SKS		5.00	300.0	--	38.00	306.00
22	Mar 26,2015 13:02	Drop Plug	Water Based Mud	--	--	--	--	306.00
23	Mar 26,2015 13:05	Displace Fluid		6.00	150.0	--	284.00	590.00
24	Mar 26,2015 14:18	Bump Plug Remarks: BUMP PLUG 3100 PSI		--	1,600.0	--	--	590.00
25	Mar 26,2015 14:38	Check Float Remarks: FLOAT HELD		--	--	--	--	590.00
26	Mar 26,2015 14:50	Rig Out		--	--	--	--	590.00
27	Mar 26,2015 15:25	Job Complete		--	--	--	--	590.00
28	Mar 26,2015 15:30	Leave Location		--	--	--	--	590.00
Did Float Hold:		Yes						
Fluid Returns :		Yes						
Type :		Cement						
Volume (bbl) :		19						
Temperature (°F) :		87						
FDAS Functioning Correctly :		Yes						
Was the Program Followed As Per Design? :		Yes						



**Treatment Reports & Remarks**

**Material Transfer Sheet Number**

Material Transfer Sheet Number

57825

57826

57827