

ENCANA OIL & GAS (USA) INC. - EBUS

Liberty 2F-21H

Ensign 135

Post Job Summary **Cement Surface Casing**

Date Prepared: 1/6/2014
Version: 1

Service Supervisor: FANTASIA, JOSEPH

Submitted by: ESTENSSORO, SEBASTIAN

HALLIBURTON

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Wellbore Geometry

Job Tubulars					MD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Casing	9 5/8" Surface Casing	9.63	8.835	40.00	0.00	908.00	42.0
Open Hole Section	12 1/4" Open Hole Section		12.250		0.00	912.00	0.00

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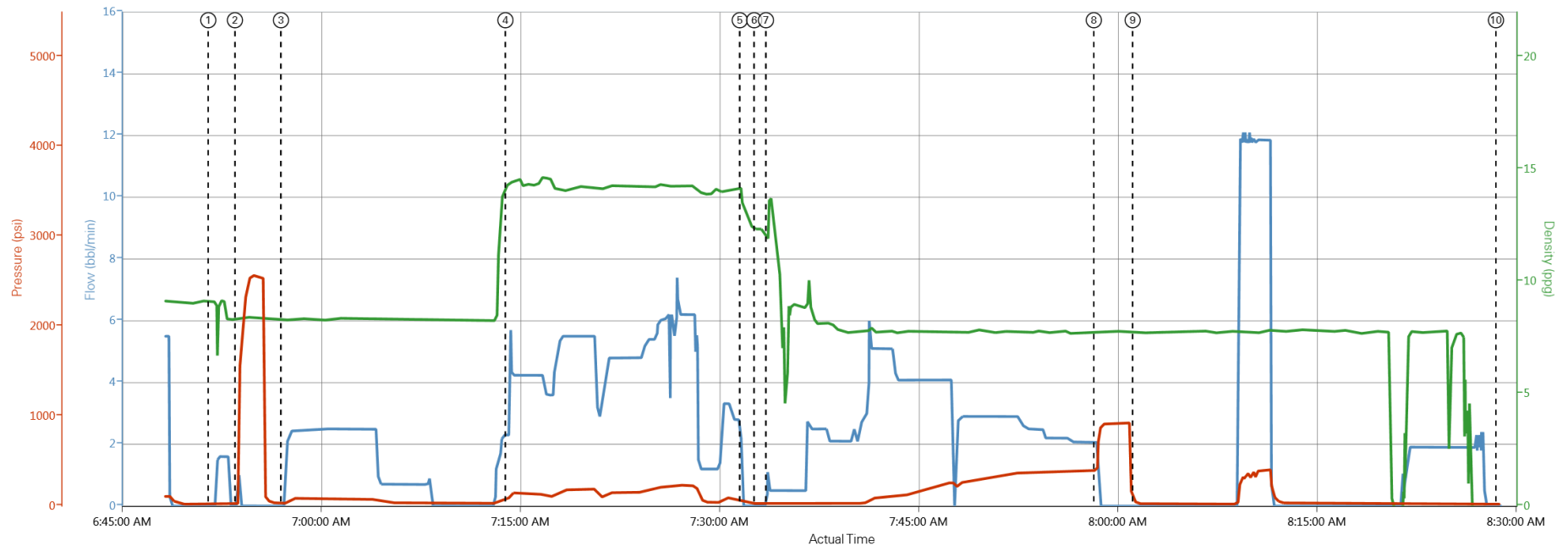
Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/miL	Surface Volume	Downhole Volume
1	1	Spacer	WATER SPACER	8.34	2.00	20.0 bbl	20.0 bbl
1	2	Cement Slurry	SWIFTCEM	14.20	6.00	302.0 sacks	302.0 sacks
1	3	Spacer	DISPLACEMENT	8.34	6.00	65.0 bbl	65.0 bbl

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Data Acquisition

ENCANA LIBERTY 2F-21H SURFACE



— DH Density (bbl/min) — Comb Pump Rate (ppg) — PS Pump Press (psi)

① Start Job 0;9.14;16 ④ Pump Cement 2.3;14.36;86 ⑦ Pump Displacement 0.5;13.14;31 ⑩ End Job 0;-0.6;22
 ② Test Lines 0;8.31;28 ⑤ Shutdown 0;13.47;58 ⑧ Bump Plug 2.1;7.72;402
 ③ Pump Spacer 1 0;8.28;31 ⑥ Drop Top Plug 0;12.32;28 ⑨ Check Floats 0;7.77;46

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Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
01/02/2014 05:00		Arrive at Location from Service Center						ARRIVE AT LOCATION. RIG RUNNING CASIN.
01/02/2014 05:15		Assessment Of Location Safety Meeting						PERFORM SITE ASSESSMENT AND HAZARD HUNT WITH CREW PRIOR TO SPOTTING EQUIPMENT AND RIGGING UP.
01/02/2014 06:00		Start Job						PERFROM PRE-JOB SAFETY MEETING WITH ALL PRESENT PERSONELL PRIOR TO JOB
01/02/2014 06:53		Test Lines					2450.0	PRESSURE TEST LINES TO 2500 PSI.
01/02/2014 06:57		Pump Spacer 1	2	20			60.0	PUMP 20 BBLS WATER WITH 5 LBS POLY FLAKE ADDED IN LAST 5 BBLS.
01/02/2014 07:14		Pump Cement	6	82			58.0	301 SKS SWIFTCEM MIXED AT 14.2 PPG USING RIG WATER
01/02/2014 07:31		Shutdown						
01/02/2014 07:32		Drop Top Plug						PLUG PRELOADED
01/02/2014 07:33		Pump Displacement	6	65			86.0	GOOD RETURNS THROUGHOUT. CEMENT TO SURFACE AT 55 BBLS OUT OF 65 BBLS TOTAL DISPLACEMENT. APPROX 10 BBLS CEMENT TO SURFACE.
01/02/2014 07:58		Bump Plug	3				402.0	PLUG LANDED AT 402 PSI. PRESSURE BROUGHT TO 800 PSI AND HELD 3 MIN.
01/02/2014 08:01		Check Floats						FLOATS HELD
01/02/2014 08:30		End Job						PERFROM PRE RIG DOWN SAFETY MEETING

The Road to Excellence Starts with Safety

Sold To #: 340078	Ship To #: 3117105	Quote #:	Sales Order #: 901012054
Customer: ENCANA OIL & GAS (USA) INC. - EBUS		Customer Rep: Elrod, Dennis	
Well Name: Liberty		Well #: 2F-21H	API/UWI #:
Field: WATTEBERG	City (SAP): MEAD	County/Parish: Weld	State: Colorado
Contractor: Ensign		Rig/Platform Name/Num: Ensign 135	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: GREGORY, JON		Srvc Supervisor: FANTASIA, JOSEPH	MBU ID Emp #: 485445

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ALVARADO, JOSE Angel	4.0	505918	FANTASIA, JOSEPH Brandon	4.0	485445	HINKLE, BRADLEY Dean	4.0	512123
KOSEKOWICH, LUKE	4.0	1						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11398319	25 mile	11542778	25 mile	11562546C	25 mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name					Date	Time	Time Zone
Formation Depth (MD)	Top		Bottom		Called Out	02 - Jan - 2014	01:00 MST
Form Type		BHST			On Location	02 - Jan - 2014	05:00 MST
Job depth MD	908. ft	Job Depth TVD	908. ft		Job Started	02 - Jan - 2014	06:00 MST
Water Depth	. ft	Wk Ht Above Floor			Job Completed	02 - Jan - 2014	08:00 MST
Perforation Depth (MD)	From		To		Departed Loc	02 - Jan - 2014	09:00 MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
12 1/4" Open Hole Section				12.25				.	912.		
9 5/8" Surface Casing	Unknown		9.625	8.835	40.		N-80	.	908.		

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	WATER SPACER		20.00	bbl	8.34			2.0	
2	SWIFTCEM	SWIFTCEM (TM) SYSTEM (452990)	302.0	sacks	14.2	1.54	7.66	6.0	7.66
	7.66 Gal	FRESH WATER							
3	DISPLACEMENT		65.0	bbl	8.34			6.0	
The Information Stated Herein Is Correct			Customer Representative Signature						

