

ENCANA OIL & GAS (USA) INC. - EBUS
DO NOT MAIL-3601 N STAGECOACH RD
LONGMONT, Colorado

Grattan 4B-30H

Ensign/135

Post Job Summary

Cement Surface Casing

Date Prepared: 02/12/2012
Version: 1

Service Supervisor: ROSALES, MATTHEW

Submitted by: PLIENESS, RYAN

HALLIBURTON

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Wellbore Geometry

Job Tubulars					MD		TVD		Excess	Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	%	ft
Open Hole Section	Open Hole		12.250		0.00	1,000.00	0.00	0.00	0.00	0.00
Casing	9 5/8" Surface Casing	9.63	8.835	40.00	0.00	1,000.00	0.00	0.00	60.00	45.00

Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water	8.34	0.00	20.0 bbl	20.0 bbl
1	2	Cement Slurry	SwiftCem 14.2#	14.20		275.0 sacks	275.0 sacks

Fluids Pumped

Stage/Plug # 1 Fluid 1: Fresh Water
DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density: 8.34 lbm/gal
Fluid Volume: 20.00 bbl
Pump Rate: 0.00 bbl/min

Stage/Plug # 1 Fluid 2: SwiftCem 14.2#
SWIFTCM (TM) SYSTEM

Fluid Weight: 14.20 lbm/gal
Slurry Yield: 1.49 ft³/sack
Total Mixing Fluid: 7.43 Gal
Surface Volume: 275.0 sacks
Sacks: 275.0 sacks
Estimated Top of Fluid:

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Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
02/10/2012 10:30		Arrive At Loc						RIG IS RUNNING CASING IN WELL
02/10/2012 12:48		Start Job						
02/10/2012 12:51		Test Lines	0.5	0.5			2500.0	
02/10/2012 12:55		Pump Spacer 1	5	20			140.0	WATER SPACER
02/10/2012 13:04		Pump Cement	6	73			250.0	275SKS, 409.75CUFT, 1.49CUFT/SK, 7.43GAL/SK, 14.2#/GAL MIXED WITH WATER PROVIDED BY COMPANY MAN
02/10/2012 13:17		Shutdown						
02/10/2012 13:18		Drop Top Plug						PLUG PRELOADED WITNESSED BY COMPANY MAN
02/10/2012 13:19		Pump Displacement	6	73			800.0	PUMPED FIRST 15BBL @ 3BPM TO WASH UP ON TOP OF PLUG
02/10/2012 13:36		Bump Plug	2.5				1375.0	
02/10/2012 13:38		End Job						
02/10/2012 15:00		Depart Location for Service Center or Other Site						

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The Road to Excellence Starts with Safety

Sold To #: 340078	Ship To #: 2908058	Quote #:	Sales Order #: 9274753
Customer: ENCANA OIL & GAS (USA) INC. - EBUS		Customer Rep:	
Well Name: Grattan		Well #: 4B-30H	API/UWI #: 05-123-34362
Field: DJ	City (SAP): HUDSON	County/Parish: Weld	State: Colorado
Lat: N 40.104 deg. OR N 40 deg. 6 min. 14.472 secs.		Long: W 104.586 deg. OR W -105 deg. 24 min. 50.364 secs.	
Contractor: Ensign		Rig/Platform Name/Num: 135	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: FLING, MATTHEW		Srvc Supervisor: ROSALES, MATTHEW	MBU ID Emp #: 392095

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CHAVEZ, JEROME Christophe	4.5	458298	MARKOVICH, STEVEN Michael	4.5	502964	ROSALES, MATTHEW John	4.5	392095

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10724567C	15 mile	11398319	15 mile	11605598	15 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							
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Job					Job Times			
Formation Name					Date	Time	Time Zone	
Formation Depth (MD)	Top		Bottom		Called Out	10 - Feb - 2012	07:00	MST
Form Type	BHST				On Location	10 - Feb - 2012	10:30	MST
Job depth MD	1000. ft		Job Depth TVD	1000. ft	Job Started	10 - Feb - 2012	12:48	MST
Water Depth	Wk Ht Above Floor				Job Completed	10 - Feb - 2012	13:38	MST
Perforation Depth (MD)	From		To		Departed Loc	10 - Feb - 2012	15:00	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
Open Hole				12.25				.	1000.	.	.
9 5/8" Surface Casing	Unknown		9.625	8.835	40.		N-80	.	1000.	.	.

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Stage/Plug #: 1

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Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		20.00	bbl	8.34	.0	.0	.0	
2	SwiftCem 14.2#	SWIFTCEM (TM) SYSTEM (452990)	275.0	sacks	14.2	1.49	7.43		7.43
7.43 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe		Amount	45 ft	Reason	Shoe Joint				
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature					