



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/21/2015
Invoice #: 45115
API#: 05-123-39779
Foreman: JASON

Customer: EnCana Oil & Gas (USA) Inc.
Well Name: NEWNAM2J-32H-C264

County: Weld
State: Colorado
Sec: 32
Twp: 2N
Range: 64W
Consultant: KIRBY
Rig Name & Number: ENSIGN 124
Distance To Location: 23
Units On Location: 4027-3106/ 4034-3211
Time Requested: 300
Time Arrived On Location: 130
Time Left Location: 830

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 40.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft) : 1,047	Cement Yield (cuft) : 1.27
Total Depth (ft) : 1078	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 12.25	% Excess: 50%
Conductor Length (ft) : 120	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit: 22.0
Shoe Joint Length (ft) : 44	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 17	H2O Wash Up (bbls): 20.0
Max Rate: 6	Spacer Ahead Makeup
Max Pressure: 1500	30 BBL W/ KCL, DYE IN 2ND 10

Casing ID	8.835	Casing Grade	J-55 only used
Calculated Results		Displacement: 77.35 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Shoe	18.70	cuft	Pressure of cement in annulus
(Casing ID Squared) X (.005454) X (Shoe Joint ft)			Hydrostatic Pressure: 826.51 PSI
cuft of Conductor	91.58	cuft	Pressure of the fluids inside casing
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)			Displacement: 432.39 psi
cuft of Casing	435.35	cuft	Shoe Joint: 34.69 psi
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)			Total 467.08 psi
Total Slurry Volume	545.63	cuft	Differential Pressure: 359.43 psi
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)			Collapse PSI: 2570.00 psi
bbls of Slurry	97.18	bbls	Burst PSI: 3950.00 psi
(Total Slurry Volume) X (.1781)			Total Water Needed: 187.60 bbls
Sacks Needed	430	sk	
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)			
Mix Water	60.25	bbls	
(Sacks Needed) X (Gallons Per Sack) ÷ 42			

X *Mill*
Authorization To Proceed

Customers hereby acknowledges and specifically agrees to the terms and condition on this work order, including, without limitation, the provisions on this work order.



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Single Cement Surface Pipe

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Well Name

EnCana Oil & Gas (USA) Inc.
NEWNAM2J-32H-C264

INVOICE #
LOCATION
FOREMAN
Date

45115
Weld
JASON
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DESCRIPTION OF JOB EVENTS

		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
Safety Meeting	610															
MIRU	445	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	641	0	710	0	0			0			0			0		
Drop Plug		10	713	10	10			10			10			10		
710		20	716	70	20			20			20			20		
		30	719	150	30			30			30			30		
		40	721	250	40			40			40			40		
M & P		50	723	310	50			50			50			50		
Time	Sacks	60	725	390	60			60			60			60		
0648-0708	430	70	727	390	70			70			70			70		
		80	732	360	80			80			80			80		
		90	BUMP	830	90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	50%	120			120			120			120			120		
Mixed bbls	60.25	130			130			130			130			130		
Total Sacks	430	140			140			140			140			140		
bbl Returns	22	150			150			150			150			150		
Water Temp	60															

Notes:

PRESSURE TEST TO 2000 PSI AT 0639, PUMPED 30 BBL WATER WITH DYE IN THE 2ND 10 AT 0641, MIXED AND PUMPED 430 SKS AT 15.2, 97.1 BBL
AT 0648, SHUT DOWN AT 0708, STARTED DISPLACEMENT AT 0710, PLUG LANDED AT 360 PSI AT 0732 AND PRESSURED UP TO 830 PSI, HELD FOR 2
MINUTES, RELEASED PRESSURE AND GOT .5 BBL BACK AND FLOATS HELD

X

Michael R...

Work Performed

X

Com. MPN

Title

X

1-21-15

Date