

Bison Oil Well Cementing Tail & Lead

Customer: Encana
Well Name: Lochbuie 2G-31H-D165

Date: 2/3/2014
Invoice #: 12824
API#: 05-123-37788
Foreman: Calvin Reimers

County: Weld
State: Colorado
Sec: 31
Twp: 1N
Range: 65W

Consultant: Sandy
Rig Name & Number: H&P 522
Distance To Location: 26 Miles
Units On Location: 3106/3212
Time Requested: 300am
Time Arrived On Location: 300am
Time Left Location: 1245pm

WELL DATA

Casing Size (in) : 9.625
Casing Weight (lb) : 40
Casing Depth (ft) : 1,474
Total Depth (ft) : 1512
Open Hole Diameter (in) : 12.25
Conductor Length (ft) : 84
Conductor ID : 16
Shoe Joint Length (ft) : 38
Landing Joint (ft) : 33

Sacks of Tail Requested : 120
HOC Tail (ft) : 0

One or the other, cannot have quantity in both

Max Rate: 7
Max Pressure: 2500

Cement Data

Lead

Cement Name:
Cement Density (lb/gal) : 13.1
Cement Yield (cuft) : 1.69
Gallons Per Sack : 8.64
% Excess : 55%

Tail

Cement Name:
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack : 5.89
% Excess : 0%

Fluid Ahead (bbls) : 111.4
H2O Wash Up (bbls) : 20.0

Spacer Ahead Makeup

30bbls H2O+KCL+Dye in 2nd 10bbls

Casing ID

8.835

Casing Grade

J-55 only used

Lead Calculated Results

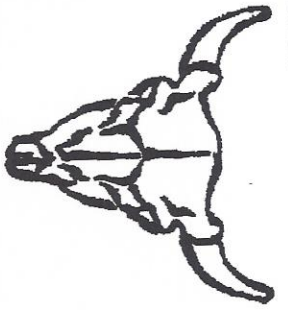
HOC of Lead : 921.91 ft
Casing Depth - HOC Tail : 288.72 cuft
Volume of Lead Cement : 74.84 cuft
HOC of Lead X Open Hole Ann : 363.56 cuft
Volume of Conductor : 100.36 bbls
(Conductor ID Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
Total Volume of Lead Cement : 333.45 sk
(cuft of Lead Cement) + (Cuft of Conductor)
Sacks of Lead Cement : 68.59 bbls
(Total cuft of Lead Cement) X (.1781) X (1+%Lead Excess)
bbls of Lead Mix Water : 111.36 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42
Displacement : 199.95 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth) + (Landing Joint) - (Shoe Length)

Total Water Needed: 199.95 bbls

Tail Calculated Results

Tail Cement Volume In Ann : 152.40 cuft
(HOC Tail) X (OH Ann)
Total Volume of Tail Cement : 136.30 Cuft
(HOC Tail X OH Ann) - (Shoe Length X Shoe Joint Ann)
bbls of Tail Cement : 27.14 bbls
(HOC of Tail) X (OH Ann) + (Cement Yield) X (Shoe Joint Ann) X (.1781) X (% Excess)
HOC Tail : 435.21 ft
(Tail Cement Volume) ÷ (OH Ann)
Sacks of Tail Cement : 120.00 sk
(Total Volume of Tail Cement) ÷ (Cement Yield)
bbls of Tail Mix Water : 16.83 bbls
(Sacks of Tail Cement X Gallons Per Sack) ÷ 42
Pressure of cement in annulus : 1003.07 PSI
Hydrostatic Pressure : 2570.00 psi
Collapse PSI: 3950.00 psi
Burst PSI:

X *Sandy Pally* 2-3-14
Authorization To Proceed



Bison Oil Well Cementing
Two Cement Surface Pipe

Customer
Well Name

Encana
Lochbuie 2G-31H-D165

Date
2/3/2014
INVOICE #
12824
LOCATION
Weld
FOREMAN
Calvin Reimers

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DESCRIPTION OF JOB EVENTS

		Displace 1		Displace 2		Displace 3		Displace 4		Displace 5			
		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
Safety Meeting	946am												
MIRU	905am	0	1118am	70	0			0			0		
CIRCULATE	1040am	10	1121am	120	10			10			10		
Drop Plug		20	1123am	110	20			20			20		
		30	1125am	110	30			30			30		
		40	1126am	110	40			40			40		
		50	1128am	110	50			50			50		
M & P		60	1130am	170	60			60			60		
Time	Sacks	70	1131am	250	70			70			70		
1047am	454	80	1133am	350	80			80			80		
1111am		90	1135am	450	90			90			90		
		100	1137am	560	100			100			100		
		110	1139am	440	110			110			110		
		120	1141am	450	120			120			120		
		130	Bump	910	130			130			130		
		140			140			140			140		
		150			150			150			150		
Lead mixed bbls	68.7												
Lead % Excess	55%												
Lead Sacks	334												
Notes:													
Tail mixed bbls	16.83	Float Held											
Tail % Excess	0%	1/2 bbl back on bleed off											
Tail Sacks	120	Water was 57°F											
Total Sacks	454												
bbl Returns	19												

X *Janet Valley* 2-3-14

X
Title

X
Date