



Bison Oil Well Cementing Single Cement Surface Pipe


Invoice # 12776
API#
Foreman: JH

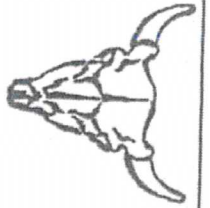
Customer: NOBLE
Well Name: FIVE RIVERSK07-62-1HN

County: Weld County
State: Colorado
Sec: 8
Twp: 4n
Range: 66w

Consultant: TAWN
Rig Name & Number: PD 828
Distance To Location: 60 MIN
Units On Location: 4020, 3103,
Time Requested: 9:00 AM
Time Arrived On Location: 7:30
Time Left Location:

WELL DATA		Cement Data	
Casing Size OD (in) :	1.6250	Cement Name:	BEN III
Casing Weight (lb) :	36	Cement Density (lb/gal) :	15.2
Casing Depth (ft.) :	624	Cement Yield (cuft) :	1.27
Total Depth (ft) :	634	Gallons Per Sack:	5.89
Open Hole Diameter (in.) :	13.75	% Excess:	15%
Conductor Length (ft) :	100	Displacement Fluid lb/gal:	8.3
Conductor ID :	16	BBL to Pit:	
Shoe Joint Length (ft) :	42	Fluid Ahead (bbls):	
Landing Joint (ft) :	16	H2O Wash Up (bbls):	20.0
Max Rate:	7	Spacer Ahead Makeup	40
Max Pressure:	2000		

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement:	46.23 bbls
cuft of Shoe	18.23 cuft	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
(Casing ID Squared) X (.005454) X (Shoe Joint ft)		Pressure of cement in annulus	
cuft of Conductor	89.10 cuft	Hydrostatic Pressure:	492.71 PSI
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Pressure of the fluids inside casing	
cuft of Casing	275.56 cuft	Displacement:	250.95 psi
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Shoe Joint:	33.16 psi
Total Slurry Volume	382.89 cuft	Total	284.11 psi
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Differential Pressure:	208.60 psi
bbls of Slurry	78.42 bbls	Collapse PSI:	2020.00 psi
(Total Slurry Volume) X (.1781) X (% Excess Cement)		Burst PSI:	3520.00 psi
Sacks Needed	347 sk	Total Water Needed:	68.02
(Total Slurry Volume) + (Cement Yield) X (% Excess Cement)			
Mix Water	48.62 bbls		
(Sacks Needed) X (Gallons Per Sack) ÷ 42			
 X 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.			



Bison Oil Well Cementing
Single Cement Surface Pipe

Customer
Well Name

NOBLE
FIVE RIVERSK07-62-14N

INVOICE #
LOCATION
FOREMAN

12776
Weld County
JH

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting	12:00	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	11:14am 12:20pm	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
MIRU		0	###	110	0			0			0			0		
CIRCULATE		10	1259	130	10			10			10			10		
Drop Plug		20	101pm	160	20			20			20			20		
12:55 PM		30	103	210	30			30			30			30		
		40	105	280	40			40			40			40		
M & P		50	109	540	50			50			50			50		
Time		60			60			60			60			60		
START 12:32		70			70			70			70			70		
STOP 12:52		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	21%	120			120			120			120			120		
Mixed bbls	5.1	130			130			130			130			130		
Total Sacks	364	140			140			140			140			140		
bbl Returns	25	150			150			150			150			150		
Notes:																

THANK YOU ! / BISON OIL WELL CEMENTING

X
Work Performed

X
Title

X
Date