



CEMENT JOB LOG

Customer		Ward Petroleum Corp.		Date:	17-Feb-16	Invoice #:	DW00513	Serv. Supervisor:		David Heaps		
Lease:		Anderson 18-3-11HC		Permit #	05 001 09941 00		County and State:		, CO			
District:		Douglas, Wyoming		Rig:	Percion Drilling 460		Type of Job:		Surface			
Employees & Units on Job Site:				David Heaps (Supe) 530095				Robert Buckman (Pump) 880169 980034				
Todd Barnard (Bulk)				Tony Lewis (Bulk) 880005 980091				Chad Welch (Bulk)				
Plugs		Casing Hardware				Physical Slurry Properties						
9 5/8 Top plug						Sacks of Cement	Slurry Wt. PPG	Slurry Yield Cuft.	Water GPS	Slurry Bbls..	Mix Water Bbls..	
Materials Furnished by OTEX Pumping												
Spacer 1:		Fresh Water								20		
Lead		65/35/6 - 6% Gel, .125 lb/sk Fiber X				350	13.0	1.73	9.07	107.84	75.59	
Tail		50/50 - with 2% Calcium Chloride, .125 lb/sk Fiber X				405	14.5	1.19	5.18	85.84	49.95	
Topout		Class G 2% Calcium Chloride				200	15.6	1.15	5.2	40.96	24.76	
EXPECTED RETURNS:												
HOLE			TUBING - CASING - DRILL PIPE					COLLAR DEPTHS				
SIZE	% EXCESS	DEPTH	SIZE	WGT	TYPE	DEPTH	GRADE	ID	SHOE	FLOAT	STAGE	
13.5 in.	35	1542	9.625		LTC	1542 ft.	J-55				N/A	
LAST CASING			PKR / CMT RET / LINER PKR			PERF DEPTH		TOP CONN		WELL FLUID		
SIZE	ID	DEPTH	BRAND / TYPE			DEPTH	TOP	BTM	SIZE	THREAD	TYPE	WGT
									9.625	LTC	WBM	8.4 ppg
DISPL VOLUME		DISPL FLUID		CAL PSI		PUMP OUT		MAX TUBING PRES		MAX CSG PRESSURE		
VOLUME	UOM	TYPE	WGT	BMP PLUG		PSI		RATED	WORKING	RATED	WORKING	MIX WATER
116	BBL	FW	8.33	430		646				3620	2020	150
Time Hrs.	Rate	Pressure	Bbls.. Pumped	Fluid Type		Time Left Yard	4:00 AM	Time Left Loc.				
						Time on Loc.	12:00 PM					
11:30 AM						Arrive on location with pump truck and 2 bulk trucks						
12:00 PM						Spot equipment						
12:10 PM						Rig up iron and water on the ground						
1:15 PM						Rig up completed						
2:30 PM						Casing on bottom						
2:35 PM						Rig circulate well						
2:45 PM						Start waiting on bulk truck						
4:50 PM						Rig up iron and plug container on the rig floor						
5:30 PM						Rig up completed						
5:40 PM						Safety meeting with customer and rig crew						
6:00 PM						End waiting on bulk truck						
6:10 PM						Start Job						
6:11 PM	2	35	3	Flush		Pump water						
6:13 PM						shutdown						
6:14 PM		2640				Pressure test lines						
6:16 PM	3	80	17	Flush		Pump water						
6:29 PM	4	114	108	Lead cement		Class G 65/35/6 350 sks, 13.0 ppg, 1.73 ft3/sk, 9.07 gal/sk						
6:56 PM	3.5	134	85	Tail cement		Class G, 50/50, 405 sks, 1.19 ft3/sk, 5.18 gal/sk						
7:28 PM						Shutdown / drop top plug (supplied by the customer)						
7:34 PM	5.5	115	30	Fresh water		Pump displacement						
7:40 PM	7	368	30			Increase rate						
7:45 PM						Cement returns to surface circulate 60 bbls to surface						
7:45 PM	4	280	10			Slow rate						
7:48 PM	3	345	30			Slow rate						
7:58 PM	2	430	20			Slow rate						
8:11 PM						Shutdown						
8:14 PM						Check floats / Floats held .5 bbl back						
8:15 PM						End job						
8:30 PM						Pre rig-down safety huddle						
8:40 PM						Rig down iron and bulk equipment						
9:50 PM						Rig down Complete						
10:00 PM						Crew leave location						
Bumped Plug		Final Lift Pressure	Floats Held	PSI Left On Casing	Cement To Surface		Total Circulation	<i>David Heaps</i>				
NO		430	Yes	0	60	Bbls..	333	Service Supervisor				

SERVICE COMPANY: Ward Petroleum Corp. DATE RECORDED: 02/17/2016
 TICKET NO: DW00513 JOB NO: DW00513
 CUSTOMER NAME: Ward Petroleum Corp UNIT DESCRIPTION: UnitDescription
 WELL NAME: Anderson 18311HC UNIT NOTES: TreatmentNotes
 WELL LOCATION: Adams County FILE NAME: Ward Petroleum Corp_Anderson 18311HC_16_02_17_#1.csv

