

Cement Job Log

C&J ENERGY SERVICES		Customer: PDC ENERGY		Date: 12/5/2018		Serv. Supervisor: Brian Douglass								
Cust. Rep.: John Falton		Lease: Harold 6X-202		Ticket #: BCO-1812-0014		Serv. Center Brighton - 3021								
Well Type: Oil		Rig: Ensign 161		API Well #: 05-123-45747		County: Weld State: CO								
				Rig: Ensign 161		Type of Job: Production Casing								
Materials Furnished by C&J ENERGY SERVICES														
Plugs		Casing Hardware			Physical Slurry Properties									
					Sacks of Cement	Fluid Dens (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Mix Water (bbls)			
0														
0														
150 bbls ppg Weighted Spacer - 150 bbls of 12		+10.0 PPB CJ890+222.16 PPB CJ300+1.0 PPB CJ209+0.5 PPB CJ776+8.1 PPB CJ801				12.5				150.00				
C&J Non Latex Lead 1-1		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011			25	14		1.37	5.98	6.08	4			
C&J Latex Lead 1-1		50 % CJ914+50 % CJ010-74 +2.0 % CJ020+0.4 % CJ548+0.3 % CJ240+10.0 % CJ041+0.3 % CJX157011+1.0 GPS CJ550L+0.2 GPS CJ891			755	14		1.37	4.71	184.00	85			
C&J Tail 1-1		65 % CJ914+35 % CJ010-74 +0.3 % CJ704+0.15 % CJ210K+0.5 % CJ511			2010	14.5		1.22	5.41	436.00	259			
Displacement		Treated Water				8.34				390.00				
50 % CJ914+50 % CJ010-74+2.0 % CJ020+0.4														
Displacement Chemicals:														
OPEN HOLE DATA				TUBULAR DATA										
8.5 in. O.H. (1,681 to 17,640 ft)				5.5 in. 20#, (0 to 17,640 ft)				SIZE WEIGHT	THREAD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
PREVIOUS CASING DATA				PERFORATED INTERVAL DATA				CASING EQUIPMENT DEPTHS						
9.625 in. 36# (0 to 1,681 ft)				TOP	BTM	SPF	SIZE	SHOE	FLOAT	STAGE	ACP			
								17592						
WELL FLUID		DISPLACEMENT FLUID			DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	WATER ON LOC (bbl)						
TYPE	DENSITY	VOLUME	TYPE	DENSITY				1000						
mud	10.4 ppg	390 bbl	h2o	8.3 ppg	2300		4500							
Time	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Details							
12:00 AM							0 arrive on location							
12:05 AM							0 tailgate meeting							
12:10 AM							0 spot containment and trucks							
6:30 AM							0 rig in							
9:30 AM							0 safety meeting							
10:15 AM	1.5	150	150			5	5 fill lines							
10:21 AM							5 pressure test lines to 5000 psi							
10:32 AM	5	300				150	155 mix and pump weighted spacer @ 12.5ppg							
11:04 AM	1	140				5	160 fresh h2o(also drop bottom plug)							
11:06 AM	3	140				6	166 mix and pump non latex lead cement @ 14ppg (25sx)							
11:09 AM	5	100				184	350 mix and pump latex lead cement @ 14.0ppg(755sx)							
11:45 AM	7	100				436	786 mix and pump non latex tail cement @ 14.5ppg (2010sx)							
12:54 PM							786 shutdown/ wash lines and pump							
1:09 PM							786 drop top plug							
1:10 PM	8	1300				390	1176 displace with treated water							
2:00 PM	5						1176 slow last 20 to 5bpm							
2:04 PM						2200	3376 bump plug							
2:11 PM	4	1100					3376 open WSS							
2:13 PM	4					5	3381 displace with fresh water							
2:16 PM							3381 shutdown/ check float (float held got 1.5 bbls back)							
2:30 PM							3381 rig out							
3:00 PM							3381 leave location							
							3381							
							3381							
Left Yard	12/7/18 10:00 PM		Left Loc.	12/8/18 3:00 PM		Start Pump		12/8/18 10:15 AM						
Arrived Loc.	12/8/18 12:00 AM		Returned Yd.	12/8/18 4:30 PM		End Pump		12/8/18 2:16 PM						
Bumped Plug (psi)	Final Differential (psi)	Floats Held (Y/N)	PSI Left on Casing	Cement to Surface (bbl)	Top of Cement (ft)	Full Circ. During Job (Y/N)	Max Pump Pressure (psi)	Casing Rotation	Standby Charged(hrs)	Casing Reciprocation				
Yes	1300	Yes	n/a	0	2400	yes	4500	n/a	6	n/a				
Brian Douglas										12/8/2018				
Service Supervisor										Date				



Job Summary

Ticket Number	Ticket Date
TN# BCO-1812-0014	12/8/2018

COUNTY	COMPANY	API Number
Weld	PDC ENERGY	05-123-45747
WELL NAME	RIG	JOB TYPE
Harold 6X-202	Ensign 161	Production Casing
SURFACE WELL LOCATION	CJES Field Supervisor	CUSTOMER REP
40.33582 -104.58549	Brian Douglass	John Falton

EMPLOYEES		
<i>Garrick Williamson</i>		
<i>Tony Field</i>		
<i>Allen Ryan</i>		

WELL PROFILE			
Max Treating Pressure (psi):		Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	

Open Hole					
1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	8.5	1632	17632		
2	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)

Casing/Tubing/Drill Pipe							
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Surface	9.625	36		0	1632		
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Production	5.5	20		0	17624		

CEMENT DATA

Stage 1:	From Depth (ft):	2353	To Depth (ft):	2500
Type: non latex lead	Volume (sacks):	25	Volume (bbls):	6
Cement & Additives:				
50% CJ914+50% CJ010-				
74+2% CJ020+.4% CJ548+.3% CJ240+10% CJ041+.3% CJX157011				
	Density (ppg)	14	Yield (ft³/sk)	1.37
	Water Req.			5.98

Stage 2:	From Depth (ft):	2400	To Depth (ft):	7000
Type: latex lead	Volume (sacks):	755	Volume (bbls):	184
Cement & Additives:				
50% CJ914+50% CJ010-				
74+2% CJ020+.4% CJ548+.3% CJ240+10% CJ041+.3% CJX157011+1G				
	Density (ppg)	14	Yield (ft³/sk)	1.37
	Water Req.			4.71

Stage 3:	From Depth (ft):	7000	To Depth (ft):	17632
Type: Tail	Volume (sacks):	2010	Volume (bbls):	436
Cement & Additives:				
65% CJ914+35% CJ010-74+.3% CJ704+.15% CJ210K+.5% CJ511				
	Density (ppg)	14.5	Yield (ft³/sk)	1.22
	Water Req.			5.41

Stage 4:	From Depth (ft):		To Depth (ft):	
Type:	Volume (sacks):		Volume (bbls):	
Cement & Additives:				
	Density (ppg)		Yield (ft³/sk)	
	Water Req.			

SUMMARY

Preflushes:	150 bbls of Weighted Spacer	Calculated Displacement (bb):	390.5	Stage 1	Stage 2
	5 bbls of Fresh Water	Actual Displacement (bb):	390		
Total Preflush/Spacer Volume (bb):	155	Plug Bump (Y/N):	y	Bump Pressure (psi):	2200
Total Slurry Volume (bb):	626	Lost Returns (Y/N):	n	(if Y, when)	
Total Fluid Pumped	1171				
Returns to Surface:	Spacer	80 bbls			

Job Notes (fluids pumped / procedures / tools / etc.): **Pumped job per program and customers request.**

Customer Representative Signature: _____ **Thank You For Using CJES O-TEX Cementing**



PDC ENERGY

YARD CALL

12/7/2018

19:00

DISTRICT

Harold 6X-202

RTS DATE

12/8/2018

12:00 AM

Brighton

YARD RTN

12/8/2018

4:30 PM

CUSTOMER INFORMATION

1.08c

CUSTOMER INFORMATION		WELL INFORMATION		WELL DATA			TUBULAR DATA				
Customer Name	PDC ENERGY	API #:	05-123-45747	Casing Size	5.5	5.5" 20#	Size	Grade	Weight	Depth	
Customer #:	1000700	Field Name:	Wattenberg	Depth	17624						
AFE #:	DR002979	Well Name:	Harold 6X-202	TVD	6780'	6780	Casing	5.5 20# (0-17624')			
Cust Rep on Loc:	John Falton	Well Type:	Oil	MD	17,640 ft	17632					
Cust Phone #:	970-396-9376	Formation:	NBRR	OH	8.5		CEMENTING PLUG				
Order Placed By:		Rig Contractor:	Ensign	OH Depth	1632-17632'		Qty	Size	Type	Material	
Phone #:		Rig Name/Num.:	Ensign 161	BHST	200°F						
Proposed Job Amt:	\$110,232.88	Rig Phone:		BHCT	180°F						
JOB INFORMATION		County:	Weld	Est. BHST/BHCT	200°F / 180°F (0) (2.99°F/100ft)			TOP CONNECTION			
Ticket #:	BCO-1812-0014	State:	CO	MD / TVD	17,640 ft / 6,700 ft		Size	Type	Thread		
PO #:		Latitude:	40.33582	Mud Weight & Type	10#, Water Based		5 1/2	Casing	8 round		
Order Taken By:	Milo	Longitude:	-105	Open Hole	8.5" OH 1632-17632'		JOB TYPE				
Order Date:		Township:	SESE 6 4N64W 6 PM	Previous Casing	9.625 36# (0-1632')		Production Casing				
CJES Acct. Manager:	Paul Novotny	Quote Number:	1-BCO_181202134847								
CJES Engineer:	Paul Novotny										

COMMENTS

Call Titan once on cement to set up time for vac truck

SPECIAL JOB INSTRUCTIONS

Flatbed trailer with Latex chems, 150# sugar, check iron trailer for all fittings
5.5" cement head, bowl & swage, Radios for OSR

DIRECTIONS TO WELL

CR 49 & CR 48, E 1, N into

Emergency Contacts

Nearest Hospital	Greeley, CO	Phone Number:	911
Police Department	Greeley, CO	Phone Number:	911
Fire Department	Greeley, CO	Phone Number:	911

Designated Emergency Vehicle	C&J Pickup	Vehicle Location:	lease entrance
MSDS on Dash of Emergency Vehicle? (y/n)	yes		

Muster Area #1	Guard Shack
Muster Area #2	back corner of sound wall

Cell Phone Service on location? (y/n)	yes
If not, nearest working phone	

Iron Tracking

Iron Type	Taken Out			Returned		
	Taken By	Date Out	Time Out	Returned By	Date In	Time In

