



## **5.5" Production**

# **Cement Post Job Report**

Prepared For: Mr. Mike Schweizer  
Prepared Date: 9/28/2017  
Job Date: 9/27/2017

**PDC Energy, Inc.**

**Snowmass 3N**

**Weld County, CO**

Prepared By: Paul Novotny  
Phone: (720) 441-9745  
Email: [paul.novotny@otexpumping.com](mailto:paul.novotny@otexpumping.com)



# Job Summary

Ticket Number	Ticket Date
TN# FL2364	9/27/2017

COUNTY	COMPANY	API Number
Weld	PDC Energy, Inc.	05 - 123 - 48888
WELL NAME	RIG	JOB TYPE
Snowmass 3N	Ensign 152	Production
SURFACE WELL LOCATION	O-TEX Field Supervisor	CUSTOMER REP
Sec 5 - 5 N - 64 W	Cheal, Sam	Vaughn Staples

EMPLOYEES		
Devine, Rich	Peterson, Roger	
Peterson, Ryan		
Cadena, Darius		

<b>WELL PROFILE</b>			
Max Treating Pressure (psi):	5000	Bottom Hole Static Temperature (°F):	210
Bottom Hole Circulating Temperature (°F):		Well Type:	Oil

### Open Hole

1	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
	8 1/2	1669	15144	1669	6671

### 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 5/8	36	J-55	0	1669	0	1669
Production	5 1/2	20	P-110	0	15136	0	6671

### CEMENT DATA

<b>Stage 1:</b>	From Depth (ft):	0	To Depth (ft):	0
Type: Scavenger	Volume (sacks):	125	Volume (bbls):	49.6
Cement & Additives:		Density (ppg)	Yield (ft <sup>3</sup> /sk)	Water Req.
100% 35:65:0(POZ:G:GEL)+0.4% ASM-3+0.3% CFR+0.6% C-17+25% Silica Flour		12.5	2.23	12.01

<b>Stage 2:</b>	From Depth (ft):	0	To Depth (ft):	15136
Type: SingleSlurry	Volume (sacks):	2225	Volume (bbls):	713.2
Cement & Additives:		Density (ppg)	Yield (ft <sup>3</sup> /sk)	Water Req.
100% 35:65:0(POZ:G:GEL)+0.4% ASM-3+0.3% CFR+0.6% C-17+25% Silica Flour		13.5	1.80	8.77

### SUMMARY

Preflushes:	30 bbls of SAPP	Calculated Displacement (bbl):	335.2
	10 bbls of Dye	Actual Displacement (bbl):	337
	50 bbls of Weighted Spacer		
Total Preflush/Spacer Volume (bbl):	90	Plug Bump (Y/N):	Yes
Total Slurry Volume (bbl):	713.2	Lost Returns (Y/N):	No (if Y, when)
Total Fluid Pumped	1140.2	Bump Pressure (psi):	2478
Returns to Surface:	Cement 25 bbls		

Job Notes (fluids pumped / procedures / tools / etc.): **Cement production casing** - Pumped 30bbls of pre-flush (SAPP), 10bbls of red dye, Mixed / Pumped 49.6bbls of Scavenger cement, Mixed / pumped 713.2bbls Single Slurry Cement @13.5ppg, Displaced with treated fresh water to bump, Pressured up well to open WSS, Displaced another 5bbls. Job pumped through O-Tex 5 1/2" cement head. Returns pumped through rig choke line to minimize cement channeling. TVD @ 6,671ft / WSS @ 15,103ft / Shoe @ 15,136ft / TD @ 15,144ft. Job performed as per customers request.

Thank You For Using

O - TEX Pumping

Customer Representative Signature: \_\_\_\_\_



# CEMENTING JOB LOG

Project Number	Job Date
FL2364	9/27/2017
State	County
CO	Weld
Customer Representative	Phone
Vaughn Staples	435-901-9247
Man Hours	API Number
30	05 - 123 - 48888

O-Tex Location	Customer
Brighton, Colorado 303-857-7948	PDC Energy, Inc.
Lease Name	O-Tex Field Supervisor
Snowmass 3N	Cheal, Sam
Job Type	Man Hours
Production	30

USE THIS FORM TO NOTE ANY ISSUES ENCOUNTERED WITH THE PERFORMANCE OF THIS JOB.  
THIS MAY INCLUDE TIME AT THE SHOP, ON THE ROAD OR DELAYS WITH DRILLING CONTRACTOR.

DATE	TIME	VOLUME	RATE	PRESS		JOB PROCEDURES
				CSG	Tbg.	
9/27/2017	10:00					Leave Yard
	11:00					Arrive on location
	11:05					Tailgate meeting (talk about spotting trucks) / sign in
	11:10					Set spill containment / Spot SCM pump unit & Bulk unit
	11:15					Rig in / Test cement mix water
	11:40					Pull water / test pump unit
	11:50					Safety meeting with O-Tex crew / rig crew / third party crew
	12:06	1 bbl	1.40		650	Fill line
	12:08				4900	Pressure test iron
	12:12	10 bbl	5.00		650	Pump pre-flush (fresh water)
	12:15	30 bbl	5.00		710	Pump pre-flush (300lbs SAPP)
	12:20	10 bbl	5.00		690	Pump fresh water spacer (Red Dye)
	12:23	49.6 bbl	4.00		810	Mix / pump Scavenger cement
	12:33	713.2 bbl	8.00		1230	Mix / pump Single Slurry cement
	14:15				0	Shutdown / wash pump unit / clear line
	14:20				0	Drop plug
	14:26	337 bbl	8.00		1980	Displace with treated fresh water
	15:06		5.00		1860	Slow pump rate to bump plug
	15:11		5.00		2478	Bump plug
	15:12				2587	Hold pressure for 5 min.
	15:17	1 bbl	1.50		3165	Pressure up well to open WSS
	15:18	5 bbl	4.00		1875	Displace with treated fresh water
	15:21				-9	Check float (2bbbls back)
	15:30					Rig out
	15:50					AAR / discuss leaving location
	16:00					Leave location

### JOB CALCULATIONS

Cement coverage 0 - 15,136ft

TVD @ 6,671ft / WSS @ 15,103ft / Shoe @ 15,136ft / TD @ 15,144ft

25bbbls cement back to surface

Total fresh water needed for job 910bbbls

### CASING DATA

Surface casing 9 5/8" 36# 0 - 1,669ft. (ann. 0.0479)

Production casing 5 1/2" 20# 0 - 15,136ft (cap. 0.0222)

### ANNULAR DATA

OH 8 1/2" 1,669 - 15,144ft. (ann. 0.0408)

15% excess for Single Slurry cement (only in open hole)

PLEASE NOTE ANY CONTRACTOR ISSUES OR COMMENTS BELOW