NEXTIER Job Summary

Ticket Number	Ticket Date
TN# BCO-2010-0020	10/30/2020

COUNTY	COMPANY	API Number
WELD (CO)	ENSIGN	0512311179
WELL NAME	**RIG**	**JOB TYPE**
MAPELLI 1	Ensign 312	CM-P2A-PERM
SURFACE WELL LOCATION	**CJES Field Supervisor**	**CUSTOMER REP**
40.555133 -104.703889	Jeff Kopp	John Schmitt

EMPLOYEES		
Winston		
Jeremiah		

WELL PROFILE

Max Treating Pressure (psi):	1000	Bottom Hole Static Temperature (°F):	
Bottom Hole Circulating Temperature (°F):		Well Type:	

Open Hole

	Size (in)	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
1	10	450	3000		
2					

Casing/Tubing/Drill Pipe

Type	Size (in)	Weight (lb/ft)	Grade	TMD From (ft)	TMD to (ft)	TVD From (Ft)	TVD to (Ft)
Surface	8 5/8	24		0	450		
Production	5.5	17		0	3000		
Tubing	2 3/8	4.7		0	2815		

CEMENT DATA

Stage 1: Type: **Squeeze**

From Depth (ft): 2729 To Depth (ft): 3000

Volume (sacks): 100 Volume (bbls): 20.4

Cement & Additives:	Density (ppg)	Yield (ft^3/sk)	Water Req.
	15.8	1.15	5.00

Stage 2: Type: **Squeeze**

From Depth (ft): 1574 To Depth (ft): 1750

Volume (sacks): 68 Volume (bbls): 14

Cement & Additives:	Density (ppg)	Yield (ft^3/sk)	Water Req.
	15.8	1.15	5.00

Stage 3: Type: **Surface Plug**

From Depth (ft): 0 To Depth (ft): 660

Volume (sacks): 88 Volume (bbls): 18

Cement & Additives:	Density (ppg)	Yield (ft^3/sk)	Water Req.
	15.8	1.15	5.00

Stage 4: Type: **Backside Squeeze to surface**

From Depth (ft): N/A To Depth (ft): 350

Volume (sacks): 88 Volume (bbls): 18

Cement & Additives:	Density (ppg)	Yield (ft^3/sk)	Water Req.
	15.8	1.15	5.00

SUMMARY

				Stage 1	Stage 2
Preflushes:	5 bbls of	Fresh Water	Calculated Displacement (bbl):	10.9	6.4
	6 bbls of	Fresh Water	Actual Displacement (bbl):	8.9	4.4
	6 bbls of	Fresh Water			

TotalPreflush/Spacer Volume (bbl): 17

Total Slurry Volume (bbl): 70.4

Total Fluid Pumped 87.4

Plug Bump (Y/N): N/A Bump Pressure (psi): N/A

Lost Returns (Y/N): N (if Y, when)

Returns to Surface: Cement 1 bbls

Job Notes (fluids pumped / procedures / tools / etc.): On the very last plug we pumped down the 5.5 through perfs set @350ft up the 8 5/8 surface casing and never got cement to surface. Pumped 30sxs over calculated amount to bring to surface. Left 100psi and the well.

Customer Representative Signature:

Cement Job Log

NEXTIER

Customer:	ENSIGN	**Date:**	30-Oct-20	**Serv. Supervisor:**	Jeff Kopp
Cust. Rep.:	John Schmitt	**Ticket #:**	ECO-2010-0026	**Serv. Center**	Evans - 0021
Well Name:	MAPELLI 1	**API Well #:**	0512311179	**County:** WELD (CO)	**State:** COLORADO
Well Type:	Oil	**Rig:**	Ensign 312	**Type of Job:**	CM-P2A-PERM.

Materials Furnished by NexTier

Plugs	Casing Hardware	Sacks of Cement	Fluid Density (lb/gal)	Excess	Yield (cuft/sk)	Mix Water (gal/sk)	Fluid Volume (bbls)	Mix Water (bbls)
Spacer - 5 bbl Fresh Water					-	-	5.00	
Squeeze 1 - CICR @ 2,815. Perf Holes a	100 % NCM-914	100	15.8		1.15	5.00	20.44	12
Squeeze 2 - CICR @ 1,640'. Perf Holes a	100 % NCM-914	68	15.8		1.15	5.00	13.90	8
Surface Plug 1/2	100 % NCM-914	88	15.8		1.15	5.00	17.99	10
Surface Plug 2/2	100 % NCM-914	88	15.8		1.15	5.00	17.99	10
					-	-		
					-	-		
					-	-		

Physical Slurry Properties

Displacement Chemicals:

OPEN HOLE DATA

Mix Cemt Temperature °F	Lead Tmp.	Middle Temp.	Tail Temp.

TUBULAR DATA

	SIZE WEIGHT	THRD	DEPTH (ft)	GRADE	ID (in)	BURST (psi)	COLLAPSE (psi)
	2 3/8 4.7#		2815				

PREVIOUS CASING DATA

8.625 in. 24# (0 to 450 ft)

PERFORATED INTERVAL DATA

TOP	BTM	SPF	SIZE
2800	3000		
1645	1750		

CASING EQUIPMENT DEPTHS

SHOE	FLOAT	STAGE	ACP

WELL FLUID TYPE	WELL FLUID DENSITY	DISPLACEMENT FLUID VOLUME	DISPLACEMENT FLUID TYPE	DISPLACEMENT FLUID DENSITY	DIFF PRESS (psi)	CSG LIFT (psi)	MAX PRESS (psi)	Total Number of Runs		WATER ON LOC (bbl)
							1000			180

Bumped Plug	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	Additional Hrs Charged (hrs)	Casing Reciprocation	Rathole Length (ft)
			100.00	1.00		Yes	1,000.00				

Comments/Special Customer Instructions:

Jeff Kopp — Service Supervisor

30 Oct 20 — Date

Cement Job Log

NEXTIER

Customer:	ENSIGN	Date:	30-Oct-20	Serv. Supervisor:	Jeff Kopp		
Cust. Rep.:	John Schmitt	Ticket #:	BCO-2010-0020	Serv. Center:	Brighton - 3021		
Well Name:	MAPELLI 1	30-Oct-20	API Well #:	0512311179	County:	WELD (CO)	State: COLORA
Well Type:	Oil	8:00 AM	Rig:	Ensign 312	Type of Job:	CM-P2A-PERM.	

Date	Time	Date	Time	Date	Time
30-Oct-20	6:30 AM	30-Oct-20	**2:15 PM**	30-Oct-20	9:38 AM
30-Oct-20	**7:30 AM**	30-Oct-20	1:15 PM	30-Oct-20	1:36 PM

TIME	Rate (bbl/min)	Csg. Press. (psi)	Tbg. Press (psi)	Ann. Press. (psi)	Stg. Vol. (bbl)	Cum. Vol. (bbl)	Stage Num. Stage #	Stage Details
6:30 AM								Left Yard or Current Location
7:30 AM								ARRIVE ON LOCATION
7:33 AM							1	PRE JOB SAFETY MEETING
7:45 AM							1	SPOT EQUIPMENT
8:00 AM							1	RIG UP IRON AND HOSES
8:30 AM							1	WAIT ON RIG TO RUN TUBING
9:30 AM							1	SAFETY MEETING
9:38 AM	0.7		61		1.0 bbl	1.0 bbl	1	FILL LINES
9:40 AM			3090				1	PRESSURE TEST
9:45 AM	1.5		69		5.0 bbl	6.0 bbl	1	EST. CIRCULATION/ INJECTION RATE
9:51 AM	2		76		20.4 bbl	26.4 bbl	1	MIX AND PUMP 100SXS @15.8PPG 1.15Y 5.0WR
10:02 AM	2		43		8.9 bbl	35.3 bbl	1	DISPLACE
10:06 AM							1	SHUT DOWN
10:07 AM							1	WAIT ON RIG TO PULL TUBING AND SET RETAINER
11:39 AM	1		35		6.0 bbl	41.3 bbl	2	EST. CIRCULATION
11:45 AM	2		69		14.0 bbl	55.3 bbl	2	MIX AND PUMP 68SXS @15.8PPG 1.15Y 5.0WR
11:52 AM	2.4		43		4.4 bbl	59.7 bbl	2	DISPLACE
11:54 AM							2	SHUT DOWN
11:55 AM							2	WAIT ON RIG TO PULL TUBING
12:16 PM	1.3		43		6.0 bbl	65.7 bbl	3	EST. CIRCULATION
12:21 PM	2		69		18.0 bbl	83.7 bbl	3	MIX AND PUMP 88SXS @15.8PPG 1.15Y 5.0WR
12:31 PM							3	SHUT DOWN
12:32 PM							3	WAIT ON RIG TO PULL TUBING
1:11 PM	0.7	625			18.0 bbl	101.7 bbl	4	PUMP 88SXS @15.8PPG 1.15Y 5.0WR
1:36 PM							4	SHUT DOWN
1:39 PM							4	WASH UP PUMPS AND LINES
2:00 PM							4	RIG OUT
2:15 PM							4	LEAVE LOCATION

RMWS - Service Ticket & Invoice:

Rocky Mountain Wireline Service
2144 Hwy 6 & 50
Grand Junction, CO 81505
970-245-9828

Ticket Number
114797

Date
10/29/2020
Well
Mapelli #1
Field
Wattenberg
County / State
Weld / Colorado

Services provided for:
ENSIGN WELL SERVICE
2154 Hwy 6 & 50
Grand Junction, Colorado 81505

Services ordered by:
Logan Hancock
(970)712-4498
Logan.Hancock@ensignenergy.com

Job Data

Field Office	Line Truck #	Crane #	Pickup Truck #	Explosives Permit #
Johnstown-CO	222		71	

Crew Members
G. Graham, G. Torres, D. Ray

CSG Size	WT
5.5"	17#

Zero	Fluid	Level	RMWS TD	Corrected	To Agree With	Dated	Consultant
GL W/10' KB	Water	Surface	7298'				John Schmitt

Job Notes

Travel

Report To Shop	Arrive At Location	On Well	Off well
10/29/2020 2:35 PM MDT	10/29/2020 3:45 PM MDT	10/29/2020 6:10 PM MDT	

Depart Location **Return To Shop** **Travel Notes**

Activity

Logging - Bid Work

Description	From	To	Units Used
Ensign - CBL 2,000' +	0	3000	1.00 Units

Miscellaneous - Bid Work

Description	From	To	Units Used
Ensign - 5 1/2" 10K CIBP @ 5,000' +		7284	1.00 Units
Ensign - Dump Bail 2 SX Cement (STANDARD)		7282	1.00 Units
Ensign - 5 1/2" 10K CIBP @ 5,000' +		7000	1.00 Units
Ensign - Dump Bail 2 SX Cement (STANDARD)		6998	1.00 Units
Ensign - CICR @ 5,000' or less (CICR NOT INCLUDED)		2815	1.00 Units
Ensign - CICR @ 5,000' or less (CICR NOT INCLUDED)		1660	1.00 Units

Perforating - Bid Work

Description	Stage	From	To	Plug	Date	Units Used
Ensign - 4 1/2" or 5 1/2" Upper & Lower Sqz 3spf/1' @ 5,000' or less		2800	3000			1.00 Units
Ensign - 4 1/2" or 5 1/2" Upper & Lower Sqz 3spf/1' @ 5,000' or less		1645	1750			1.00 Units
Ensign - 4 1/2" or 5 1/2" Single set Sqz 3spf/1' @ 5,000' or less		350	351			1.00 Units

Signatures

Authorization Signature

Authorization Notes