

Client: Ensign
Well: Anderson 31-10
State: CO
Country: USA

Field: Wattenburg
County: Weld
State: CO
Country: USA

Client Rep: John Schmitt
Date Prepared: 03/30/2021

Prepared By: Jason Appel
Service Company: Rock Hard Cementing

Cementing Treatment Report



Post Job Log



Service Date:	3/30/2021	Well Name:	Anderson
Customer:	Ensign	Well Number:	31-10
Address:	15015 Vickery Dr	County:	Weld
City:	Houston	State:	CO
State:	TX 77032	API Number:	05-123-24820
Customer Rep:	John Schmitt	Legals:	NWNE SEC. 10 T6N R66W
Supervisor:	Jason Appel	Ticket Number:	2224
Job Type:	PTA		

Casing Data

Description:	Size (in)	Weight (lb/ft)	Grade	Max PSI	TVD (ft)	MD (ft)	Tools:	MD (ft)
Casing Data	4 1/2	11.6						
Tubing	2 3/8	4.7			1663			
Casing Data	8 5/8	24						
Perfs for the surface plug								

Fluid & Cement Data

Description With/Without Additives	Sacks	Volume (bbls)	Density (lb/gal)	Yield (ft ³ /sk)	Water (gal/sk)	Returned to Surface (bbl)	Depth (ft)
G	147	30	15.8	1.15	5		

Plug Data

Type of Cement	Tools in Hole	Tool Depth in Hole	Height of Plug	Bottom of Plug	Top of Plug
G	None	NA	1663	1663	0

Squeeze Data

Type of Cement	Tools in Hole	Tool Depth in Hole	Sacks in Formation	Sacks Below Tool	Sacks on top of tool

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Recorded Job Parameter Summary:

Total Slurry Volume (bbl)	Total Displacement Volume (bbl)	Total Pump Time (min)
		19.03

Maximum Treatment Pressure: 1501.00 psi
 Maximum Slurry Rate: 2.80 bbl/min
 Maximum Hydraulic Horsepower:

Average Treatment Pressure: 14.16 psi
 Average Slurry Rate: 0.47 bbl/min
 Average Hydraulic Horsepower:

Minimum Treatment Pressure: -20.00 psi
 Minimum Slurry Rate: 0.00 bbl/min
 Minimum Hydraulic Horsepower:

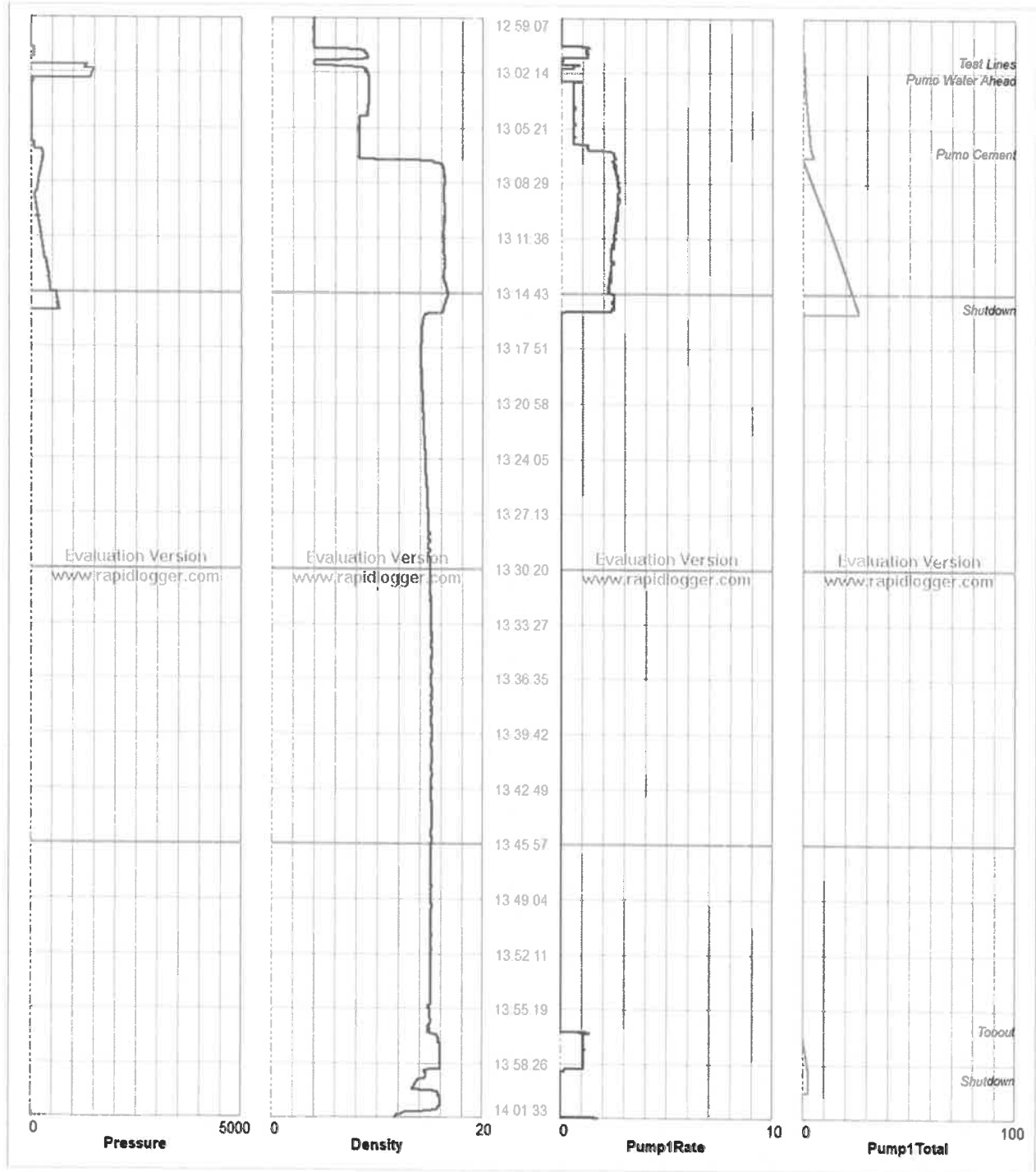
Job Message Summary:

#	Time	Message	Treating Pressure (psi)	Rate (bbl/min)	Density (lb/gal)	Total (bbl)
1	12:59:07	Start	-20.00	0.00	4.00	0.10
2	14:01:34	Stop	43.00	1.80	11.80	0.20
3	13:02:06	Max Pressure	1501.00	0.00	8.90	1.00
4	13:08:27	Max Rate	192.00	2.80	16.40	4.30
5	12:59:07	Min Pressure	-20.00	0.00	4.00	0.10
6	12:59:07	Min Rate	-20.00	0.00	4.00	0.10

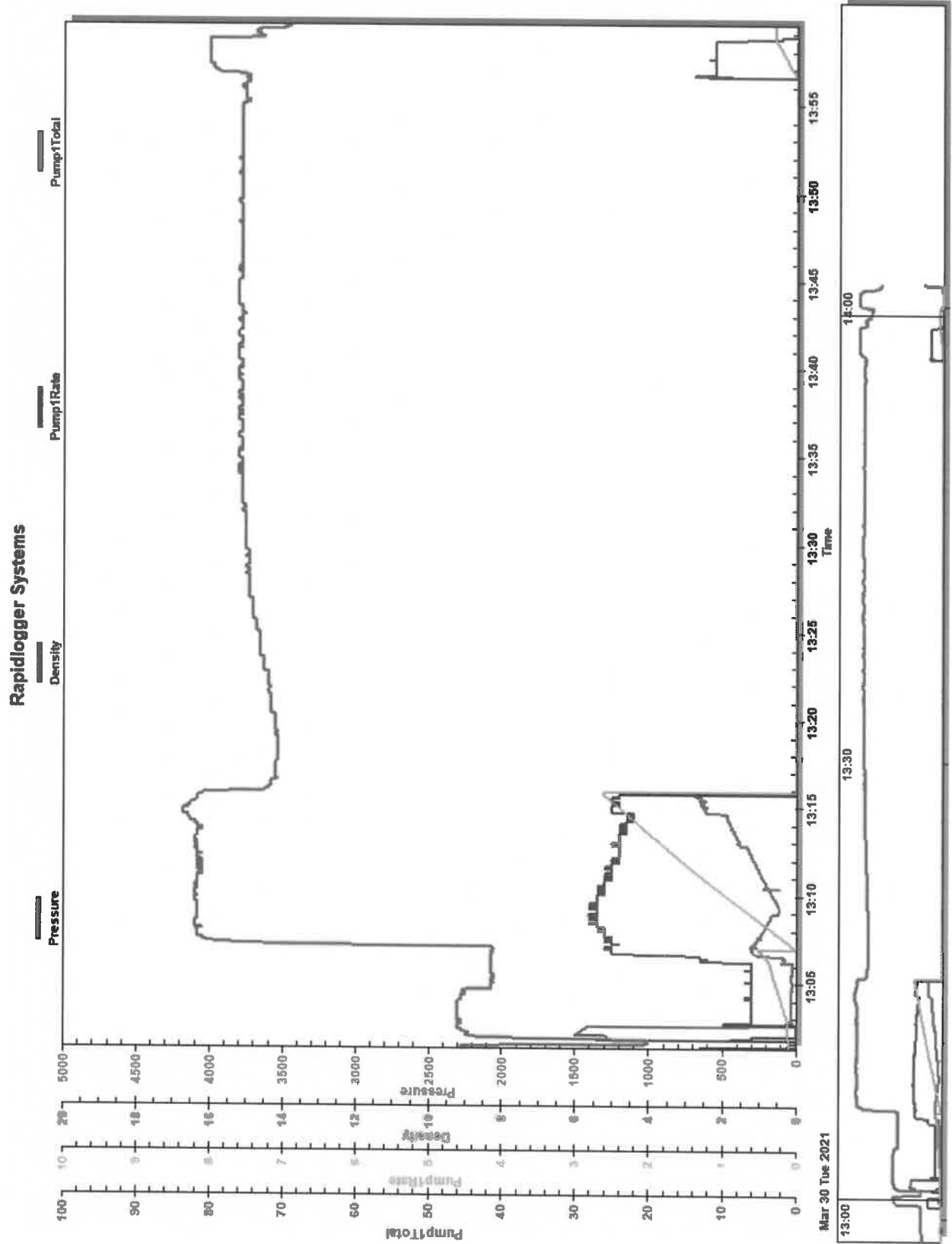
Notice:

This information is presented in good faith, but no warranty is given. No liability is assumed for advice or recommendations made. The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

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RMWS - Service Ticket:

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



Ticket Number
118509

Date
 3/30/2021
Well
 Anderson 31-10
Field
 Wattenberg
County / State
 Weld / Colorado

Services provided for:
 Ensign United States Drilling INC

La Salle, Colorado 80645

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

Job Data

Field Office
 Johnstown-
 CO

Line Truck #
 222

Crane #

Pickup Truck #
 71

Explosives Permit #
 92983

Crew Members
 G. Graham, C. Walter

CSG Size
 4.5

WT
 10.5#

Zero	Fluid	Level	RMWS TD	Corrected	To Agree With	Dated	Consultant
GL W/KB 10'	Water	Surface	7050'				

Job Notes
 R354 / USR0040917

Travel

Report To Shop
 3/30/2021 6:30 AM MDT

Arrive At Location
 3/30/2021 7:30 AM MDT

On Well
 3/30/2021 10:05 AM MDT

Off well
 3/30/2021 11:45 AM MDT

Depart Location
 3/30/2021 12:30 PM MDT

Return To Shop
 3/30/2021 1:15 PM MDT

Travel Notes

Activity

General - Bid Work

Description	From	To	Units Used
Ensign - Packoff			0
Ensign - Standbye Charge (PER HOUR AFTER 1st HOUR)			1.00 Days
Mobilized and setup to be on location at 8 am, Waiting on the rig to trip tubing out of the hole, Started the job at 10:03 Am			1.00 Units

Miscellaneous - Bid Work

Description	From	To	Units Used
Ensign - 4 1/2" 10K CIBP @ 5,000' +		7039	1.00 Units
Ensign - Dump Bail 2 SX Cement (STANDARD)		7037	1.00 Units
Ensign - 4 1/2" 10K CIBP @ 5,000' or less		2500	1.00 Units
Ensign - Dump Bail 2 SX Cement (STANDARD)		2498	1.00 Units

Signatures

Authorization Signature

Authorization Notes
 R354 / USR0040917

3/30/2021 8:13 AM MDT

AFE **Cost Code** **Well / Lease** **Approver Name**
 Anderson 31-10 Matt McGraw

Stamp



4/2/2021 8:45 AM MDT

RMWS - Service Ticket #118509