



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL RWF 432-9 05-045-24403
S:9 T:6S R:94W Garfield CO

CallSheet #: 80310
Proposal #: 57815



LONG STRING Post Job Report

Attention: Dustin Childers | (936) 524-8828 | dchilders@terraep.com
Terra Energy Partners, LLC
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

Dear Dustin Childers,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

Michael Harold

Field Engineer II | (970) 773-3636 | michael.harold@americacementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 657-1157

Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	n/a	0	1100	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1100	9691	55
Casing	Inner	4.5	4	11.6	n/a	0	9691	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
AS Cement Trailer	CTF-9299	TRB-421	
AS Cement Trailer	CTF-019	TRC(TRB)-112	
Cement Trailer	CTF-385	TRC(TRB)-195	Fletcher, Daniel
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
AS Cement Trailer	CTF-048	TRC(TRB)-090	
Light Duty Vehicles	LDV-061		Aden, Mark
Cement Pump	CPF-136	TRH-1137	Woronovitch, Collin

Timing

Event	Date/Time
Call Out	2/22/2022 16:00
Depart Facility	2/22/2022 20:40
On Location	2/22/2022 21:30
Rig Up Iron	2/22/2022 23:20
Job Started	2/23/2022 04:24
Job Completed	2/23/2022 07:12
Rig Down Iron	2/23/2022 07:28
Depart Location	2/23/2022 09:00

General Job Information

Metrics	Value
Well Fluid Density	10.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	600 bbls
Rig Circulation Time	1 hours
Calculated Displacement	149 bbls
Actual Displacement	149 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	N/A

Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	0 units
Flare During Job	No
Flare During Job	0 units
Flare at End of Job	No
Flare at End of Job	0 units
Well Full Prior to Job	Yes
Well Fluid Density Into Well	10.9 lb/gal
Well Fluid Density Out of Well	10.9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	164 °F
BHST	234 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	68.3 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	425 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
No			

Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		10.00	4124
2	Mud Flush	Flush	8.45			40.86		20.00	4242
3	Water	Flush	8.34			42.00		10.00	4478
4	Primary Cement	Primary	14.20	1.72	8.08		1411.00	432.80	4596
5	Displacement	DisplacementFinal	8.34			42.00		150.00	0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Flush	Mud Flush	SAPP	Surfactant	10.00	lb/bbl
2	Flush	Mud Flush	SS-201	Surfactant	0.50	gal/bbl
4	Primary	Primary Cement	CLASS G	Cement	80.00	%
4	Primary	Primary Cement	FLY ASH (POZZOLAN)	Extender	20.00	%
4	Primary	Primary Cement	FL-66	FluidLoss	0.40	%BWOB
4	Primary	Primary Cement	FP-24	Defoamer	0.30	%BWOB
4	Primary	Primary Cement	GW-86	Viscosifier	0.10	%BWOB
4	Primary	Primary Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Primary	Primary Cement	R-3	Retarder	0.30	%BWOB
4	Primary	Primary Cement	S-8	StrengthRetrogression	27.00	%BWOB

Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	2/22/2022	16:00					Yard call 18:00 on location 22:00.
2	Depart For Location	2/22/2022	20:40					Leave Rifle yard for location
3	Arrive On Location	2/22/2022	21:30					Arrive on location rig running casing
4	Spot Equipment	2/22/2022	23:10					Spot in all Equipment
5	Rig Up Iron	2/22/2022	23:20					Pre rig up safety meeting, rig in all equipment and lines to stand pipes
6	Safety Meeting	2/23/2022	03:45					Pre job safety meeting with company man and rig crew
7	End Circulation	2/23/2022	04:00					Rig ended circulation, Circulated for 1 Hour, total of 600 BBLS
8	Rig Up Iron	2/23/2022	04:02					Rig up Cement head and lines on the floor
9	Pump Spacer	2/23/2022	04:25	8.34	3.5	10	705	Pumping fresh water spacer to load lines, returns
10	Pressure Test Lines	2/23/2022	04:34				5000	Pressure test
11	Pump Mud Flush Spacer	2/23/2022	04:38	8.34	2.5	20	350	Pumping mud flush spacer
12	Pump Spacer	2/23/2022	04:47	8.34	2.5	10	515	Pumping fresh water spacer, returns
13	Pump Primary Cement	2/23/2022	04:53	14.2	5	0	981	Pumping primary cement
14	Pump Primary Cement	2/23/2022	05:03	14.2	5	50	886	Pumping primary cement
15	Pump Primary Cement	2/23/2022	05:15	14.2	4	100	446	Pumping primary cement
16	Pump Primary Cement	2/23/2022	05:26	14.2	4	150	446	Pumping primary cement
17	Pump Primary Cement	2/23/2022	05:38	14.2	5.5	200	667	Pumping primary cement
18	Pump Primary Cement	2/23/2022	05:46	14.2	5.5	250	674	Pumping primary cement
19	Pump Primary Cement	2/23/2022	05:56	14.2	5.5	300	687	Pumping primary cement
20	Pump Primary Cement	2/23/2022	06:07	14.2	4	350	458	Pumping primary cement
21	Pump Primary Cement	2/23/2022	06:16	14.2	5.5	400	684	Pumping primary cement
22	Pump Primary Cement	2/23/2022	06:37	14.2	4	433	318	Pumping primary cement
23	Clean Pumps and Lines	2/23/2022	06:39					Clean pump and lines to pit
24	Drop Top Plug	2/23/2022	06:48					Drop top plug verified by company man
25	Pump Displacement	2/23/2022	06:49		5	0	330	Pumping KCL displacement, returns
26	Pump Displacement	2/23/2022	06:57		8	50	1550	Pumping KCL displacement
27	Pump Displacement	2/23/2022	07:03		8	100	2283	Pumping KCL displacement
28	Pump Displacement	2/23/2022	07:12		4	149	2780	Pumping KCL displacement
29	Land Plug	2/23/2022	07:12				3970	Land plug. FCP 2780 PSI bumped to 3970 PSI

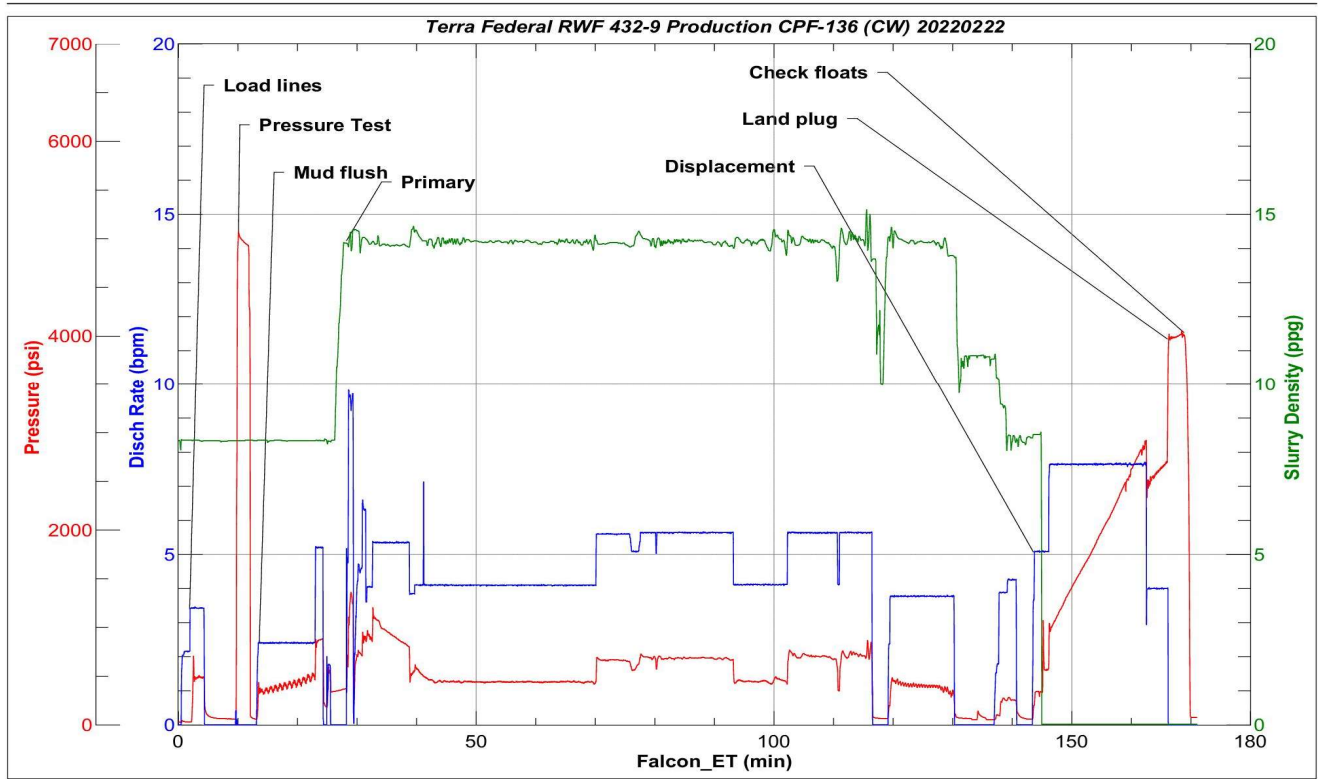


Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
30	Check Floats	2/23/2022	07:16					Bled pressure, floats held. 2 BBL bled back.
31	Rig Down Iron	2/23/2022	07:28					Pre rig down safety meeting, rig down cement head and lines on the floor.
32	Depart Location	2/23/2022	09:00					Leave location for Rifle shop

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 80310
Customer: Terra
Well Name: Federal RWF 432-9



BJ Services

Job Start: Wednesday, February 23, 2022