



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL RWF 444-9 05-045-24395
S:9 T:6S R:94W Garfield CO

CallSheet #: 79643
Proposal #: 56945



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	9789	55
Casing	Inner	4.5	4	11.6	n/a	0	9789	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
AS Cement Trailer	CTF-558		
AS Cement Trailer	CTF-019		
AS Cement Trailer	CTF-901		
Cement Trailer	CTF-407	TRC(TRB)-059	Manuelito, Hamilton
Light Duty Vehicles	LDV-061		Aden, Mark
Cement Pump	CPF-136	TRH-855	Woronovitch, Collin

Timing

Event	Date/Time
Call Out	12/30/2021 09:00
Depart Facility	12/30/2021 14:00
On Location	12/30/2021 16:54
Rig Up Iron	12/30/2021 20:00
Job Started	12/30/2021 22:48
Job Completed	12/31/2021 01:37
Rig Down Iron	12/31/2021 01:50
Depart Location	12/31/2021 04:00

General Job Information

Metrics	Value
Well Fluid Density	11.15 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	240 bbls
Rig Circulation Time	2 hours
Calculated Displacement	151 bbls
Actual Displacement	151 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	No

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	11.15 lb/gal
Well Fluid Density Out of Well	11.15 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	164 °F
BHST	234 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	74 °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	4181
2	Mud Flush	Flush	8.45			40.86		20.00	4299
3	Water	Flush	8.34			42.00		10.00	4535
4	Primary Cement	Primary	14.20	1.72	8.08		1422.00	436.18	4653
5	Displacement	DisplacementFinal	8.34			42.00		152.00	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	12/30/2021	09:00					Yard call 2200 on location 0000.
2	Depart For Location	12/30/2021	14:00					Leave Rifle yard for location
3	Arrive On Location	12/30/2021	16:54					Arrive on location rig running casing
4	Spot Equipment	12/30/2021	19:55					Spot in all Equipment
5	Rig Up Iron	12/30/2021	20:00					Pre rig up safety meeting, rig in all equipment and lines to stand pipes
6	Safety Meeting	12/30/2021	22:20					Pre job safety meeting with company man and rig crew
7	End Circulation	12/30/2021	22:30					Rig ended circulation, Circulated for 2 Hour, total of 240 BBLS
8	Rig Up Iron	12/30/2021	22:45					Rig up Cement head and lines on the floor
9	Pump Spacer	12/30/2021	22:50	8.34	2.5	10	240	Pumping fresh water spacer to load lines, returns
10	Pressure Test Lines	12/30/2021	22:55				5000	Pressure test
11	Pump Spacer	12/30/2021	23:09	8.34	4	20	530	Pumping mud flush spacer
12	Pump Spacer	12/30/2021	23:14	8.34	4	10	625	Pumping fresh water spacer, returns
13	Pump Primary Cement	12/30/2021	23:24	14.2	4	0	793	Pumping primary cement
14	Pump Primary Cement	12/30/2021	23:39	14.2	4	50	552	Pumping primary cement
15	Pump Primary Cement	12/30/2021	23:50	14.2	6	100	628	Pumping primary cement
16	Pump Primary Cement	12/30/2021	23:59	14.2	6	150	560	Pumping primary cement
17	Pump Primary Cement	12/31/2021	00:10	14.2	6	200	617	Pumping primary cement
18	Pump Primary Cement	12/31/2021	00:20	14.2	4	250	365	Pumping primary cement
19	Pump Primary Cement	12/31/2021	00:32	14.2	4	300	414	Pumping primary cement
20	Pump Primary Cement	12/31/2021	00:45	14.2	4	350	410	Pumping primary cement
21	Pump Primary Cement	12/31/2021	00:57	14.2	4	400	400	Pumping primary cement
22	Pump Primary Cement	12/31/2021	01:01	14.2	4	436	330	Pumping primary cement
23	Clean Pumps and Lines	12/31/2021	01:02					Clean pump and lines to 3-sided tank
24	Drop Top Plug	12/31/2021	01:08					Drop top plug verified by company man
25	Pump Displacement	12/31/2021	01:14		5	0	350	Pumping KCL displacement
26	Pump Displacement	12/31/2021	01:25		8	50	1598	Pumping KCL displacement
27	Pump Displacement	12/31/2021	01:31		8	100	2394	Pumping KCL displacement
28	Pump Displacement	12/31/2021	01:36		4	150	2890	Pumping KCL displacement

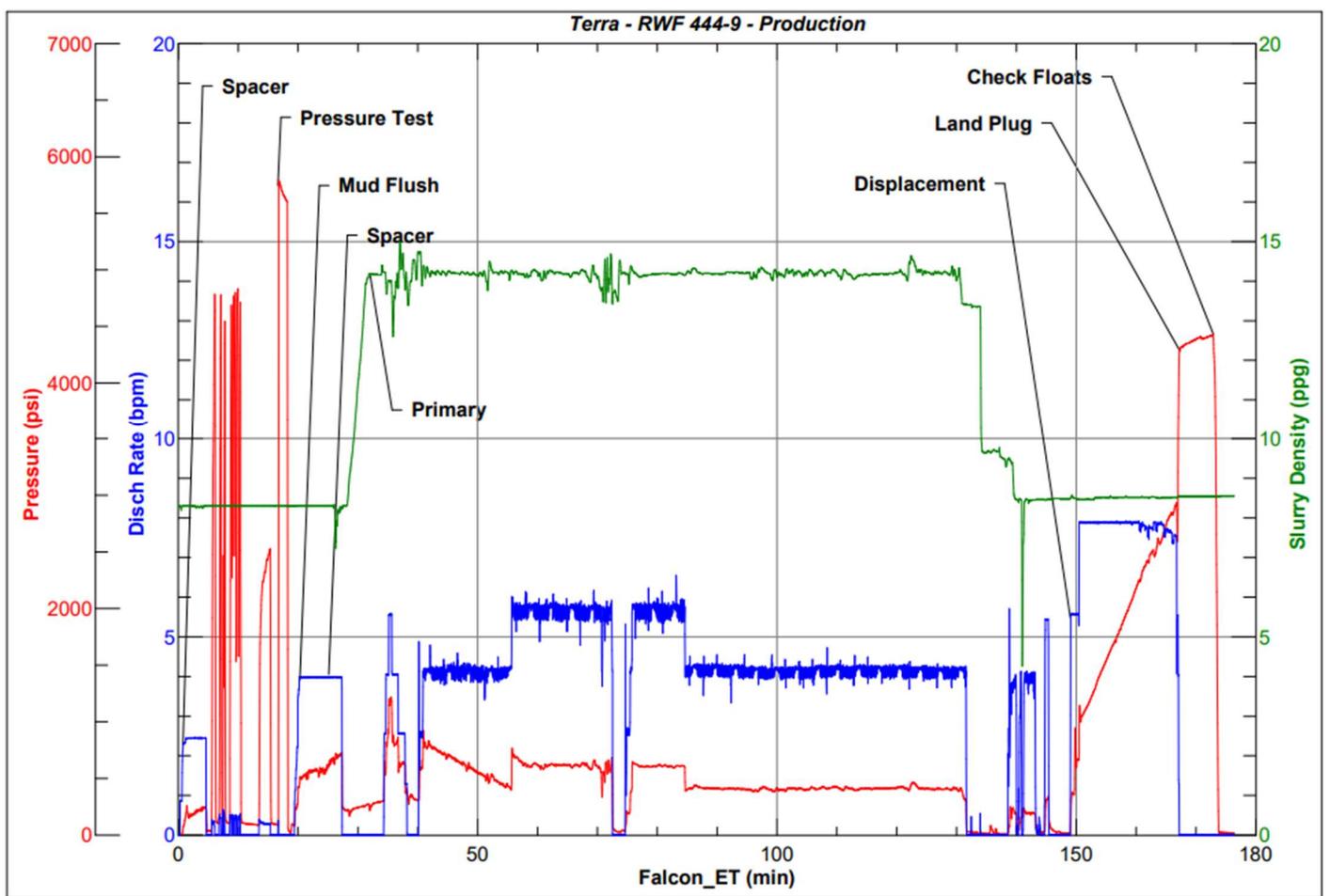


Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
29	Pump Displacement	12/31/2021	01:36		4	151	2980	Pumping KCL displacement
30	Land Plug	12/31/2021	01:37				4359	Land plug. FCP 2980 PSI bumped to 4359 PSI
31	Check Floats	12/31/2021	01:43					Bled pressure, floats held. 2.5 BBL bled back.
32	Rig Down Iron	12/31/2021	01:50					Pre rig down safety meeting, rig down cement head and lines on the floor.
33	Depart Location	12/31/2021	04:00					Leave location for Rifle shop

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 79643
Customer: Terra
Well Name: RWF 444-9



BJ Services

Job Start: Thursday, December 30, 2021