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# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**FEDERAL RWF 543-9 05-045-24396**  
**S:9 T:6S R:94W Garfield CO**

CallSheet #: 79733  
Proposal #: 57051



**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

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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,

**Zen Keith**

District Manager | (720) 934-5850 | zen.keith@americancementing.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	9549	55
Casing	Inner	4.5	4	11.6	n/a	0	9549	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
Cement Trailer Float	CTF-340	TRC(TRB)-242	Chynoweth, Nathan
Cement Pump Float	CPF-058	TRH-855	McNeal, Lawrence
Light Duty Vehicles	LDV-082		Kelsey, John

### Timing

Event	Date/Time
Call Out	1/7/2022 07:00
Depart Facility	1/7/2022 12:40
On Location	1/7/2022 13:30
Rig Up Iron	1/7/2022 14:55
Job Started	1/7/2022 17:28
Job Completed	1/7/2022 20:09
Rig Down Iron	1/7/2022 20:15
Depart Location	1/7/2022 21:15

### General Job Information

Metrics	Value
Well Fluid Density	10.8 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	300 bbls
Rig Circulation Time	1 hours
Calculated Displacement	146.6 bbls
Actual Displacement	146.6 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	10.8 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	Frac Tank	
Temperature	55 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	>450 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
No

## Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /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	4006
2	Mud Flush	Flush	8.45			40.86		20.00	4124
3	Water	Flush	8.34			42.00		10.00	4360
4	Primary Cement	Primary	14.20	1.72	8.08		1404.00	430.66	4478
5	Displacement	DisplacementFinal	8.34			42.00		148.00	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	1/7/2021	07:00					Crew called to prepare for Long string cement job. RTS is 14:00
2	Safety Meeting	1/7/2021	12:30					Journey Management Meeting
3	Depart yard	1/7/2021	12:40					Crew departs Rifle, CO yard for location
4	Arrive on Location	1/7/2021	13:30					Arrive on location, verify job procedure with customer and verify all proper products and equipment needed are on location
5	Safety Meeting	1/7/2021	14:30					pre rig up meeting
6	Spot Units	1/7/2021	14:45					spot equipment for rig up
7	Rig Up	1/7/2021	14:55					rig up all equipment
8	Standby	1/7/2021	15:30					crew on standby while rig runs casing
9	Safety Meeting	1/7/2021	17:00					pre job meeting with all crews involved
10	Load Lines	1/7/2021	17:28	8.34	3	3	100	load lines for test
11	Pressure Test	1/7/2021	17:30	8.34	1	1	5012	psi test pump and lines to cement head
12	Spacer	1/7/2021	17:53	8.34	5.5	10	400	10 bbl fresh flush
13	Spacer	1/7/2021	17:55	8.45	5.5	20	542	20 bbls mud flush
14	Spacer	1/7/2021	17:58	8.34	5.5	10	550	10 bbls fresh flush
15	Cement	1/7/2021	18:00	14.2	7.3	10	1445	431 BBLS CMT – 14.2 # 1.72 Y 8.1 MW 1404 sks 10 bbls away
16	Cement	1/7/2021	18:05	14.2	7.5	40	1359	50 bbls away
17	Cement	1/7/2021	18:15	14.2	5	50	600	100 bbls away
18	Cement	1/7/2021	18:24	14.2	5.6	50	704	150 bbls away
19	Cement	1/7/2021	18:33	14.2	5.6	50	657	200 bbls away
20	Cement	1/7/2021	18:42	14.2	5.6	50	670	250 bbls away
21	Cement	1/7/2021	18:50	14.2	5.6	50	700	300 bbls away
22	Cement	1/7/2021	19:01	14.2	5.4	50	690	350 bbls away
23	Cement	1/7/2021	19:12	14.2	5.4	50	600	400 bbls away
24	Cement	1/7/2021	19:20	14.2	4	31	310	431 bbls away shutdown for washup
25	Washup	1/7/2021	19:24					washup to pit, blow lines out, drop plug
26	Displacement	1/7/2021	19:39	8.34	8	10	1037	send plug begin displacement with kcl water 10 bbls away
27	Displacement	1/7/2021	19:49	8.34	8	40	1260	50 bbls away
28	Displacement	1/7/2021	19:56	8.34	8	50	2090	100 bbls away
29	Displacement	1/7/2021	19:59	8.34	8	30	2688	130 bbls away slow for bump
30	Land Plug	1/7/2021	20:00	8.34	3.7	16.6	2460	146.6 bbls away land plug
31	Check Floats	1/7/2021	20:09					Check floats, floats held with 2 bbls back
32	Safety Meeting	1/7/2021	20:13					Rig down Meeting
33	Rig Down	1/7/2021	20:15					rig down all equipment
34	Safety Meeting	1/7/2021	21:00					Journey Management Meeting
35	Depart Location	1/7/2021	21:15					crew departs location

## Pump Diagrams

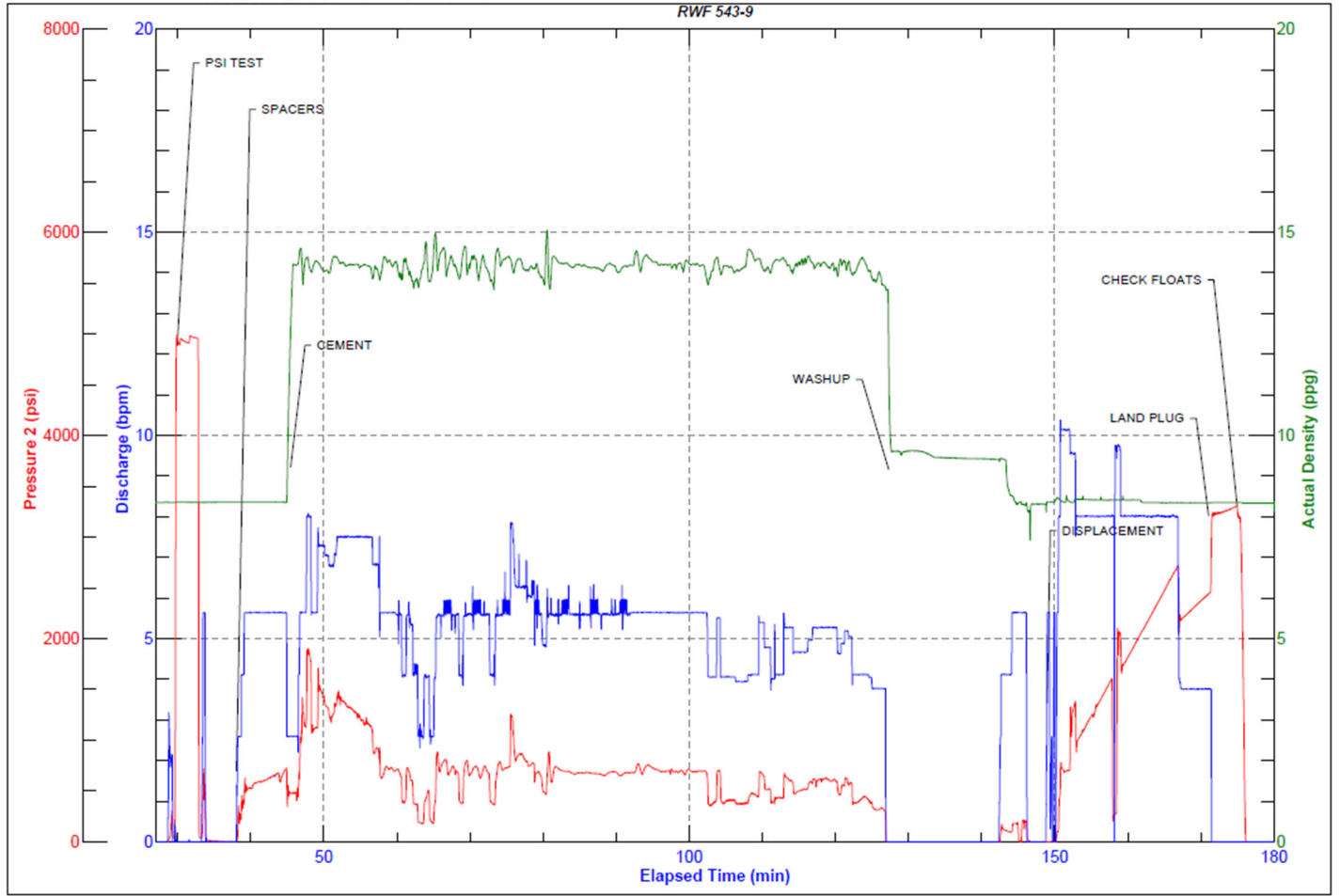


JobMaster Program Version 5.01C1

Job Number: 79733

Customer: Terra

Well Name: RWF 543-9



BJ Services

Job Start: Friday, January 07, 2022