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# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**FEDERAL RWF 32-9 05-045-24400**  
**S:9 T:6S R:94W Garfield CO**

CallSheet #: 80207  
Proposal #: 57814



**SURFACE 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,

**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	20	19.124	94	n/a	0	118	0
Open Hole	Outer	n/a	13.5	n/a	n/a	118	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1114	16
Casing	Inner	9.625	8.921	36	n/a	0	1114	0

### Timing

Event	Date/Time
Call Out	2/12/2022 00:30
Depart Facility	2/12/2022 07:30
On Location	2/12/2022 08:00
Rig Up Iron	2/12/2022 09:00
Job Started	2/12/2022 12:17
Job Completed	2/12/2022 13:24
Rig Down Iron	2/12/2022 13:30
Depart Location	2/12/2022 15:00

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer	CTF-249	TRC(TRB)-090	Hansen, James
Light Duty Vehicles	LDV-062		Putnam, Gage
Cement Pump	CPF-052	TRH-959	Woronovitch, Collin

### General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	360 bbls
Rig Circulation Time	1 hours
Calculated Displacement	82.9 bbls
Actual Displacement	82.9 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	13 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	9 lb/gal
Well Fluid Density Out of Well	9 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	97 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	55 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	80 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	450 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 <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		20.00	0
2	Additional Lead	Lead	12.30	2.34	13.42		50.00	20.83	0
3	Lead Cement	Lead	12.30	2.34	13.42		169.00	70.39	0
4	Tail Cement	Tail	12.80	2.08	11.46		174.00	64.35	500
5	Water	DisplacementFinal	8.34			42.00		83.00	0

### Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Additional Lead	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Additional Lead	A-10	Accelerator	5.00	%BWOB
2	Lead	Additional Lead	A-2	Accelerator	2.00	lb/sk
2	Lead	Additional Lead	A-7P	Accelerator	2.00	lb/sk
2	Lead	Additional Lead	FP-24	Defoamer	0.30	%BWOB
2	Lead	Additional Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Additional Lead	STATIC FREE	Other	0.01	lb/sk
3	Lead	Lead Cement	ASTM TYPE I/II	Cement	100.00	%
3	Lead	Lead Cement	A-10	Accelerator	5.00	%BWOB
3	Lead	Lead Cement	A-2	Accelerator	2.00	lb/sk
3	Lead	Lead Cement	A-7P	Accelerator	2.00	lb/sk
3	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
3	Lead	Lead Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Lead	Lead Cement	STATIC FREE	Other	0.01	lb/sk
4	Tail	Tail Cement	ASTM TYPE I/II	Cement	100.00	%
4	Tail	Tail Cement	A-10	Accelerator	5.00	%BWOB
4	Tail	Tail Cement	A-2	Accelerator	2.00	lb/sk
4	Tail	Tail Cement	A-7P	Accelerator	2.00	lb/sk
4	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
4	Tail	Tail Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Tail	Tail Cement	STATIC FREE	Other	0.01	lb/sk

## 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	2/12/2022	00:30					CREW CALLED OUT FOR ON LOCATION TIME OF 09:00 2/12/22
2	Depart Location	2/12/2022	07:30					CREW DEPARTS RCO YARD FOR RIG LOCATION
3	Arrive On Location	2/12/2022	08:00					CREW ARRIVES AT STAGING LOCATION
4	Rig Up Iron	2/12/2022	09:00					RIG UP IRON AND HOSES
5	Safety Meeting	2/12/2022	11:50					JSA SAFETY MEETING WITH AC, RIG CREW, AND CUSTOMER REP
6	Fill Lines	2/12/2022	12:17	8.34	2	5	368	FILL LINES WITH 5 BBLS FRESH WATER
7	Pressure Test Lines	2/12/2022	12:20				3364	PRESSURE TEST PUMP AND LINES TO 3000 PSI
8	Other	2/12/2022	12:22	8.34	4	15	126	PUMP REMAINING 15 BBLS FRESH WATER FLUSH
9	Pump Lead Cement	2/12/2022	12:29	12.3	6.5	70.4	557	PUMPED 70.4 BBLS 12.3 PPG LEAD CEMENT, DENSITY VERIFIED BY MUD SCALE
10	Pump Tail Cement	2/12/2022	12:43	12.8	5	64	304	PUMPED 64.4 BBLS 12.8 PPG TAIL CEMENT, DENSITY VERIFIED BY MUD SCALE
11	Clean Pumps and Lines	2/12/2022	13:00					WASH UP PUMP
12	Drop Top Plug	2/12/2022	13:05	8.34	5.5	0	150	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN DISPLACEMENT
13	Pump Displacement	2/12/2022	13:16	8.34	5.5	50	446	50 BBLS FRESH WATER DISPLACEMENT PUMPED
14	Cement Back to Surface	2/12/2022	13:20	8.34	4	20	420	CEMENT TO SURFACE AT 70 BBLS FRESH WATER DISPLACEMENT PUMPED. 13 BBLS CEMENT TO SURFACE
15	Pump Displacement	2/12/2022	13:24	8.34	3	12.9	385	82.9 BBLS FRESH WATER DISPLACEMENT PUMPED. SLOWED RATE LAST 10 BBLS TO LAND PLUG
16	Land Plug	2/12/2022	13:24				955	PLUG LANDED. FCP - 385 PSI, BUMPED TO 955 PSI
17	Check Floats	2/12/2022	13:27					CHECK FLOATS, FLOATS HELD, 0.5 BBLS BACK
18	Rig Down Iron	2/12/2022	13:30					RIG DOWN IRON AND HOSES
19	Depart Location	2/12/2022	15:00					AC CREW DEPARTS LOCATION

## Pump Diagrams

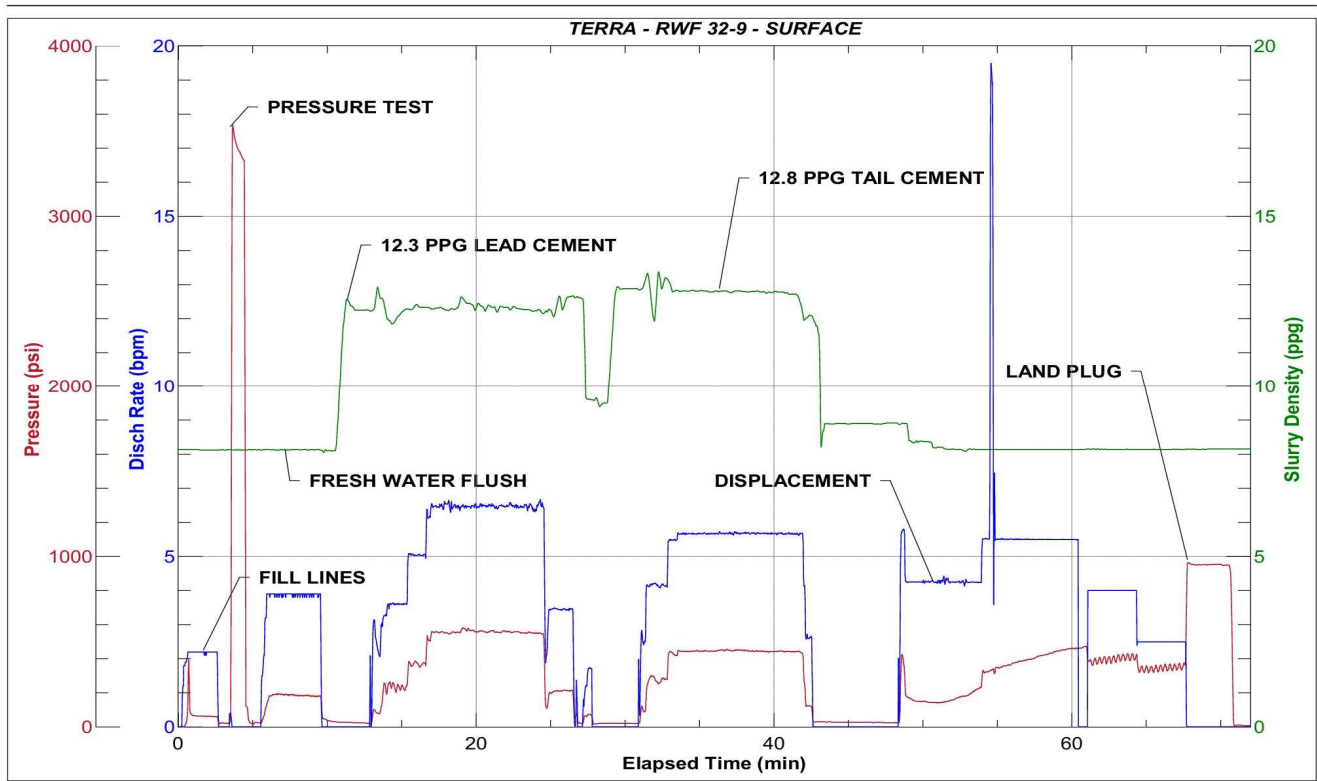


JobMaster Program Version 5.01C1

Job Number: 80207

Customer: TEP

Well Name: RWF 32-9



BJ Services

Job Start: Saturday, February 12, 2022