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# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**FEDERAL RWF 531-9 05-045-24399**  
**S:9 T:6S R:94W Garfield CO**

CallSheet #: 79326  
Proposal #: 56327



**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,

**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	9845	55
Casing	Inner	4.5	4	11.6	n/a	0	9845	0

### Timing

Event	Date/Time
Call Out	12/4/2021 12:00
Depart Facility	12/4/2021 19:30
On Location	12/4/2021 20:00
Rig Up Iron	12/4/2021 20:10
Job Started	12/5/2021 06:55
Job Completed	12/5/2021 09:12
Rig Down Iron	12/5/2021 09:25
Depart Location	12/5/2021 10:30

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
AS Cement Trailer	CTF-048	TRC(TRB)-201	
AS Cement Trailer	CTF-019	TRC(TRB)-202	
Cement Trailer	CTF-161	TRC(TRB)-112	
AS Cement Trailer	CTF-9309	TRS-034	
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
Cement Trailer	CTF-522	TRC(TRB)-059	
Light Duty Vehicles	LDV-5429		Gaston, Roger
Cement Pump	CPF-052	TRH-957	Gonzales, Ivan

### General Job Information

Metrics	Value
Well Fluid Density	11.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	600 bbls
Rig Circulation Time	3 hours
Calculated Displacement	152 bbls
Actual Displacement	152 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	No
Top Out Volume	N/A bbls

### 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	11.6 lb/gal
Well Fluid Density Out of Well	11.6 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	164 °F
BHST	234 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	69 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	200	0-1000
Total Hardness	180 mg/L	0-500 mg/L
Carbonates	140 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 <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		10.00	4310
2	Mud Flush	Flush	8.45			40.86		20.00	4428
3	Water	Flush	8.34			42.00		10.00	4664
4	Primary Cement	Primary	14.20	1.72	8.08		1422.00	436.18	4782
5	Displacement	DisplacementFinal	8.34			42.00		154.00	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	12/4/2021	12:00					CALLED FOR CMT SERVICES
2	Arrive On Location	12/4/2021	20:00					ON LOCATION AT TERRA
3	Rig Up Iron	12/4/2021	20:10					RIG UP TO WELL
4	Safety Meeting	12/5/2021	06:30					SAFETY MEETING WITH RIG CREW
5	Fill Lines	12/5/2021	06:55	8.34	2	5	428	FILL LINES WITH H2O 5BBL
6	Pressure Test Lines	12/5/2021	06:57				5000	TEST LINES 5K
7	WATER FLUSH	12/5/2021	07:07	8.34	5	10	500	PUMP WATER FLUSH
8	MUD FLUSH	12/5/2021	07:09	8.45	5	10	643	PUMP MUD FLUSH
9	MUD FLUSH	12/5/2021	07:10	8.45	5	20	450	PUMP MUD FLUSH
10	WATER FLUSH	12/5/2021	07:13	8.34	5	10	560	PUMP WATER FLUSH
11	PRIMARY CMT	12/5/2021	07:16	14.2	5	1	1102	PUMP PRIMARY CMT
12	PRIMARY CMT	12/5/2021	07:25	14.2	5	50	1048	PUMP PRIMARY CMT
13	PRIMARY CMT	12/5/2021	07:36	14.2	5	100	786	PUMP PRIMARY CMT
14	PRIMARY CMT	12/5/2021	07:44	14.2	5	150	572	PUMP PRIMARY CMT
15	PRIMARY CMT	12/5/2021	07:55	14.2	5	200	676	PUMP PRIMARY CMT
16	PRIMARY CMT	12/5/2021	08:05	14.2	5	250	682	PUMP PRIMARY CMT
17	PRIMARY CMT	12/5/2021	08:16	14.2	5	300	672	PUMP PRIMARY CMT
18	PRIMARY CMT	12/5/2021	08:25	14.2	5	350	676	PUMP PRIMARY CMT
19	PRIMARY CMT	12/5/2021	08:35	14.2	5	400	572	PUMP PRIMARY CMT
20	PRIMARY CMT	12/5/2021	08:38	14.2	5	436.18	680	PUMP PRIMARY CMT
21	DROP PLUG	12/5/2021	08:48					DROP PLUG
22	DISPLACEMENT	12/5/2021	08:49	8.34	7	10	782	PUMP DISPLACEMENT
23	DISPLACEMENT	12/5/2021	08:55	8.34	7	50	1550	PUMP DISPLACEMENT
24	DISPLACEMENT	12/5/2021	09:01	8.34	7	100	2353	PUMP DISPLACEMENT
25	DISPLACEMENT	12/5/2021	09:05	8.34	7	130	2854	PUMP DISPLACEMENT
26	DISPLACEMENT	12/5/2021	09:06	8.34	7	140	2910	PUMP DISPLACEMENT
27	DISPLACEMENT	12/5/2021	09:07	8.34	7	150	3000	PUMP DISPLACEMENT
28	DISPLACEMENT	12/5/2021	09:08	8.34	4	152	3350	PUMP DISPLACEMENT
29	BUMP PLUG	12/5/2021	09:11				3350	BUMP PLUG
30	FINAL PRESSURE	12/5/2021	09:12				2460	FINAL PRESSURE 2460
31	Check Floats	12/5/2021	09:16					2.0BBL BACK
32	Rig Down Iron	12/5/2021	09:25					
33	Depart Location	12/5/2021	10:30					

## Pump Diagrams

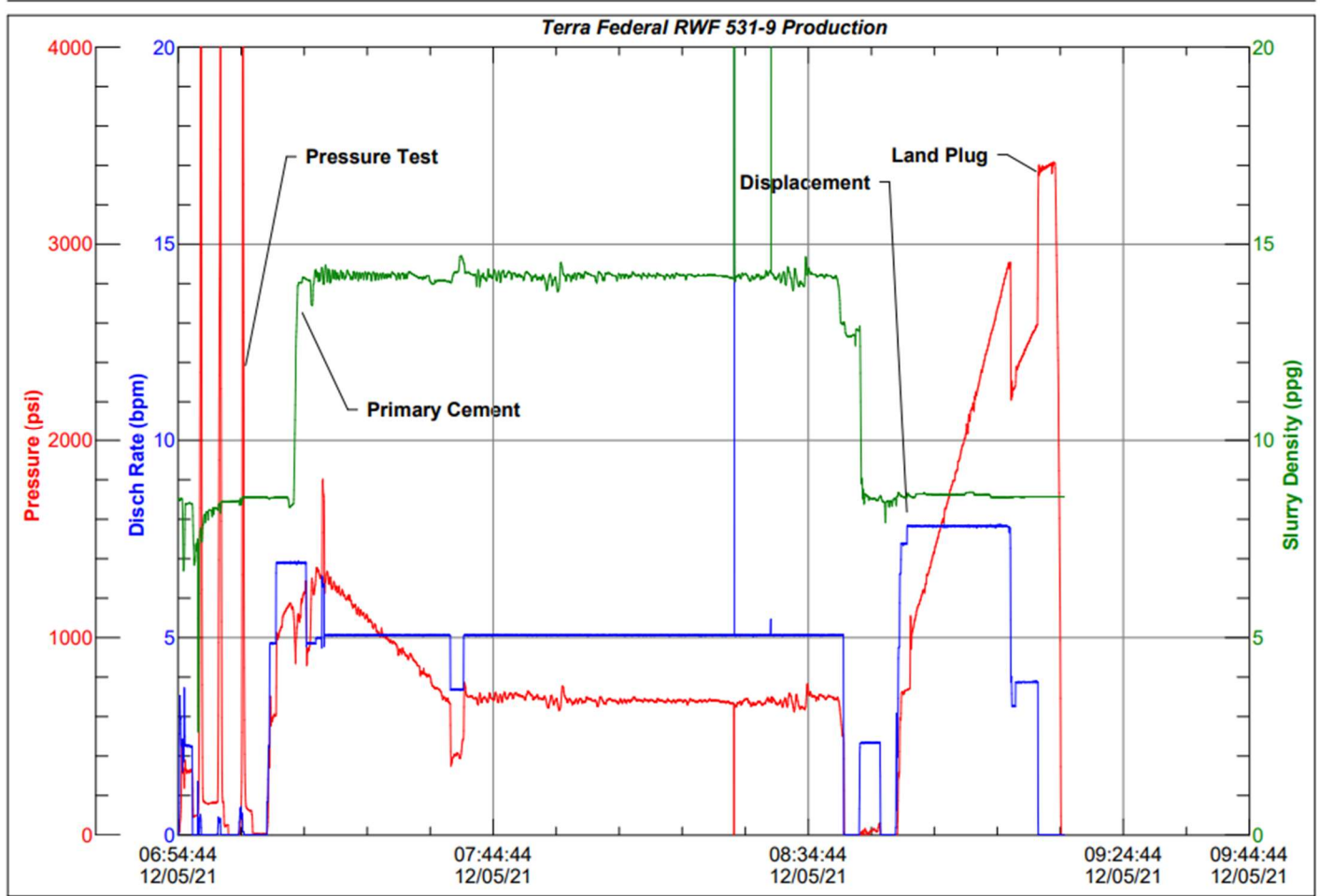


JobMaster Program Version 5.01C1

Job Number: 79326

Customer: TERRA

Well Name: 531-9 FED RWA



BJ Services

Job Start: Sunday, December 05, 2021