



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

WMC 333-19-793 05-045-24541
S:19 T:7S R:93W Garfield CO

CallSheet #: 86191
Proposal #: 67695



LONG STRING Post Job Report

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

Dear Mr. 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

SME North | (307) 757-7178 | zen.keith@americacementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 657-1187

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	1143	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1143	7842	85
Open Hole	Outer	n/a	8.75	n/a	n/a	7842	11040	50
Casing	Inner	4.5	4	11.6	n/a	0	11040	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Field Storage Silo	FSS-470			
Cement Trailer Float	CTF-522	TRC-090	Dragon, Shane	Mendoza, Victor
Light Duty Vehicles	LDV-083		Putnam, Gage	Gonzales, Ivan
Cement Pump Float	CPF-136	TRH-855	Kirchenwitz, Jacob	

Timing

Event	Date/Time
ERTS	00/17/2023 00:00
Call Out	3/17/2023 12:00
Depart Facility	3/17/2023 14:00
On Location	3/17/2023 15:30
Rig Up Iron	3/17/2023 16:00
Job Started	3/17/2023 21:11
Job Completed	3/17/2023 23:23
Rig Down Iron	3/17/2023 23:45
Depart Location	3/18/2023 02:00

General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	311 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	170.6 bbls
Actual Displacement	170.6 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	9.2 lb/gal
Well Fluid Density Out of Well	9.2 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	178 °F
BHST	236 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	60 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	318 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	250 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
Yes	0	0	0

Circulation Details

No circulation prior to cementing or during entire cement job.

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	6166
2	Mud Flush	Flush	8.45			40.86		20.00	6265
3	Water	Flush	8.34			42.00		10.00	6463
4	Lead	Lead	12.50	2.26	12.59		323.00	129.82	6562
5	Tail	Tail	13.00	2.05	10.26		784.00	285.96	7842
6	Displacement	DisplacementFinal	8.34			42.00		170.60	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	Lead	Lead	ASTM TYPE I/II	Cement	100.00	%
4	Lead	Lead	ATHX-1102	Thixotropic	0.10	%BWOB
4	Lead	Lead	FL-66	FluidLoss	0.30	%BWOB
4	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
4	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
4	Lead	Lead	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
4	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Lead	Lead	R-7C	Retarder	0.10	%BWOB
4	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
4	Lead	Lead	XCem-1009	Extender	10.00	lb/sk
4	Lead	Lead	XCem-916	Retarder	0.45	%BWOB
5	Tail	Tail	CLASS G	Cement	50.00	%
5	Tail	Tail	FLY ASH (POZZOLAN)	Extender	50.00	%
5	Tail	Tail	BENTONITE	Viscosifier	6.00	%BWOB
5	Tail	Tail	FL-66	FluidLoss	0.40	%BWOB
5	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
5	Tail	Tail	GW-86	Viscosifier	0.10	%BWOB
5	Tail	Tail	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
5	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Tail	Tail	S-8	StrengthRetrogression	20.00	%BWOB
5	Tail	Tail	XCem-1009	Extender	6.00	lb/sk
5	Tail	Tail	XCem-916	Retarder	0.40	%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	3/17/2023	12:00					AC CREW CALLED OUT WITH ON LOCATION TIME OF 16:00 03/17/2023
2	Depart Location	3/17/2023	14:00					AC CREW DEPARTS RCO YARD FOR CUSTOMER LOCATION
3	Arrive On Location	3/17/2023	15:30					AC CREW ARRIVES AT CUSTOMER LOCATION
4	Rig Up Iron	3/17/2023	16:00					RIG UP ALL IRON AND HOSES
5	Waiting	3/17/2023	17:30					WAITING FOR RIG TO FINISH RUNNING CASING
6	Safety Meeting	3/17/2023	20:37					JSA SAFETY MEETING WITH AC CREW, RIG CREW, AND CUSTOMER REP
7	Fill Lines	3/17/2023	21:11	8.34	5	10	516	FILL LINES WITH 10 BBLS FRESH WATER, NO RETURNS
8	Pressure Test Lines	3/17/2023	21:16				5000	PRESSURE TEST PUMP AND LINES TO 5000 PSI
9	Pump Spacer	3/17/2023	21:20	8.45	5	20	685	PUMP 20 BBLS MUD FLUSH + SURFACTANT
10	Pump Spacer	3/17/2023	21:24	8.34	5	10	574	PUMP 10 BBLS FRESH WATER
11	Pump Lead Cement	3/17/2023	21:26	12.5	5	0	620	BEGIN PUMPING 12.5 PPG LEAD CEMENT. DENSITY VERIFIED WITH PRESSURIZED MUD SCALE (323 sks)
12	Pump Lead Cement	3/17/2023	21:35	12.5	6.5	50	569	50 BBLS LEAD CEMENT PUMPED
13	Pump Lead Cement	3/17/2023	21:42	12.5	7	50	650	100 BBLS LEAD CEMENT PUMPED
14	Pump Lead Cement	3/17/2023	21:48	12.5	5	29.8	375	129.8 BBLS LEAD CEMENT PUMPED
15	Pump Tail Cement	3/17/2023	21:48	13	5	0	452	BEGIN PUMPING 13 PPG TAIL CEMENT. DENSITY VERIFIED WITH PRESSURIZED MUD SCALE (784 sks)
16	Pump Tail Cement	3/17/2023	21:59	13	5	50	521	50 BBLS TAIL CEMENT PUMPED
17	Pump Tail Cement	3/17/2023	22:09	13	5	50	524	100 BBLS TAIL CEMENT PUMPED
18	Pump Tail Cement	3/17/2023	22:20	13	5	50	500	150 BBLS TAIL CEMENT PUMPED
19	Pump Tail Cement	3/17/2023	22:31	13	4.5	50	412	200 BBLS TAIL CEMENT PUMPED
20	Pump Tail Cement	3/17/2023	22:42	13	4.5	50	433	250 BBLS TAIL CEMENT PUMPED
21	Pump Tail Cement	3/17/2023	22:50	13	4.5	36	430	286 BBLS TAIL CEMENT PUMPED
22	Clean Pumps and Lines	3/17/2023	22:50					SHUT DOWN. CLEAN PUMP AND LINES TO 3 SIDED TANK. BLOW DOWN LINES
23	Drop Top Plug	3/17/2023	23:00	8.34	5	0	273	DROP PLUG. VERIFIED BY CUSTOMER REP. BEGIN KCL DISPLACEMENT
24	Pump Displacement	3/17/2023	23:07	8.34	8.5	50	1033	50 BBLS DISPLACEMENT PUMPED
25	Pump Displacement	3/17/2023	23:13	8.34	8.5	50	1700	100 BBLS DISPLACEMENT PUMPED
26	Pump Displacement	3/17/2023	23:19	8.34	8.5	50	2336	150 BBLS DISPLACEMENT PUMPED
27	Pump Displacement	3/17/2023	23:23	8.34	4.2	20.6	1872	170.6 BBLS DISPLACEMENT PUMPED

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
28	Land Plug	3/17/2023	23:23				2995	LAND PLUG. FCP - 1872 PSI, BUMPED TO 2995 PSI
29	Check Floats	3/17/2023	23:26					CHECK FLOATS. FLOATS HELD, 2 BBLS BACK
30	Rig Down Iron	3/17/2023	23:45					BLOW DOWN AND RIG DOWN ALL IRON AND HOSES. RIG GENERATORS WENT DOWN. WAIT 1 HOUR UNTIL GENERATORS BACK ON TO FINISH RIG DOWN
31	Depart Location	3/18/2023	02:00					AC CREW DEPARTS CUSTOMER LOCATION FOR RCO YARD

Pump Diagrams

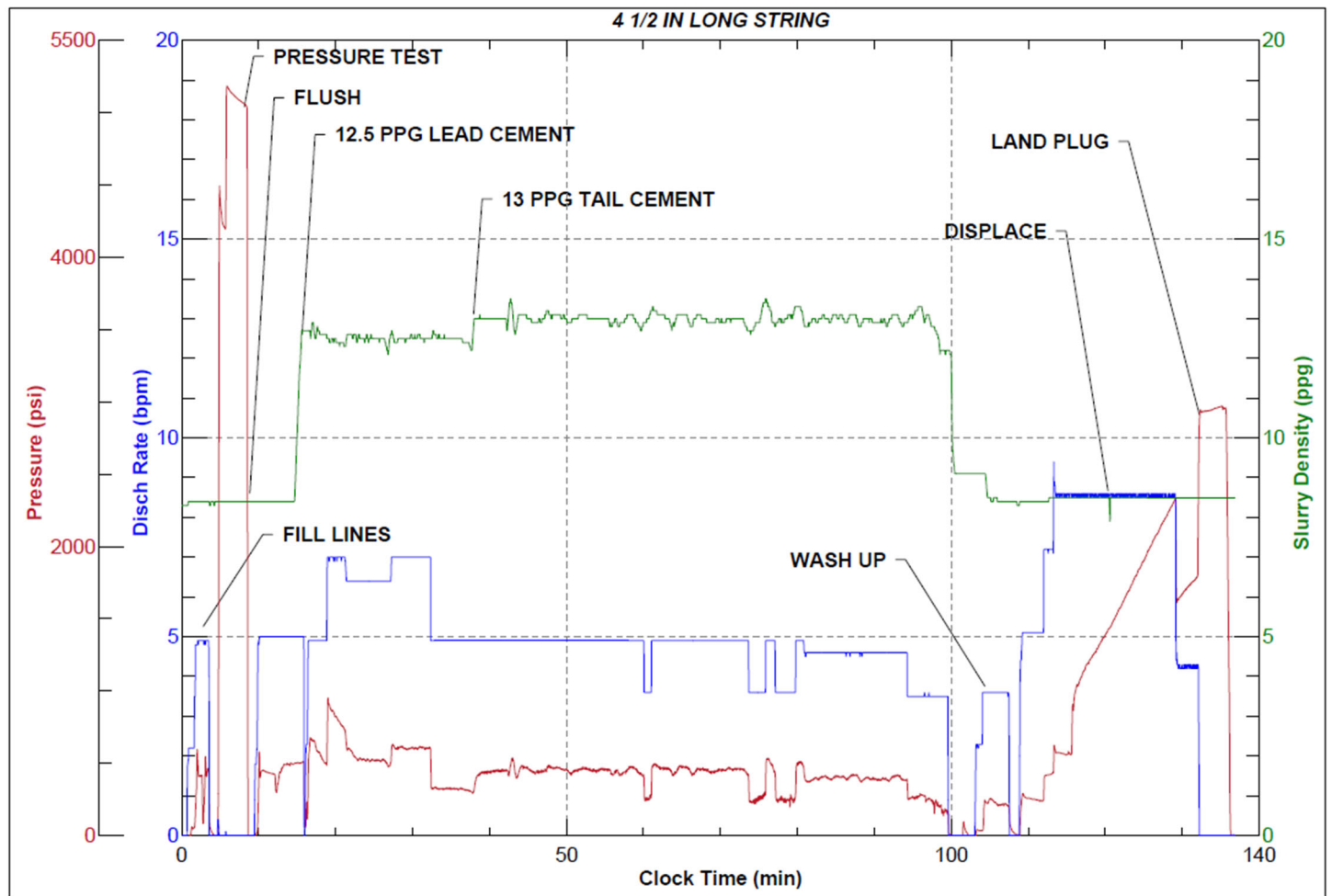


JobMaster Program Version 5.01C1

Job Number: 86191

Customer: Terra

Well Name: WMC 333-19-793



Job Start: Sunday, March 19, 2023