



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

Leverich WMC 514-18-793 05-045-24559
S:13 T:7S R:94W Garfield CO

CallSheet #: 88444
Proposal #: 71285



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,

Lyndon Chandarjit

Field Engineer II | (281) 690-3840 | lyndon.chandarjit@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	1179	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1179	7071	85
Open Hole	Outer	n/a	8.75	n/a	n/a	7071	10270	50
Casing	Inner	4.5	4	11.6	n/a	0	10270	0

Timing

Event	Date/Time
ERTS	09/13/2023 20:00
Call Out	9/13/2023 12:00
Depart Facility	9/13/2023 14:00
On Location	9/13/2023 15:45
Rig Up Iron	9/13/2023 16:00
Job Started	9/13/2023 20:45
Job Completed	9/13/2023 23:28
Rig Down Iron	9/14/2023 00:01
Depart Location	9/14/2023 03:30

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS-438		
Cement Trailer Float	CTF-286	TRC-425	Duewayne Jackson
Light Duty Vehicles	LDV-092		Collin Woronovitch
Cement Pump Float	CPF-052	TRH-957	Ryan Bonin
Light Duty Vehicles	LDV-088		Jose Carcamo Benitez

General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	290 bbls
Rig Circulation Time	0.75 hours
Calculated Displacement	158.5 bbls
Actual Displacement	158.5 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	No

Job Details

Metrics	Value
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	173 °F
BHST	230 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	64 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	240 mg/L	0-3000 mg/L
Total Alkalinity	140	0-1000
Total Hardness	120 mg/L	0-500 mg/L
Carbonates	N/A mg/L	0-100 mg/L
Sulfates	300 mg/L	0-1500 mg/L
Potassium	280 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 RETURNS THROUGHOUT THE 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	5332
2	Mud Flush	Flush	8.45			40.86		20.00	5431
3	Water	Flush	8.34			42.00		10.00	5629
4	Lead	Lead	12.50	2.21	12.30		346.00	136.06	5728
5	Tail	Tail	13.00	2.05	10.26		783.00	285.60	7071
6	Displacement	DisplacementFinal	8.34			42.00		158.50	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 IL	Cement	100.00	%
4	Lead	Lead	A-2	Accelerator	0.20	%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	R-3	Retarder	0.50	%BWOB
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
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	StrengthRetgression	20.00	%BWOB
5	Tail	Tail	XCem-1009	Extender	6.00	lb/sk
5	Tail	Tail	XCem-916	Retarder	0.40	%BWOB

Job Logs

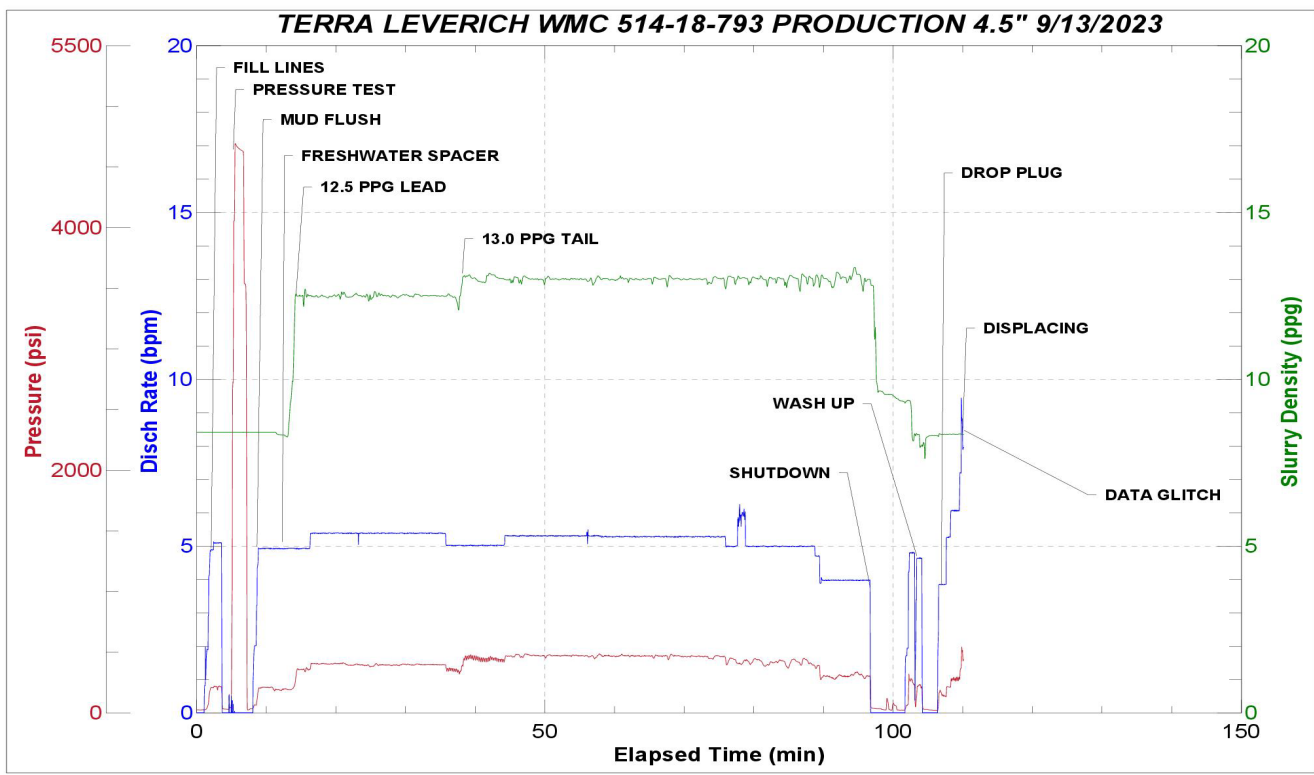
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	9/13/2023	12:00					CREW CALLED OUT FOR ON LOCATION OF 20:00 ON 9/13/23
2	Depart Location	9/13/2023	14:00					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	9/13/2023	15:45					ARRIVE ON LOCATION. RIG RUNNING CASING.
4	Safety Meeting	9/13/2023	15:50					PRE RIG UP JSA. SPOT EQUIPMENT
5	Rig Up Iron	9/13/2023	16:00					RIG UP ALL IRON, HOSES, AND EQUIPMENT
6	Other	9/13/2023	20:00					RIG LANDED CASING @ 20:00. RIG CIRCULATED FOR .75 HOURS. TOTAL VOLUME 290 BBLs.
7	Safety Meeting	9/13/2023	20:45					PRE JOB SAFETY MEETING WITH RIG CREW AND COMPANY MAN.
8	Fill Lines	9/13/2023	21:13	8.34	5	10	220	FILL LINES WITH 10 BBLs OF FRESHWATER. NO RETURNS
9	Pressure Test Lines	9/13/2023	21:17	8.34	1	1	4690	PRESSURE TEST PUMP AND IRON TO HEAD.
10	Pump Spacer	9/13/2023	21:18	8.45	2	0	200	BEGIN PUMPING MUD FLUSH + SURFACTANT.
11	Pump Spacer	9/13/2023	21:24	8.45	5	10	213	PUMP 20 BBLs MUD FLUSH + SURFACTANT PUMPED. NO RETURNS
12	Pump Spacer	9/13/2023	21:26	8.34	5	20	213	PUMP 10 BBLs FRESHWATER FLUSH
13	Pump Spacer	9/13/2023	21:26	8.34	5	10	197	10 BBLs FRESHWATER AWAY SWAP TO LEAD
14	Pump Lead Cement	9/13/2023	21:28	12.5	5	0	300	BEGIN PUMPING 12.5 PPG LEAD CEMENT, WEIGHT VERIFIED BY MUD SCALE
15	Pump Lead Cement	9/13/2023	21:37	12.5	5	50	397	50 BBLs LEAD CEMENT PUMPED
16	Pump Lead Cement	9/13/2023	21:46	12.5	5	50	399	100 BBLs LEAD CEMENT PUMPED. NO RETURNS. HAD TO GO TO BATCH FOR DELIVERY ISSUE.
17	Pump Lead Cement	9/13/2023	21:49	12.5	5	36	340	136 BBLs (346 SKS) TOTAL LEAD CEMENT PUMPED.
18	Pump Tail Cement	9/13/2023	21:59	13	5	0	390	BEGIN PUMPING 13.0 PPG TAIL CEMENT. WEIGHT VERIFIED BY MUD SCALE.
19	Pump Tail Cement	9/13/2023	20:01	13	5.3	50	477	50 BBLs TAIL CEMENT PUMPED
20	Pump Tail Cement	9/13/2023	20:10	13	5.3	50	472	100 BBLs TAIL CEMENT PUMPED
21	Pump Tail Cement	9/13/2023	20:18	13	5.3	50	469	150 BBLs TAIL CEMENT PUMPED. NO RETURNS
22	Pump Tail Cement	9/13/2023	20:29	13	5.3	50	402	200 BBLs TAIL CEMENT PUMPED
23	Pump Tail Cement	9/13/2023	20:39	13	5.3	50	445	250 BBLs TAIL CEMENT PUMPED
24	Pump Tail Cement	9/13/2023	20:49	13	4	36	300	286 BBLs (783 SKS) TOTAL TAIL CEMENT PUMPED.
25	Clean Pumps and Lines	9/13/2023	20:52					BLOW RIG AIR TO CLEAR LINES, VALVE MANIFOLD TO WASH UP PUMP AND LINES TO PIT.
26	Drop Top Plug	9/13/2023	20:59	8.34	6	0	286	DROP PLUG, WITNESSED BY DRILLER AND COMPANY MAN BEGIN KCL DISPLACEMENT.
27	Pump Displacement	9/13/2023	23:08	8.34	8	50	873	50 BBLs DISPLACEMENT PUMPED. CAUGHT PRESSURE @ 55 BBLs DISPLACED. NO RETURNS.



Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
28	Pump Displacement	9/13/2023	23:13	8.34	8	50	1148	100 BBLS DISPLACEMENT PUMPED. NO RETURNS.
29	Pump Displacement	9/13/2023	23:19	8.34	4	50	1212	150 BBLS DISPLACEMENT PUMPED. MAX LIFT- 1768 PSI @ 8 BPM BEFORE SLOW DOWN @ 148 BBLS DISPLACED
30	Pump Displacement	9/13/2023	23:23	8.34	4	8.5	1305	158.5 BBLS (CALCULATED) DISPLACEMENT PUMPED
31	Land Plug	9/13/2023	23:23		4		2180	PLUG LANDED FCP-1900 PSI BUMPED TO 2990 PSI
32	Check Floats	9/13/2023	23:27					BLEED PRESSURE OFF AND CHECK FLOATS, FLOATS HELD 1.5 BBLS BACK
33	Rig Down Iron	9/14/2023	00:01					PRE RIG DOWN SAFETY MEETING. RIG DOWN EQUIPMENT, IRON AND HOSES
34	Depart Location	9/14/2023	03:30					CREW DEPARTS LOCATION

Pump Diagrams

JobMaster Program Version 5.01C1
Job Number: 88444
Customer: TERRA
Well Name: LEVERICH WMC 514-18-793



Job Start: Wednesday, September 13, 2023