



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

RG 543-7-297 05-103-12467
S:18 T:2S R:97W Rio Blanco CO

CallSheet #: 77291
Proposal #: 53363



LONG STRING Post Job Report

Attention: Mr. Lynn Cass | (970) 263-2716 | lcass@terraep.com
Terra Energy Partners, LLC
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

Dear Mr. Lynn Cass,

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

Field Engineer | (307) 757-7178 | 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	3393	0
Open Hole	Outer	n/a	8.75	n/a	n/a	3393	12583	45
Casing	Inner	4.5	4	11.6	LTC	0	12576.82	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Silo	FSS(CTS)-470		
Silo	FSS(CTS)-438		
AS Cement Trailer	CTF(FTF)-148		
AS Cement Trailer	CTF-019		
AS Cement Trailer	CTF-020		
Cement Trailer	CTF-249	TRB-421	
Cement Trailer	CTF-161	TRH(TRB)-769	Kirchenwitz, Jacob
Cement Pump	CPF-058	TRH-1140	Beutler, Brandon
Light Duty Vehicles	LDV-061		Espinoza Galindo, Aldo

Timing

Event	Date/Time
Call Out	6/22/2021 13:00
Depart Facility	6/22/2021 21:30
On Location	6/22/2021 23:20
Rig Up Iron	6/22/2021 23:45
Job Started	6/23/2021 01:10
Job Completed	6/23/2021 04:20
Rig Down Iron	6/23/2021 04:25
Depart Location	6/23/2021 05:45

General Job Information

Metrics	Value
Well Fluid Density	9.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	n/a bbls
Rig Circulation Time	2 hours
Calculated Displacement	194.4 bbls
Actual Displacement	194.4 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 During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.9 lb/gal
Well Fluid Density Out of Well	9.9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	191 °F
BHST	249 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	65 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	2000 mg/L	0-3000 mg/L
Total Alkalinity	200	0-1000
Total Hardness	100 mg/L	0-500 mg/L
Carbonates	20 mg/L	0-100 mg/L
Sulfates	600 mg/L	0-1500 mg/L
Potassium	700 mg/L	0-3000 mg/L
Iron	20 mg/L	0-300 mg/L

Circulation

Lost Circulation Experienced
No

Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		100.00	3393
2	Scav Cement	Scavenger	11.00	3.07	18.83		366.00	200.36	4654
3	Lead Cement	Lead	12.70	2.00	10.97		255.00	90.79	7175
4	Tail Cement	Tail	13.50	1.85	8.97		1035.00	340.16	8319
5	Displacement	DisplacementFinal	8.34			42.00		196.00	0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Scavenger	Scav Cement	ASTM TYPE III	Cement	65.00	%
2	Scavenger	Scav Cement	FLY ASH (POZZOLAN)	Extender	35.00	%
2	Scavenger	Scav Cement	BENTONITE	Viscosifier	6.00	%BWOB
2	Scavenger	Scav Cement	FP-24	Defoamer	0.30	%BWOB
2	Scavenger	Scav Cement	GW-86	Viscosifier	0.10	%BWOB
2	Scavenger	Scav Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
2	Scavenger	Scav Cement	R-3	Retarder	0.30	%BWOB
3	Lead	Lead Cement	ASTM TYPE III	Cement	100.00	%
3	Lead	Lead Cement	CD-31	Dispersant	0.10	%BWOB
3	Lead	Lead Cement	FL-66	FluidLoss	0.50	%BWOB
3	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
3	Lead	Lead Cement	GW-86	Viscosifier	0.10	%BWOB
3	Lead	Lead Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
3	Lead	Lead Cement	R-3	Retarder	0.50	%BWOB
4	Tail	Tail Cement	BA-90	BondEnhancer	10.00	%
4	Tail	Tail Cement	CLASS G	Cement	70.00	%
4	Tail	Tail Cement	FLY ASH (POZZOLAN)	Extender	20.00	%
4	Tail	Tail Cement	BENTONITE	Viscosifier	6.00	%BWOB
4	Tail	Tail Cement	FL-24	FluidLoss	0.40	%BWOB
4	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
4	Tail	Tail Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
4	Tail	Tail Cement	R-3	Retarder	0.30	%BWOB
4	Tail	Tail Cement	S-8	StrengthRetrogression	25.00	%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	call out	6/22/2021	13:00					crew called out to location
2	on location	6/22/2021	23:20					crew on location , spot equipment
3	rig up	6/22/2021	23:30					rig up equipment
4	safety meeting	6/23/2021	01:00					safety meeting with company man and rig crew
5	rig head	6/23/2021	01:10					rig up cement container and load plug
6	pressure test	6/23/2021	01:24	8.34	0.2	0.2	4900	pressure test lines to 4900 psi
7	water spacer	6/23/2021	01:28	8.34	6	100	900	pump 100 bbl of water spacer ahead
8	scavenger	6/23/2021	01:50	11	8	200	1400	pump 366 sk / 200 bbl slurry cement scavenger @ 11 # / yield 3.07 / mix water 18.8 / 8 bpm / 1400 psi
9	scavenger	6/23/2021	02:14	11	5.6	20	280	at 180 bbl on scavenger, slow down to empty silo , 5.6 bpm / 280 psi
10	lead	6/23/2021	02:18	12.7	5.6	45.4	290	lead cement pod 1 / 127.5 sk / 45.4 bbl slurry / yield 2.00 / mix water 11 / wet and dry samples taken and weight verified
11	lead	6/23/2021	02:24	12.7	7.5	45.4	600	lead cement pod 2 / get back to 7.5 bpm / 127.5 sk / 45.4 bbl slurry / yield 2.00 / mix water 11 / wet and dry samples taken and weight verified
12	tail	6/23/2021	02:30	13.5	7.5	115	780	tail cement , first 115 bbl at 7.5 bpm ,
13	tail	6/23/2021	02:48	13.5	4	285	200	slow down to 4 bpm on las part of silo, total pumped from silo 285 bbl
14	tail	6/23/2021	03:18	13.5	6	217.3	600	tail cement from pod 1 of CTF-161,
15	tail	6/23/2021	03:25	13.5	5.3	217.3	500	tail cement from pod 2 of CTF-161,
16	tail	6/23/2021	03:32	13.5	4.1		160	slow down to 4.1 bpm on last part of pod, total tail cement pumped 340 bbl / wet and dry samples taken and weight verified
17	down	6/23/2021	03:36					down / blow lines from head to pit
18	wash lines	6/23/2021	03:40					wash pumping lines to pit, drop pre-loaded plug
19	displacement	6/23/2021	03:48	8.34	4	10	200	start displacement / plug away
20	displacement	6/23/2021	03:56	8.34	10	50	1130	50 bbl on displacement, 1130 psi , 10 bpm
21	displacement	6/23/2021	03:59	8.34	10	80	1680	80 bbl on displacement, 1680 psi, 10 bpm
22	displacement	6/23/2021	04:01	8.34	10	100	1830	100 bbl on displacement, 1830 psi, 10 bpm
23	displacement	6/23/2021	04:03	8.34	10	120	2120	120 bbl on displacement, 10 bpm
24	displacement	6/23/2021	04:05	8.34	10	150	2570	150 bbl on displacement, 2570 psi, 10 bpm
25	displacement	6/23/2021	04:07	8.34	10	170	2900	170 bbl on displacement, 2900 psi, 10 bpm
26	displacement	6/23/2021	04:09	8.34	3	180	2070	180 bbl on displacement, slow down to 3 bpm, 2070 psi
27	land plug	6/23/2021	04:14	8.34	3	194	2285-3260	bump plug from 2285 psi to 3260 psi
28	check floats	6/23/2021	04:19				3260	check floats , holding, 2.5 bbl back
29	rig down	6/23/2021	17:00					rig down equipment

Pump Diagrams

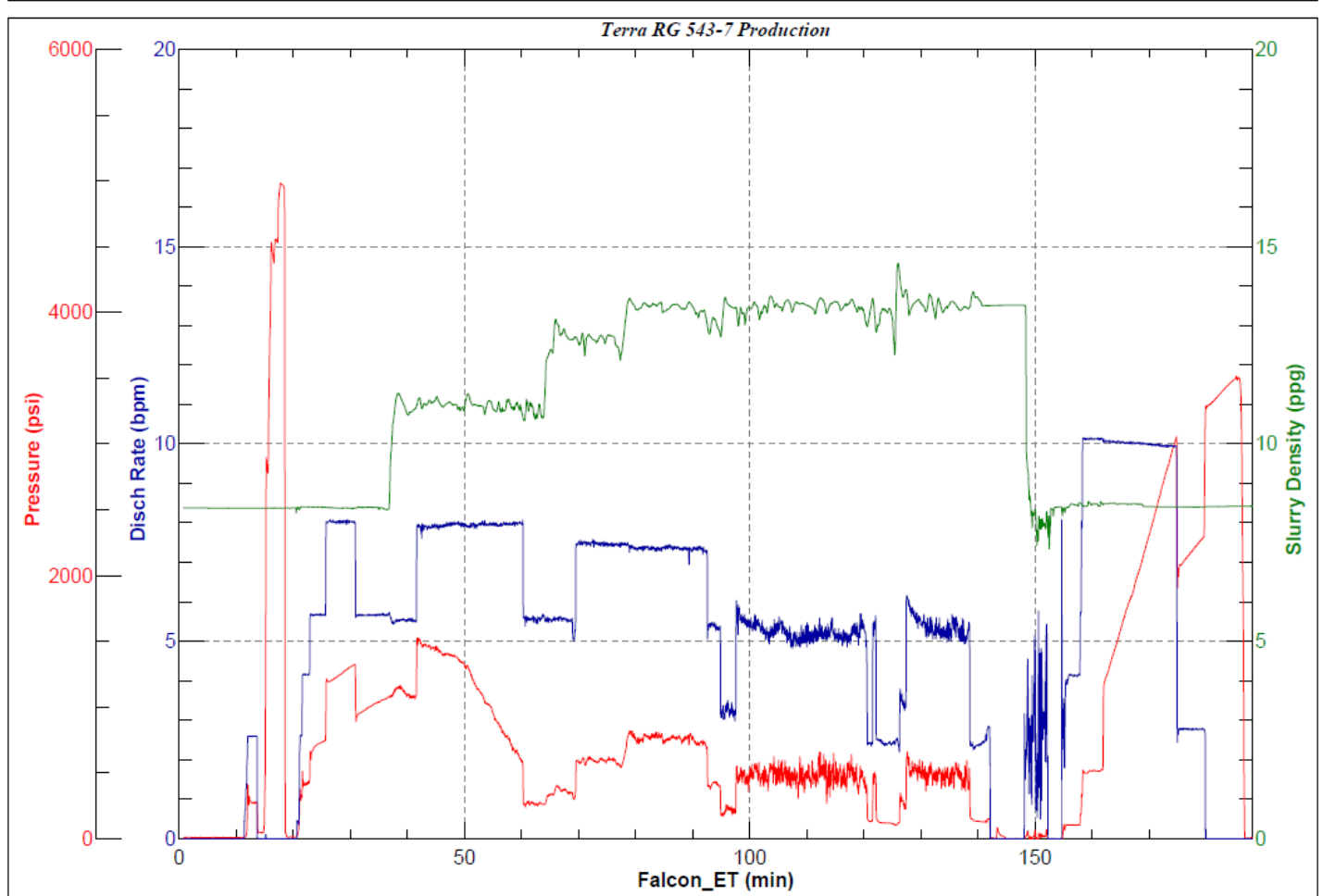


JobMaster Program Version 5.01C1

Job Number: 77291

Customer: Terra

Well Name: RG 543-7



BJ Services

Job Start: Wednesday, June 23, 2021