

BLM

Rec'd 09/28/2020 - NMOCD



ENERGY SERVICES LLC

DESIGN - EXECUTE - EVALUATE - REPORT

SURFACE

CAZA OPERATING, LLC

IGLOO 19 24 STATE FED COM 14H

LEA, NEW MEXICO

PRIMARY PUMP:

2019

SECONDARY PUMP:

PREPARED BY: DANIEL MORENO

SERVICE SUPERVISOR

ARTESIA DISTRICT

1-575-748-8610

3/2/2020

Customer: Caza Operating
Well Name: Igloo 19 24 State Fed Com 14H
County: Lea
Rig: Nabors M51
Salesman: Kurt Crowe
MD: 2020
TVD: 2020
BHST: 96
BHCT: 86
Report Date: February 27 2020
Stage: Lead
String: Surface
Blend Type: Pilot Blend
Reported By: Rodriguez, Sonny

Density: 12.90 ppg

Yield: 1.97 cuft/sk

Mix Fluid: 10.849 gal/sk

Slurry Information

Slurry Composition

Cement Blend:

Class C

PF-020 Additive Concentration 4.00%
Design Description BWOB Bentonite Gel

PF-001 2.00%
Design Description BWOB Calcium Chloride

PF-029 0.125 lb/sk
Design Description BWOB Cellophane

PF-045 0.400 lb/sk
Design Description BWOB Defoamer

Rheology (Average Readings)

Temp	3	6	100	200	300	PV	YP
80 °F	12.5	19.5	28.5	32.5	35	9.75	25.25
86 °F	18.5	23.5	44.5	49.5	53	12.75	40.25

Free Fluid

Temp	Incl.	ml Collected	Start Time	Stop Time
86 °F	0	0 ml/250	12:04	12:24

UCA Compressive Strength

Temp	50 psi	500 psi	12 hr	24 hr	48 hr	72 hr
96	4:20	335	483			

Comments

The above data is for informational purposes, and Par Five Energy Services LLC, makes no guarantees or warranties, either expressed or implied, with respect to the accuracy or use of these data and interpretations.



Par Five Energy Services, LLC

ART20-12193-02R

11279 Lovington Hwy
Artesia, NM
Phone(575)748-8610 Fax:(575) 748-8625

Customer: Caza Operating
Well Name: Igloo 19 24 State Fed Com 14H
County: Lea
Rig: Nabors M51
Salesman: Kurt Crowe
MD: 2020
TVD: 2020
BHST: 96
BHCT: 86
Report Date: February 27 2020
Stage: Tail
String: Surface
Blend Type: Pilot Blend
Reported By: Rodriguez, Sonny

Slurry Information	
Density: 14.80 ppg	Yield: 1.32 cuft/sk
Mix Fluid: 6.311 gal/sk	
Slurry Composition	

Cement Blend: Class C
Additive Concentration Design Description
NEAT
BWOB
Lot Number

Rheology (Average Readings)							
Temp	3	6	100	200	300	PV	YP
80 °F	14.5	22.5	56.5	64.5	66	14.25	51.75
86 °F	19.5	28.5	52.5	61.5	68	23.25	44.75

Free Fluid			
Temp	Incl.	ml Collected	Start Time
86 °F	0	0 ml/250	10:38
Stop Time			
12:38			

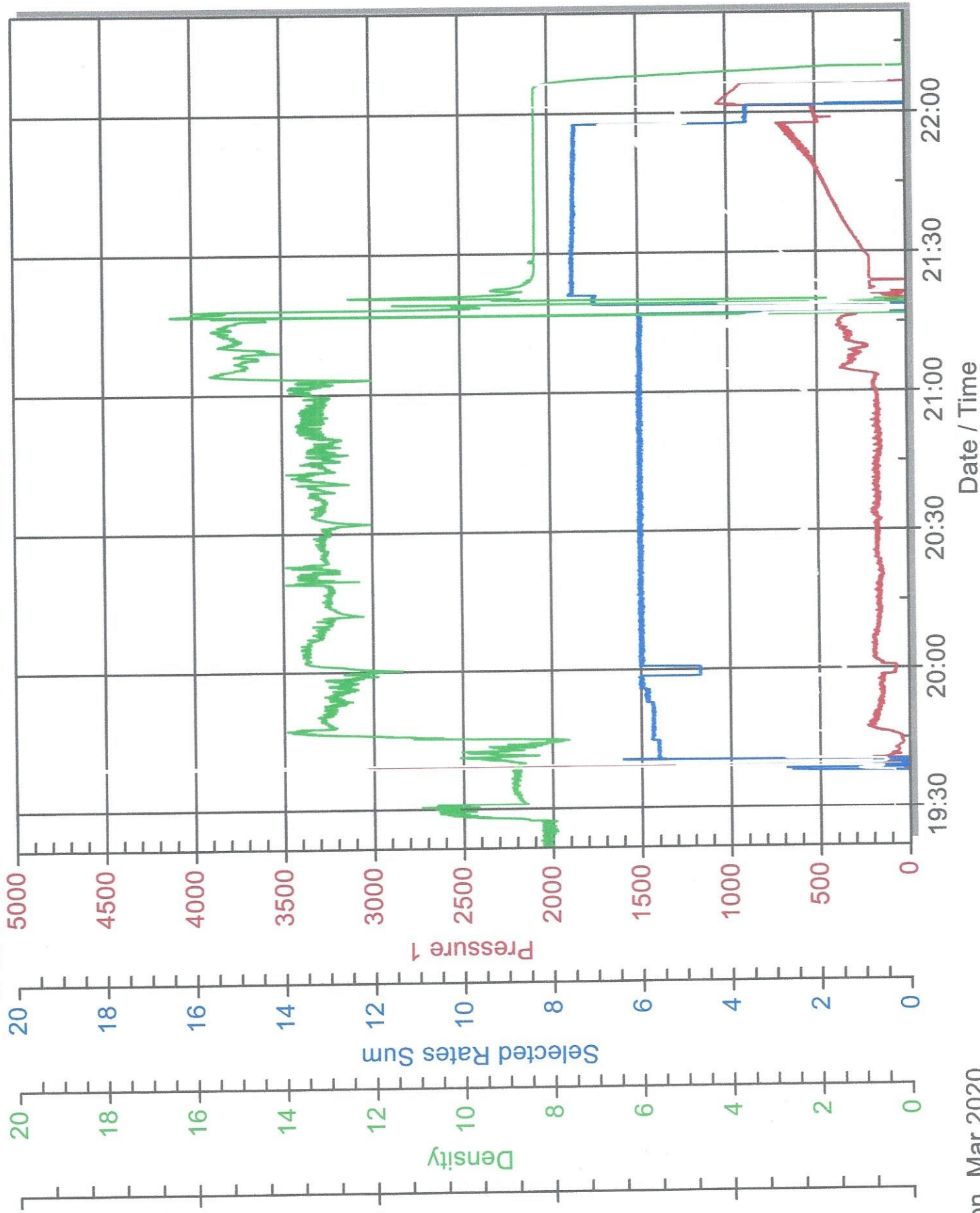
UCA Compressive Strength							
Temp	50 psi	500 psi	12 hr	24 hr	48 hr	72 hr	
96	3:50	7:08	1303	2110			

Thickening Time							
Temp	POD	30 Bc	50 Bc	70 Bc	100 Bc	Batch Time	
86 °F	1:45	2:24	3:02	3:23			
Thickening Time does not include batch time.							
0							

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Comments			
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CAZA-IGLOO-19-24-STATE-FED-COM-14H-SURFACE



WELL SUMMARY



ENERGY SERVICES LLC

COMPANY NAME: CAZA OPERATING, LLC		DATE: 3/2/2020
LEASE NAME: IGLOO 19 24 STATE FED COM		OPERATOR NAME:
WELL NUMBER: 14H		TICKET NUMBER: 10751
API NUMBER: 30-025-46412		APE NUMBER:
SECTION: 19	TOWNSHIP: 20S	RANGE: 35E
COUNTY: LEA	STATE: NEW MEXICO	
RIG NAME: NABORS M51		COMPANY REP:
		PHONE#: 713-826-8456

DIRECTIONS

Take 82 east to 360, turn right on 360 and go to 62-180, turn left on 62-180 and go to Marathon road, turn right on Marathon and go 5.5 miles, turn left go 1.5 miles to location. Nabors M51

NOTES

ENTERED 3-2-2020

HSE

BE SAFE

JOB PROCEDURE

RIG UP TEST LINES
20 BBLs GELLED WATER
1080 SKS LEAD
320 SKS TAIL
DISPLACE CEMENT

WELL SUMMARY



ENERGY SERVICES LLC

WELL /CASING DATA									
JOB TYPE: SURFACE		HOLE SIZE: 17 1/2		PREVIOUS CASING SIZE: 20		PREVIOUS CASING DEPTH: 107			
TVD: 1935		PREVIOUS CASING LB/FT: 94		PREVIOUS CASING DEPTH: 107					
CASING SIZE: 13 3/8		CASING GRADE: J55							
CASING LB/FT: 61		SHOE JOINT LENGTH: 45.39							
FLOAT COLLAR DEPTH 1879.61		SECOND DV TOOL DEPTH:							
DV TOOL DEPTH:		TOTAL CASING : 1925							
TOTAL DEPTH: 1935		TUBULAR DATA							
TBG/D.P. SIZE:		TBG/D.P. DEPTH:		TOOL DEPTH:					
TBG/D.P. LB/FT:		PERF/HOLE DEPTH:		PACKER OR RETAINER					
SURFACE EQUIPMENT									
CEMENT HEAD SIZE: 13 3/8		QUICK CONNECT SIZE: 13 3/8		THREAD: 8rd		TAKE 2 -2 INCH REGULAR TUBING SWEDGES			
TUBING SWEDGE SIZE		CHEMICALS NEEDED							
200# SUGAR,110# PF424 GEL									
EQUIPMENT									
SUPERVISOR: Daniel Moreno		FIELD REPRESENTATIVE:		PUMP OPERATOR: Josh Castillas					
E/O:		UNIT NUMBER: 1021-2019		E/O: Dustin Coddington					
E/O:		UNIT NUMBER: 1030-2047		E/O: Misael Gutierrez					
E/O:		UNIT NUMBER:		E/O:					
E/O:		UNIT NUMBER:		E/O:					
FLUID DATA									
1ST SLURRY: C+4%PF20(Bentonite Gel)+2%PF1(Calcium Chloride)+0.125#/skPF29(Celloflake)+0.4#/skPF45(Defoamer)		YIELD: 1.97		MIX H2O: 10.841		SACKS: 1080		C Neat	
DENSITY: 12.9		YIELD: 1.32		MIX H2O: 6.304		SACKS: 320		2ND SLURRY:	
DENSITY: 14.8		YIELD:		MIX H2O:		SACKS:		3RD SLURRY:	
DENSITY:		YIELD:		MIX H2O:		SACKS:		4TH SLURRY:	
DENSITY:		YIELD:		MIX H2O:		SACKS:		5TH SLURRY:	
DENSITY:		YIELD:		MIX H2O:		SACKS:			

WELL SUMMARY

DISPLACEMENT TYPE	FRESH WATER	DISPLACEMENT VOLUME:	286	MUD WEIGHT:	9.1
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