KOLAR Document ID: 1646706

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
January 2018
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 35310
Name: Black Rock Resources, LLC
Address 1: 1029 E. 7TH ST.
Address 2: PO BOX 553
City: RUSSELL State: KS Zip: 67665 + 0553
Contact Person: Jesse Dinkel
Phone: (785) 483-9146
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Chad Counts
Purchaser: Coffeville

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover
☑ Oil ☐ WSW ☐ SWD
☐ Gas ☐ DH ☐ EOR
☐ OG ☐ GSW
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:
Operator:
Well Name:
Original Comp. Date: Original Total Depth:
☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ EOR Permit #:
☐ GSW Permit #:

4/1/2022 Spud Date or Recompletion Date
4/8/2022 Date Reached TD
4/28/2022 Completion Date or Recompletion Date

API No.: 15-063-22400-00-00
Spot Description: 994 FSL 1661 FEL
NW - NE - SW - SE Sec. 13 Twp. 13 S. R. 27 ☐ East ☑ West
994 Feet from ☐ North / ☑ South Line of Section
1661 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Gove
Lease Name: POLIFKA Well #: 13-1
Field Name:
Producing Formation: KC
Elevation: Ground: 2510 Kelly Bushing: 2520
Total Vertical Depth: 4430 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 268 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2010 Feet
If Alternate II completion, cement circulated from: 0
feet depth to: 2010 w/ 355 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 47000 ppm Fluid volume: 700 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT
I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY
☐ **Confidentiality Requested**
Date: 07/11/2022
☐ **Confidential Release Date:** 07/10/2024
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** David Befort **Date:** 07/13/2022

Page Two

Operator Name: Black Rock Resources, LLC Lease Name: POLIFKA Well #: 13-1

Sec. 13 Twp. 13 S. R. 27 ☐ East ☑ West County: Gove

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☑ Yes	☐ No

List All E. Logs Run:

DIL
ML
POR

☐ Log Formation (Top), Depth and Datum ☑ Sample

Name	Top	Datum
Heebner	3736	-1216
Lansing	3775	-1255
BKC	4048	-1528
Miss	4354	-1814

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	268	commom	180	2% gel 3% cc
Production	7.875	5.5	15	4425	lite	160	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/ Injection: 5/18/2022

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	50	0	0		

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*

PRODUCTION INTERVAL:

Top	Bottom
3954	4006

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
4	3954	3960			1000 gal
4	3984	3988			1000 gal
4	4001	4006			1000 gal

TUBING RECORD: Size: 2.875 Set At: 4339 Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Black Rock Resources, LLC
Well Name	POLIFKA 13-1
Doc ID	1646706

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	268	commom	180	2% gel 3% cc
Production	7.875	5.5	15	4425	lite	160	

BLACK ROCK
RESOURCES, LLC

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	**Polifka 13-1**		
API:	**15-063-22364**		
Location:	**994' FSL & 1661' FEL**		
License Number:	**35310**	**Region:**	**Gove Co.**
Spud Date:	**4/1/22**	**Drilling Completed:**	**4/8/22**
Surface Coordinates:	**38.918231; -100.266575**		
Bottom Hole Coordinates:	**same as surface**		
Ground Elevation (ft):	**2810'**	**K.B. Elevation (ft):**	**2820'**
Logged Interval (ft):	**3450 To: 4430'**	**Total Depth (ft):**	**4430'**
Formation:	**Mississippian**		
Type of Drilling Fluid:	**Chemical based mud**		

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Black Rock Resources, LLC
Address: PO Box 553
Russell, Ks 67665

GEOLOGIST

Name: Chad Counts
Company: MG Oil Inc.
Address: P.O. Box 162
Russell, Ks 67665

Comments

Polifka 13-1 was drilled with Southwind Rig #8 rotary tools commencing 4-1-22, and total depth was reached 4-8-22.

The well ran structurally lower compared to the other Polifka wells as expected from seismic prognosis. Owing to reservoir development, oil shows in the Kansas City, and the positive results of DST #1 and DST #2; it was elected by the operator to further test the well through 5 1/2" casing.

Recommeded Completion:
KC I 3954-3960'
KC J 3984-3988'
KC K 4001-4006'

Before abandonment test:
Lower KC K 4012-4016'

Respectfully submitted,

Chad Counts

GENERAL INFORMATION:

Formation: I J
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:46:22
Time Test Ended: 19:15:22

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

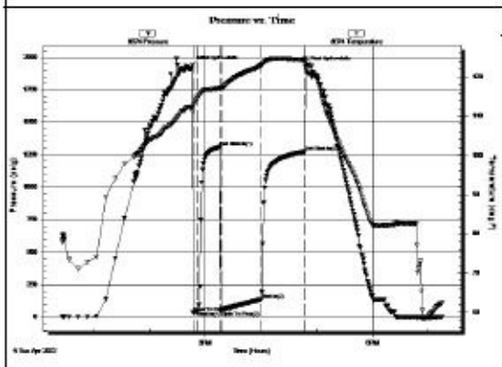
Interval: 3936.00 ft (KB) To 3997.00 ft (KB) (TVD)
Total Depth: 3997.00 ft (KB) (TVD)
Hole Diameter: 7.88 Inches Hole Condition: Good

Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 **Outside**
Press@RunDepth: 136.98 psig @ 3937.00 ft (KB)
Start Date: 2022.04.05 End Date: 2022.04.05
Start Time: 12:25:57 End Time: 19:15:21

Capacity: 8000.00 psig
Last Calib.: 2022.04.05
Time On Btm: 2022.04.05 @ 14:45:52
Time Off Btm: 2022.04.05 @ 16:47:52

TEST COMMENT: IF: BOB in 5 min.
IS: No return.
FF: BOB in 3 min. 65
FS: Surface blow built to 4 1/2. 5-25-45-45



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1937.28	112.45	Initial Hydro-static
1	36.05	111.11	Open To Flow (1)
6	48.79	114.83	Shut-In(1)
30	1308.68	117.21	End Shut-In(1)
31	47.63	116.78	Open To Flow (2)
75	136.98	123.10	Shut-In(2)
122	1272.57	124.38	End Shut-In(2)
122	1928.84	124.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mogo 20%g 60%o 20%m	1.77
176.00	mogo 10%g 60%o 30%m	2.47
0.00	391 GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

GENERAL INFORMATION:

Formation: KL
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:06:36
Time Test Ended: 22:45:36

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

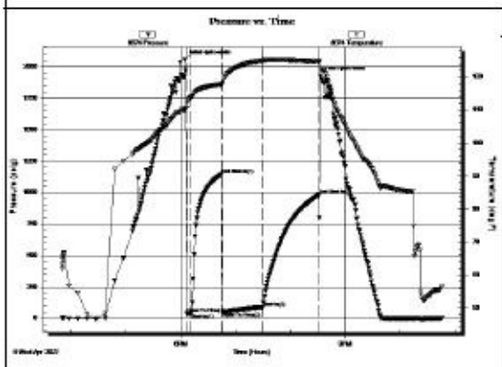
Interval: 3994.00 ft (KB) To 4044.00 ft (KB) (TVD)
Total Depth: 4044.00 ft (KB) (TVD)
Hole Diameter: 7.88 Inches Hole Condition: Good

Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 **Outside**
Press@RunDepth: 88.61 psig @ 3995.00 ft (KB)
Start Date: 2022.04.06 End Date: 2022.04.06
Start Time: 15:50:43 End Time: 22:45:37

Capacity: 8000.00 psig
Last Calib.: 2022.04.06
Time On Btm: 2022.04.06 @ 18:04:38
Time Off Btm: 2022.04.06 @ 20:32:38

TEST COMMENT: IF: BOB in 5 min.
IS: No return.
FF: BOB in 4 min. 32
FS: Surface blow built to 1/2. 5-35-45-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2056.38	110.12	Initial Hydro-static
2	40.45	110.48	Open To Flow (1)
7	40.88	113.76	Shut-In(1)
40	1145.09	117.73	End Shut-In(1)
41	50.08	117.78	Open To Flow (2)
85	88.61	124.96	Shut-In(2)
147	979.80	124.71	End Shut-In(2)
148	1927.38	122.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	ocmw 5%o 85%w 10%m	0.88
103.00	mogo 10%g 60%o 30%m	1.44
0.00	401 GIP	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

GENERAL INFORMATION:

Formation: Pawnee
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:47:09
Time Test Ended: 08:10:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4130.00 ft (KB) To 4215.00 ft (KB) (TVD)
Total Depth: 4130.00 ft (KB) (TVD)
Hole Diameter: 7.88 Inches Hole Condition: Good

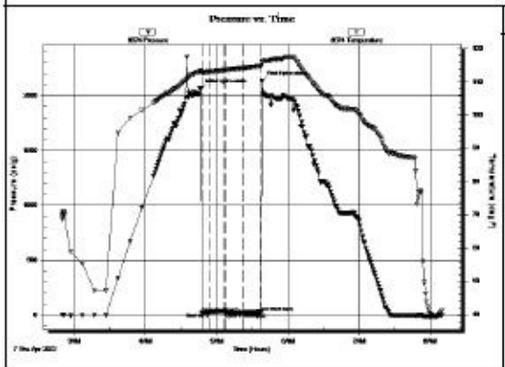
Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 Outside

Press@RunDepth: 25.11 psig @ 4131.00 ft (KB)
Start Date: 2022.04.07 End Date: 2022.04.07
Start Time: 02:49:44 End Time: 08:10:08

Capacity: 8000.00 psig
Last Calib.: 2022.04.07
Time On Btm: 2022.04.07 @ 04:46:39
Time Off Btm: 2022.04.07 @ 05:38:09

TEST COMMENT: IF: Surface blow .
IS: No return.
FF: No blow .
FS: No return. 5-15-15-15



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.18	113.41	Initial Hydro-static
1	25.59	112.76	Open To Flow (1)
7	25.57	113.02	Shut-In(1)
20	39.46	113.50	End Shut-In(1)
21	24.10	113.52	Open To Flow (2)
36	25.11	114.16	Shut-In(2)
51	33.24	114.78	End Shut-In(2)
52	2131.12	116.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

* Recovery from multiple tests

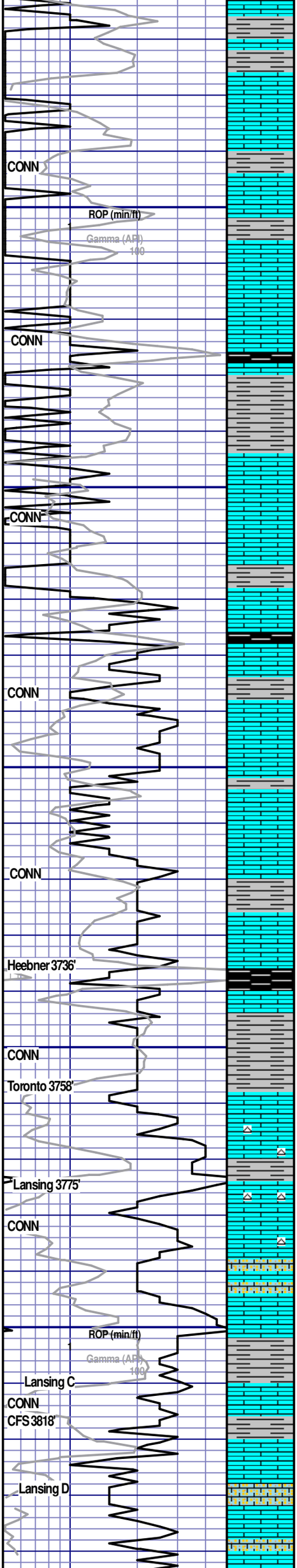
Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

ROCK TYPES

Anhy, Bent, Brec, Cht, Clyst, Coal, Oolitic limestone, Congl, Dol, Gyp, Igne, Dark grey shale, Black shale, Lmst, Meta, Mrlst, Salt, New symbol, Shale, Shcol, Shgy, Sltst, Ss, Till

Curve Track 1 ROP (min/ft) Gamma (API)	Lithology	Oil Shows	MD	DST	Straddle DST	Porosity Type	Image	Geological Descriptions	Remarks
ROP (min/ft) Gamma (API) 100 CONN CONN			3500 3550					90% shale: med-light grey, subplaty, soft-mod firm, occ fossil frag (fusulinids). Ls: grey-beige, micro xln, arg, no vis por, litho tex. Sh: light-med grey, occ. calcareous, firm-soft, occ. fossil fragments, sub platy-platy. 60% Ls: cream, white, micro xln, lithogarphic tex, occ fossil frag, mod marl cont, no vis por, NSOC. 40% grwey calc shale, sub platy-platy, mod firm, micaceous, non carb. Ls: cream, grey-brown, occ mottled, arg, litho tex, occ. fossil frag, mod marl cont, no vis por. 30% shale, grey, sub platy-platy, mod firm.	4/4/22 7:00am Geologist on location at 3462'



Ls: cream-grey light brown, micro xln,brittle, poorly cemented, arg, mod-hvy marl cont, trc fossil frag, earthy tex, NSOC.

Ls: cream, white, lght brown, micro xln-vf xln, brittle, hvy marl cont, no vis por, occ foss frag, NSOC. 20% grey shale, sub platy, mod firm.

Ls: cream, grey, buff, micro xln-vfn xln, mod brittle, mod-hvy marl, trc fossil frag, no vis por, NSOC. Trc light grey calc shale, sub platy.

Ls: grey-cream, micro xln-vfn xln, argillaceous, occ. fos fragments, occ mottled w/plant mat, mod marl, no vis por, NSOC.

Ls: lt grey, cream, beige-brown, micro xln-vfn xln, mod marl cont, occ mottled plant mat, no vis por, mod arg, brittle, NSOC. 10% sh: light grey, soft, smooth, non platy, sl micaceous.

Ls: cream, light grey, micro xln-vf xln, mod arg, mod marl, trc fossil frag, no vis por earthy tex, NSFOC. Sh: 20% grey-lt grey, sub platy-non platy, sl calc.

*Reduce RPM to slow penetration. Start collecting 10' samples.

Ls: cream, beige, lt grey, fn-micro xln, mod arg, few mottled with plant material, no vis por, NSOC.

Ls: cream,off white, vf xln, brittle, v heavy marl cont, occ. fossil frag, no vis por, NSOC.

Ls: cream-white, vf xln, soft-brittle, flood heavy white marl, no vis por, occ. fossil frag, NSOC. <5% Black shale, firm, platy, carb, sl calc.

Ls: grey-off white, fn xln, hvy marl, trc mottled plant material, occ fossil frag, no vis por, NSOC.

*Bit Trip to exchange pdc to tricone @3731. Drillers discovered they missed a joint on board. Data shifted 31' from 3450 to 3700 to 3481 to 3731.

Ls: grey, buff, fn xln, svrl mottled w/org matter, no vis por, trc fos frag, mod-hevay arg, NSOC.

Flood black shale (75%), firm, platy, sl calc, very carb. Ls: grey-brown, micro xln, earthy tex, occ. scattered pp vugs, sl. marl, mod arg, trc plant matter, trc fossil frag, NSOC.

75% Shale: light grey, soft, washed, blocky, non calc. 25% Ls: beige-light grey, micro xln-fn xln, no vis por, NSOC.

MW 9.0
VIS 60
2# LCM

Ls: cream, micro xln-fn xln, sl marl cont, no vis por, rare scat pp vug, litho text, NSOC. 25% Light grey and blue-green shale, subplaty-block, soft, smooth.

LS: cream, micro xln, dense, sl marl cont, cherty, trc pyrite, no vis por, sharp cleavage, NSOC.

Ls: cream-lt grey, micro xln-vfn xln, very dense, trc pp vuggy por, occ fossil frag, cherty (creamy white) NSOC. 10% Light grey shale, non platy, firm, calcareous.

Ls: cream, micro xln, trc oolitic grainstone/packstone, poor scat sec por, very dense, NSOC.

Ls: cream, grey, micro xln, denses, trc oolitic grainstone, 175-250 microns, poor-no vis sec por, well std, NSOC.

MW 9.0
VIS 60
2# LCM

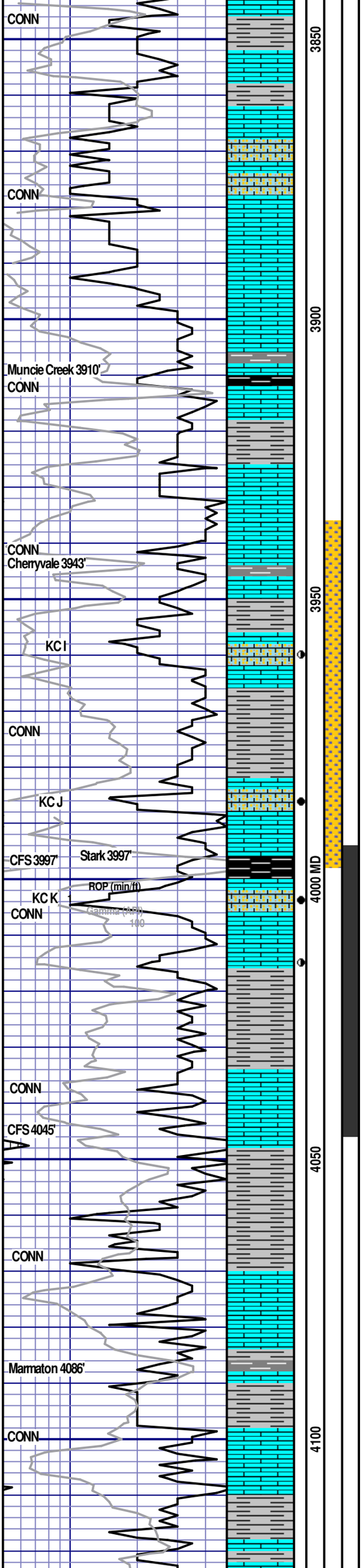
Sh: brick red, soft, easily washed, non silty, non platy. questionable faint odor.
20" smpl: Ls cream, 20% grainstone, 500-700micron ooids, no vis sec por, mod std, no odor, NSOC.

40" Oolitic Ls a/a no vis sec por, NSOC.

Ls: cream, micro xln-vfn xln, fair scattered pp por, most dens, mod marl cont, NSFOC.

Ls: cream-white, fn xln, semi oolitic, <250 microns, mod std, fair vuggy sec por, fair inxl por, mod marl cont, NSFOC.

Ls: cream, whitte, micro xln, occ oolitic 250-350 microns,



Ls: cream-white, micro xln, poor-no vis sec por, v dense, mod marl, NSFOC.

Ls: cream-white, micro xln, no vis por, dense, lithographic tex, NSFOC. 5% sh: med grey subplaty-platy, firm.

Ls: cream-grey, micro xln, occ oolitic, v poor sec por, v dense, NSFOC. 10% maroon shale, easily washed, very soft, mushy, non ccal.

Ls: oolitic, 250-350 micron oomoldic porosity, well std, fair sec por, few ooids in preserved, hvy marl cont, washes white. NSFOC.

Ls: grey- cream, micro xln, occ. oolitic, v poor sec por, dens, v hvy marl cont, NSFOC.

Ls: cream-lt grey, micro xln, v dense, sharp cleavage, trc scat vuggy por, no inxl por, sl. cherty, mod marl, NSFOC.

Ls: cream-white, micro xln, dense, sl cherty (translucent, white), no vis por, mod marl cont, NSOC.

5% Black shale: firm platy, carb. Ls: lt brown-grey, micro xln, abdnt fossil shell frag, occ. mottled w/org mat, very dense, no vis por, NSOC.

MW 9.1
VIS 56
2# LCM

Ls: grey-buff, micro xln, occ fossil packstone ,fusulinids, shell frag, very dense, no vis sec por, NSOC. Light grey shale, soft, mushy, easily washed.

Ls: cream, lt brown, beige, micro xln, occ. oolitic, <250micons, no vis sec por, very dense, sl cherty, NSOC.

DST #1
KC I-KC J
3936'-3997'
5-25-45-45
IFP: 36-48psi
ISIP: 1309psi
FFP:47-137psi
FSIP:1272psi
Recovered:
126' MCO (60%O)
176' MCGO (60% O)
391' GIP

Ls: cream, lt brown, micro xln, r foss frag, very dense, sharp cleavage, no vis por, NSOC. 10% med-dark grey shale, platy, firm, sl calc.

KC I porosity: lt brown, oolitic grainstone, 250 micron ooids, v well std, poor oolicastic por, very scattered stain and slight saturation. very ssfo, faint odor.

Ls: grey, micro xln, dense, mod arg, no vis por, occ. fossil frag. Med grey shale, sub platy, firm.

Mudco Check
MW 9.2
VIS 52
Filtrate 8.8
Chlorides 2200ppm
2# LCM

Sh: brick red, soft, smooth, non platy, easily washed. 10% dark grey shale, subplaty, firm, sl. calc.

J porosity: light grey-brown, fn xln, fossil grainstone, fair micro vuggy por, occ. sparry around vugs, heavy oil sat and stain, good show free oil on cup, good odor.

DST #2
KC K-KC L
3994-4044'
5-35-45-60
IFP: 40-41psi
ISIP:1145psi
FFP:50-88psi
FSIP: 980PSI
Recovered
63' OCMW
(5% O, 85%W)
103' MCGO
(60%O)
401' GIP

40" black shale, firm platy, carbonaceous, sl calc.

K Porosity: lt grey-brown, fossil grainstone, fair even micro vuggy por, <150 microns, (fair sec por), good even stain, fair-good show free oil, fast cut, strong odor, Very heavy marl in tray.

Base K- fossil grainstone, lt grey, scattered-even micro vuggy por, fair scat oil sat and stain, fair odor.

Sh: med grey-grey, sub platy-platy, occ. v soft. Ls: lt grey-heavy argillaceous. very dense, no vis por, NSOC.

Mudco Check
MW 9.2
Vis 55
Filtrate 8.0
Chlorides 2700ppm
2# LCM

Sh: light grey, smooth, non calc, non silty.

Ls: light grey, micro xln, arg, nio vis por, trc fos frag, NSOC. Occ. grainstone, rare pp vug, mottled w/red shale, poor-no vis por NSOC.

Sh: med-lt grey, calcareous-non calcareous, platy-blocky, non carb.

Sh: med-fk grey, sub platy-soft and mushy. 10% Ls: cream, buff, micro xln, NSOC.

*Erratic ROP due to wind pulling slack in the geolograph line.

90% shale: med grey-lt grey, platy-subplaty, sl calc,firm, sl micaceous. 105 Ls: cream, brown, micro xln,occ fossil frag, no vis por, dese. NSOC.

Ls: lt-grey, grey, cream, argilaceous, micro xln, occ. fossil fragments, very dense, NSOC.

Ls: grey-lt grey, cream, micro xln, arg, sl. cherty, no vis por NSOC. 30% dk grey shale, platy, firm, sl. calc, mod carb.

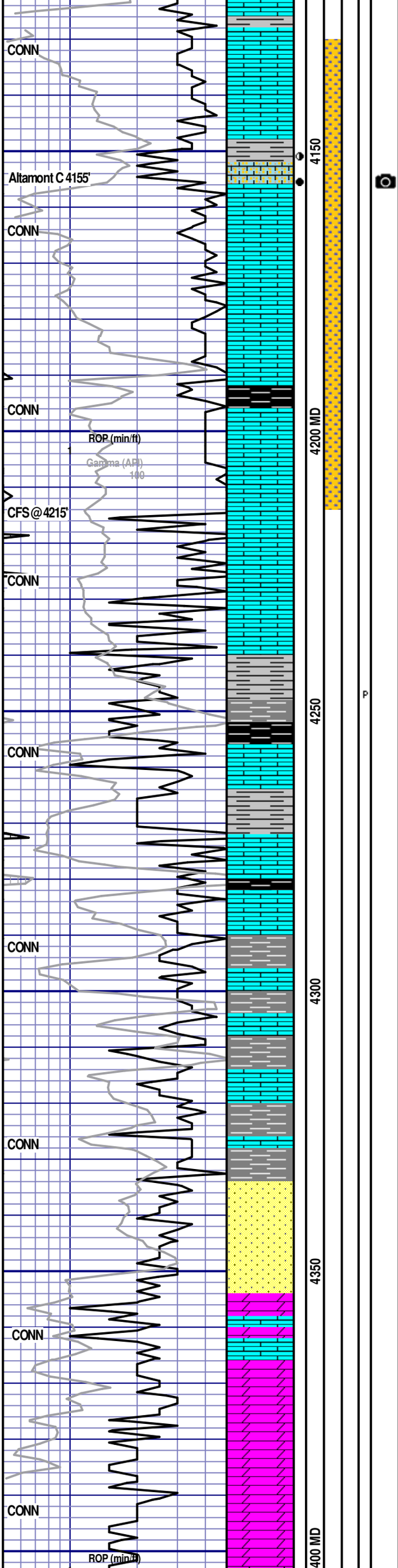
Ls: cream, grey, micro xln-fn xln, mottled maroon-purple, several fossil clasts, fusulinids, granular tex, poor sec por, NSOC. 30% Light grey shale, sl gritty,silty, sub platy.

30% Sh: maroon-lt purple, subplaty-platy, firm, calc. Ls: lt brown, cream, micro xln, v dense, granular tex, no vis por, NSOC.

MW 8.9
VIS 60
2# LCM

Shale: grey,dk grey, maroons, platy-subplaty, firm, sl. calc. 20% ls, cream, micro xln, no vis por, NSOC.

Ls: cream, grey, brown, micro xln, cherty, occ. oolitic



grainstone and fossil hash, trc scat pp vuggy por, generally poor sec por, barren, NSOC.

Cherty Ls: grey, cream, buff, micro xln, dense, litho text, no vis por, 10% burnt orange chert.

MW 9.1
VIS 59
2# LCM

Cherty Ls: grey-brown, micro xln, very dense, sharp cleavage, occ. fossil hash, no sec por, 20% golden-yellow and burnt orange chert. NSOC.

DST#3
Altamont-Pawnee
4130-4215
5-15-15-15
IFP: 25-25 psi
ISIP: 39 psi
FFP: 24-25psic
FSIP: 33psi
Recovered:
5' M

20% oolitic ls, 350-500microns, well std, poor sec por, dense, well cemtd, dense, scat even vuggy por 1-2mm apart, svrl oil droplets in tray, patchy dry stain, fair-good odor.

Ls: grey,-lt grey, micro xln, no vis por, dense, arg, NSOC.

Ls: grey-dk grey, arg, micro xln, sharp cleavage, no vis por, NSOC.

Ls: grey-brown, micro xln, mod arg, occ fossil frag, packstone, no vis por, NSOC.

Ls: cream, grey, buff, micro xln, no vis por, hvy marl, trc fossil frag, NSOC. <5% Black shale, firm, platy, mod carb.

Ls: grey, micro xln, hvy arg, very dense, no vis por, litho text, NSOC.

MW 9.1
VIS 60
1 # LCM

Calcareous shale-shaly ls, grey, dense, well cemented, hard, no vis por, NSOC.

Shale: light med grey, subplaty-platy, soft, non calc, NSOC.
Ls: grey-cream, soft, brittle, arg, micro xln, no vis por, NSOC.

*ROP erratic due to geolograph line blowing in wind.

Ls: lt grey-brown, micro xln, dense, no vis por, hvy arg, NSOC.

Ls: grey-med grey, shaly ls, no vis por, mod marl, NSOC. <10% Sh: dk grey-black, firm, subplaty, mod carb.

Mudco Check
MW 9.3
Vis 55
Filtrate 7.2
Chlorides 3200ppm
2# LCM

Flood black shale: sub platy-platy, mod soft-firm, sl carb-carb, sl. calc. 10% light grey shale, soft, gummy.

80% Black shale, firm, platy, carb, sl. calc. 10% light grey gummy shale. 10% Ls: cream, buff, grey, micro xln, mod ar, no vis por, NSOC.

Ls: cream, grey light brown, micro xln, rare fossil frag, no vis por, abdnt marl, NSOC. 20% Black shale a/a.

Ls: light grey brown, micro xln, mod arg, trc fossil frag, sl cherty, NSOC. 5% black shale

Ls: cream, beige, micor xln, sl arg, trc fossil frag, lithotexture, NSOC. Trc olive green and black shale,

MW 9.1
VIS 60
2# LCM

Ls: cream, grey, micro xln, no vis por, v dense, sl cherty, sl arg, sharp cleavage, NSOC.

Ls: off white-cream, micro xln, no vis por, very dense, occ fossil frag, bivalves, NSOC. Trc dark grey platy shale.

50% shale: green, teal, olive, maroon, grey50% Ls and chert, cream, micro xln, no vis por, NSFOC.

Ls: cream, grey brown, occ mottled, dense, micro xln, no vis por, NSOC. Trc orange chert. 5% teal shale.

90% Sand: white-light grey, vfg <125 microns, mod-well std, well cemented, no vis ingl por, dense NSOC. 10% chert, tan-off white.

95% sand: fn grain, <125 microns, well std, well cons, no vis ingl por, occ. golden brown weathered stain, trc chert, NSOC.

Dolomitic LS: cream-grey, v fn xln, trc vuggy por, overall poor mtrx por, NSFOC. 5% Chert. 10% reduced shales: teal, maroon, yellow.

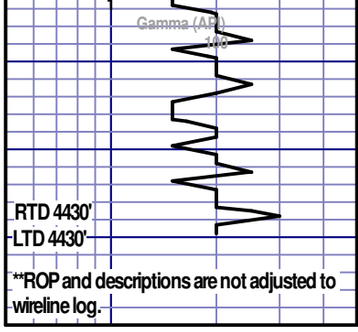
Dolomite: grey-cream, buff, fn-med xln, occ sparry, excellent vuggy por, dense, NSOC.

Dolomite: grey, buff, fn-med xln, excellent vuggy por, occ. micro xln dol ls, NSOC.

MW 65
VIS 9.2
2# LCM

Dolomite: cream, fn xln, excellent vuggy por, sl marl cont, sl cherty, NSOC.

Dolomite: light brown, buff-med xln, excellent vuggy por, sl cherty, hvy marl cont, NSOC.



RTD 4430'
LTD 4430'

**ROP and descriptions are not adjusted to wireline log.

4

Dolomite: buff-lt brown, med -fn xln, excellent vuggy por, hvy marl cont, NSOC.

Dolomite: cream, fine vuggy porosity, sl. marl cont, non arg, NSOC.

4/7/22
TD reached @9:40pm

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 2756

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-7-22	13	13	27	Gove	KS		7:00pm.

Location Quinter 2½ S 1W

Lease Polikt Well No. 13-4

Contractor Southwind

Type Job Long String

Hole Size 7⅞ T.D. 4430

Csg. 5½ Depth

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 40.10 Shoe Joint 40.10

Meas Line Displace 104.35

EQUIPMENT

Pumptrk 17	No.	Cementer	
		Helper	David
Bulktrk 9	No.	Driver	
		Driver	Rick
Bulktrk	No.	Driver	
		Driver	Jordan

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Pipe set @ 4424.73
Shoe Jt 40.10
Insert 4384.63
pump 500gal Flush
Cemt w/ 160sk
pump plug w/ 57.3 bbls water
47 bbls mud
Land plug @
Float did hold

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To BLACKROCK

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 160 QPRO C 10% Salt ¼% G.I. Sonite 500gal Flush

Common 160 QPRO-C

Poz. Mix

Gel.

Calcium

Hulls

Salt 14

Flowseal

Kol-Seal 800

Mud CLR 48 500 gal

CFL-117 or CD110 CAF 38

Sand

Handling 182

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer 7

Baskets 3

AFU Inserts

Float Shoe 1

Latch Down

Pumptrk Charge Prod String Bottom stage

Mileage 46

Tax

Discount

Total Charge

Thanks

Signature

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 2750

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-2-22	13	13	27	Gove	Ks		1:30 AM

Location Quinter 105 1W W in

Lease Polifka Well No. 13-1

Owner

Contractor Southwind

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job Surface

Hole Size 12¼ T.D. 271

Charge To Black Rock Res

Csg. 8⅝ Depth

Street

Tbg. Size Depth

City State

Tool Depth

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 15 Shoe Joint

Cement Amount Ordered 180 sx 3%cc 2%gel

Meas Line Displace 16.3

EQUIPMENT

Pumptrk 17	No.	Cementer	Bill
		Helper	
Bulktrk	No.	Driver	Rick
		Driver	
Bulktrk 14	No.	Driver	
		Driver	Doug

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

RAN 13 Jts of 8⅝
Cemt w/ 180sx
Pump Plug w/ 16.3 bbls
Cemt did circ

Common	145
Poz. Mix	35
Gel.	3
Calcium	7
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	190
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	46
Tax	
Discount	
Total Charge	

Signature Doug Roberts

Thanks

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 2757

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-8-22	13	13	27	Gove	KS		8:30pm

Location Quinter 8 1/2 S 1 W

Lease Polska Well No. 13-4

Contractor Discovery

Type Job TypStage Ol

Hole Size 7 7/8 T.D.

Csg. 5 1/2 Depth

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint

Meas Line Displace 48 bbls

EQUIPMENT

Pumptrk 17	No.	Cementer	
		Helper David	73+4
Bulktrk 21	No.	Driver	
		Driver Jordan	
Bulktrk	No.	Driver	
		Driver	

JOB SERVICES & REMARKS

Remarks:

Rat Hole 15

Mouse Hole 30sk

Centralizers

Baskets

D/V or Port Collar 2015

open DV

Circ.

Cemt w/ 355sx

pump plug w/ 48 bbls

close Tool @ 1300 #

Cemt did circ.

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Black Rock

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 400sk QmDC 1/4# Flo Seal

Common	400 sks 20 QmDC
Poz. Mix	
Gel.	
Calcium	
Hulls	
Salt	
Flowseal	200 #
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	402
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge prod String Top Stage

Mileage 46

Thanks

Tax

Discount

Total Charge

Signature

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Black Rock**

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

Polifka #13-1

13-13S-27W Gove,KS

Start Date: 2022.04.05 @ 12:25:52
End Date: 2022.04.05 @ 19:15:22
Job Ticket #: 68745 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.04.12 @ 08:25:29

DRILL STEM TEST REPORT

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68745 **DST#: 1**

Test Start: 2022.04.05 @ 12:25:52

GENERAL INFORMATION:

Formation: **LKC I J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:46:22
Time Test Ended: 19:15:22

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

Interval: 3936.00 ft (KB) To 3997.00 ft (KB) (TVD)
Total Depth: 3997.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

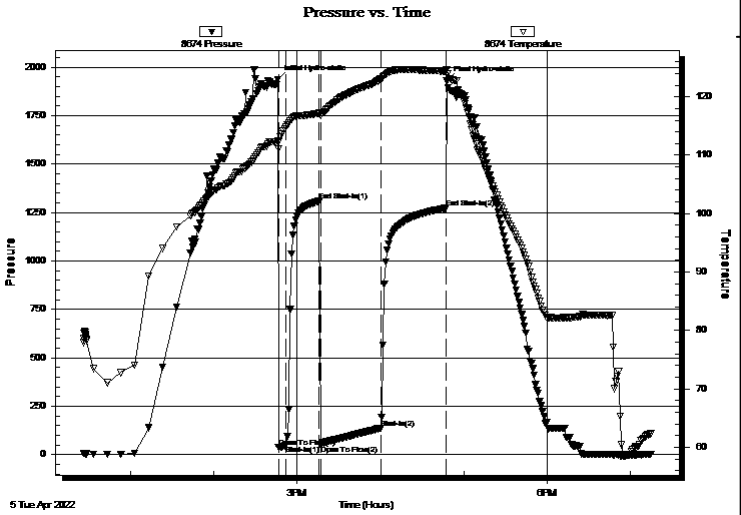
Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 **Outside**

Press@RunDepth: 136.98 psig @ 3937.00 ft (KB)
Start Date: 2022.04.05 End Date: 2022.04.05
Start Time: 12:25:57 End Time: 19:15:21

Capacity: 8000.00 psig
Last Calib.: 2022.04.05
Time On Btm: 2022.04.05 @ 14:45:52
Time Off Btm: 2022.04.05 @ 16:47:52

TEST COMMENT: IF: BOB in 5 min.
IS: No return.
FF: BOB in 3 min. 65"
FS: Surface blow built to 4 1/2" 5-25-45-45



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1937.28	112.45	Initial Hydro-static
1	36.05	111.11	Open To Flow (1)
6	48.79	114.83	Shut-In(1)
30	1308.68	117.21	End Shut-In(1)
31	47.63	116.78	Open To Flow (2)
75	136.98	123.10	Shut-In(2)
122	1272.57	124.38	End Shut-In(2)
122	1928.84	124.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcgo 20%g 60%o 20%m	1.77
176.00	mcgo 10%g 60%o 30%m	2.47
0.00	391 GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68745 **DST#: 1**

Test Start: 2022.04.05 @ 12:25:52

GENERAL INFORMATION:

Formation: **LKC I J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:46:22
Time Test Ended: 19:15:22

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

Interval: 3936.00 ft (KB) To 3997.00 ft (KB) (TVD)
Total Depth: 3997.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

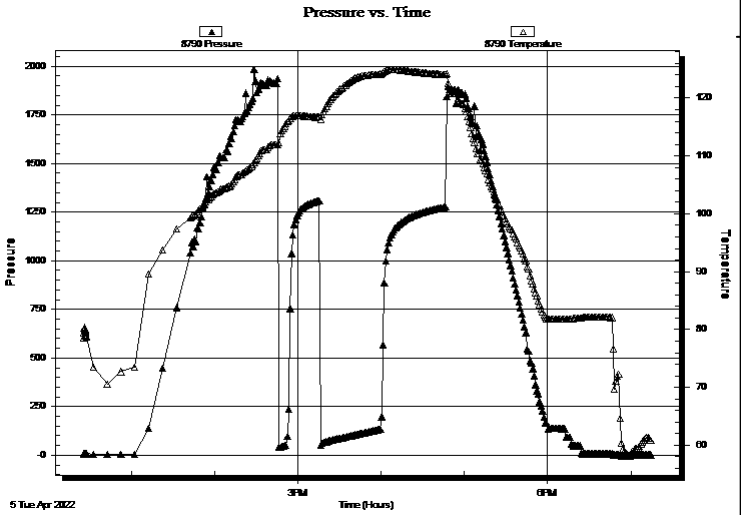
Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: psig @ 3937.00 ft (KB)
Start Date: 2022.04.05 End Date: 2022.04.05
Start Time: 12:25:21 End Time: 19:14:45

Capacity: 8000.00 psig
Last Calib.: 2022.04.05
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB in 5 min.
IS: No return.
FF: BOB in 3 min. 65"
FS: Surface blow built to 4 1/2" 5-25-45-45



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcgo 20%g 60%o 20%m	1.77
176.00	mcgo 10%g 60%o 30%m	2.47
0.00	391 GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68745 **DST#: 1**

Test Start: 2022.04.05 @ 12:25:52

Tool Information

Drill Pipe:	Length:	3911.00 ft	Diameter:	3.80	inches	Volume:	54.86	bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	Weight to Pull Loose:	60000.00 lb
						Total Volume:	54.86	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		4.00 ft							String Weight: Initial	48000.00 lb
Depth to Top Packer:		3936.00 ft							Final	50000.00 lb
Depth to Bottom Packer:		ft								
Interval betw een Packers:		61.00 ft								
Tool Length:		90.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00		Fluid	3908.00		
Shut In Tool	5.00			3913.00		
Hydraulic tool	5.00			3918.00		
Jars	5.00			3923.00		
EM Tool	2.00			3925.00		
Safety Joint	2.00			3927.00		
Packer	5.00			3932.00	29.00	Bottom Of Top Packer
Packer	4.00			3936.00		
Stubb	1.00			3937.00		
Recorder	0.00	8790	Inside	3937.00		
Recorder	0.00	8674	Outside	3937.00		
Perforations	23.00			3960.00		
Change Over Sub	1.00			3961.00		
Drill Pipe	32.00			3993.00		
Change Over Sub	1.00			3994.00		
Bullnose	3.00			3997.00	61.00	Bottom Packers & Anchor
Total Tool Length:	**90.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68745 **DST#: 1**

Test Start: 2022.04.05 @ 12:25:52

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

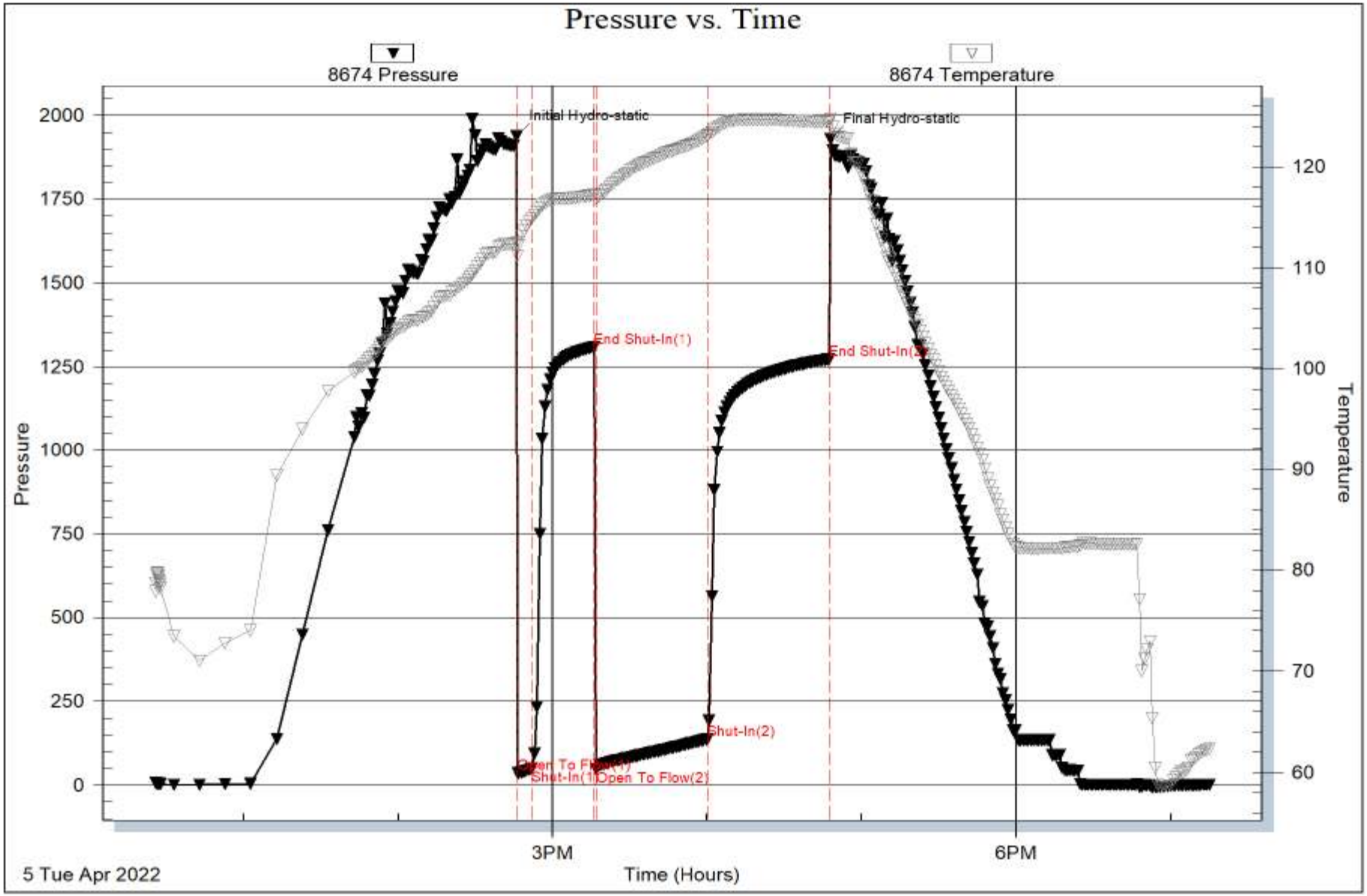
Recovery Table

Length ft	Description	Volume bbl
126.00	mcgo 20%g 60%o 20%m	1.767
176.00	mcgo 10%g 60%o 30%m	2.469
0.00	391 GIP	0.000

Total Length: 302.00 ft Total Volume: 4.236 bbl

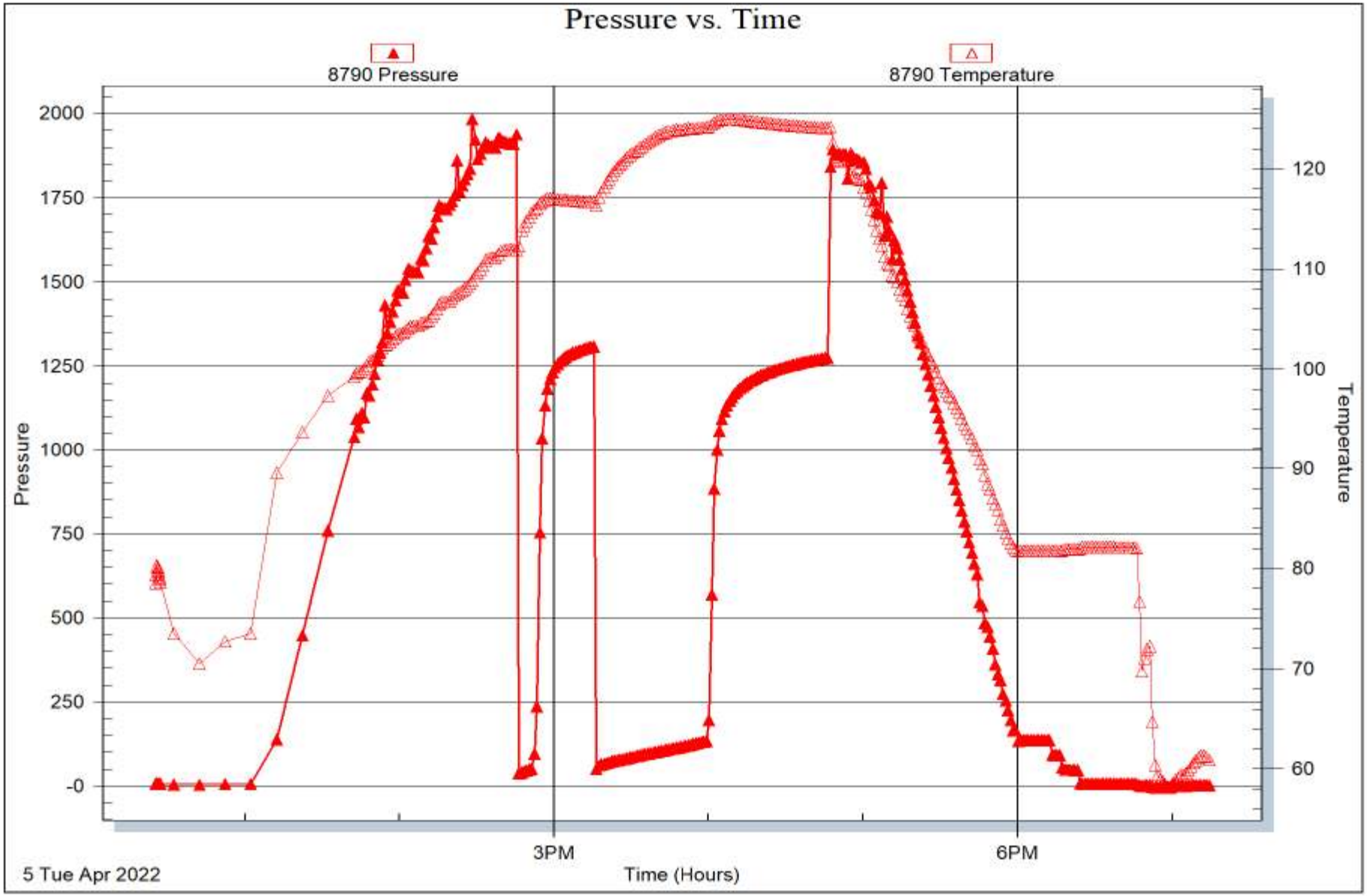
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8674 **Outside** Black Rock Polifka #13-1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 68745 Printed: 2022.04.12 @ 08:25:30

Serial #: 8790 **Inside** Black Rock Polifka #13-1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 68745 Printed: 2022.04.12 @ 08:25:30

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Black Rock**

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

Polifka #13-1

13-13S-27W Gove,KS

Start Date: 2022.04.06 @ 15:50:38
End Date: 2022.04.06 @ 22:45:38
Job Ticket #: 68746 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.04.12 @ 08:24:56

DRILL STEM TEST REPORT

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68746 **DST#: 2**

Test Start: 2022.04.06 @ 15:50:38

GENERAL INFORMATION:

Formation: **LKC K L**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:06:38
Time Test Ended: 22:45:38

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 3994.00 ft (KB) To 4044.00 ft (KB) (TVD)
Total Depth: 4044.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

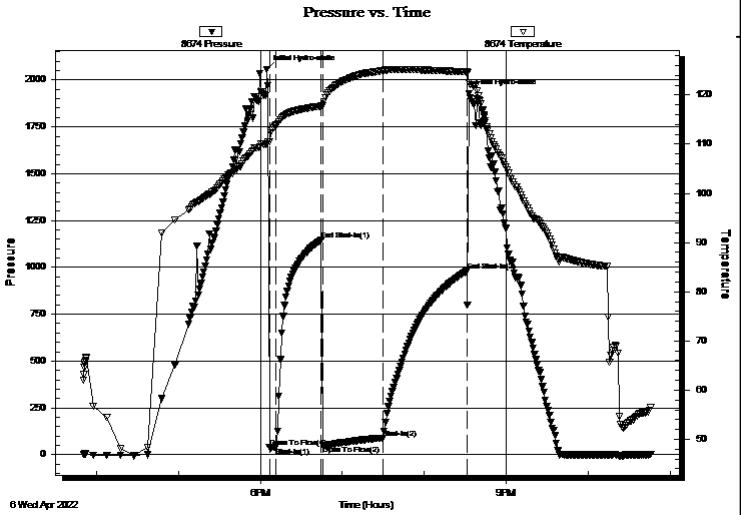
Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 **Outside**

Press@RunDepth: 88.61 psig @ 3995.00 ft (KB)
Start Date: 2022.04.06 End Date: 2022.04.06
Start Time: 15:50:43 End Time: 22:45:37

Capacity: 8000.00 psig
Last Calib.: 2022.04.06
Time On Btm: 2022.04.06 @ 18:04:38
Time Off Btm: 2022.04.06 @ 20:32:38

TEST COMMENT: IF: BOB in 5 min.
IS: No return.
FF: BOB in 4 min. 32"
FS: Surface blow built to 1/2". 5-35-45-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2056.38	110.12	Initial Hydro-static
2	40.45	110.48	Open To Flow (1)
7	40.88	113.76	Shut-In(1)
40	1145.09	117.73	End Shut-In(1)
41	50.08	117.78	Open To Flow (2)
85	88.61	124.96	Shut-In(2)
147	979.80	124.71	End Shut-In(2)
148	1927.38	122.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	ocmw 5%o 85%w 10%m	0.88
103.00	mcgo 10%g 60%o 30%m	1.44
0.00	401 GIP	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68746 **DST#: 2**

Test Start: 2022.04.06 @ 15:50:38

GENERAL INFORMATION:

Formation: **LKC K L**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:06:38
Time Test Ended: 22:45:38

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 3994.00 ft (KB) To 4044.00 ft (KB) (TVD)
Total Depth: 4044.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

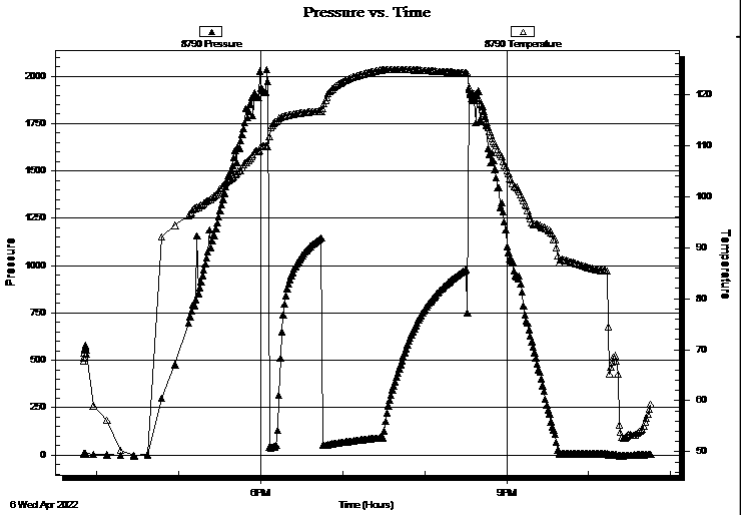
Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: psig @ 3995.00 ft (KB)
Start Date: 2022.04.06 End Date: 2022.04.06
Start Time: 15:50:26 End Time: 22:45:20

Capacity: 8000.00 psig
Last Calib.: 2022.04.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB in 5 min.
IS: No return.
FF: BOB in 4 min. 32"
FS: Surface blow built to 1/2". 5-35-45-60



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
63.00	ocmw 5%o 85%w 10%m	0.88
103.00	mcgo 10%g 60%o 30%m	1.44
0.00	401 GIP	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68746 **DST#: 2**

Test Start: 2022.04.06 @ 15:50:38

Tool Information

Drill Pipe:	Length:	3974.00 ft	Diameter:	3.80	inches	Volume:	55.74	bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	Weight to Pull Loose:	65000.00 lb
						Total Volume:	55.74	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		9.00 ft							String Weight: Initial	48000.00 lb
Depth to Top Packer:		3994.00 ft							Final	52000.00 lb
Depth to Bottom Packer:		ft								
Interval betw een Packers:		50.00 ft								
Tool Length:		79.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00		Fluid	3966.00		
Shut In Tool	5.00			3971.00		
Hydraulic tool	5.00			3976.00		
Jars	5.00			3981.00		
EM Tool	2.00			3983.00		
Safety Joint	2.00			3985.00		
Packer	5.00			3990.00	29.00	Bottom Of Top Packer
Packer	4.00			3994.00		
Stubb	1.00			3995.00		
Recorder	0.00	8790	Inside	3995.00		
Recorder	0.00	8674	Outside	3995.00		
Perforations	12.00			4007.00		
Change Over Sub	1.00			4008.00		
Drill Pipe	32.00			4040.00		
Change Over Sub	1.00			4041.00		
Bullnose	3.00			4044.00	50.00	Bottom Packers & Anchor
Total Tool Length:	**79.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68746 **DST#: 2**

Test Start: 2022.04.06 @ 15:50:38

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	54000 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	ocmw 5%o 85%w 10%m	0.884
103.00	mcgo 10%g 60%o 30%m	1.445
0.00	401 GIP	0.000

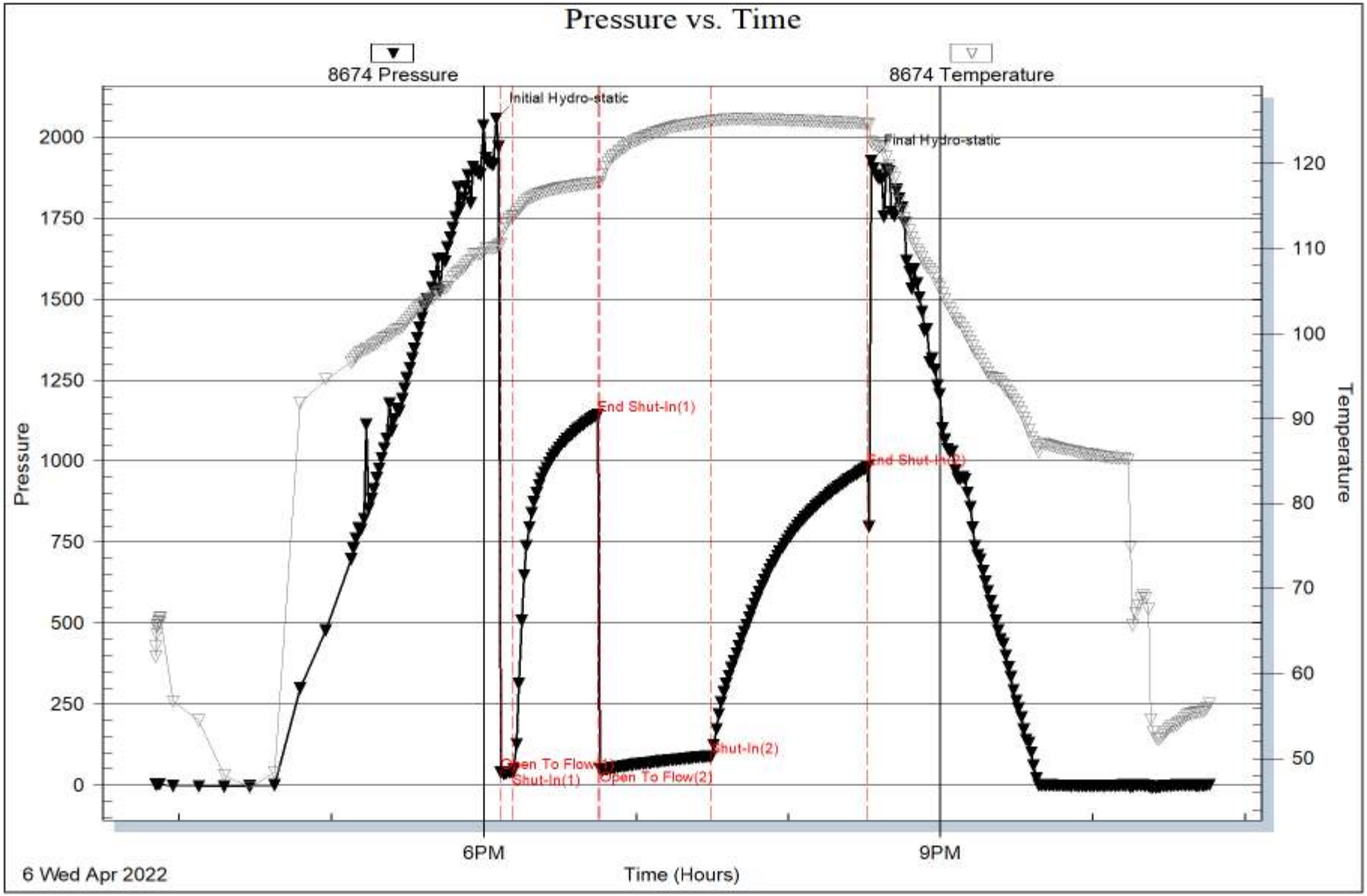
Total Length: 166.00 ft Total Volume: 2.329 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

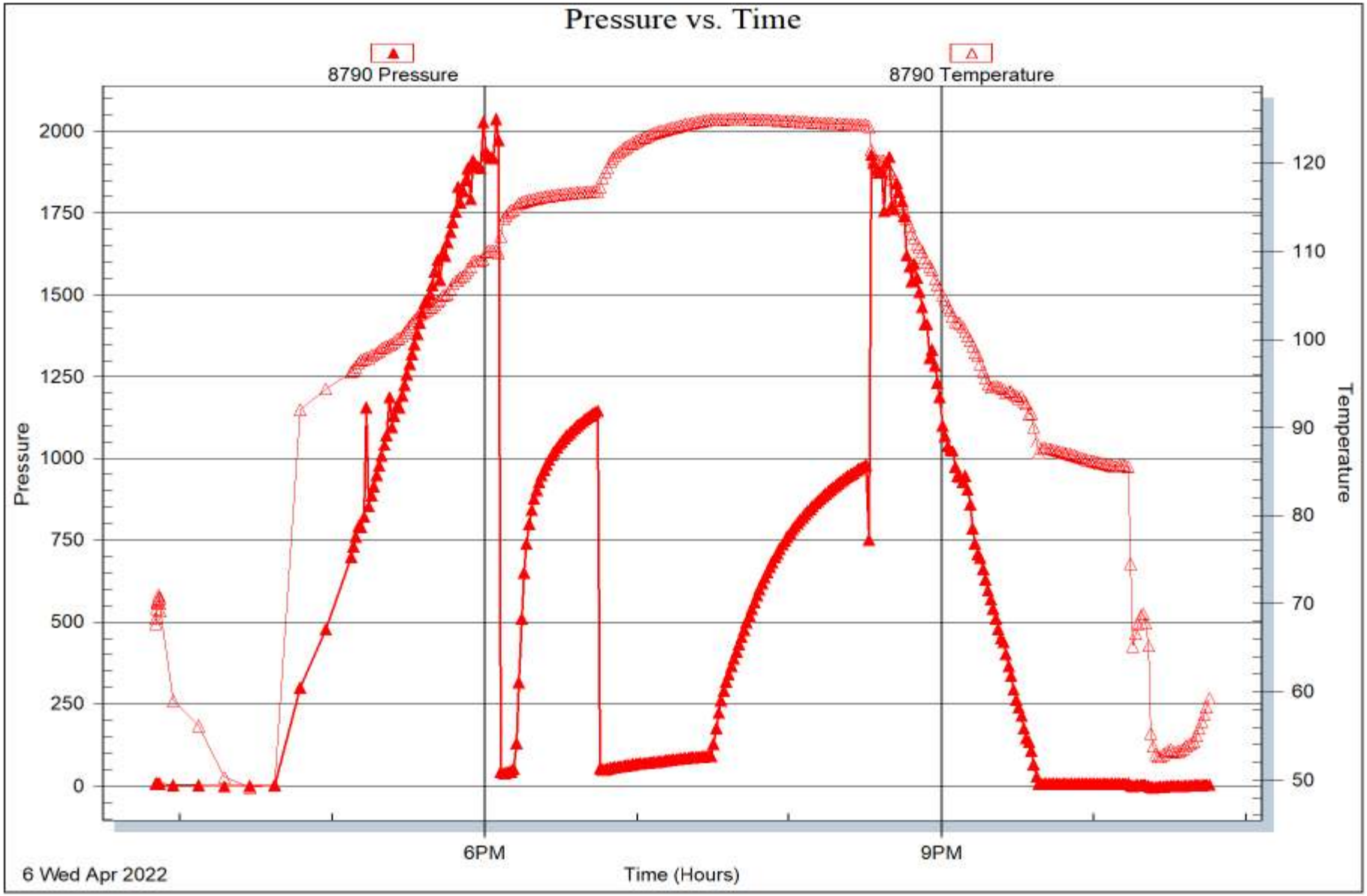
Recovery Comments: .25@41=54000

Serial #: 8674 **Outside** Black Rock Polifka #13-1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 68746 Printed: 2022.04.12 @ 08:24:58

Serial #: 8790 **Inside** Black Rock Polifka #13-1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 68746 Printed: 2022.04.12 @ 08:24:58

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Black Rock**

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

Polifka #13-1

13-13S-27W Gove,KS

Start Date: 2022.04.07 @ 02:49:39
End Date: 2022.04.07 @ 08:10:09
Job Ticket #: 68747 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.04.12 @ 08:22:28

DRILL STEM TEST REPORT

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68747 **DST#: 3**

Test Start: 2022.04.07 @ 02:49:39

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:47:09
Time Test Ended: 08:10:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4130.00 ft (KB) To 4215.00 ft (KB) (TVD)
Total Depth: 4130.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

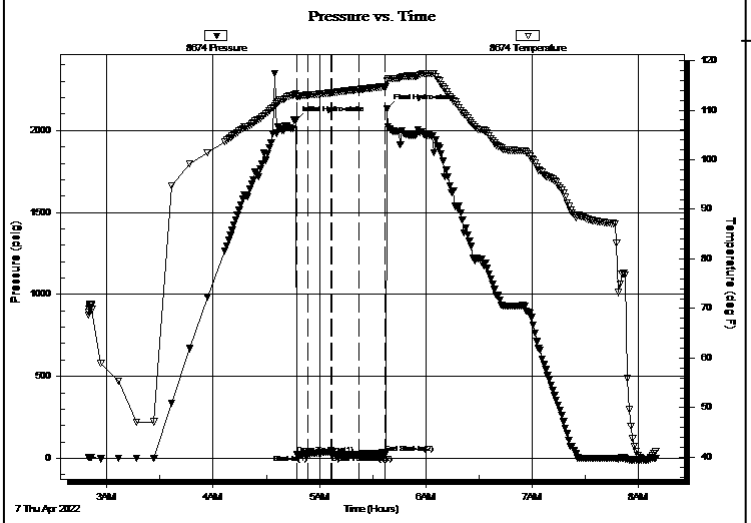
Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8674 **Outside**

Press@RunDepth: 25.11 psig @ 4131.00 ft (KB)
Start Date: 2022.04.07 End Date: 2022.04.07
Start Time: 02:49:44 End Time: 08:10:08

Capacity: 8000.00 psig
Last Calib.: 2022.04.07
Time On Btm: 2022.04.07 @ 04:46:39
Time Off Btm: 2022.04.07 @ 05:38:09

TEST COMMENT: IF: Surface blow .
IS: No return.
FF: No blow .
FS: No return. 5-15-15-15



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.18	113.41	Initial Hydro-static
1	25.59	112.76	Open To Flow (1)
7	25.57	113.02	Shut-In(1)
20	39.46	113.50	End Shut-In(1)
21	24.10	113.52	Open To Flow (2)
36	25.11	114.16	Shut-In(2)
51	33.24	114.78	End Shut-In(2)
52	2131.12	116.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68747 **DST#: 3**

Test Start: 2022.04.07 @ 02:49:39

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:47:09
Time Test Ended: 08:10:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4130.00 ft (KB) To 4215.00 ft (KB) (TVD)
Total Depth: 4130.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

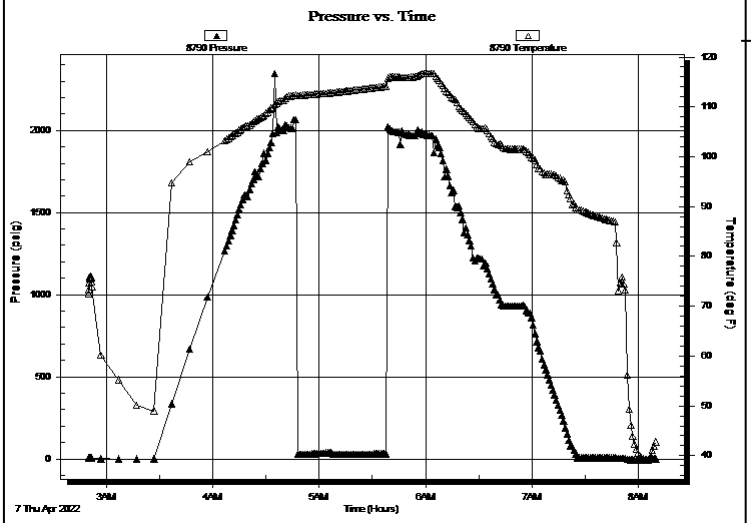
Reference Elevations: 2521.00 ft (KB)
2511.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: psig @ 4131.00 ft (KB)
Start Date: 2022.04.07 End Date: 2022.04.07
Start Time: 02:49:54 End Time: 08:10:18

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Surface blow .
IS: No return.
FF: No blow .
FS: No return. 5-15-15-15



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68747 **DST#: 3**

Test Start: 2022.04.07 @ 02:49:39

Tool Information

Drill Pipe:	Length:	4131.00 ft	Diameter:	3.80	inches	Volume:	57.95	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
						Total Volume:	57.95	bbl	

Drill Pipe Above KB:	30.00 ft
Depth to Top Packer:	4130.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	85.00 ft
Tool Length:	114.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		30000.00 lb
Weight to Pull Loose:		55000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	48000.00 lb
	Final	48000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00		Fluid	4102.00		
Shut In Tool	5.00			4107.00		
Hydraulic tool	5.00			4112.00		
Jars	5.00			4117.00		
EM Tool	2.00			4119.00		
Safety Joint	2.00			4121.00		
Packer	5.00			4126.00	29.00	Bottom Of Top Packer
Packer	4.00			4130.00		
Stubb	1.00			4131.00		
Recorder	0.00	8790	Inside	4131.00		
Recorder	0.00	8674	Outside	4131.00		
Perforations	16.00			4147.00		
Change Over Sub	1.00			4148.00		
Drill Pipe	63.00			4211.00		
Change Over Sub	1.00			4212.00		
Bullnose	3.00			4215.00	85.00	Bottom Packers & Anchor
Total Tool Length:	**114.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Rock

1029 E 7th St
Russel, KS 67665

ATTN: Chad Counts

13-13S-27W Gove,KS

Polifka #13-1

Job Ticket: 68747 **DST#: 3**

Test Start: 2022.04.07 @ 02:49:39

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2700.00 ppm				
Filter Cake:	1.00 inches				

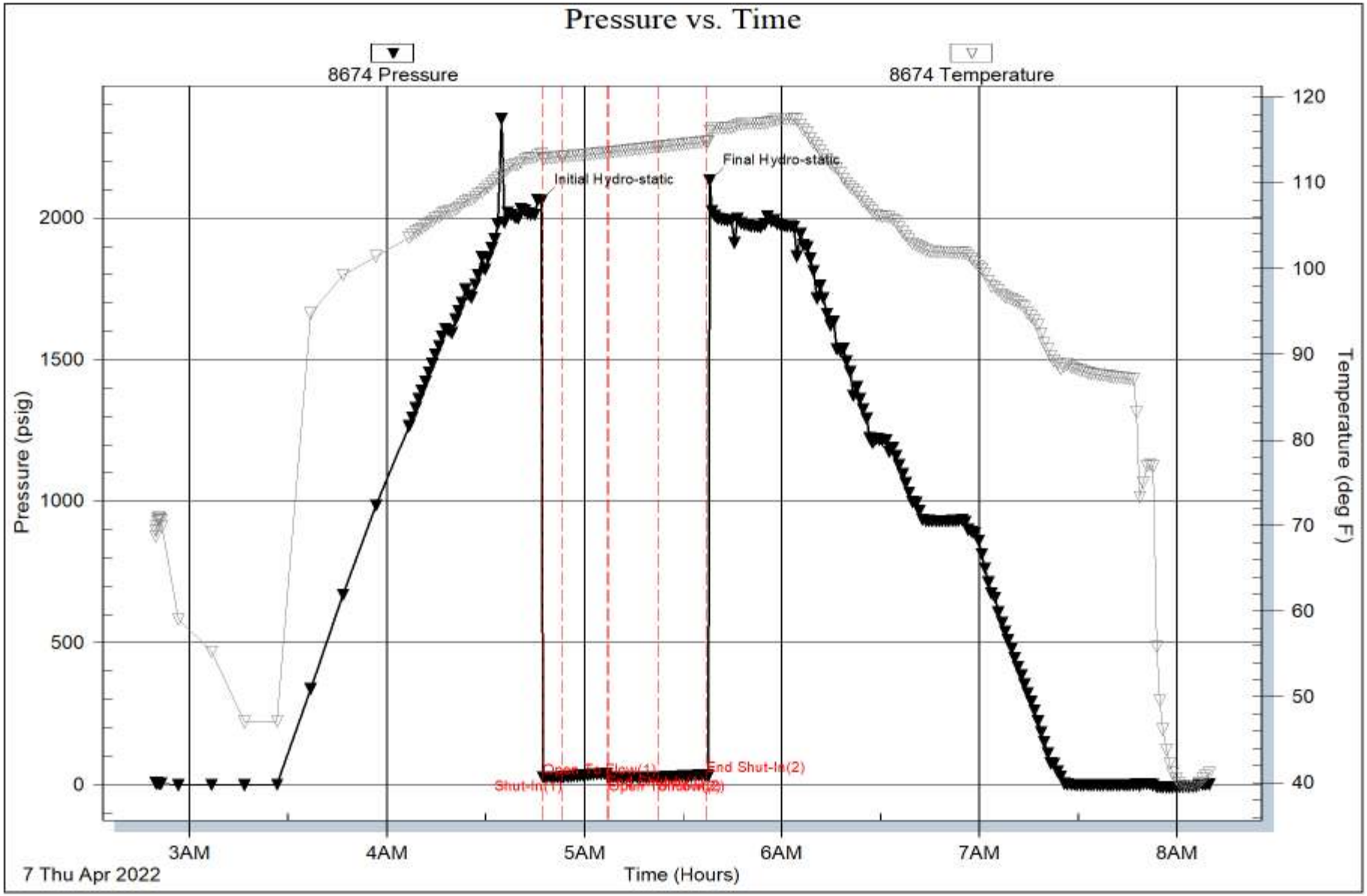
Recovery Information

Recovery Table

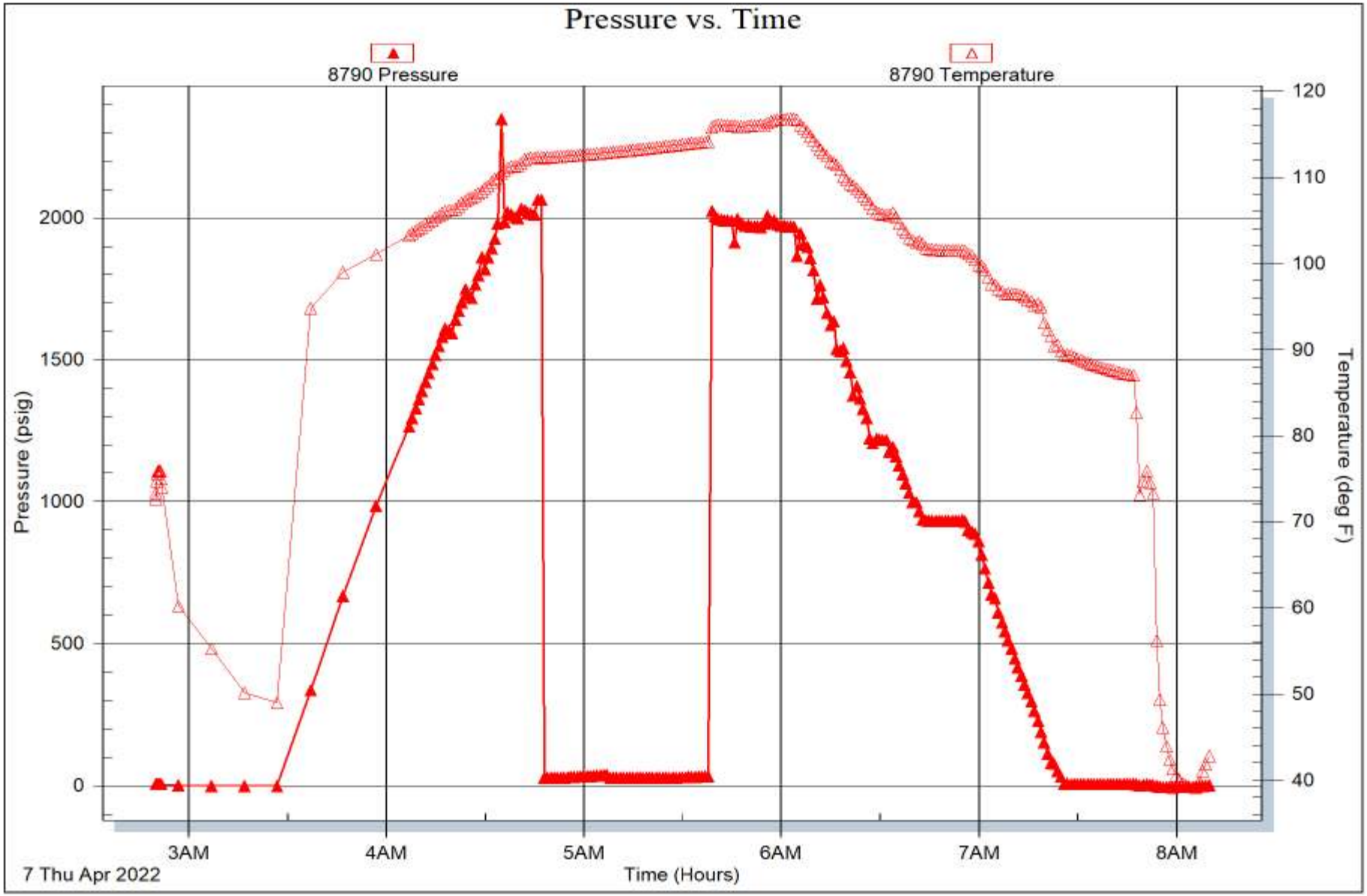
Length ft	Description	Volume bbl
5.00	mud 100%m	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
8674 Pressure
8674 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
Pressure (psig)
Temperature (deg F)
Time (Hours)
7 Thu Apr 2022
3AM
4AM
5AM
6AM
7AM
8AM
0
500
1000
1500
2000
40
50
60
70
80
90
100
110
120

Serial #: 8790 **Inside** Black Rock Polifka #13-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 68747 Printed: 2022.04.12 @ 08:22:29

TRILOBITE TESTING INC.
1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68745

Well Name & No. Polifka 13-1 Test No. 1 Date 4-5-22
Company Black Rock Elevation 2521 KB 2511 GL
Address 1029 E 7th St Russel, KS 67665
Co. Rep / Geo. Chad Counts Rig Southwind 8
Location: Sec. 13 Twp 13 Rge. 27 Co. Gove State KS

Interval Tested 3936 3997 Zone Tested LKC I-J
Anchor Length 61 Drill Pipe Run 3911 Mud Wt. 9.2
Top Packer Depth 3931 Drill Collars Run — Vis 52
Bottom Packer Depth 3936 Wt. Pipe Run — WL 8.8
Total Depth 3997 Chlorides 2200 ppm System LCM 2

Blow Description IF: BoB in 5 mins.
IS: No return.
FF: BoB in 3 mins. 65"
FS: Surface blow built to 4½.

Rec 176 Feet of MCGO 10 %gas 60 %oil %water 30 %mud
Rec 126 Feet of MCGO 20 %gas 60 %oil %water 20 %mud
Rec Feet of 391 GIP %gas %oil %water %mud
Rec Feet of %gas %oil %water %mud
Rec Feet of %gas %oil %water %mud

Rec Total 302 BHT 124 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1937	☑ Test	1800	T-On Location	11:20
(B) First Initial Flow	36	☑ Jars	300	T-Started	12:25
(C) First Final Flow	48	☑ Safety Joint		T-Open	14:46
(D) Initial Shut-In	1308	☑ Circ Sub	N/C	T-Pulled	16:46
(E) Second Initial Flow	47	☐ Hourly Standby		T-Out	19:16
(F) Second Final Flow	136	☑ Mileage	144 – 216	Comments	out of town
(G) Final Shut-In	1272	☐ Sampler			
(H) Final Hydrostatic	1928	☐ Straddle		☑ EM Tool	
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	5	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	26	☐ Extra Recorder		☐ Extra Copies	
Final Flow	45	☐ Day Standby		Sub Total	0
Final Shut-In	45	☐ Accessibility		Total	2316
		Sub Total	2316	MP/DST Disc't	

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 68746

Well Name & No. Polifka 13-1 Test No. 2 Date 4-6-22

Company Black Rock Elevation 2521 KB 2514 GL

Address

Co. Rep / Geo. Chad Counts Rig Southwind 8

Location: Sec. 13 Twp 13 Rge. 27 Co. Gove State KS

Interval Tested 3994 4044 Zone Tested K L

Anchor Length 50 Drill Pipe Run 3974 Mud Wt. 9.2

Top Packer Depth 3989 Drill Collars Run — Vis 52

Bottom Packer Depth 3994 Wt. Pipe Run — WL 8.8

Total Depth 4044 Chlorides 2200 ppm System LCM 2

Blow Description IF: BOB in 5 mins.

IS: No return,

FF: BOB in 4 mins. 32"

FS: Surface blow built to ½.

Rec 103	Feet of ~~gcm~~ MCGO	10	%gas	60	%oil	%water 30	%mud
Rec 63	Feet of OCMW	~~5~~	%gas	5	%oil	85 %water 10	%mud
Rec	Feet of 401 GIP		%gas		%oil	%water	%mud
Rec	Feet of		%gas		%oil	%water	%mud
Rec	Feet of		%gas		%oil	%water	%mud

Rec Total 166 BHT 124 Gravity — API RW .25 @ 41 °F Chlorides 54,000 ppm

(A) Initial Hydrostatic	2056	☑ Test	1950	T-On Location	3:00
(B) First Initial Flow	40	☑ Jars	300	T-Started	3:50
(C) First Final Flow	40	☑ Safety Joint		T-Open	6:06
(D) Initial Shut-In	1145	☑ Circ Sub		T-Pulled	8:31
(E) Second Initial Flow	50	☐ Hourly Standby		T-Out	10:47
(F) Second Final Flow	88	☑ Mileage	144 - 216	Comments	
(G) Final Shut-In	979	☐ Sampler			
(H) Final Hydrostatic	1927	☐ Straddle		☐ EM Tool	
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	5	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	35	☐ Extra Recorder		☐ Extra Copies	
Final Flow	45	☐ Day Standby		Sub Total	0
Final Shut-In	60	☐ Accessibility		Total	2466
		Sub Total	2466	MP/DST Disc't	

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 68747

Well Name & No. Polifka 13-1 Test No. 3 Date 4-7-22

Company Black Rock Elevation 2521 KB 2511 GL

Address

Co. Rep / Geo. Chad Counts Rig Southwind 8

Location: Sec. 13 Twp 13 Rge. 27 Co. Gove State KS

Interval Tested 4130 4215 Zone Tested Pawnee

Anchor Length 85 Drill Pipe Run 4130 Mud Wt. 9.2

Top Packer Depth 4125 Drill Collars Run — Vis 55

Bottom Packer Depth 4130 Wt. Pipe Run — WL 8.0

Total Depth 4215 Chlorides 2700 ppm System LCM 2

Blow Description IF: Surface blow.
IS: No return.
FF: No blow.
FSi No return

Rec 5	Feet of Mud	%gas	%oil	%water 100	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 114 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2062	☑ Test	1950	T-On Location	1:30
(B) First Initial Flow	25	☑ Jars	300	T-Started	2:49
(C) First Final Flow	25	☑ Safety Joint		T-Open	4:46
(D) Initial Shut-In	39	☑ Circ Sub	NIL	T-Pulled	5:36
(E) Second Initial Flow	24	☐ Hourly Standby		T-Out	8:15
(F) Second Final Flow	25	☑ Mileage	144 - x2 432	Comments	loaded 4-8 9:45 pm
(G) Final Shut-In	33	☐ Sampler			
(H) Final Hydrostatic	2131	☐ Straddle		☑ EM Tool	-350
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	5	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	15	☐ Extra Recorder		☐ Extra Copies	
Final Flow	15	☑ Day Standby	1d 1.5h	Sub Total	-350 + 800
Final Shut-In	15	☐ Accessibility		Total	3132
		Sub Total	2682	MP/DST Disc't	

Approved By Our Representative