KOLAR Document ID: 1650370

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 # 30717
Name: Downing-Nelson Oil Co Inc
Address 1: PO BOX 1019
Address 2:
City: HAYS State: KS Zip: 67601 + 1019
Contact Person: Alan Downing
Phone: (785) 621-2610
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Marc Downing
Purchaser:

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 #:

06/15/2022 Spud Date or Recompletion Date
06/23/2022 Date Reached TD
07/12/2022 Completion Date or Recompletion Date

API No.: 15-153-21295-00-00
Spot Description:
NW SW SE SW Sec. 17 Twp. 5 S. R. 36 ☐ East ☑ West
532 Feet from ☐ North / ☑ South Line of Section
1567 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: Rawlins
Lease Name: D & D KRAMER Well #: 1-17
Field Name: Charlene
Producing Formation: Cherokee Lime
Elevation: Ground: 3331 Kelly Bushing: 3342
Total Vertical Depth: 4960 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 482 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 8000 ppm Fluid volume: 400 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: 07/28/2022
☐ **Confidential Release Date:** 07/27/2024
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** David Befort **Date:** 07/28/2022

Operator Name: Downing-Nelson Oil Co Inc Lease Name: D & D KRAMER Well #: 1-17

Sec. 17 Twp. 5 S. R. 36 ☐ East ☑ West County: Rawlins

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: Attached

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

Name: Attached Top: Attached Datum: Attached

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	482	H-325	350	-
Production	7.875	5.5	13	4959	H-Long	200	-

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: 07/14/2022	Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*					
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:	
		Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	4681	4686
		4690	4694

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	4690	4694			750 gallons 15% Mud Acid
4	4681	4686			750 gallons 20% NE, 500# roc salt, 750 gallons 20% NE

TUBING RECORD:	Size:	Set At:	Packer At:	
	2.375	4895		

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

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	D & D KRAMER 1-17
Doc ID	1650370

All Electric Logs Run

Sonic
Micro
Dual Induction
Compensated Density Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	D & D KRAMER 1-17
Doc ID	1650370

Tops

Name	Top	Datum
Top Anhydrite	3046'	+296
Base Anhydrite	3082'	+260
Foraker	3728'	-386
Topeka	4010'	-668
Heebner	4172'	-830
LKC	4223'	-881
Stark	4420'	-1078
BKC	4478'	-1136
Marmaton	4486'	-1144
Pawnee	4600'	-1258
Cherokee Shale	4677'	-1335
Mississippi	4888'	-1546

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	D & D KRAMER 1-17
Doc ID	1650370

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	482	H-325	350	-
Production	7.875	5.5	13	4959	H-Long	200	-

CEMENT TREATMENT REPORT

Customer:	Downing Nelson	Well:	D&D Kramer # 1-17	Ticket:	WP-2945
City, State:	Brewster KS	County:	Rawlins KS	Date:	6/16/2022
Field Rep:	Jesse	S-T-R:	17-5S-36W	Service:	Surface

Downhole Information	
Hole Size:	12 1/4 in
Hole Depth:	487 ft
Casing Size:	8 5/8 in
Casing Depth:	486 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	29.5 bbls

Calculated Slurry - Lead	
Blend:	H-325
Weight:	14.8 ppg
Water / Sx:	6.8 gal / sx
Yield:	1.41 ft^3 / sx
Annular Bbls / Ft.:	0.0735 bbs / ft.
Depth:	487 ft
Annular Volume:	35.8 bbls
Excess:	
Total Slurry:	87.9 bbls
Total Sacks:	350 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
3:15a			-	-	Arrival
3:20a				-	Safety meeting
3:25a				-	Rig up
8:25a				-	Circulate hole
8:30a	5.1	200.0	5.0	5.0	H2O ahead
8:32a	5.3	390.0	87.9	92.9	Mixed 350 sks of H-325 @ 14.8 ppg @ 487'
8:54a	6.6	430.0	29.7	122.6	Displace H2O
9:00a				122.6	Plug down
9:02a				122.6	Wash up
9:10a				122.6	Rig down
9:25a				122.6	Depart location
					Circulated 5 bbl to pit

CREW		UNIT
Cementer:	Jesse	78
Pump Operator:	Michael	230
Bulk #1:	Kale	180-530
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
5.7 bpm	340 psi	123 bbls

ftv: 15-2021/01/25
mplv: 264-2022/05/23

CEMENT TREATMENT REPORT

Customer:	Downing Nelson	Well:	D&D Kramer # 1-17	Ticket:	WP
City, State:		County:	Sherman, KS	Date:	6/24/2022
Field Rep:	Spencer Savage	S-T-R:	17-5S-36W	Service:	Longstring

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4960 ft
Casing Size:	5 1/2 in
Casing Depth:	4946 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	119.8 bbls

Calculated Slurry - Lead	
Blend:	H-Long
Weight:	15.0 ppg
Water / Sx:	6.2 gal / sx
Yield:	1.36 ft^3 / sx
Annular Bbls / Ft.:	0.0309 bbs / ft.
Depth:	ft
Annular Volume:	bbls
Excess:	
Total Slurry:	48.9 bbls
Total Sacks:	200 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	bbls
Excess:	
Total Slurry:	bbls
Total Sacks:	sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
130am					arrive on loction
700am					Saftey Meeting
715am					Rig Up
748am	1.0	50.0	12.6	12.6	Pumped 20sks in mouse hole and 30 sks in rat hole H-plug 13.8ppg 4933' of casing plus 13' landing joint
804am	5.0	100.0	5.0	17.6	H2O ahead
806am	5.0	150.0	12.0	29.6	Mud flush
808am	2.3	100.0	7.0	36.6	H2O spacer
811am	2.3	50.0	1.0	37.6	Start Cement Slurry 15.0 ppg
818am	4.0	70.0	10.0	46.6	
832am	5.0	120.0	48.9	85.5	shut down
833am					drop plug wash pumps & lines
835am	6.0	160.0	1.0	86.5	start displacement
859am	3.5	1,000.0	120.0	205.5	Land Plug 1600psi landing pressure
910am					bleed off well pressure knock off well and wash up
920am					rig down
945am					leave location

CREW		UNIT
Cementer:	Spencer	528/520
Pump Operator:	Jimmie	159/254
Bulk #1:		
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
3.8 bpm	200 psi	218 bbls

ftv: 15-2021/01/25
mplv: 264-2022/05/23

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co. Inc**

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

D&D Kramer #1-17

17-5s-36w Rawlins,KS

Start Date: 2022.06.21 @ 09:52:00
End Date: 2022.06.21 @ 17:24:45
Job Ticket #: 69102 DST #: 1

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

Printed: 2022.06.24 @ 13:55:23

DRILL STEM TEST REPORT

Downing-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69102 **DST#: 1**

Test Start: 2022.06.21 @ 09:52:00

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:33:30
Time Test Ended: 17:24:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Day
Unit No: 70

Interval: 4578.00 ft (KB) To 4620.00 ft (KB) (TVD)
Total Depth: 4620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

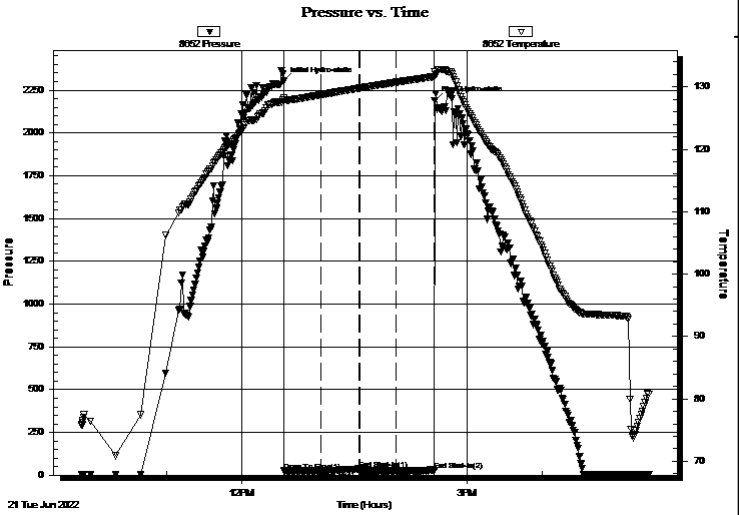
Reference Elevations: 3342.00 ft (KB)
3331.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8652 **Outside**

Press@RunDepth: 24.99 psig @ 4579.00 ft (KB)
Start Date: 2022.06.21 End Date: 2022.06.21
Start Time: 09:52:05 End Time: 17:24:44

Capacity: 8000.00 psig
Last Calib.: 2022.06.21
Time On Btm: 2022.06.21 @ 12:33:15
Time Off Btm: 2022.06.21 @ 14:33:45

TEST COMMENT: IF-30- Built to 1/4", died to a weak surface blow
SI1-30- No return
FF-30- No blow, Flushed tool, No blow
SI2-30- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2302.78	128.22	Initial Hydro-static
1	23.93	127.60	Open To Flow (1)
30	24.36	128.73	Shut-In(1)
61	36.23	129.79	End Shut-In(1)
61	24.26	129.79	Open To Flow (2)
90	24.99	130.74	Shut-In(2)
121	29.83	131.65	End Shut-In(2)
121	2189.41	132.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%	0.02

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69102 **DST#: 1**

Test Start: 2022.06.21 @ 09:52:00

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:33:30
Time Test Ended: 17:24:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Day
Unit No: 70

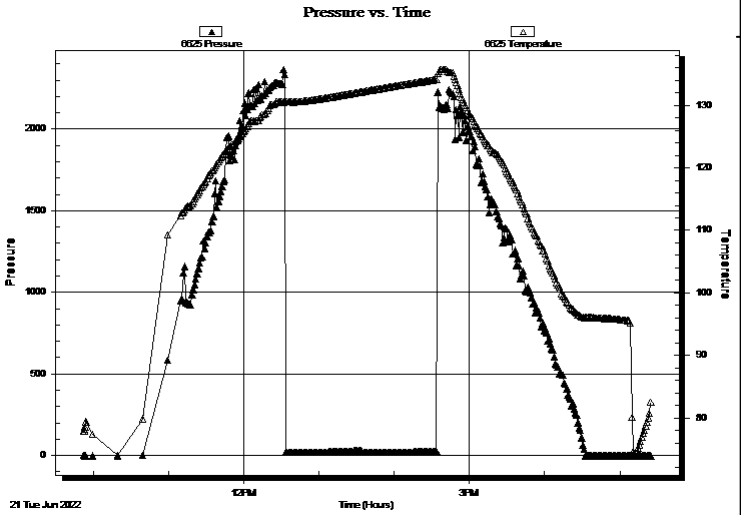
Interval: 4578.00 ft (KB) To 4620.00 ft (KB) (TVD)
Total Depth: 4620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3342.00 ft (KB)
3331.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6625 **Inside**
Press@RunDepth: psig @ 4579.00 ft (KB)
Start Date: 2022.06.21 End Date: 2022.06.21
Start Time: 09:52:05 End Time: 17:24:44

Capacity: 8000.00 psig
Last Calib.: 2022.06.21
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-30- Built to 1/4", died to a weak surface blow
SI1-30- No return
FF-30- No blow, Flushed tool, No blow
SI2-30- No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%	0.02

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Dow ning

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69102 **DST#: 1**

Test Start: 2022.06.21 @ 09:52:00

Tool Information

Drill Pipe:	Length:	4386.00 ft	Diameter:	3.80 inches	Volume:	61.52 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	177.00 ft	Diameter:	2.25 inches	Volume:	0.87 bbl	
					Total Volume:	62.39 bbl	

Drill Pipe Above KB:	11.00 ft
Depth to Top Packer:	4578.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	42.00 ft
Tool Length:	68.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2400.00 lb
Weight set on Packer:		26000.00 lb
Weight to Pull Loose:		80000.00 lb
Tool Chased		1.00 ft
String Weight:	Initial	60000.00 lb
	Final	60000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4553.00		
shut In Tool	5.00			4558.00		
hydraulic tool	5.00			4563.00		
EM Tool	3.00			4566.00		
safety Joint	3.00			4569.00		
Packer	5.00			4574.00	26.00	Bottom Of Top Packer
Packer	4.00			4578.00		
Stubb	1.00			4579.00		
Recorder	0.00	6625	Inside	4579.00		
Recorder	0.00	8652	Outside	4579.00		
perforations	4.00			4583.00		
change Over Sub	1.00			4584.00		
drill Pipe	31.00			4615.00		
change Over Sub	1.00			4616.00		
Bullnose	4.00			4620.00	42.00	Bottom Packers & Anchor
Total Tool Length:	**68.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Dow ning

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69102 **DST#: 1**

Test Start: 2022.06.21 @ 09:52:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	63.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%	0.025

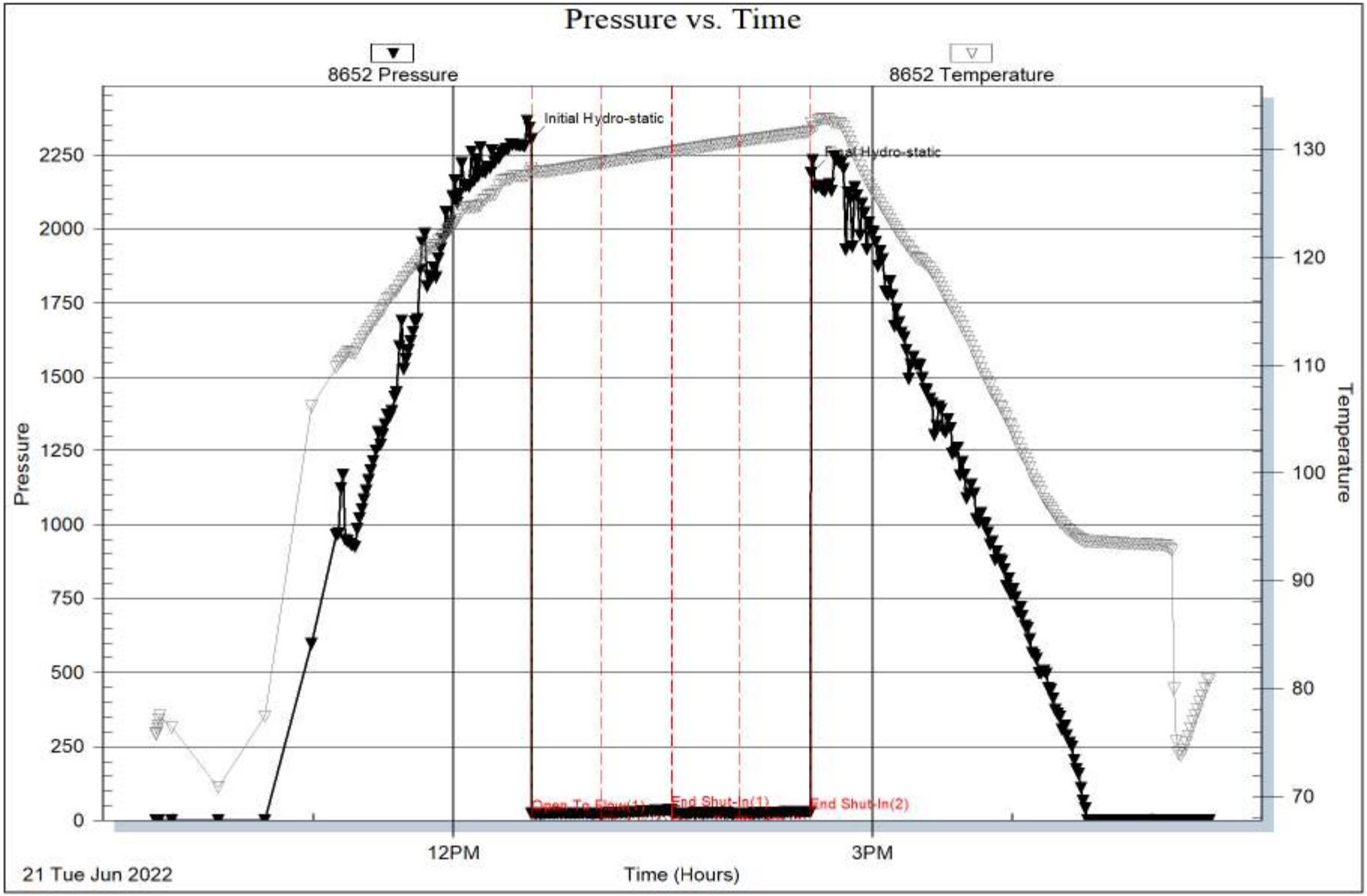
Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

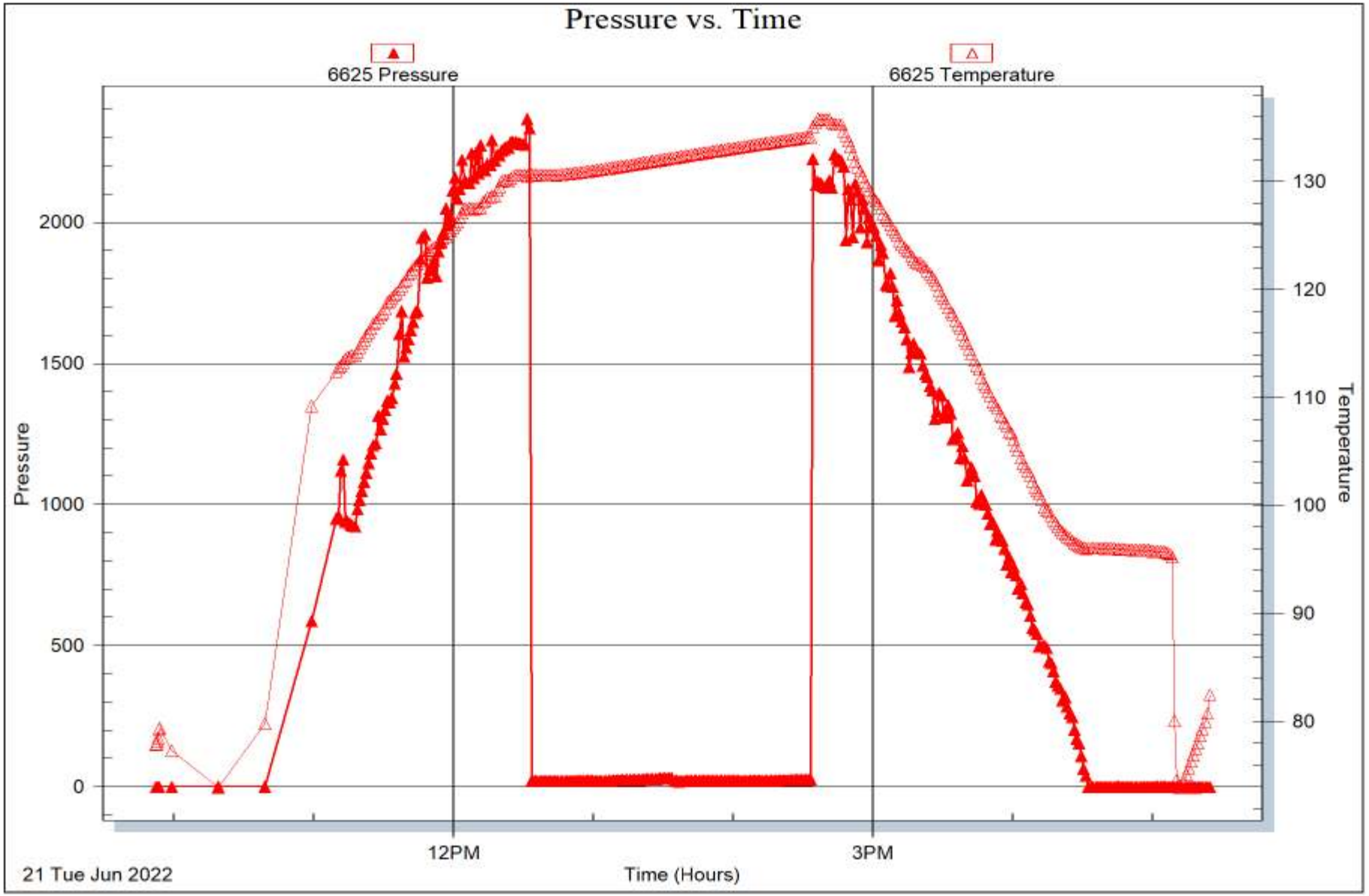
Recovery Comments: 4# LCM

Serial #: 8652 **Outside** Dow ning-Nelson Oil Co. Inc D&D Kramer #1-17 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69102 Printed: 2022.06.24 @ 13:55:23

Serial #: 6625 **Inside** Dow ning-Nelson Oil Co. Inc D&D Kramer #1-17 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69102 Printed: 2022.06.24 @ 13:55:24

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co. Inc**

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

D&D Kramer #1-17

17-5s-36w Rawlins,KS

Start Date: 2022.06.22 @ 06:13:00
End Date: 2022.06.22 @ 14:06:45
Job Ticket #: 69103 DST #: 2

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

Printed: 2022.06.24 @ 13:54:42

DRILL STEM TEST REPORT

Downing-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69103 **DST#: 2**

Test Start: 2022.06.22 @ 06:13:00

GENERAL INFORMATION:

Formation: **Cherokee Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:26:30
Time Test Ended: 14:06:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Dustin Day
Unit No: 70

Interval: 4678.00 ft (KB) To 4704.00 ft (KB) (TVD)
Total Depth: 4704.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

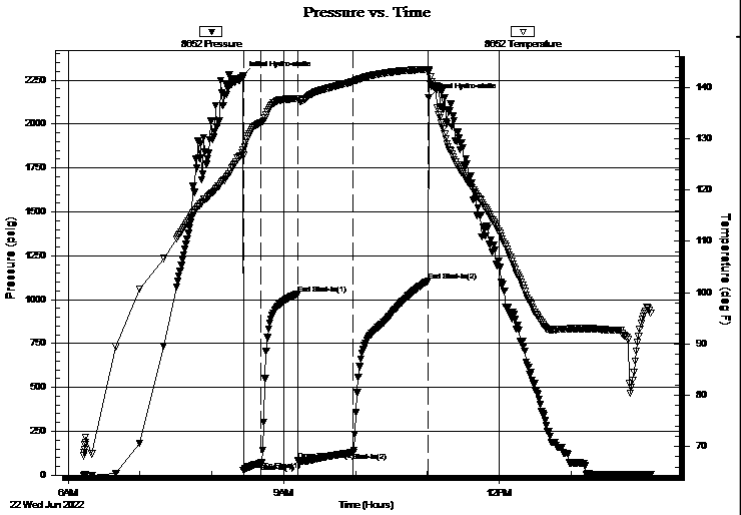
Reference Elevations: 3342.00 ft (KB)
3331.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8652 **Outside**

Press@RunDepth: 129.77 psig @ 4679.00 ft (KB)
Start Date: 2022.06.22 End Date: 2022.06.22
Start Time: 06:13:05 End Time: 14:06:44

Capacity: 8000.00 psig
Last Calib.: 2022.06.22
Time On Btm: 2022.06.22 @ 08:26:15
Time Off Btm: 2022.06.22 @ 11:01:00

TEST COMMENT: IF-15- BOB in 11 1/2 min, built to 16 1/4"
SI1-30- Built to 2 3/4"
FF-45- BOB in 9 1/2 min, built to 40"
SI2-60- Built to 7"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2276.28	127.82	Initial Hydro-static
1	28.52	126.77	Open To Flow (1)
15	66.71	133.15	Shut-In(1)
46	1034.31	137.79	End Shut-In(1)
46	85.96	137.68	Open To Flow (2)
92	129.77	141.15	Shut-In(2)
155	1105.70	143.47	End Shut-In(2)
155	2149.39	143.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	GOCM 10% gas 30% oil 60% mud	0.25
317.00	GO 20% gas 80% oil	3.29
0.00	750 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69103 **DST#: 2**

Test Start: 2022.06.22 @ 06:13:00

GENERAL INFORMATION:

Formation: **Cherokee Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:26:30
Time Test Ended: 14:06:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Dustin Day
Unit No: 70

Interval: 4678.00 ft (KB) To 4704.00 ft (KB) (TVD)
Total Depth: 4704.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

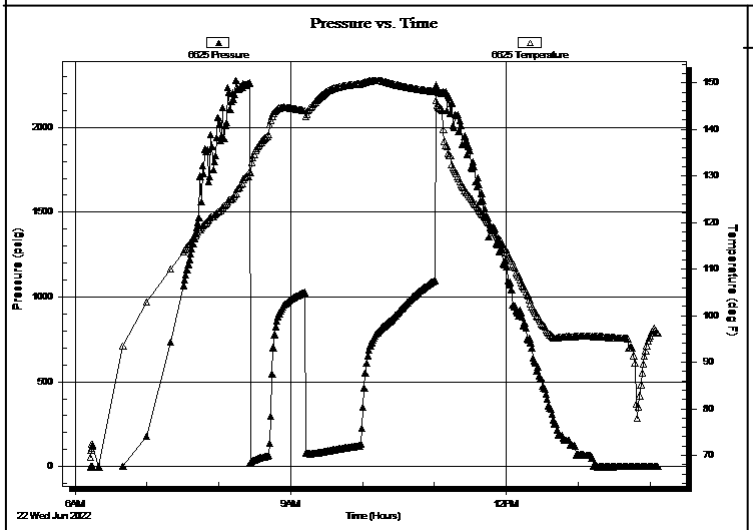
Reference Elevations: 3342.00 ft (KB)
3331.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6625 **Inside**

Press@RunDepth: psig @ 4679.00 ft (KB)
Start Date: 2022.06.22 End Date: 2022.06.22
Start Time: 06:13:05 End Time: 14:06:44

Capacity: 8000.00 psig
Last Calib.: 2022.06.22
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-15- BOB in 11 1/2 min, built to 16 1/4"
SI1-30- Built to 2 3/4"
FF-45- BOB in 9 1/2 min, built to 40"
SI2-60- Built to 7"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
50.00	GOCM 10% gas 30% oil 60% mud	0.25
317.00	GO 20% gas 80% oil	3.29
0.00	750 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Dow ning

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69103 **DST#: 2**

Test Start: 2022.06.22 @ 06:13:00

Tool Information

Drill Pipe:	Length:	4482.00 ft	Diameter:	3.80 inches	Volume:	62.87 bbl	Tool Weight:		2400.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	Weight set on Packer:		26000.00 lb
Drill Collar:	Length:	177.00 ft	Diameter:	2.25 inches	Volume:	0.87 bbl	Weight to Pull Loose:		76000.00 lb
					Total Volume:	63.74 bbl	Tool Chased		ft
Drill Pipe Above KB:		7.00 ft					String Weight:	Initial	64000.00 lb
Depth to Top Packer:		4678.00 ft						Final	66000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		26.00 ft							
Tool Length:		52.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4653.00		
shut In Tool	5.00			4658.00		
hydraulic tool	5.00			4663.00		
EM Tool	3.00			4666.00		
safety Joint	3.00			4669.00		
Packer	5.00			4674.00	26.00	Bottom Of Top Packer
Packer	4.00			4678.00		
Stubb	1.00			4679.00		
Recorder	0.00	6625	Inside	4679.00		
Recorder	0.00	8652	Outside	4679.00		
perforations	21.00			4700.00		
Bullnose	4.00			4704.00	26.00	Bottom Packers & Anchor
Total Tool Length:	**52.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co. Inc

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

17-5s-36w Rawlins,KS

D&D Kramer #1-17

Job Ticket: 69103 **DST#: 2**

Test Start: 2022.06.22 @ 06:13:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	700.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

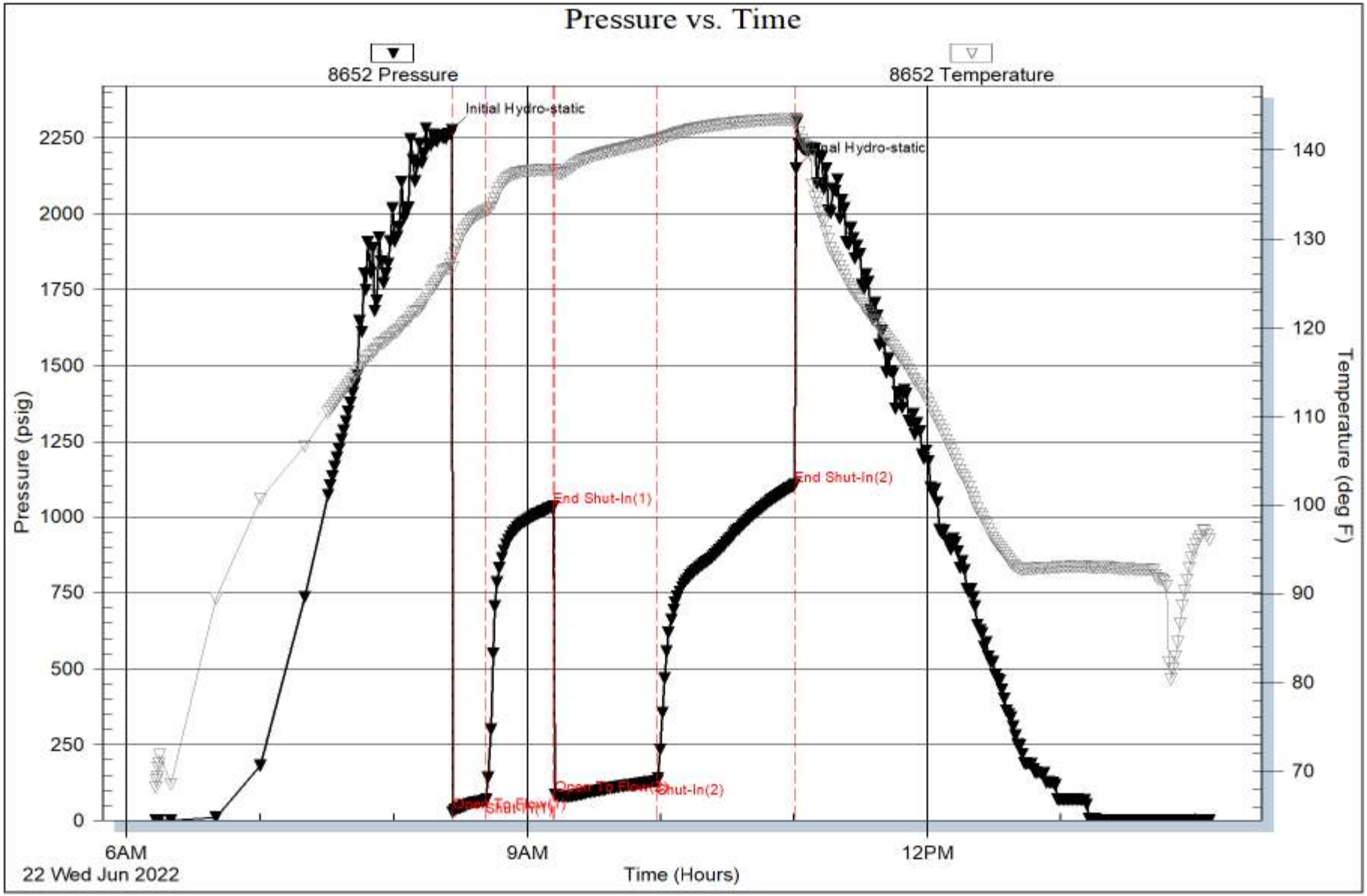
Recovery Table

Length ft	Description	Volume bbl
50.00	GOCM 10% gas 30% oil 60% mud	0.246
317.00	GO 20% gas 80% oil	3.290
0.00	750 GIP	0.000

Total Length: 367.00 ft Total Volume: 3.536 bbl

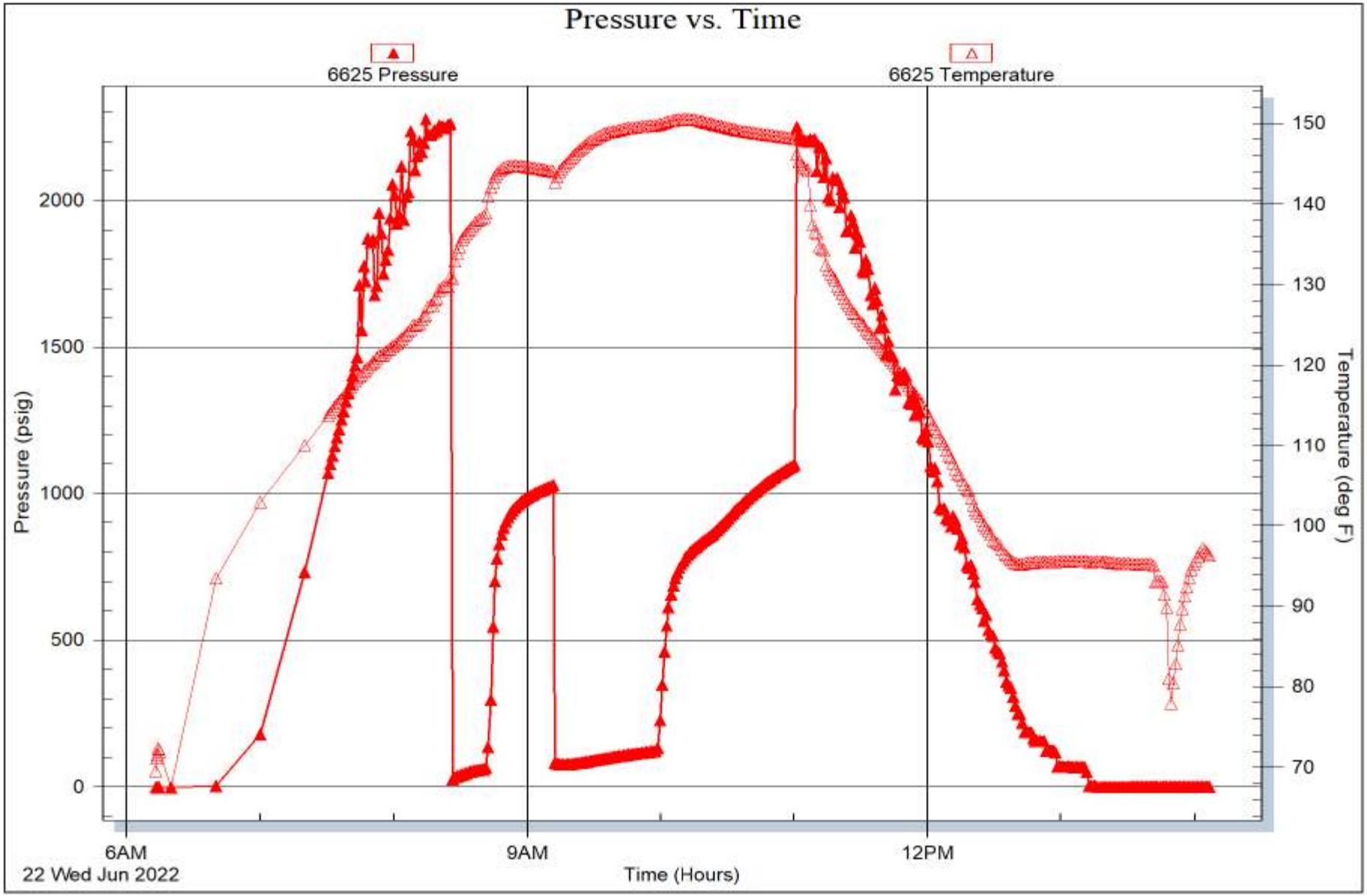
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 3# LCM

Serial #: 8652 **Outside** Dow ning-Nelson Oil Co. Inc D&D Kramer #1-17 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 69103 Printed: 2022.06.24 @ 13:54:45

Serial #: 6625 **Inside** Dow ning-Nelson Oil Co. Inc D&D Kramer #1-17 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 69103 Printed: 2022.06.24 @ 13:54:45

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

4/10

Test Ticket

NO. 69102

Well Name & No. D+D Kramer #1-17 Test No. 1 Date 6/21/22
Company Downing-Nelson Oil Co Inc Elevation 3342 KB 3331 GL
Address Po Box 1019 Hays, KS 676601
Co. Rep / Geo. Al Downing Rig Duke Rig #5
Location: Sec. 17 Twp 5 Rge. 36 Co. Rawlins State KS

Interval Tested 4578-4620 Zone Tested Pawnee
Anchor Length 42 Drill Pipe Run 4386 Mud Wt. 9.3
Top Packer Depth 4573 Drill Collars Run 177 Vis 63
Bottom Packer Depth 4578 Wt. Pipe Run 0 WL 8.0
Total Depth 4620 Chlorides 800 ppm System LCM 4#

Blow Description IF- Built to 4", died to a weak surface blow
SI1- No return
FF- NO Blow, Flushed tool. No blow
SI2- 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 132 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic 2303
(B) First Initial Flow 24
(C) First Final Flow 24
(D) Initial Shut-In 36
(E) Second Initial Flow 24
(F) Second Final Flow 25
(G) Final Shut-In 30
(H) Final Hydrostatic 2189

Initial Open 30
Initial Shut-In 30
Final Flow 30
Final Shut-In 30

☒ Test 1950
☐ Jars
☒ Safety Joint
☒ Circ Sub N/A
☐ Hourly Standby
☒ Mileage 120 180
☐ Sampler
☐ Straddle
☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
Sub Total 2130

T-On Location 08:30
T-Started 09:52
T-Open 12:34
T-Pulled 14:34
T-Out 17:25
Comments out of town, motel

☒ EM Tool
☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
Sub Total 0
Total 2130
MP/DST Disc't

Approved By ____ Our Representative Dustin Dc

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 69103

Well Name & No. D+D Kramer #1-17 Test No. 2 Date 6/22/22

Company Downing-Nelson Oil Co. Inc Elevation 3342 KB 3331 GL

Address PO Box 1019 Hays, KS 67601

Co. Rep / Geo. Marc Downing Rig Duke Rig #5

Location: Sec. 17 Twp 5 Rge. 36 Co. Rawlins State KS

Interval Tested 4678-4704 Zone Tested Cherokee Lime

Anchor Length 26 Drill Pipe Run 4482 Mud Wt. 9.4

Top Packer Depth 4673 Drill Collars Run 177 Vis 56

Bottom Packer Depth 4678 Wt. Pipe Run ø WL 8.8

Total Depth 4704 Chlorides 700 ppm System LCM 3#

Blow Description IF-BOB in 11½ min. Built to 16¼"

SI1- Built to 2¾

FF- BOB in 9½ min, built to 40"

SI2- Built to 7"

Rec 50'	Feet of GOCM	10 %gas	30 %oil	%water	60 %mud	
Rec 317	Feet of GO	20 %gas	80 %oil	%water	%mud	
Rec	Feet of 750' GIP	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 367 BHT 143 Gravity 30 API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic	2276	☒ Test	1950	T-On Location	05:15
(B) First Initial Flow	29	☐ Jars		T-Started	06:13
(C) First Final Flow	67	☒ Safety Joint		T-Open	08:27
(D) Initial Shut-In	1034	☒ Circ Sub	N/A	T-Pulled	10:57
(E) Second Initial Flow	86	☐ Hourly Standby		T-Out	14:07
(F) Second Final Flow	130	☒ Mileage	120 180	Comments	out of town, motel
(G) Final Shut-In	1106	☐ Sampler			
(H) Final Hydrostatic	2149	☐ Straddle		☒ EM Tool	-350
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	15	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	30	☐ Extra Recorder		☐ Extra Copies	
Final Flow	45	☐ Day Standby		Sub Total	-350
Final Shut-In	60	☐ Accessibility		Total	1780
		Sub Total	2130	MP/DST Disc't	

Approved By ____ Our Representative Duff Dy

Marc A. Downing Consulting Petroleum Geologist	Geologic Report Drilling Time and Sample Log

Operator **Downing-Nelson Oil Co, Inc.**				Elevation KB 3342 DF 3340 GL 3331	
Lease **D&D Kramer**		No. **1-17**			
API # **15-153-21295-0000**				Casing Record Surface 8 5/8" @ 482' Production 5 1/2" @ 4959'	
Field					
Location **532' FSL & 1567' FWL**				Electrical Surveys CNDL, DIL MEL, Sonic, FF	
Sec. **17**	Twp. **5s**	Rge. **36s**			
County **Rawlins**	State **Kansas**				

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	3043	3046	+296	FL
Base Anhydrite	3084	3082	+260	FL
Foraker	3730	3728	-386	-7
Topeka	4011	4010	-668	-9
Heebner	4176	4172	-830	-5
LKC	4227	4223	-881	-6
Stark	4422	4420	-1078	-7
BKC	4482	4478	-1136	-6
Marmaton	4490	4486	-1144	5
Pawnee	4601	4600	-1258	-11
Cherokee Sh	4682	4677	-1335	-9
Mississippi	4891	4888	-1546	-31
Total Depth	4960	4960	-1618	

Reference Well For Structural Comparison DNOCI - Kramer A Unit #1-17
1382' FSL & 2478' FWL Sec. 17-5s-36w

Drilling Contractor		**Duke Drilling, Rig #5**		
Commenced	**6-15-22**	Completed		**6-23-22**
Samples Saved From	**4150**	To	**RTD**	
Drilling Time Kept From	**3600**	To	**RTD**	
Samples Examined From	**4150**	To	**RTD**	
Geological Supervision From	**4150**	To	**RTD**	

Summary and Recommendations

Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion. Perforate the LKC "J" zone before abandonment.

Respectfully Submitted,

Marc A. Downing