

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 # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

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 #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ 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: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

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: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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# Saman Sharifaie

## Petroleum Geologist

### GEOLOGIST'S REPORT

#### DRILLING TIME AND SAMPLE LOG

COMPANY: **Darrah Oil Company, LLC**  
LEASE: **Chase-Stilica**  
FIELD: **Class-Stilica**  
LOCATION: **1240' F.N.L. & 1315' F.W.L.**  
SEC: **4** TWPSP: **20S** RGE: **10W**  
COUNTY: **Rice** STATE: **Kansas**  
CONTRACTOR: **Murfin Drilling #20**  
SPUD: **08/19/20** COMP: **08/26/20**  
RTD: **3330'** TYPE MUD: **3326'**  
MUD UP: **2700'** LITH: **Chemical**

SAMPLES SAVED FROM: **2300'** TO RTD  
DRILLING TIME KEPT FROM: **2500'** TO RTD  
SAMPLES EXAMINED FROM: **2500'** TO RTD  
GEOLOGICAL SUPERVISION FROM: **2200'**

REFERENCE WELL: **Krop - A #1**  
CIN: **D.L. MEL**  
ELECTRICAL SURVEYS

CONDUCTOR: **8-5/8" at 296'**  
SURFACE: **5-1/2" at 3325'**  
PRODUCTION: **5-1/2" at 3325'**

MEASUREMENTS ARE ALL FROM **Kelly Bushing**  
CASING

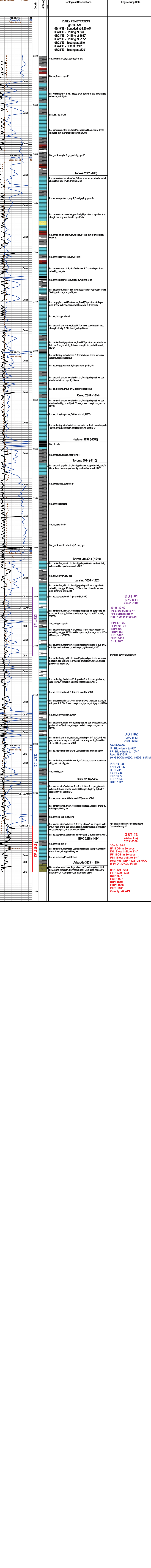
ELEVATIONS  
KB: **1804'**  
DF: \_\_\_\_\_  
GL: **1794'**

Formation	Sample Tops	E-log Tops	Stand Feet
Anhydrite	477 (+1327)	498 (+1306)	
Base Anhydrite	498 (+1306)	2622 (-818)	+7
Truska	2622 (-818)	2848 (-1044)	
Oread	2848 (-1044)	2892 (-1088)	
Heebner	2892 (-1088)	3028 (-1224)	+16
Stark	3028 (-1224)	3238 (-1434)	+10
BKC	3238 (-1434)	3286 (-1482)	+16
Arbuckle	3286 (-1482)	N/A	+3

REMARKS: Due to poor to good shows of oil in multiple potential pay zones and positive DST results, it is recommended and agreed upon by all parties that production casing be set to further evaluate this well.

Respectfully Submitted,  
Saman Sharifaie  
Petroleum Geologist

\*Tops have been adjusted to electric logs



**DST #1**  
(LKC B-F)  
3040-3110'

30-45-30-60  
IF: Blow built to 4"  
FF: Surface blow  
Rec: 120' M (100%M)

IFP: 17 - 22  
FFP: 72 - 78  
ISIP: 429  
IHP: 1467  
FHP: 1435  
BHT: 103°

Deviation survey @ 3110': 1.03°

**DST #2**  
(LKC H-L)  
3150-3283'

30-45-30-60  
IF: Blow built to 5 1/4"  
FF: Blow built to 10 1/4"  
Rec: 196' GIP,  
50' GSOCM (5%O, 15%G, 80%M)

IFP: 16 - 28  
FFP: 29 - 37  
ISIP: 214  
FSP: 152  
IHP: 1573  
FHP: 1549  
BHT: 102°

Pipe strap @ 3283': 1.03' Long to Board  
Deviation Survey: 1°

**DST #3**  
(Arbuckle)  
3283'-3330'

30-45-15-60  
IF: BOB in 30 secs  
ISI: Blow built to 1 1/2"  
FF: BOB in 30 secs  
FSI: Blow built to 8 1/4"  
Rec: 496' GIP, 1426' GSMCO  
(65%O, 30%G, 5%M)

IFP: 409 - 612  
FFP: 539 - 582  
ISIP: 937  
FSP: 997  
IHP: 1649  
FHP: 1576  
BHT: 110°  
Gravity: 42 API



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC  
 125 N Market  
 Suite 1425  
 Wichita, Kansas 67202+1720  
 ATTN: Saman Sharifaie

**4/20S/10W/Rice**

**Knop 1-4**

Job Ticket: 66248

**DST#: 1**

Test Start: 2020.08.23 @ 18:10:00

## GENERAL INFORMATION:

Formation: **Lansing zones B-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:00:17

Time Test Ended: 00:36:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72 Great Bend/ 38

Interval: **3040.00 ft (KB) To 3110.00 ft (KB) (TVD)**

Reference Elevations: 1804.00 ft (KB)

Total Depth: 3110.00 ft (KB) (TVD)

1794.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 78.69 psig @ 3041.00 ft (KB)

Capacity: psig

Start Date: 2020.08.23

End Date:

2020.08.24

Last Calib.:

2020.08.24

Start Time: 18:10:01

End Time:

00:36:02

Time On Btm:

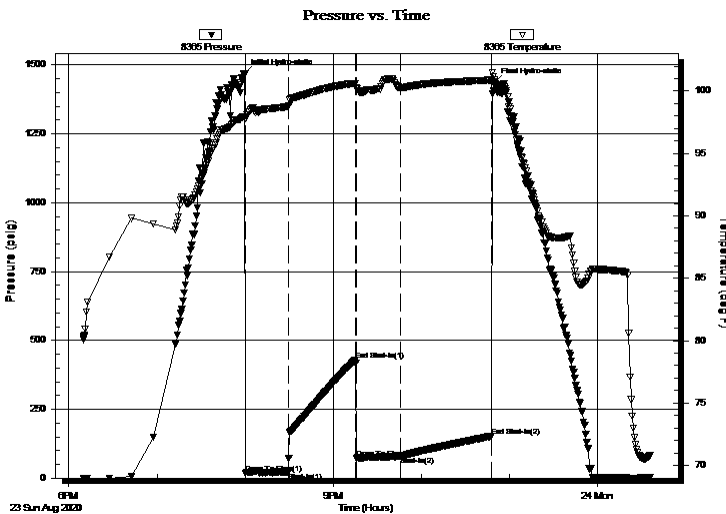
2020.08.23 @ 19:59:47

Time Off Btm:

2020.08.23 @ 22:49:47

TEST COMMENT: IF 30 minutes/ Blow built to 4 inches  
 ISI 45 minutes/ No blow back  
 FF 30 minutes/ Few bubbles at open then dead  
 FSI 60 minutes/ No blow back

## PRESSURE SUMMARY



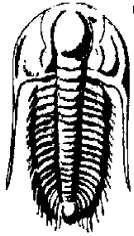
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1467.09	97.95	Initial Hydro-static
1	17.71	97.77	Open To Flow (1)
30	22.60	98.78	Shut-In(1)
76	429.61	100.59	End Shut-In(1)
77	72.78	100.29	Open To Flow (2)
106	78.69	100.27	Shut-In(2)
169	152.63	100.92	End Shut-In(2)
170	1435.25	100.87	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud 100%	0.59

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC  
 125 N Market  
 Suite 1425  
 Wichita, Kansas 67202+1720  
 ATTN: Saman Sharifaie

**4/20S/10W/Rice**

**Knop 1-4**

Job Ticket: 66248

**DST#: 1**

Test Start: 2020.08.23 @ 18:10:00

## GENERAL INFORMATION:

Formation: **Lansing zones B-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:00:17

Time Test Ended: 00:36:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72 Great Bend/ 38

**Interval: 3040.00 ft (KB) To 3110.00 ft (KB) (TVD)**

Reference Elevations: 1804.00 ft (KB)

Total Depth: 3110.00 ft (KB) (TVD)

1794.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6755 Outside**

Press@RunDepth: 152.78 psig @ 3042.00 ft (KB)

Capacity: psig

Start Date: 2020.08.23

End Date:

2020.08.24

Last Calib.:

2020.08.24

Start Time: 18:10:01

End Time:

00:36:02

Time On Btm:

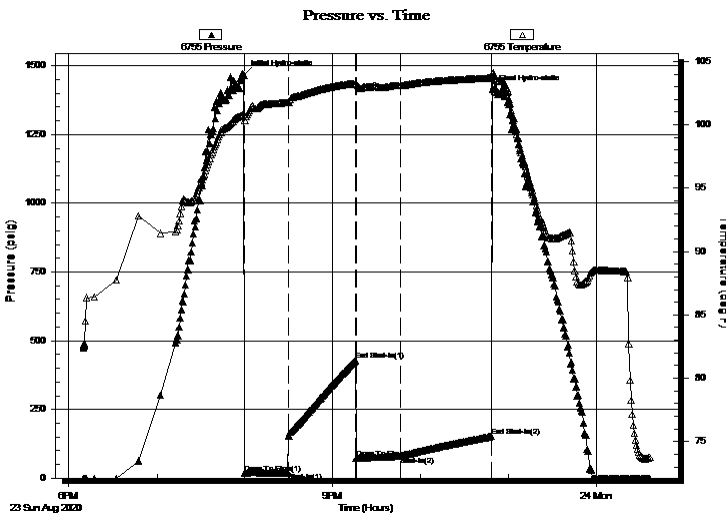
2020.08.23 @ 19:59:32

Time Off Btm:

2020.08.23 @ 22:48:47

TEST COMMENT: IF 30 minutes/ Blow built to 4 inches  
 ISI 45 minutes/ No blow back  
 FF 30 minutes/ Few bubbles at open then dead  
 FSI 60 minutes/ No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1467.38	100.83	Initial Hydro-static
1	16.66	100.32	Open To Flow (1)
30	22.71	101.78	Shut-In(1)
76	428.05	103.26	End Shut-In(1)
77	72.12	103.20	Open To Flow (2)
107	79.01	103.10	Shut-In(2)
169	152.78	103.74	End Shut-In(2)
170	1413.73	104.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud 100%	0.59

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Darrah Oil Company LLC

**4/20S/10W/Rice**

125 N Market  
Suite 1425  
Wichita, Kansas 67202+1720  
ATTN: Saman Sharifaie

**Knop 1-4**

Job Ticket: 66248

**DST#: 1**

Test Start: 2020.08.23 @ 18:10:00

### 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	Mud 100%	0.590

Total Length: 120.00 ft      Total Volume: 0.590 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

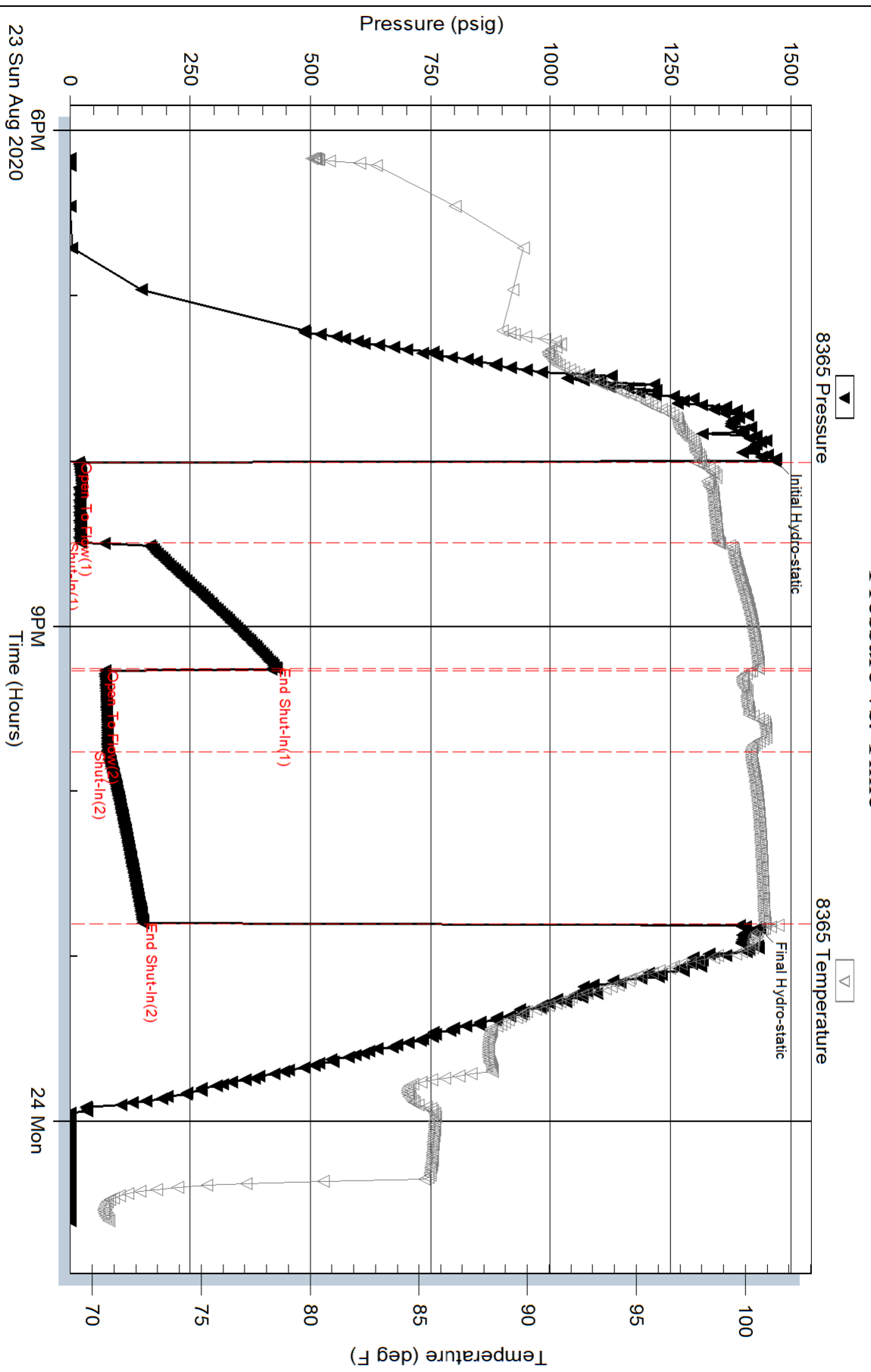
Serial #:

Laboratory Name:

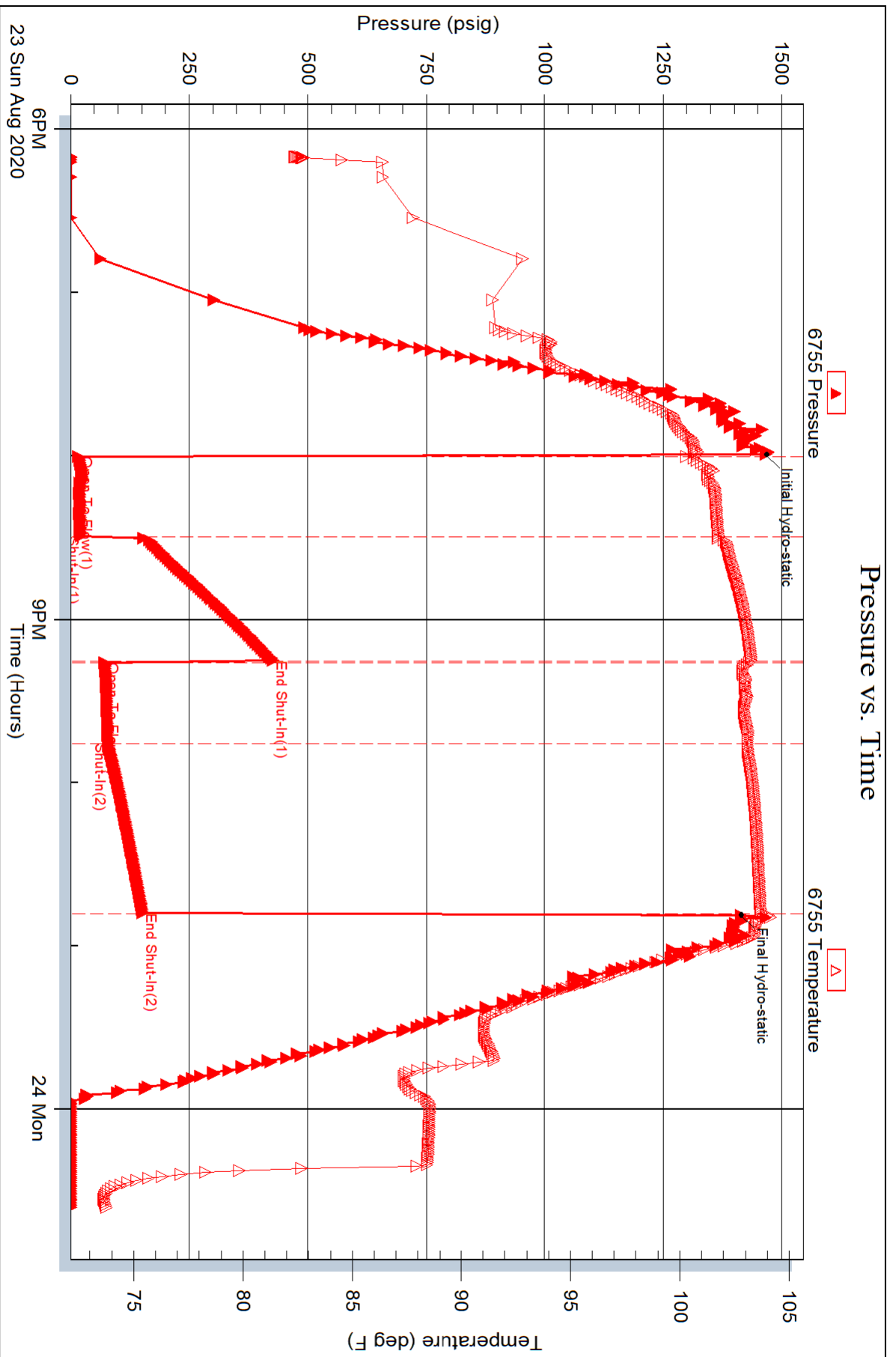
Laboratory Location:

Recovery Comments:

# Pressure vs. Time









**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC  
 125 N Market  
 Suite 1425  
 Wichita, Kansas 67202+1720  
 ATTN: Saman Sharifaie

**4/20S/10W/Rice**

**Knop 1-4**

Job Ticket: 66250

**DST#: 3**

Test Start: 2020.08.25 @ 03:50:00

## GENERAL INFORMATION:

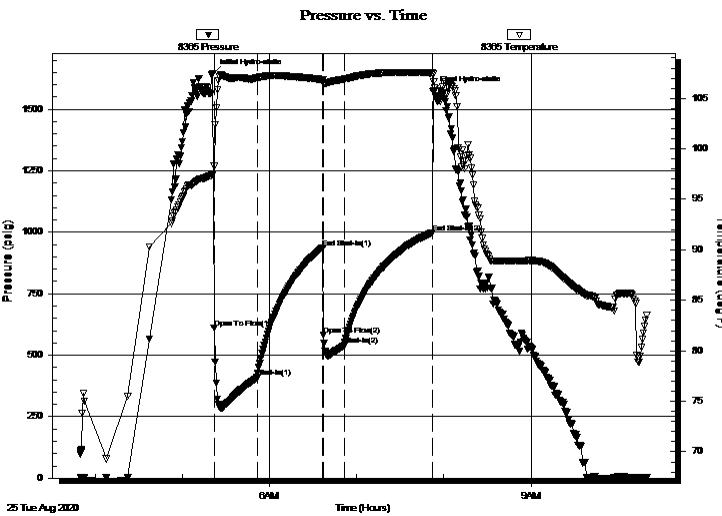
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 05:21:47  
 Tester: Ken Swinney  
 Time Test Ended: 10:20:02  
 Unit No: 72 Great Bend/ 38  
 Interval: **3283.00 ft (KB) To 3330.00 ft (KB) (TVD)**  
 Reference Elevations: 1804.00 ft (KB)  
 Total Depth: 3330.00 ft (KB) (TVD)  
 1794.00 ft (CF)  
 Hole Diameter: 7.80 inches  
 Hole Condition: Fair  
 KB to GR/CF: 10.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 539.33 psig @ 3284.00 ft (KB) Capacity: psig  
 Start Date: 2020.08.25 End Date: 2020.08.25 Last Calib.: 2020.08.25  
 Start Time: 03:50:01 End Time: 10:20:02 Time On Btm: 2020.08.25 @ 05:21:17  
 Time Off Btm: 2020.08.25 @ 07:53:02

**TEST COMMENT:** IF 30 Minutes/ Blow to BOB in 30 seconds/ Total build 179 inches  
 ISI 45 Minutes/ 1 1/2 inch blow back  
 FF 15 Minutes/ Blow to BOB in 30 seconds/ Total build 98 inches  
 FSI 60 Minutes/ 8 1/4 inch blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1645.83	97.50	Initial Hydro-static
1	611.59	98.28	Open To Flow (1)
31	408.68	107.04	Shut-In(1)
76	937.35	106.80	End Shut-In(1)
76	582.04	106.40	Open To Flow (2)
91	539.33	106.90	Shut-In(2)
151	997.98	107.48	End Shut-In(2)
152	1574.82	106.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1426.00	GSMCO / O 65% G 30% M 5%	17.76
0.00	496 feet GIP	0.00

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC  
 125 N Market  
 Suite 1425  
 Wichita, Kansas 67202+1720  
 ATTN: Saman Sharifaie

**4/20S/10W/Rice**

**Knop 1-4**

Job Ticket: 66250

**DST#: 3**

Test Start: 2020.08.25 @ 03:50:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:21:47  
 Time Test Ended: 10:20:02  
 Interval: **3283.00 ft (KB) To 3330.00 ft (KB) (TVD)**  
 Total Depth: 3330.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72 Great Bend/ 38  
 Reference Elevations: 1804.00 ft (KB)  
 1794.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 6755

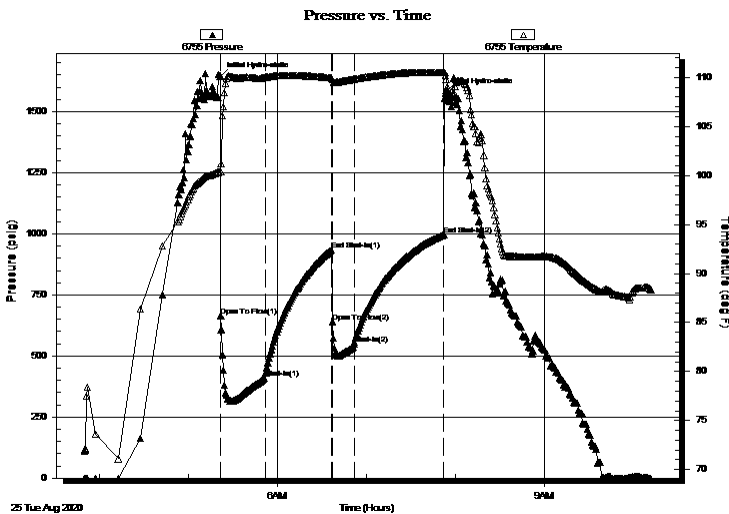
**Outside**

Press@RunDepth: 996.14 psig @ 3285.00 ft (KB) Capacity: psig  
 Start Date: 2020.08.25 End Date: 2020.08.25 Last Calib.: 2020.08.25  
 Start Time: 03:50:01 End Time: 10:12:02 Time On Btm: 2020.08.25 @ 05:21:17  
 Time Off Btm: 2020.08.25 @ 07:53:17

TEST COMMENT: IF 30 Minutes/ Blow to BOB in 30 seconds/ Total build 179 inches  
 ISI 45 Minutes/ 1 1/2 inch blow back  
 FF 15 Minutes/ Blow to BOB in 30 seconds/ Total build 98 inches  
 FSI 60 Minutes/ 8 1/4 inch blow back

## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1645.32	100.44	Initial Hydro-static
1	663.60	100.37	Open To Flow (1)
31	409.14	110.02	Shut-In(1)
76	936.04	109.91	End Shut-In(1)
76	640.83	109.79	Open To Flow (2)
91	548.86	109.83	Shut-In(2)
151	996.14	110.47	End Shut-In(2)
152	1576.04	110.19	Final Hydro-static



## Recovery

Length (ft)	Description	Volume (bbl)
1426.00	GSMCO / O 65% G 30% M 5%	17.76
0.00	496 feet GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Darrah Oil Company LLC

**4/20S/10W/Rice**

125 N Market  
Suite 1425  
Wichita, Kansas 67202+1720  
ATTN: Saman Sharifaie

**Knop 1-4**

Job Ticket: 66250

**DST#: 3**

Test Start: 2020.08.25 @ 03:50:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: in<sup>3</sup>

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

42 deg API

Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1426.00	GSMCO / O 65% G 30% M 5%	17.758
0.00	496 feet GIP	0.000

Total Length: 1426.00 ft      Total Volume: 17.758 bbl

Num Fluid Samples: 0

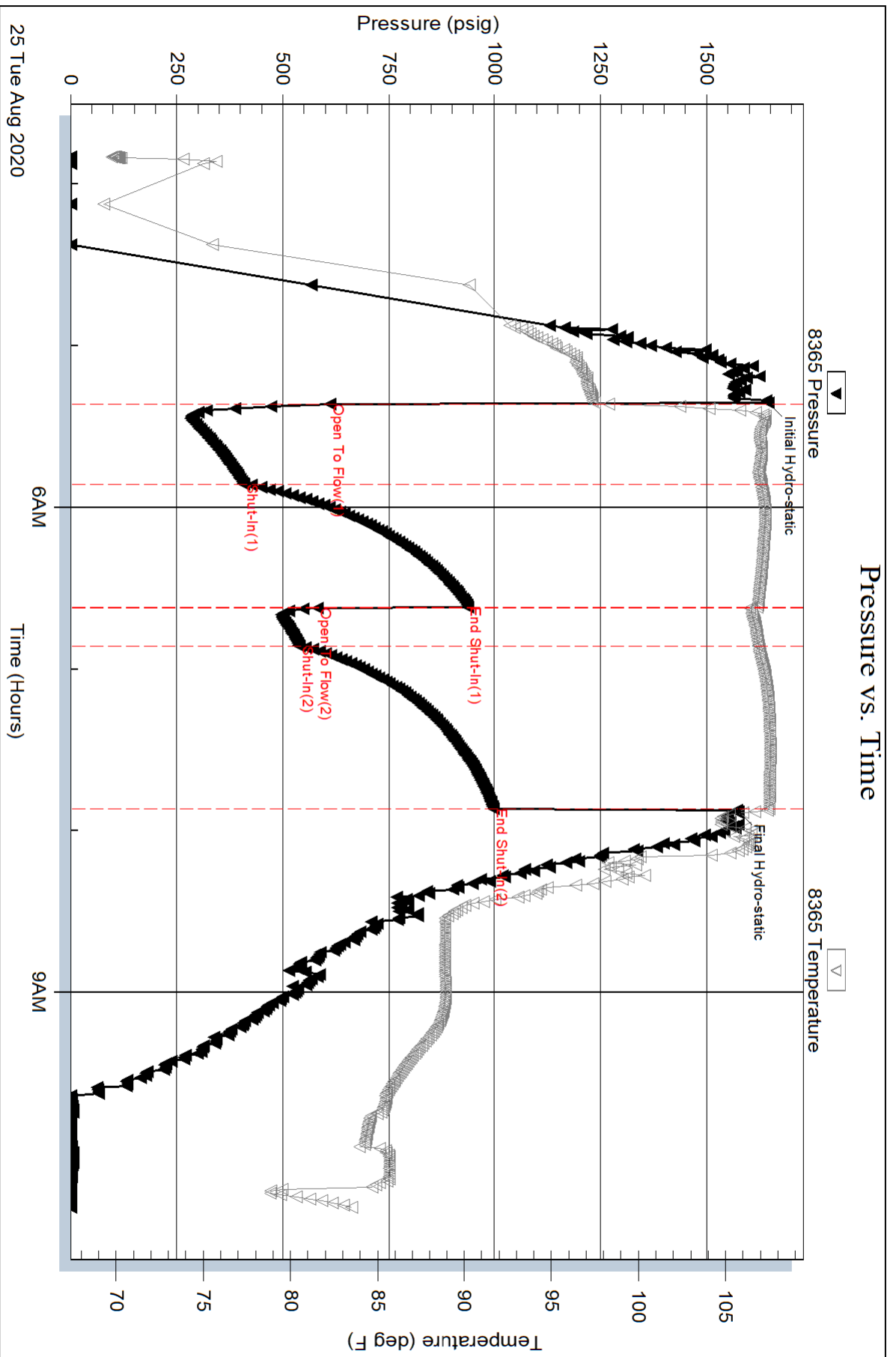
Num Gas Bombs: 0

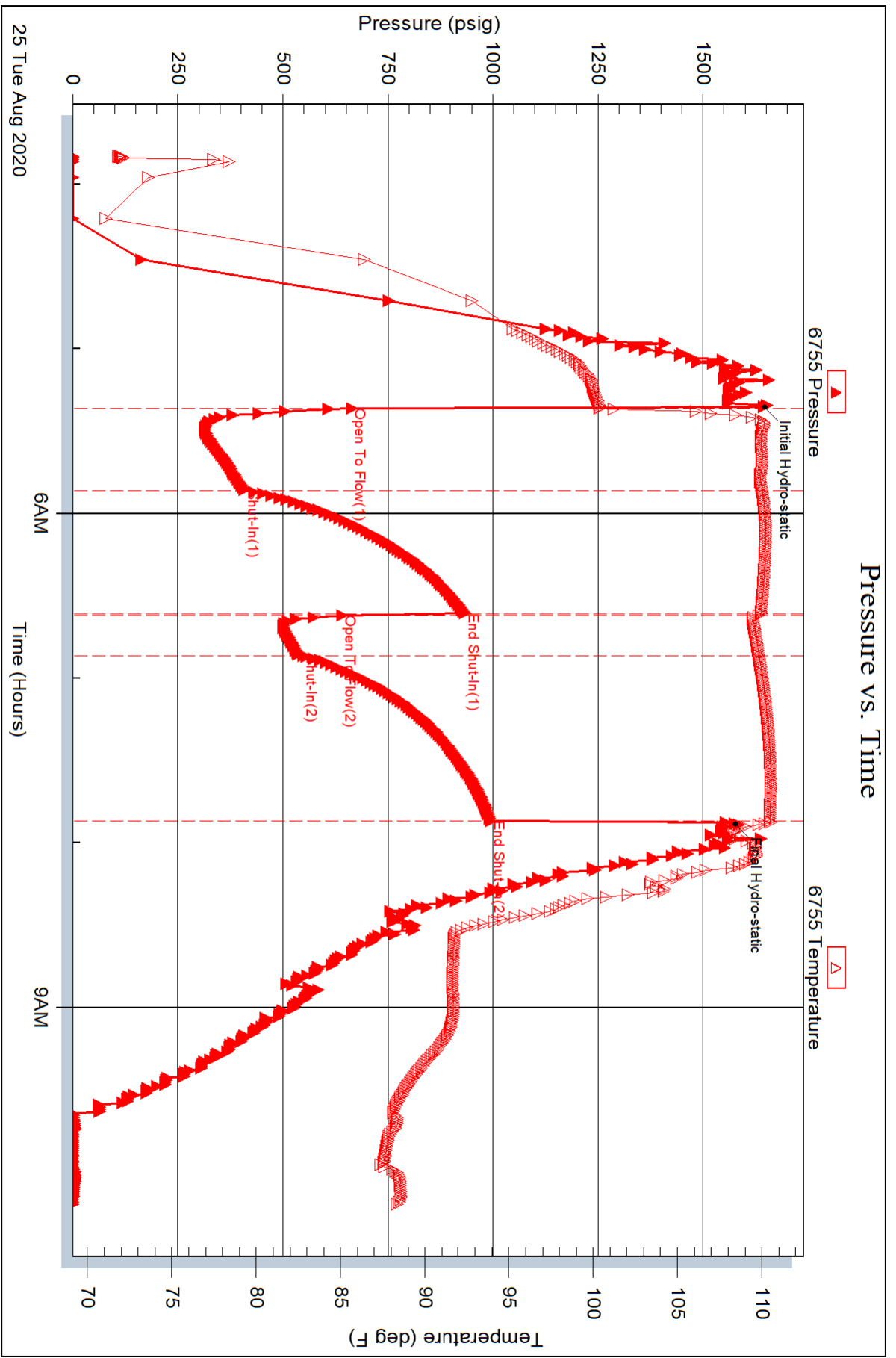
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





# COPELAND

## Acid & Cement

BURRTON, KS    ♦    GREAT BEND, KS  
 (620) 463-5161    (620) 793-3366  
 FAX (620) 463-2104    FAX (620) 793-3536

POST OFFICE BOX 438  
 HAYSVILLE, KS 67060  
 (316) 524-1225  
 (316) 524-1027 FAX

**Invoice**

Page: 1

**POSTED**

INVOICE NUMBER:  
**C60171-IN**

**BILL TO:**  
**DARRAH OIL COMPANY LLC**  
**PO BOX 2786**  
**WICHITA, KS 67202-2786**

LEASE: **KNOP 1-4**

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
08/25/2020	60171		08/19/2020	KNOP 1-4	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
12.00	MI	MILEAGE CEMENT PUMP TRUCK		28.00	4.00	34.56
1.00	EA	PUMP CHARGE SURFACE		28.00	1,100.00	792.00
250.00	SK	60/40 POZ MIX 2% GEL		28.00	11.25	2,025.00
14.00	SK	CALCIUM CHLORIDE		28.00	40.00	403.20
264.00	EA	BULK CHARGE		28.00	1.25	237.60
139.39	MI	BULK TRUCK - TON MILES		28.00	1.10	110.40
<b>REMIT TO:</b> P.O. BOX 438 HAYSVILLE, KS 67060		COP		Net Invoice:		3,602.76
RECEIVED BY _____		FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		RICCO Sales Tax:		270.21
		<b>NET 30 DAYS</b>		Invoice Total:		<b>3,872.97</b>

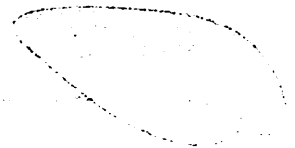
*9208*  
~~*[Signature]*~~  
*Surface Cement*

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days pas

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service

Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code.

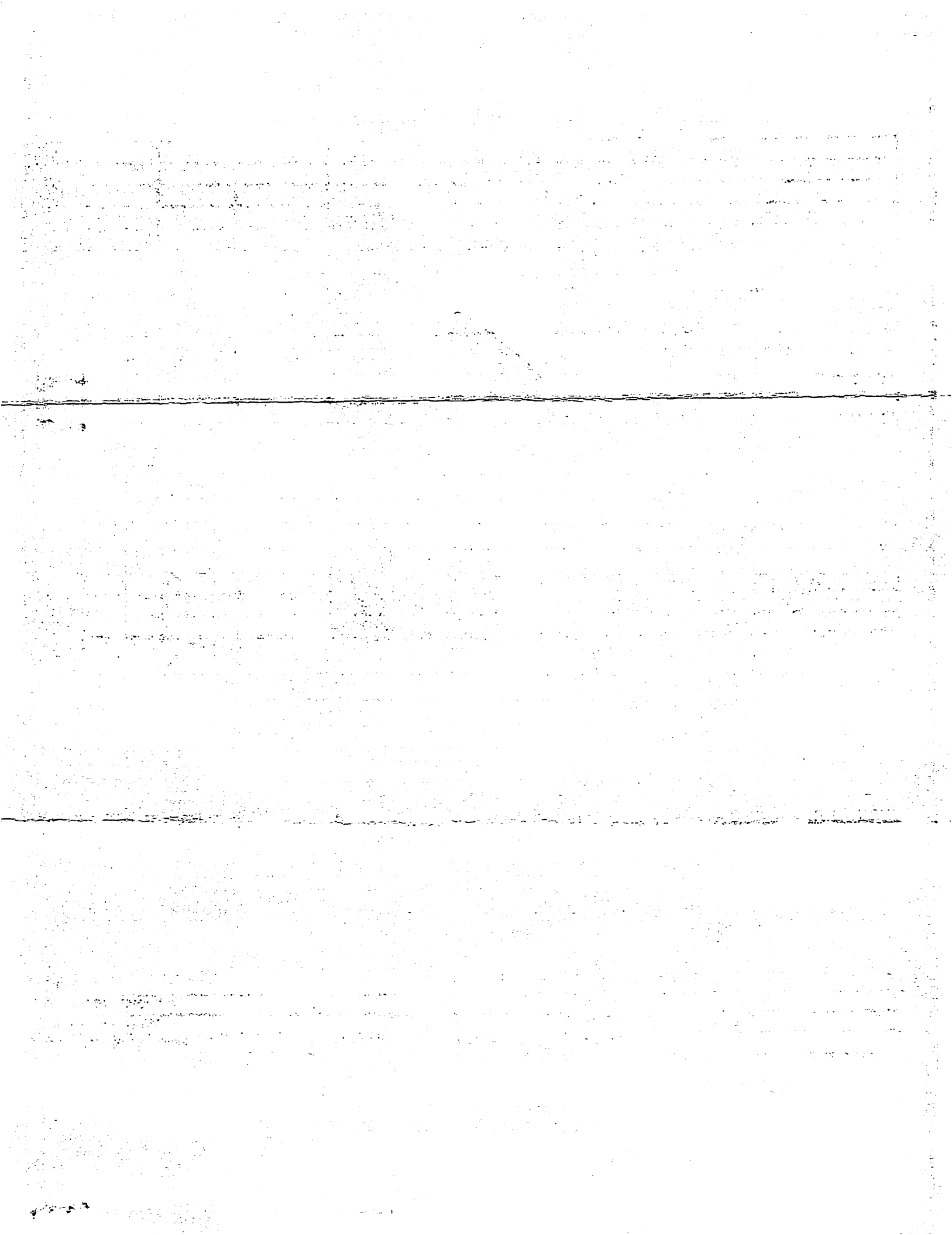
Handwritten scribbles and marks, possibly including the word "Scribble" written diagonally.



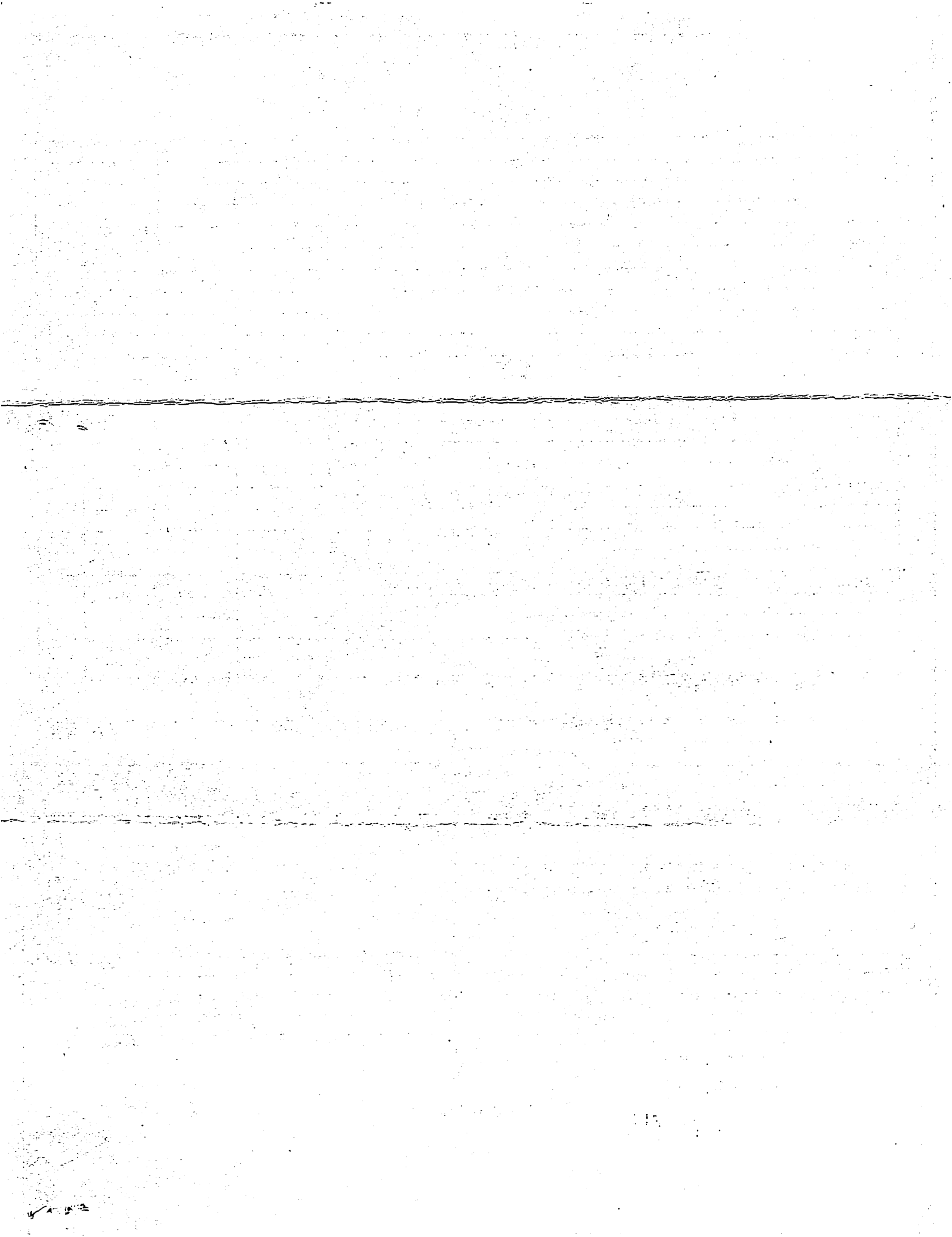
Handwritten scribbles and marks, possibly including the word "Scribble" written horizontally.











# COPELAND

## Acid & Cement

BURRTON, KS (620) 463-5161  
 GREAT BEND, KS (620) 793-3366  
 FAX (620) 463-2104 FAX (620) 793-3536

POST OFFICE BOX 438  
 HAYSVILLE, KS 67060  
 (316) 524-1225  
 (316) 524-1027 FAX

**Invoice**

Page: 1

**POSTED**

INVOICE NUMBER:  
**C50293-IN**

**BILL TO:**  
**DARRAH OIL COMPANY LLC**  
**PO BOX 2786**  
**WICHITA, KS 67202-2786**

LEASE: KNOP 1-4

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
08/28/2020	50293		08/26/2020	KNOP 1-4	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
12.00	MI	MILEAGE PICKUP		27.45	2.00	17.41
12.00	MI	MILEAGE CEMENT PUMP TRUCK		27.45	4.00	34.82
1.00	EA	PUMP CHARGE LONG STRING		27.45	1,600.00	1,160.80
250.00	SK	60/40 POZ MIX 2% GEL		27.45	11.25	2,040.47
1,500.00	LB	FINE SALT		27.45	0.25	272.06
750.00	LB	GILSONITE		27.45	0.75	408.09
150.00	LB	C-41P DEFOAMER		27.41	3.75	408.32
150.00	LB	FRICTION REDUCER C-37		27.40	4.00	435.60
50.00	LB	FLUID LOSS C-12		27.40	6.00	217.80
500.00	GAL	MUD FLUSH		27.40	0.75	272.25
1.00	EACH	ROTATING HEAD RENTAL		27.40	250.00	181.50
6.00	EA	5 1/2" TURBO CENTRALIZER		27.40	85.00	370.26
1.00	EA	5 1/2" BASKET		27.40	155.00	112.53
1.00	EA	LATCH DOWN PLUG & BAFFLE		27.40	175.00	127.05
1.00	EA	INSERT FLOAT SHOE		27.40	285.00	206.91

Continued

*925*

*9209*

*Levin's Service*

# COPELAND

## Acid & Cement

BURRTON, KS    ♦    GREAT BEND, KS  
 (620) 463-5161    (620) 793-3366  
 FAX (620) 463-2104    FAX (620) 793-3536

POST OFFICE BOX 438  
 HAYSVILLE, KS 67060  
 (316) 524-1225  
 (316) 524-1027 FAX

### Invoice

INVOICE NUMBER:  
**C50293-IN**

**BILL TO:**  
**DARRAH OIL COMPANY LLC**  
**PO BOX 2786**  
**WICHITA, KS 67202-2786**

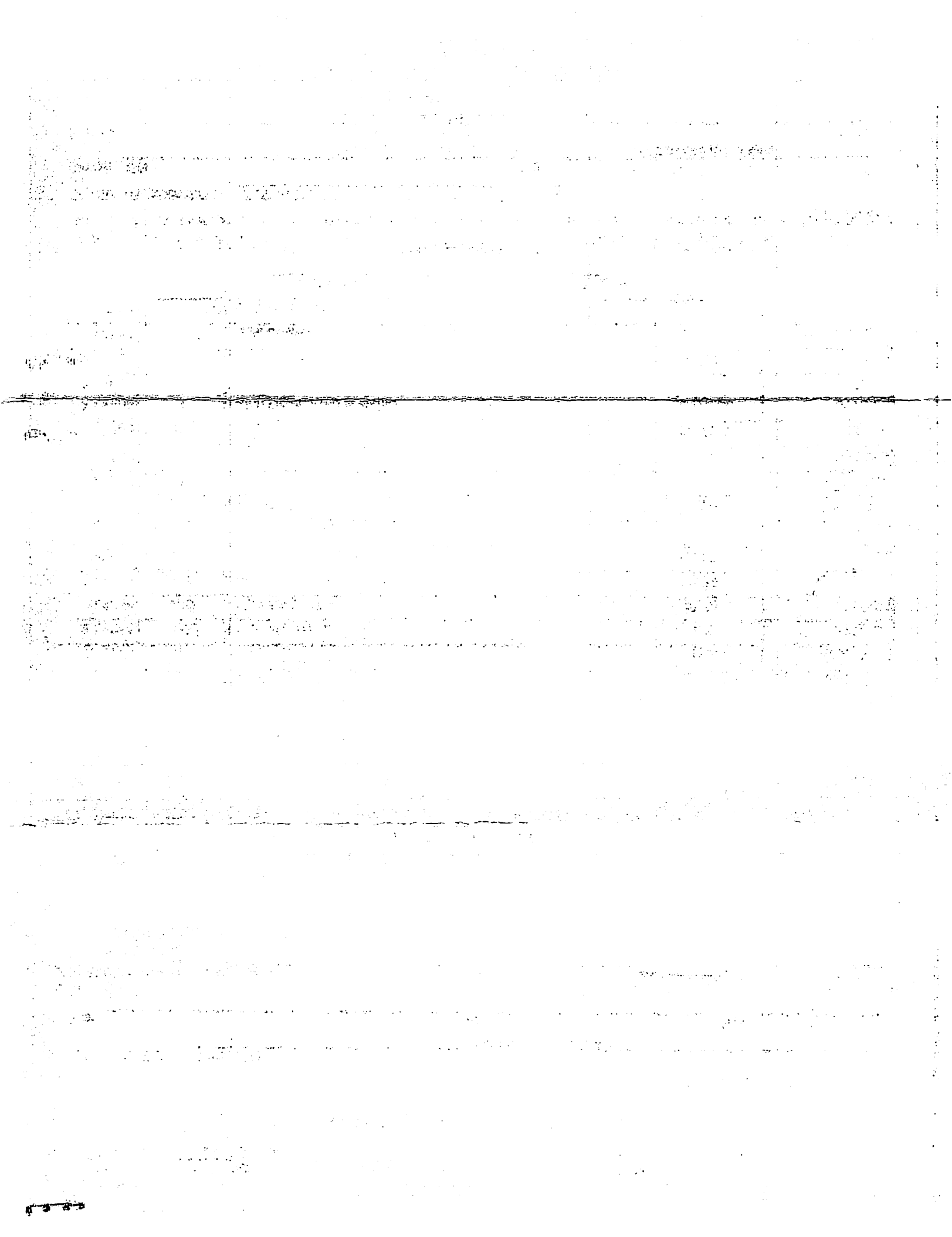
**LEASE: KNOP 1-4**

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
08/28/2020	50293		08/26/2020	KNOP 1-4	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
1.00	EA	AUTO FILL ASSEMBLY		27.40	70.00	50.82
280.00	EA	BULK CHARGE		27.40	1.25	254.10
147.84	MI	BULK TRUCK - TON MILES		27.40	1.10	118.07
<b>REMIT TO:</b> P.O. BOX 438 HAYSVILLE, KS 67060		<b>COP</b>		Net Invoice:		6,688.86
		FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		RICCO Sales Tax:		481.25
<b>RECEIVED BY</b> _____		<b>NET 30 DAYS</b>		<b>Invoice Total:</b>		<b>7,170.11</b>

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days pas

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service

Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code.





FIELD ORDER N° C 50293

BOX 438 - HAYSVILLE, KANSAS 67060  
316-524-1225

DATE 26-Aug 20 20

IS AUTHORIZED BY: Darrah Oil (NAME OF CUSTOMER)

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

TO TREAT WELL AS FOLLOWS Lease Knop Well No. 1 4 Customer Order No. \_\_\_\_\_

Sec. Twp. Range \_\_\_\_\_ County Rice State KS

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may occur in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED \_\_\_\_\_ By \_\_\_\_\_ Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
20.0001	12	Mileage P.U.	\$2.00	\$24.00
20.0002	12	Mileage P.T.	\$4.00	\$48.00
20.0007	1	Pump Charge Long String	\$1,600.00	\$1,600.00
20.1002	250	60/40 Poz 2% Gel	\$11.25	\$2,812.50
20.1015	1500	Fine Salt per lb.	\$0.25	\$375.00
20.1016	750	Gilsonite per lb.	\$0.75	\$562.50
20.1008	150	C-41P per lb. Defoamer	\$3.75	\$562.50
20.101	150	C-37 per lb. Friction Reducer	\$4.00	\$600.00
20.1009	50	C-12 per lb. Fluid Loss	\$6.00	\$300.00
20.1018	500	Mud Flush per gal	\$0.75	\$375.00
20.0014	1	Rotating Head Rental	\$250.00	\$250.00
20.2002	6	5 1/2" Turbo-Centralizer	\$85.00	\$510.00
20.2006	1	5 1/2" Basket	\$155.00	\$155.00
20.2009	1	Latch Down Plug & Baffle	\$175.00	\$175.00
20.2012	1	Insert Float Shoe	\$285.00	\$285.00
20.2011	1	Auto Fill Assembly	\$70.00	\$70.00
20.0011	280	Bulk Charge	\$1.25	\$350.00
20.0012	147.84	Bulk Truck Miles	\$1.10	\$162.62
		Process License Fee on	Gallons	
		<b>TOTAL BILLING</b>		<b>\$9,217.12</b>

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below. \$6688.81

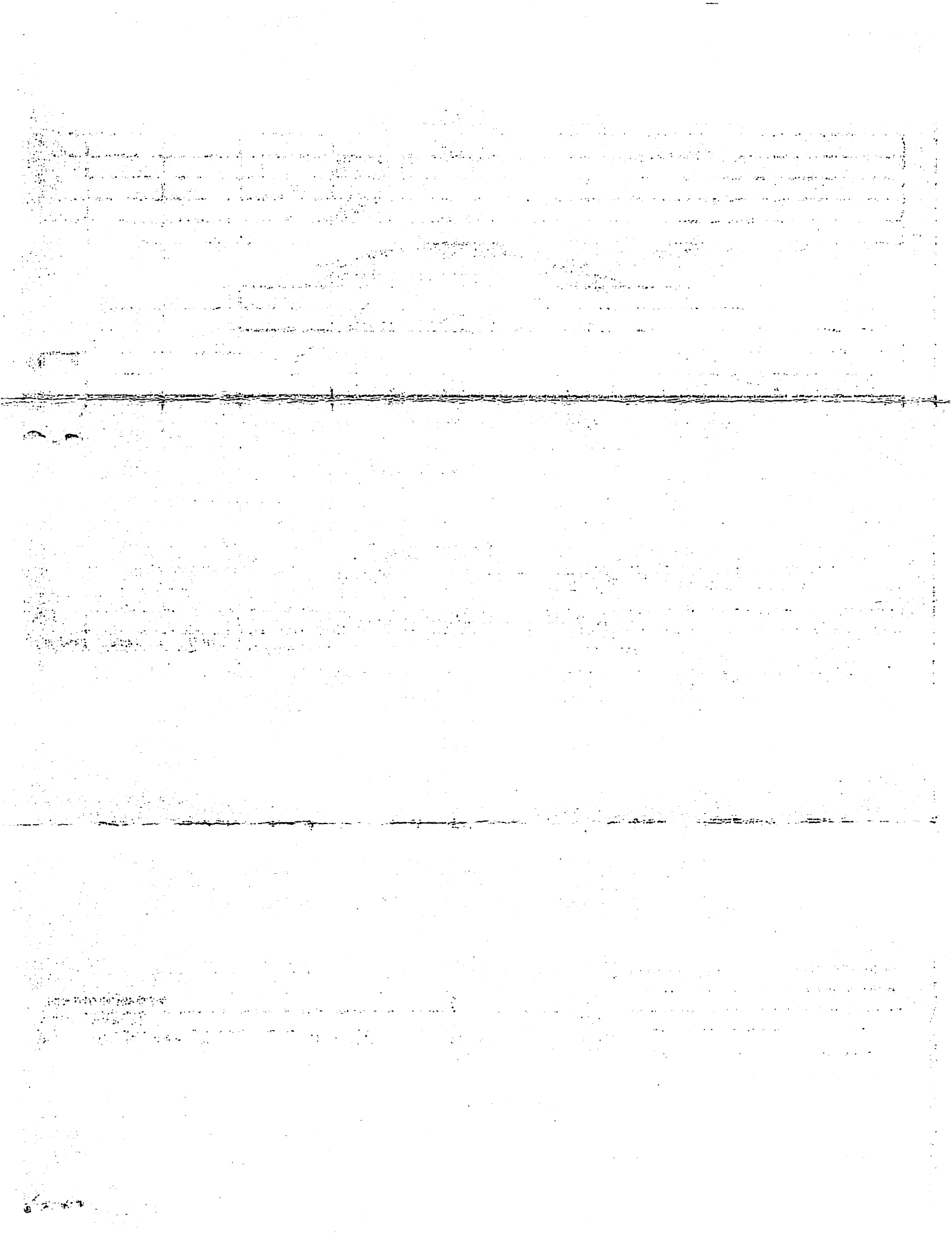
Copeland Representative Nathan W.

Station GB \_\_\_\_\_ Will \_\_\_\_\_  
Well Owner, Operator or Agent

Remarks \_\_\_\_\_

**NET 30 DAYS**







**TREATMENT REPORT**

Acid Stage No. \_\_\_\_\_

Date 8/26/2020 District GB F.O. No. 50293  
 Company Darrah Oil  
 Well Name & No. Knop 1-4  
 Location 4-20-10W Field \_\_\_\_\_  
 County Rice State KS

Type Treatment: Amt. Type Fluid Sand Size Pounds of Sand  
 Bkdown \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 Flush \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_

Casing: Size 5.5" Type & Wt. 14# Set at \_\_\_\_\_ ft.  
 Formation: \_\_\_\_\_ Perf. \_\_\_\_\_ to \_\_\_\_\_  
 Formation: \_\_\_\_\_ Perf. \_\_\_\_\_ to \_\_\_\_\_  
 Formation: \_\_\_\_\_ Perf. \_\_\_\_\_ to \_\_\_\_\_  
 Liner: Size \_\_\_\_\_ Type & Wt. \_\_\_\_\_ Top at \_\_\_\_\_ ft. Bottom at \_\_\_\_\_ ft.  
 Cemented:  Perforated from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
 Tubing: Size & Wt. \_\_\_\_\_ Swung at \_\_\_\_\_ ft.  
 Perforated from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Treated from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. No. ft. 0  
 from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. No. ft. 0  
 from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. No. ft. 0

Actual Volume of Oil / Water to Load Hole: \_\_\_\_\_ Bbl./Gal.

Pump Trucks No. Used: Std. 365 Sp. \_\_\_\_\_ Twin \_\_\_\_\_  
 Auxiliary Equipment \_\_\_\_\_  
 Personnel Nathan-Greg-clarence  
 Auxiliary Tools \_\_\_\_\_  
 Plugging or Sealing Materials: Type \_\_\_\_\_ Gals. \_\_\_\_\_ lb.

Open Hole Size \_\_\_\_\_ T.D. \_\_\_\_\_ ft. P.B. to \_\_\_\_\_ ft.

Company Representative Will Treater Nathan W.

TIME	PRESSURES		Total Fluid Pumped	REMARKS
	a.m./p.m.	Tubing		
8:30		5.5"		On Location. Rigging up to run casing.
				TD-3330' Centalizers-1,3,5,7,9 Basket-2
				Pipe-3325' Tag bottom and set pipe 5' off bottom.
				Break circulation with mud pump. Circulate for 1 hour.
				Pump 500gal of Mud Flush.
				Plug Rat Hole with 30sk and mouse hole with 20sk.
				Mix 200sk 60/40poz 2%gel .75%C-37 .75%C-41p .25%C-12 12%salt 5#/sk Gilsonite.
				Wash out pump and lines.
				Displace with 78bbbls at 5.75bpm-600#
3:00				Release pressure. Float Held. Plug did not go due to pin failure.
				Thank You!
				Nathan W.



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC  
 125 N Market  
 Suite 1425  
 Wichita, Kansas 67202+1720  
 ATTN: Saman Sharifaie

**4/20S/10W/Rice**

**Knop 1-4**

Job Ticket: 66248

**DST#: 2**

Test Start: 2020.08.24 @ 13:44:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:24:47

Time Test Ended: 20:02:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72 Great Bend/ 38

Interval: **3150.00 ft (KB) To 3283.00 ft (KB) (TVD)**

Reference Elevations: 1804.00 ft (KB)

Total Depth: 3283.00 ft (KB) (TVD)

1794.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 36.97 psig @ 3151.00 ft (KB)

Capacity: psig

Start Date: 2020.08.24

End Date:

2020.08.24

Last Calib.:

2020.08.24

Start Time: 13:44:01

End Time:

20:02:02

Time On Btm:

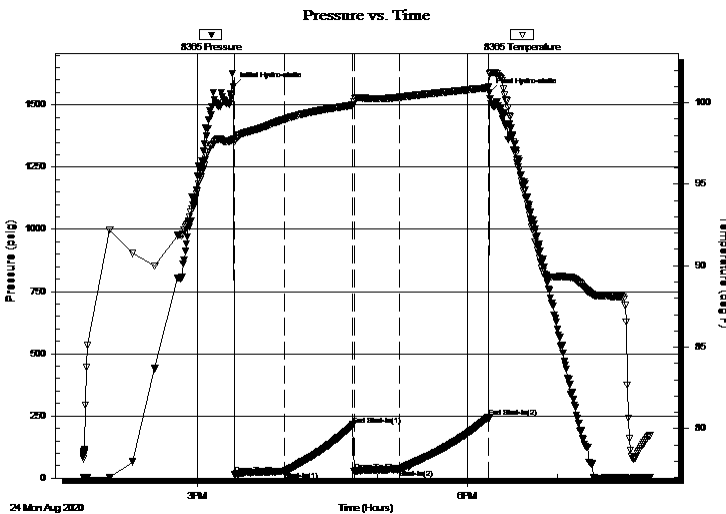
2020.08.24 @ 15:24:02

Time Off Btm:

2020.08.24 @ 18:14:47

TEST COMMENT: IF 30 Minutes/ Blow built to 5 1/4 inches  
 ISI 45 Minutes/ No blow back  
 FF 30 Minutes/ Blow built to 10 3/4 inches  
 FSI 60 Minutes/ No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1572.54	97.82	Initial Hydro-static
1	15.52	97.63	Open To Flow (1)
34	27.89	98.99	Shut-In(1)
80	214.02	99.88	End Shut-In(1)
81	28.55	100.06	Open To Flow (2)
111	36.97	100.34	Shut-In(2)
170	245.82	100.97	End Shut-In(2)
171	1549.25	101.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	GSOCM/ O 5% G 15% M 80%	0.00
0.00	196 feet GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC  
125 N Market  
Suite 1425  
Wichita, Kansas 67202+1720  
ATTN: Saman Sharifaie

**4/20S/10W/Rice**

**Knop 1-4**

Job Ticket: 66248

**DST#: 2**

Test Start: 2020.08.24 @ 13:44:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:24:47

Time Test Ended: 20:02:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72 Great Bend/ 38

**Interval: 3150.00 ft (KB) To 3283.00 ft (KB) (TVD)**

Reference Elevations: 1804.00 ft (KB)

Total Depth: 3283.00 ft (KB) (TVD)

1794.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6755 Outside**

Press@RunDepth: 245.89 psig @ 3152.00 ft (KB)

Capacity: psig

Start Date: 2020.08.24 End Date: 2020.08.24

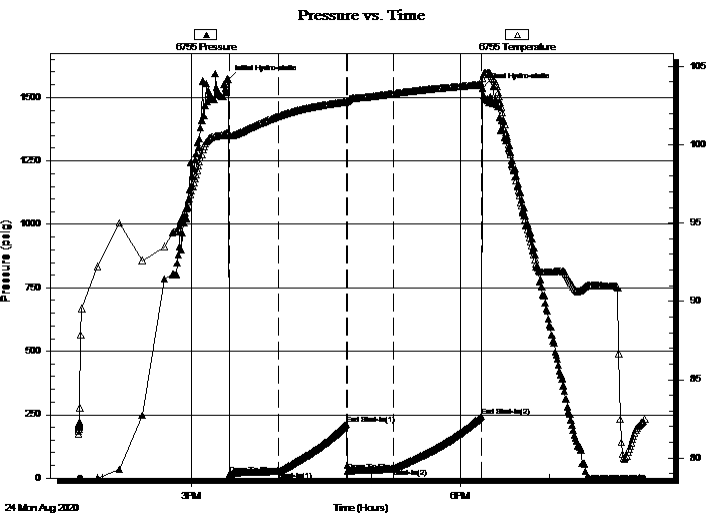
Last Calib.: 2020.08.24

Start Time: 13:44:01 End Time: 20:04:02

Time On Btm: 2020.08.24 @ 15:24:17

Time Off Btm: 2020.08.24 @ 18:14:47

**TEST COMMENT:** IF 30 Minutes/ Blow built to 5 1/4 inches  
ISI 45 Minutes/ No blow back  
FF 30 Minutes/ Blow built to 10 3/4 inches  
FSI 60 Minutes/ No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1570.04	100.81	Initial Hydro-static
1	15.97	100.61	Open To Flow (1)
34	27.61	101.83	Shut-In(1)
80	212.82	102.75	End Shut-In(1)
81	27.14	102.81	Open To Flow (2)
111	38.79	103.27	Shut-In(2)
170	245.89	103.89	End Shut-In(2)
171	1536.84	104.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	GSOCM / O 5% G 15% M 80%	0.00
0.00	196 feet GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Darrah Oil Company LLC

**4/20S/10W/Rice**

125 N Market  
Suite 1425  
Wichita, Kansas 67202+1720  
ATTN: Saman Sharifaie

**Knop 1-4**

Job Ticket: 66248

**DST#: 2**

Test Start: 2020.08.24 @ 13:44:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: in<sup>3</sup>

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	GSOCM/ O 5% G 15% M 80%	0.000
0.00	196 feet GIP	0.000

Total Length: 50.00 ft Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

