KOLAR Document ID: 1677735

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 #	API No.:
Name:	Spot Description:
Address 1:	SecTwpS. R East West
Address 2:	Feet from North / South Line of Section
City:	Feet from _ East / _ West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxxx) (e.gxxx.xxxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
☐ Oil ☐ WSW ☐ SWD	Elevation: Ground: Kelly Bushing:
☐ Gas ☐ DH ☐ EOR	Total Vertical Depth: Plug Back Total Depth:
☐ OG ☐ GSW	Amount of Surface Pipe Set and Cemented at: Feet
CM (Coal Bed Methane)	Multiple Stage Cementing Collar Used? Yes No
Cathodic Other (Core, Expl., etc.):	
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to: w/ sx cmt.
Original Comp. Date: Original Total Depth:	
☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD	Drilling Fluid Management Plan
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer	(Data must be collected from the Reserve Pit)
Commingled Permit #:	Chloride content:ppm Fluid volume:bbls
Dual Completion Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
EOR Permit #:	Location of haid disposal in hadica offsite.
GSW Permit #:	Operator Name:
_	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	QuarterSecTwpS. R East West
Recompletion Date Recompletion Date	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 Approved by: Date:						

KOLAR Document ID: 1677735

Page Two

Operator Name: _				Lease Name:			Well #:		
Sec Twp.	S. R.	E	ast West	County:					
	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,	
Final Radioactivity files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log	
Drill Stem Tests Ta			Yes No			on (Top), Depth ar		Sample	
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum	
Cores Taken Electric Log Run Geologist Report / List All E. Logs Ru	_		Yes No Yes No Yes No						
		B	CASING eport all strings set-c		New Used	ion, etc.			
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives	
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD				
Purpose:		epth T Bottom	Type of Cement # Sacks Used			Type and F	Type and Percent Additives		
Perforate Protect Casi Plug Back T									
Plug Off Zor									
Did you perform a Does the volume Was the hydraulic	of the total base f	fluid of the hydrauli		_	=	No (If No, sk	ip questions 2 an ip question 3) out Page Three	,	
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)			
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio	Gravity	
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom	
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT	
,	,			B.11 B1					
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze I of Material Used)	Record	
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:					
TODING RECORD:	. 3126.		n.	i donei Al.					

Form	ACO1 - Well Completion				
Operator	arrah Oil Company, LLC				
Well Name	YOUNKIN 3-10				
Doc ID	1677735				

All Electric Logs Run

dual induction
micro
porosity
sonic

Form	ACO1 - Well Completion			
Operator	arrah Oil Company, LLC			
Well Name	YOUNKIN 3-10			
Doc ID	1677735			

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement		Type and Percent Additives
Surface	12.25	8.625	23	211	h-325	150	-
Production	7.875	5.5	15.5	4700	h-ld	150	-



Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015

Younkin #3-10
Job Ticket: 68957

Witchita.KS 67202

DST#: 1

ATTN: Seth Everson

Test Start: 2022.08.27 @ 03:30:00

GENERAL INFORMATION:

Formation: Altamont

Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 06:29:00 Tester: Nathan Aneas

Time Test Ended: 11:30:45 Unit No: 71

Interval: 4304.00 ft (KB) To 4380.00 ft (KB) (TVD) Reference Elevations: 3046.00 ft (KB)

Total Depth: 4380.00 ft (KB) (TVD) 3038.00 ft (CF)

Hole Diameter: 7.87 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8353 Inside

Press@RunDepth: 83.11 psig @ 4305.00 ft (KB) Capacity: 8000.00 psig

 Start Date:
 2022.08.27
 End Date:
 2022.08.27
 Last Calib.:
 2022.08.27

 Start Time:
 03:30:01
 End Time:
 11:30:45
 Time On Btm:
 2022.08.27 @ 06:28:15

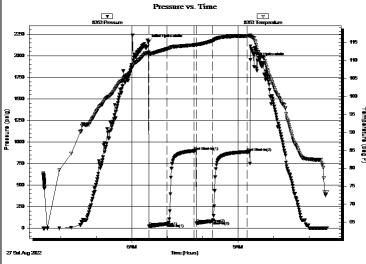
 Time Off Btm:
 2022.08.27 @ 09:20:45

TEST COMMENT: 30:IF- Weak surface blow, built to 1 1/2 inches in 10 min, final is 3 1/4 inches (48.30 psi)

45:ISI- No blow back (887.80 psi)

30:FF- Weak surface blow, built to 1/2 inch in 10 min, final is 3 inches (71.70 psi)

60:FSI- No blow back (870.80 psi)



	PRESSURE SUIVIIVIARY								
Ī	Time	Pressure	Temp	Annotation					
	(Min.)	(psig)	(deg F)						
	0	2162.70	112.13	Initial Hydro-static					
	1	22.64	111.69	Open To Flow (1)					
	32	51.40	113.16	Shut-In(1)					
-	78	898.25	114.23	End Shut-In(1)					
Temperature (deg F)	82	60.78	114.29	Open To Flow (2)					
į	109	83.11	115.43	Shut-In(2)					
œ.	167	886.56	116.75	End Shut-In(2)					
J	173	1951.30	116.96	Final Hydro-static					

DRESSLIRE SLIMMARY

Recovery

Length (ft)	gth (ft) Description			
177.00	SGMO 90%O 5%G 5%M	0.87		
10.00	CO 100%O	0.14		

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

Trilobite Testing, Inc Ref. No: 68957 Printed: 2022.08.27 @ 13:36:11



Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015

Younkin #3-10

Witchita.KS 67202

Job Ticket: 68957 DST#: 1

ATTN: Seth Everson

Test Start: 2022.08.27 @ 03:30:00

GENERAL INFORMATION:

Formation: **Altam ont**

Deviated: Test Type: Conventional Bottom Hole (Initial) No Whipstock: ft (KB)

Time Tool Opened: 06:29:00 Time Test Ended: 11:30:45

Tester: Nathan Aneas Unit No: 71

3046.00 ft (KB)

Total Depth: 4380.00 ft (KB) (TVD) Reference Elevations: 3038.00 ft (CF)

7.87 inches Hole Condition: Fair Hole Diameter:

KB to GR/CF: 8.00 ft

Serial #: 8676 Press@RunDepth: Outside

4305.00 ft (KB) psig @

Capacity:

8000.00 psig

Start Date:

2022.08.27

4304.00 ft (KB) To 4380.00 ft (KB) (TVD)

2022.08.27

Last Calib.: Time On Btm: 2022.08.27

Start Time:

Interval:

03:30:01

End Time:

End Date:

11:31:00

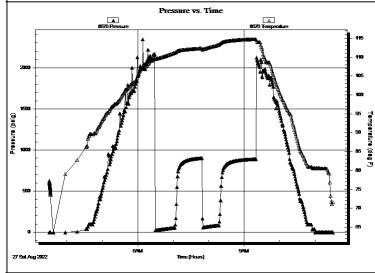
Time Off Btm:

TEST COMMENT: 30:IF- Weak surface blow, built to 1 1/2 inches in 10 min, final is 3 1/4 inches (48.30 psi)

45:ISI- No blow back (887.80 psi)

30:FF- Weak surface blow, built to 1/2 inch in 10 min, final is 3 inches (71.70 psi)

60:FSI- No blow back (870.80 psi)



PRESSURE SUMMARY

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

Recovery

Description	Volume (bbl)		
177.00 SGMO 90%O 5%G 5%M			
CO 100%O	0.14		
	SGMO 90%O 5%G 5%M		

Gas Rates

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

Ref. No: 68957 Printed: 2022.08.27 @ 13:36:12 Trilobite Testing, Inc



FLUID SUMMARY

ppm

Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015 Witchita, KS 67202 Younkin #3-10

Job Ticket: 68957

DST#: 1

ATTN: Seth Everson

Test Start: 2022.08.27 @ 03:30:00

Water Salinity:

Mud and Cushion Information

Mud Type: Gel Chem Cushion Type: Oil API: 31.6 deg API

Mud Weight: 9.00 lb/gal Cushion Length: ft

Viscosity: 52.00 sec/qt Cushion Volume: bbl

Water Loss: 7.20 in³ Gas Cushion Type:

Resistivity: ohm.m Gas Cushion Pressure: psig

Salinity: 3900.00 ppm Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
177.00	SGMO 90%O 5%G 5%M	0.870
10.00	CO 100%O	0.140

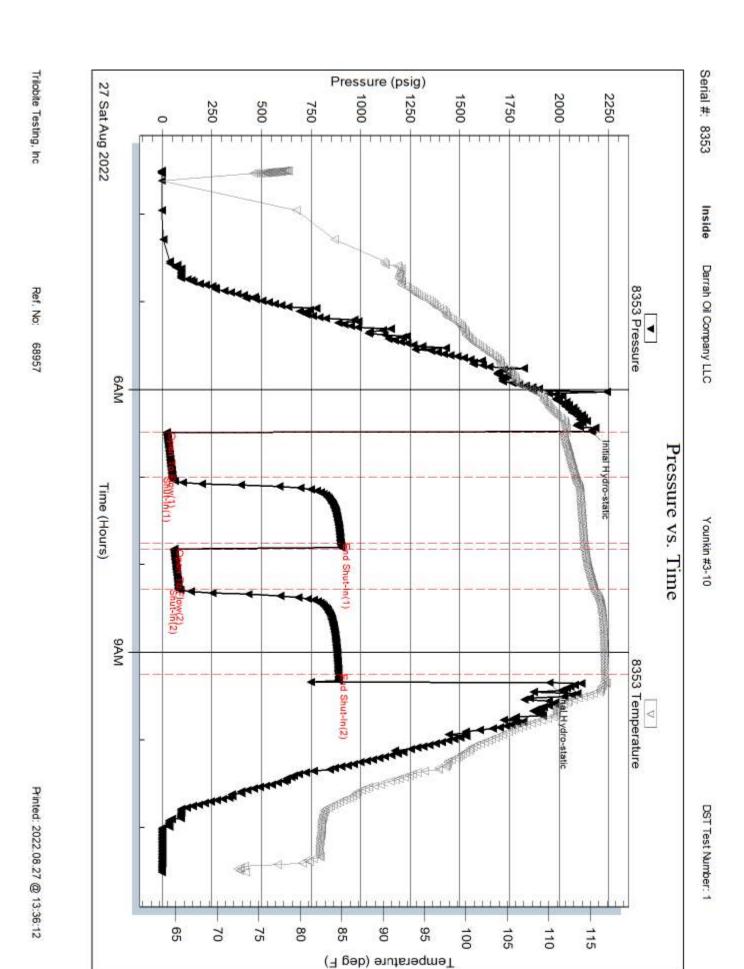
Total Length: 187.00 ft Total Volume: 1.010 bbl

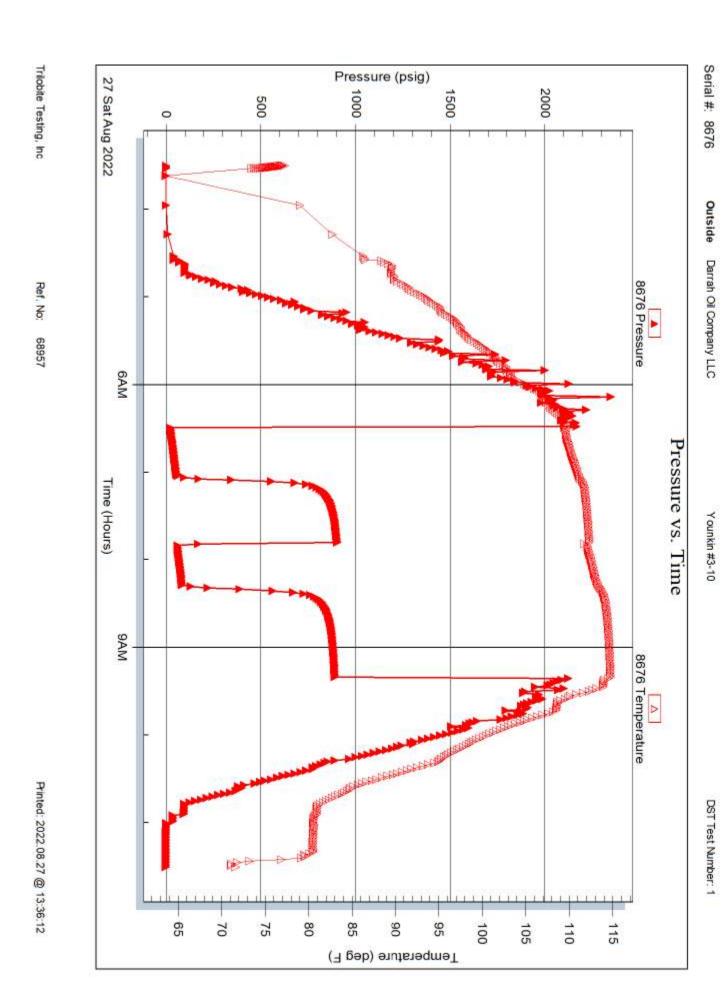
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Trilobite Testing, Inc Ref. No: 68957 Printed: 2022.08.27 @ 13:36:12







Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015

Younkin #3-10

Witchita.KS 67202

Job Ticket: 68958 DST#: 2

ATTN: Seth Everson

Test Start: 2022.08.28 @ 07:42:00

GENERAL INFORMATION:

Formation: Pawnee-Cherokee

Deviated: Whipstock: Test Type: Conventional Bottom Hole (Reset) ft (KB)

Time Tool Opened: 09:57:00 Time Test Ended: 13:58:45

Nathan Aneas

Unit No: 71

Tester:

Interval: 4375.00 ft (KB) To 4493.00 ft (KB) (TVD) Reference Elevations:

3046.00 ft (KB) 3038.00 ft (CF)

Total Depth:

4493.00 ft (KB) (TVD)

KB to GR/CF: 8.00 ft

Hole Diameter: 7.87 inches Hole Condition: Fair

Serial #: 8353 Press@RunDepth: Inside

4376.00 ft (KB) 34.03 psig @

Capacity: Last Calib.: 8000.00 psig

Start Date: Start Time: 2022.08.28 07:42:01

End Date: End Time:

2022.08.28 13:58:45

Time On Btm:

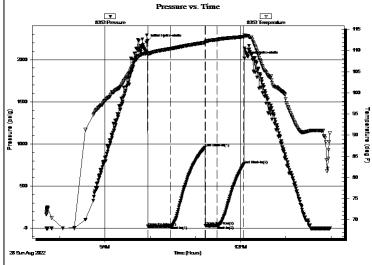
2022.08.28 2022.08.28 @ 09:56:15

Time Off Btm:

2022.08.28 @ 12:05:00

TEST COMMENT: 30:IF- Weak surface blow, built to 1/4 inch in 10 min, final is 1/4 inch

45:ISI- No blow back 15:FF- No blow 30:FSI- No blow back



	PRESSURE SUMMARY			
1	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	2219.35	109.43	Initial Hydro-static
	1	22.69	109.12	Open To Flow (1)
	31	29.36	110.42	Shut-In(1)
	77	957.20	111.87	End Shut-In(1)
	78	31.78	111.92	Open To Flow (2)
	93	34.03	112.57	Shut-In(2)
	128	754.74	113.26	End Shut-In(2)
'	129	2017.08	113.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)	
10.00	SOCM 95% M 5% O	0.05	
* Recovery from multiple tests			

Gas Rat	es	
Choke (inches)	Proceuro (peig)	Cas Pate (Mof/d)

Ref. No: 68958 Trilobite Testing, Inc Printed: 2022.08.28 @ 14:35:07



Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015 Witchita.KS 67202

Younkin #3-10

Tester:

Job Ticket: 68958

DST#: 2

ATTN: Seth Everson

Test Start: 2022.08.28 @ 07:42:00

Nathan Aneas

71

GENERAL INFORMATION:

Formation: Pawnee-Cherokee

Deviated: Whipstock: Test Type: Conventional Bottom Hole (Reset) ft (KB)

Time Tool Opened: 09:57:00 Time Test Ended: 13:58:45

Interval:

Unit No: 4375.00 ft (KB) To 4493.00 ft (KB) (TVD)

Total Depth: 4493.00 ft (KB) (TVD)

Hole Diameter: 7.87 inches Hole Condition: Fair KB to GR/CF:

Reference ⊟evations: 3046.00 ft (KB)

3038.00 ft (CF)

8.00 ft

Serial #: 8676 Outside

Press@RunDepth: 4376.00 ft (KB) 8000.00 psig psig @ Capacity:

Time

(Min.)

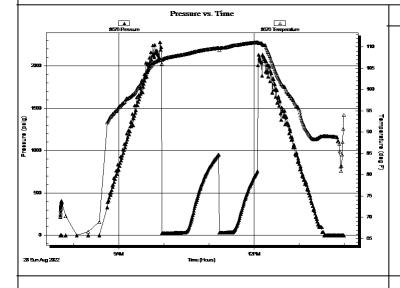
Pressure

Start Date: 2022.08.28 End Date: 2022.08.28 Last Calib.: 2022.08.28

Start Time: 07:42:01 End Time: 13:59:15 Time On Btm: Time Off Btm:

TEST COMMENT: 30:IF- Weak surface blow, built to 1/4 inch in 10 min, final is 1/4 inch

45:ISI- No blow back 15:FF- No blow 30:FSI- No blow back



sig)	(deg F)	

Annotation

PRESSURE SUMMARY

Temp

Recovery

Length (ft)	Description	Volume (bbl)	
10.00	SOCM 95% M 5% O	0.05	
* Recovery from multiple tests			

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

Ref. No: 68958 Printed: 2022.08.28 @ 14:35:08 Trilobite Testing, Inc



FLUID SUMMARY

Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015

Younkin #3-10

Serial #:

Witchita,KS 67202

Job Ticket: 68958 **DST#: 2**

ATTN: Seth Everson

Test Start: 2022.08.28 @ 07:42:00

Mud and Cushion Information

Mud Type:Gel ChemCushion Type:Oil API:deg APIMud Weight:9.00 lb/galCushion Length:ftWater Salinity:ppm

Mud Weight: 9.00 lb/gal Cushion Length: ft
Viscosity: 48.00 sec/qt Cushion Volume: bbl

Water Loss: 7.99 in³ Gas Cushion Type:

Resistivity: ohm.m Gas Cushion Pressure: psig

Salinity: 4000.00 ppm Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	SOCM 95%M 5%O	0.049

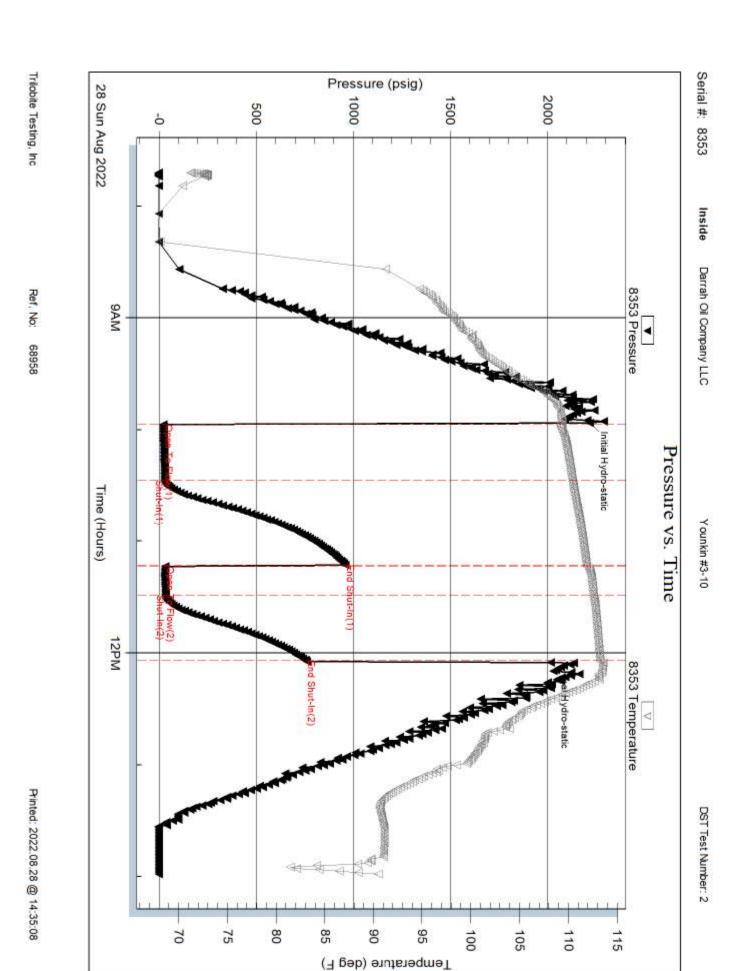
Total Length: 10.00 ft Total Volume: 0.049 bbl

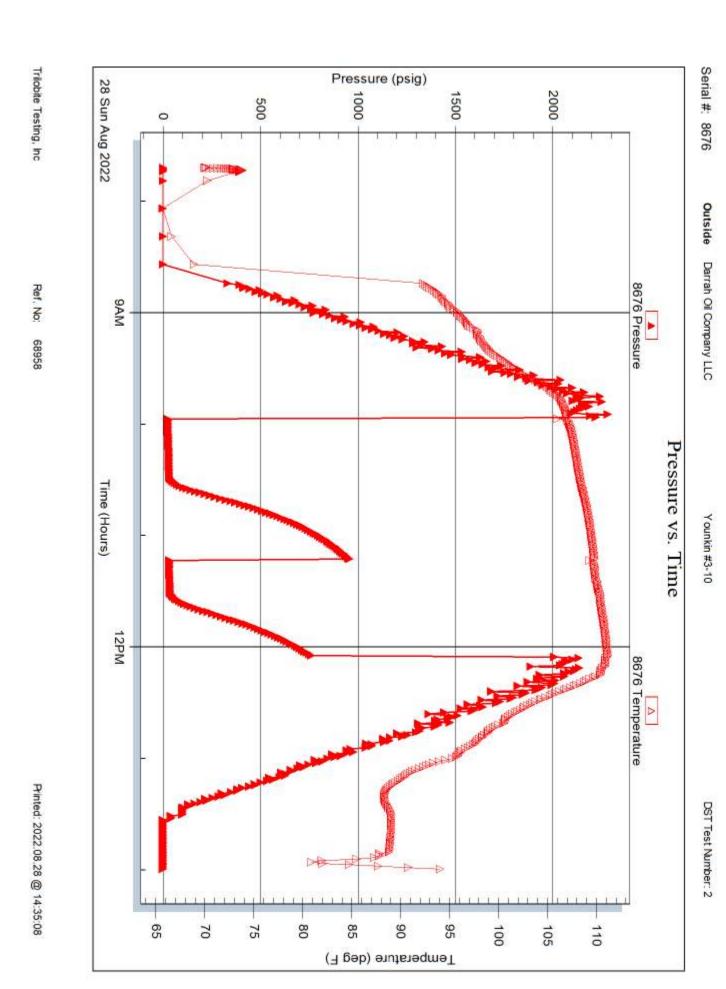
Num Fluid Samples: 0 Num Gas Bombs: 0

Laboratory Name: Laboratory Location:

Recovery Comments:

Trilobite Testing, Inc Ref. No: 68958 Printed: 2022.08.28 @ 14:35:08







Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015 Witchita.KS 67202 Younkin #3-10 Job Ticket: 68959

DST#: 3

ATTN: Seth Everson

Test Start: 2022.08.29 @ 07:05:00

GENERAL INFORMATION:

Formation: Johnson

Deviated: No Whipstock: ft (KB) Test Ty

Time Tool Opened: 09:04:30 Time Test Ended: 12:13:00

Interval:

4454.00 ft (KB) To 4556.00 ft (KB) (TVD)

Total Depth: 4556.00 ft (KB) (TVD)

Hole Diameter: 7.87 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Nathan Aneas

Unit No: 71

004000 # ///

Reference Elevations:

Tester:

3046.00 ft (KB)

 $3038.00 \;\; \text{ft (CF)}$ KB to GR/CF: $8.00 \;\; \text{ft}$

Serial #: 8353 Inside

Press@RunDepth: 26.87 psig @ 4455.00 ft (KB) Capacity: 8000.00 psig

 Start Date:
 2022.08.29
 End Date:
 2022.08.29
 Last Calib.:
 2022.08.29

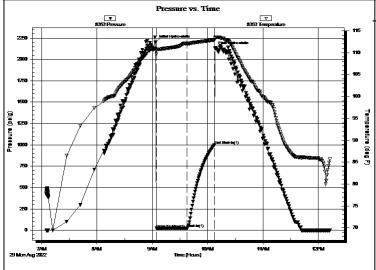
 Start Time:
 07:05:01
 End Time:
 12:13:00
 Time On Btm:
 2022.08.29 @ 09:03:45

 Time Off Btm:
 2022.08.29 @ 10:08:00

TEST COMMENT: 30:IF- Weak surface blow, built to nothing died out (23.50 psi)

30:ISI- No blow back (992.10 psi)

0: Pulled Test



Time	Pressure	Temp	Annotation
(Min.)	(psig)	(deg F)	
0	2199.38	110.82	Initial Hydro-static
1	21.29	110.54	Open To Flow (1)
34	26.87	112.06	Shut-ln(1)
64	997.03	112.89	End Shut-In(1)
65	2126.84	113.31	Final Hydro-static

PRESSURE SUMMARY

Recovery

Length (ft)	Description	Volume (bbl)	
5.00	Mud 100%M	0.02	
* Recovery from multiple tests			

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

Trilobite Testing, Inc Ref. No: 68959 Printed: 2022.08.29 @ 14:04:10



Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015

Younkin #3-10

Witchita.KS 67202

Job Ticket: 68959 DST#: 3

ATTN: Seth Everson

Test Start: 2022.08.29 @ 07:05:00

GENERAL INFORMATION:

Formation: Johnson

Deviated: Test Type: Conventional Bottom Hole (Reset) No Whipstock: ft (KB)

Time Tool Opened: 09:04:30 Time Test Ended: 12:13:00 Tester: Nathan Aneas

Unit No:

71

3046.00 ft (KB)

4454.00 ft (KB) To 4556.00 ft (KB) (TVD) 4556.00 ft (KB) (TVD)

Reference ⊟evations:

3038.00 ft (CF)

Total Depth:

KB to GR/CF:

8.00 ft

Hole Diameter: 7.87 inches Hole Condition: Fair

Serial #: 8676 Outside

Press@RunDepth:

psig @

4455.00 ft (KB)

Capacity: Last Calib.: 2022.08.29

8000.00 psig

Start Date:

2022.08.29

End Date:

Time On Btm:

2022.08.29

Start Time:

Interval:

07:05:01

End Time:

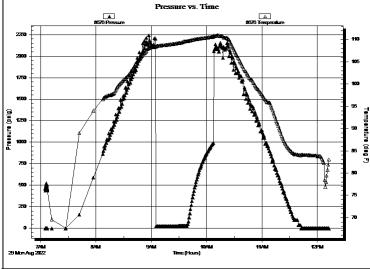
12:13:00

Time Off Btm:

TEST COMMENT: 30:IF- Weak surface blow, built to nothing died out (23.50 psi)

30:ISI- No blow back (992.10 psi)

0: Pulled Test



PRESSURE S	UMMARY
------------	--------

Recovery

Length (ft)	Description	Volume (bbl)					
5.00	Mud 100%M	0.02					
* Recovery from multiple tests							

Gas Rates

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

Trilobite Testing, Inc Printed: 2022.08.29 @ 14:04:10 Ref. No: 68959



FLUID SUMMARY

Darrah Oil Company LLC

10-14-34W Logan, KS

125 N Market Suite 1015 Witchita, KS 67202 Younkin #3-10

Serial #:

Job Ticket: 68959

DST#: 3

ATTN: Seth Everson

Test Start: 2022.08.29 @ 07:05:00

Mud and Cushion Information

Mud Type:Gel ChemCushion Type:Oil API:deg APIMud Weight:9.00 lb/galCushion Length:ftWater Salinity:ppm

Viscosity: 47.00 sec/qt Cushion Volume: bbl

Water Loss: 8.79 in³ Gas Cushion Type:

Resistivity: ohm.m Gas Cushion Pressure: psig

Salinity: 5400.00 ppm Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%M	0.025

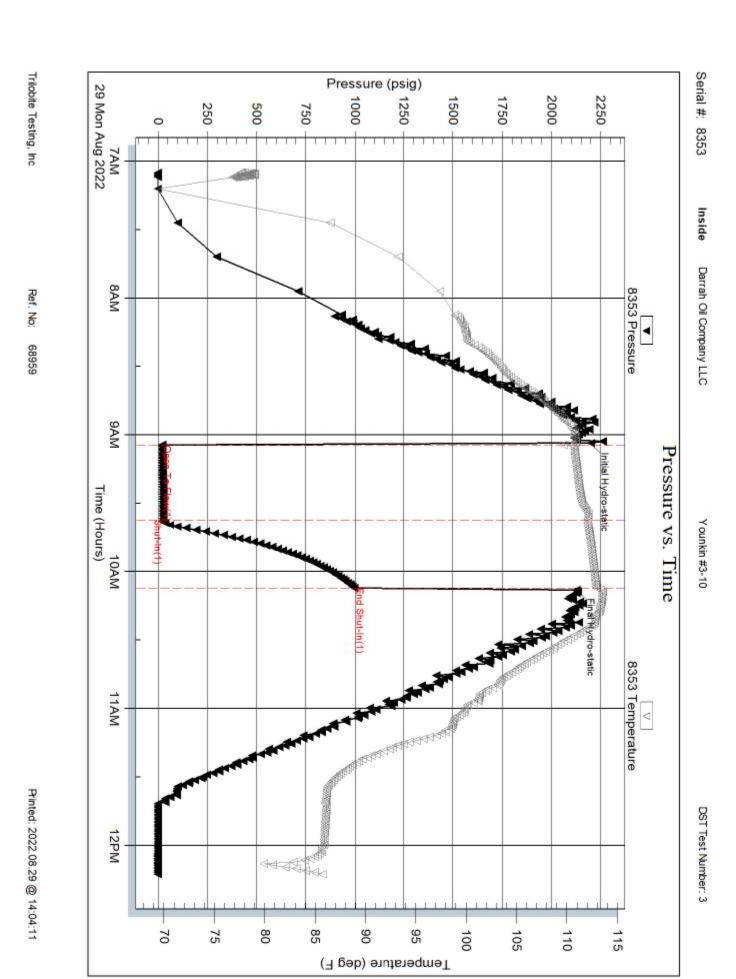
Total Length: 5.00 ft Total Volume: 0.025 bbl

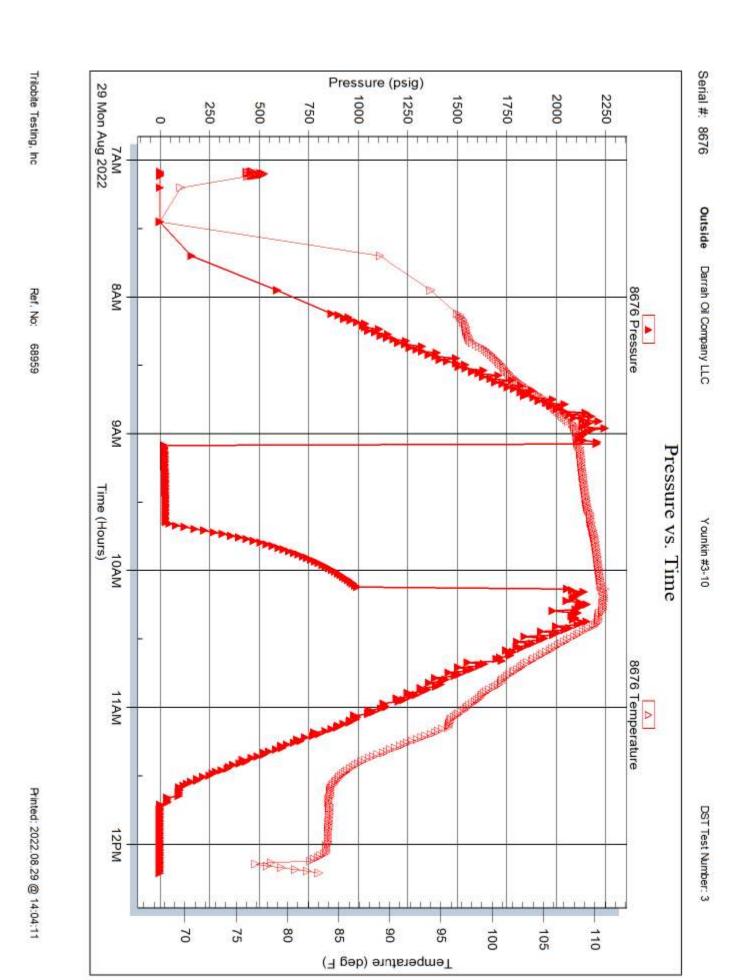
Num Fluid Samples: 0 Num Gas Bombs: 0

Laboratory Name: Laboratory Location:

Recovery Comments:

Trilobite Testing, Inc Ref. No: 68959 Printed: 2022.08.29 @ 14:04:11







Remit To: Hurricane Services, Inc.

250 N. Water, Suite 200 Wichita, KS 67202 316-303-9515

Customer:

DARRAH OIL C/O JOHN JAY DARRAH JR PO BOX 2786 WICHITA, KS 67201-2786
 Invoice Date:
 8/23/2022

 Invoice #:
 0362751

 Lease Name:
 Younkin

 Well #:
 3-10 (New)

 County:
 Logan, Ks

 Job Number:
 WP3264

 District:
 Oakley

Date/Description	HRS/QTY	Rate	Total
Surface	0.000	0.000	0.00
H-325	150.000	22.500	3,375.00
Light Eq Mileage	35.000	2.000	70.00
Heavy Eq Mileage	70.000	4.000	280.00
Ton Mileage	247.000	1.500	370.50
Depth Charge 0'-500'	1.000	1,000.000	1,000.00
Cement Blending & Mixing	150.000	1.400	210.00
Service Supervisor	1.000	275.000	275.00

Total 5.580.50		
Total	Total	5,580.50

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

<u>SALES TAX:</u> Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.



					<u> </u>					
Customer	Darrah Oil		Lease & Well	# Younkin #3-10				Date	8/2	3/2022
Service District	Oakley KS		County & Stat	e Logan ,KS	Legals S/T/R	13-14S	-34W	Job#		
Job Type	Surface	✓ PROD	☐ INJ	SWD	New Well?	✓ YES	☐ No	Ticket #	WI	P 3264
Equipment #	Driver			Job Safety A	Analysis - A Discus	sion of Hazards	& Safety Pi	ocedures		
64	Spencer	✓ Hard hat		✓ Gloves		✓ Lockout/Ta		✓ Warning Sign		
208	Jose	✓ H2S Monite	or	☑ Eye Protection	on	Required P		✓ Fall Protection		
527/235	Kale	✓ Safety Foot	wear	Respiratory		✓ Slip/Trip/Fa		✓ Specific Job S		
		FRC/Protect			hemical/Acid PPE	✓ Overhead I		✓ Muster Point/	'Medical Loca	tions
		✓ Hearing Pro	otection	✓ Fire Extingui			concerns or	issues noted below		
						nments				
								9500 350 350		
Product/ Service Code		Des	scription		Unit of Measure	Quantity				Net Amount
P015	H-325				sack	150.00				\$3,375.0
015	Light Equipmen	nt Mileage			mi	35.00				\$70.0
010	Heavy Equipme	ent Mileage			mi	70.00				\$280.0
020	Ton Mileage				tm	247.00				\$370.5
010	Depth Charge:	0'-500'			job	1.00	-			\$1,000.0 \$210.0
060		ng & Mixing Service			sack	150.00	-			\$275.0
061	Service Superv	visor			day	1.00	-			φ210.0
							+			
							-			
							<u> </u>			
					· ·					
		建筑 数据表现 305 5 表								45.555
Cus	tomer Section:	On the following sca	e now would you ra	ite Hurricane Servic	es inc.?	Total Tauski	\$ -	Tax Rate:	Net:	\$5,580.
	Paged on this iol	b, how likely is it yo	u would recomme	end HSI to a collea	que?	State tax laws d		roducts and services	Sale Tax:	\$ -
_					,	used on new we	lls to be sale:			
						well information	above to mal	e a determination if		
	Unlikely 1 2	3 4 5	6 7	8 9 10	Extremely Likely	services and/or			Total:	\$ 5,580.
						HSI Repres	entative:	Spencer	Savag	e
due accounts shall paffect the collection, previously applied in date of issue. Pricing services. Any discoursecommendatus!	cay interest on the Customer hereby a arriving at net involg does not include ant is based on 30 made concerning the pakes popular and a concerning the pakes popular and a concerning the pakes popular and a concerning the concernin	balance past due at the agrees to pay all fees o bice price. Upon revoca federal, state, or local days net payment term	e rate of 1 1/2% per mo lirectly or indirectly indi- tition, the full invoice p axes, or royalties and s or cash. <u>DISCLAIN</u> f any product or servi-	onth or the maximum a curred for such collect price without discount it is stated price adjustme IER NOTICE: Technic ce. The information prepresents and war	erms of sale for approv illowable by applicable on. In the event that Ci s immediately due and ents. Actual charges mi cal data is presented in esented is a best estim rants that well and all a	state or federal law ustomer's account subject to collection ay vary depending good faith, but no ate of the actual re ssociated equipme	is. In the ever with HSI beco n. Prices quo upon time, eq warranty is st sults that ma nt in acceptal	It it is necessary to em ormes delinquent, HSI hated are estimates only uipment, and material ated or implied. HSI as by be achieved and shout ole condition to receive	ploy an agency as the right to rand are good fultimately requisumes no liabiluld be used for services by H8	revoke any discou or 30 days from the red to perform the lity for advice or comparison SI. Likewise, the

CUSTOMER AUTHORIZATION SIGNATURE



CEMENT	TRE	ATMEN	T REPO	ORT	3 (2) (4)				
Customer: Darrah Oil Well: You				Younkin #3-10	WP 3264				
City, S	State:				County:		Logan ,KS	Date:	8/23/2022
		Spencer	Savage		S-T-R:		13-14S-34W	Service:	Surface
		- F 51.001							
Dowr	nhole l	nformatio	on		Calculated SI	urry - Lead			ulated Slurry - Tail
Hole	Size:	12 1/4	in		Blend:	H-3	25	Blend:	
Hole D	Depth:	232	ft		Weight:	14.8		Weight:	ppg
Casing		8 5/8	in		Water / Sx:		gal / sx	Water / Sx:	gal / sx
Casing E	1000	219.87	ft		Yield:		ft ³ / sx	Yield:	ft ³ / sx
Tubing /			in		Annular Bbls / Ft.:	0.0735		Annular Bbls / Ft.:	bbs / ft.
	Depth:		ft		Depth:		ft	Depth:	ft bbls
Tool / Pa	E 20 2 2 3				Annular Volume:		bbls	Annular Volume: Excess:	eluti
Tool E			ft		Excess: Total Slurry:	37.7	hble	Excess: Total Slurry:	bbls
Displace	ment	12.8	STAGE	TOTAL	Total Slurry: Total Sacks:	150		Total Sacks:	SX
TIME	RATE	PSI	BBLs	BBLs	REMARKS	100			
1015pm					Arrive on Location				,
1030pm					Safety Meeting				
1045pm					Rig Up				
					211.87' of casing plus 8	' landing joi	nt		
1204am	3.2	40.0	5.0		H2O Ahead				
1206am	5.0	150.0	37.7		Slurry H-325 14.8ppg				
1216am	5.0	150.0	12.8		Displace H2O				
1220am		170.0			Plug Down/shut in				
1225am					Wash Up				
1235am			-		Rig Down				
1245am					Leave Location				
	-				Circulate 2 bbls cement	<u> </u>			
					Circulate 2 ppis cellielli	•			
								*	
550,000 F		No. of the last						SUMMAR	.v.
		CREV			UNIT		Average Data		Total Fluid
	menter:		ncer		64		Average Rate 4.4 bpm	Average Pressure 128 psi	56 bbls
Pump Op					208 527/235		4.4 DPIII	120 hai	
	Bulk #1: Bulk #2:		;		3211233				

ftv: 15-2021/01/25 mplv: 321-2022/08/18



Remit To: Hurricane Services, Inc.

250 N. Water, Suite 200 Wichita, KS 67202 316-303-9515

Customer:

DARRAH OIL C/O JOHN JAY DARRAH JR PO BOX 2786 WICHITA, KS 67201-2786
 Invoice Date:
 9/29/2022

 Invoice #:
 0363714

 Lease Name:
 Younkin

 Well #:
 3-10 (New)

 County:
 Logan, Ks

 Job Number:
 WP3448

 District:
 Oakley

Date/Description	HRS/QTY	Rate	Total
Port Collar	0.000	0.000	0.00
H-CON	265.000	25.000	6,625.00
Bagged Sand	2.000	32.000	64.00
Light Eq Mileage	35.000	2.000	70.00
Heavy Eq Mileage	70.000	4.000	280.00
Ton Mileage	466.000	1.500	699.00
Depth Charge 2001'-3000'	1.000	2,000.000	2,000.00
Cement Blending & Mixing	265.000	1.400	371.00
Service Supervisor	1.000	275.000	275.00
Cement Service-After 4 Hours	2.000	300.000	600.00

Total	10,984.00

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

<u>SALES TAX:</u> Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.



			100 100 100 100 100			<u> </u>					
Customer	Darrah Oil Co		Lease & We	II# Younkir	n # 3-10				Date	9/2	29/2022
Service District	Oakley KS		County & St	ate Logan k	(S	Legals S/T/R	10-14S	-34W	Job#		
Job Type	Port Collar	☐ PROD	☐ INJ	SWI)	New Well?	YES	☐ No	Ticket#	W	P-3448
Equipment #	Driver			Job	Safety A	nalysis - A Discuss	sion of Hazards	& Safety Pr	ocedures		
78	Jesse	✓ Hard hat		✓ Glov	/es		☐ Lockout/Ta	- 10 100	☐ Warning Sign	s & Flagging	
528-520	Spencer	✓ H2S Monit	or	✓ Eye	Protection	ı	Required Pe	ermits	Fall Protectio	n	
180-530	Tyler	✓ Safety Foo	twear	Res	oiratory Pi	rotection	✓ Slip/Trip/Fa	ll Hazards	✓ Specific Job S	equence/Exp	ectations
		✓ FRC/Prote	tive Clothing	Add	itional Ch	emical/Acid PPE	✓ Overhead H	lazards	✓ Muster Point	/Medical Loca	itions
		✓ Hearing Pr	otection	Fire	Extinguis			concerns or	issues noted below		
						Con	nments				
		-									
Product/ Service									4100 Z 125		
Code		De	scription			Unit of Measure	Quantity				Net Amoun
P025	H-Con					sack	265.00		-		\$6,625.
CP185	Bagged Sand					sack	2.00				\$64.
1015	Light Equipment	Miloago				mi	35.00				\$70.
<u>и015</u> и010	Heavy Equipmen					mi	70.00				\$280.
лото Л020	Ton Mileage	int ivilleage				tm	466.00				\$699.
0013	Depth Charge: 2	2001'-3000'				job	1.00				\$2,000
0060	T '	g & Mixing Service				sack	265.00				\$371.
R061	Service Supervis					day	1.00				\$275
030	Cement Service	- After 4 Hrs on Lo	cation			hr	2.00	-			\$600
						-			-		
						-					
Cust	tomer Section: O	n the following sca	e how would you	rate Hurrican	e Service:	s Inc.?		1		Net:	\$10,984
							Total Taxable	\$ -	Tax Rate:		
В	ased on this job,	how likely is it yo	u would recomm	nend HSI to a	colleagu	ie?	used on new wel	ls to be sales		Sale Tax:	\$
									e customer provided a determination if		
	Unlikely 1 2	3 4 5	6 7	8 9	10 E	Extremely Likely	services and/or p	roducts are to	ax exempt.	Total:	\$ 10,984
							HSI Repres	entative:	Jesse Jones		
due accounts shall paffect the collection, previously applied in date of issue. Pricing services. Any discourrecommendations mapurposes and HSI macustomer guarantees	ay interest on the ba Customer hereby ag arriving at net invoic g does not include fe nt is based on 30 da ade concerning the akes no guarantee c s proper operational	alance past due at the grees to pay all fees of the price. Upon revocated and, state, or local says net payment term results form the use of future production p	rate of 1 1/2% per n irectly or indirectly in tion, the full invoice axes, or royalties are s or cash. <u>DISCLAI</u> f any product or sen- erformance. Custor owned equipment all	nonth or the mancurred for suc price without on d stated price MER NOTICE: vice. The informance represents and property whi	aximum allo h collection discount is adjustmen Technical nation pres and warrar ile HSI is o	ms of sale for approve swable by applicable s n. In the event that Cu- immediately due and s ts. Actual charges may data is presented in g ented is a best estima- nts that well and all as n location performing is avable services.	tate or federal laws stomer's account we subject to collection y vary depending u good faith, but no we te of the actual res sociated equipment	is. In the event with HSI becomes. Prices quote pon time, equiparranty is star- cults that may t in acceptable	it is necessary to em- nes delinquent, HSI h- ed are estimates only ipment, and material i ted or implied. HSI as be achieved and shot e condition to receive	ploy an agency as the right to reand are good for all imately requisioners no liabiliald be used for services by HS	and/or attorney evoke any disco or 30 days from red to perform the ity for advice or comparison SI. Likewise, the

CUSTOMER AUTHORIZATION SIGNATURE



CEMENT	TRE	ATMEN	T REPO	ORT			A CAR POST		
		Darrah C	A REPORT		Well:		Younkin # 3-10	Ticket:	WP-3448
City, S	State:	Monume	ument KS County: Logan KS		Date:	9/29/2022			
		Jesse			S-T-R:		10-14S-34W	Service:	Port Collar
Down	hole l	nformatio	on		Calculated SI	urry - Lead		Calc	ulated Slurry - Tail
Hole	Size:	7 7/8	in		Blend:	Н-Сх	on	Blend:	
Hole D		3550	ft		Weight:	12.0		Weight:	ppg
Casing		8 5/8			Water / Sx:		gal / sx	Water / Sx:	gal / sx ft³ / sx
Casing D	TO THE STATE OF		ft		Yield:		ft ³ / sx	Yield: Annular Bbls / Ft.:	bbs / ft.
Tubing /			in		Annular Bbls / Ft.:	0.0183 2520		Depth:	ft
Tool / Pa	epth:	port c	ft		Depth: Annular Volume:	46.1		Annular Volume:	0 bbls
Tool D	经 关键	2520			Excess:	40.1	DD15	Excess:	
Displace			bbls		Total Slurry:	121.0	bbls	Total Slurry:	0.0 bbls
			STAGE	TOTAL	Total Sacks:	265		Total Sacks:	0 sx
TIME	RATE	PSI	BBLs		REMARKS				
10:00a				-	Arrival				
10:05a				-	Safety meeting				
10:10a				-	Rig up				
1:00p	6.0	110.0	77.0	77.0	Load hole				
1:25p				77.0	Set sand plug				
1:30p	1.3	500.0	3.0	80.0	H2O behide sand				
1:32p				80.0	30 minute wait				
2:05p		500 O		80.0	Pull tubing to 2520' Open tool				
3:20p 3:30p	3.5	500.0 600.0	5.0	85.0	H2O ahead				
3:35p		700.0	121.0	206.0	Mixed 265 sks of H-con	n @ 12 ppg @	0 2520'		
4:10p		670.0	8.5		Displaced H2O				
4:20p					Ran 4 joints in hole				
4:30p	5.0	550.0	18.0		Reversed out tubing				
4:45p					Run tubing in hole to 3	550'			
5:24p					Reverse out sand plug				
5:45p					Wash up				
5:52p					Rig down				
6:15p					Depart location				
					Circulated 20 sks to pi	•			
					Circulated 20 3k3 to pr	•			
		CREW	J		UNIT		在 是从1943年,在	SUMMAR	
	menter:		se		78		Average Rate	Average Pressure	Total Fluid
Pump Op			ncer		528-520		3.9 bpm	519 psi	233 bbls
	Bulk #1:		r		180-530				
EN AL BONGSON	Bulk #2:								

ftv: 15-2021/01/25 mplv: 337-2022/09/12



Remit To: Hurricane Services, Inc.

250 N. Water, Suite 200 Wichita, KS 67202 316-303-9515

Customer:

DARRAH OIL C/O JOHN JAY DARRAH JR PO BOX 2786 WICHITA, KS 67201-2786
 Invoice Date:
 8/31/2022

 Invoice #:
 0362878

 Lease Name:
 Younkin

 Well #:
 3-10 (New)

 County:
 Logan, Ks

 Job Number:
 WP3308

 District:
 Oakley

Date/Description	HRS/QTY	Rate	Total
Port Collar	0.000	0.000	0.00
H-Plug	50.000	14.000	700.00
H-LD Cement Blend	150.000	50.000	7,500.00
Light Eq Mileage	35.000	2.000	70.00
Heavy Eq Mileage	70.000	4.000	280.00
Ton Mileage	320.000	1.500	480.00
Depth Charge 4001'-5000'	1.000	2,500.000	2,500.00
Casing Swivel	1.000	300.000	300.00
Cement Blending & Mixing	200.000	1.400	280.00
Service Supervisor	1.000	275.000	275.00
Mud flush	500.000	1.000	500.00
KCL-CS701	5.000	30.000	150.00
Cement plug container	1.000	250.000	250.00
Cement baskets 5 1/2"	2.000	300.000	600.00
5 1/2" Turbolizers	7.000	125.000	875.00
5 1/2" Floatshoe-Flapper AFU	1.000	375.000	375.00
5 1/2" Port Collar	1.000	3,500.000	3,500.00
5 1/2" LD Plug & Baffle	1.000	350.000	350.00
High Overhead Connection Chg	1.000	300.000	300.00

Total	19,285.00

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.



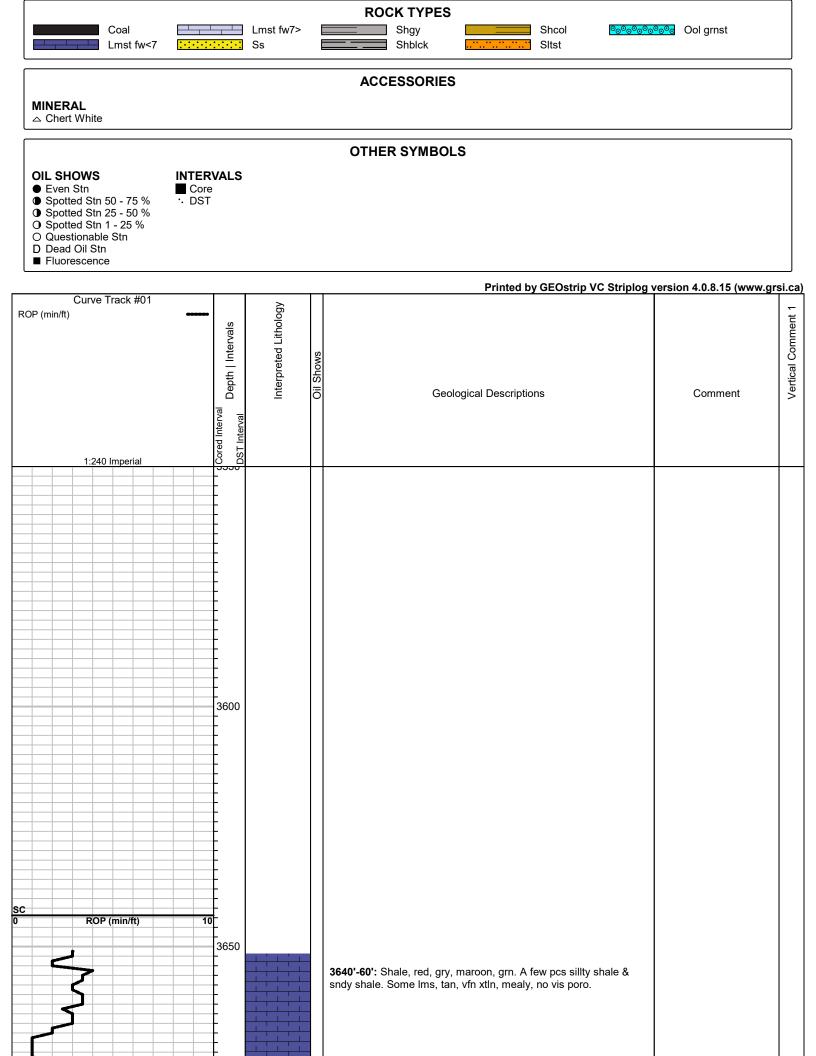
					7					
Customer	Darrah Oil Co		Lease & Well #	Younkin # 3-10				Date	8/	31/2022
Service District	Oakley KS		County & State	Logan KS	Legals S/T/R	10-148	-34W	Job#		
Job Type	Port collar	✓ PROD	☐ INJ	SWD	New Well?	✓ YES	☐ No	Ticket#	N	/P-3308
Equipment #	Driver			Job Safety An	alysis - A Discuss	ion of Hazards	& Safety Pro	cedures		
78	Jesse	✓ Hard hat		✓ Gloves		Lockout/Tag	gout	☐ Warning Sign	ns & Flagging]
528-520	Spencer	✓ H2S Monito	or	✓ Eye Protection		Required Pe	ermits	☐ Fall Protection	n	
180-530	Tyler	✓ Safety Foot	wear	Respiratory Pro	otection	✓ Slip/Trip/Fa	ll Hazards	Specific Job	Sequence/Exp	oectations
		✓ FRC/Protec	tive Clothing	Additional Che	mical/Acid PPE	✓ Overhead H	azards	✓ Muster Point	/Medical Loc	ations
		☑ Hearing Pro	otection	Fire Extinguish	er	Additional of	concerns or is	sues noted below		
					Con	nments				
Product/ Service Code		Des	scription		Unit of Measure	Quantity				Net Amount
CP055	H-Plug				sack	50.00				\$700.00
CP014	H-LD Cement Blend	d			sack	150.00				\$7,500.00
M015	Light Equipment Mi	leage			mi	35.00				\$70.00
M010	Heavy Equipment N	Mileage			mi	70.00				\$280.00
M020	Ton Mileage				tm	320.00				\$480.00
D015	Depth Charge: 400	1'-5000'			job	1.00				\$2,500.00
C040	Casing Swivel				job	1.00				\$300.00
C060	Cement Blending &	Mixing Service			sack	200.00				\$280.00
R061	Service Supervisor				day	1.00				\$275.00
CP170	Mud Flush				gal	500.00				\$500.00
AF055	Liquid KCL Substitu	ıte			gal	5.00				\$150.00
C050	Cement Plug Conta	ainer			job	1.00				\$250.00
FE130	5 1/2" Cement Bask	ket			ea	2.00				\$600.00
FE135	5 1/2 Turbolizer				ea	7.00				\$875.00
FE145	5 1/2" Float Shoe -	AFU Flapper Typ	oe		ea	1.00				\$375.00
FE165	5 1/2" Port Collar				ea	1.00				\$3,500.00
FE170	5 1/2" Latch Down F	Plug & Baffle			ea	1.00				\$350.00
C075	High Overhead Cor	nnection Charge	- Over 6 Feet		job	1.00				\$300.00
Cueto	omer Section: On th	oo following scale	how would you rate	Hurricana Sanvicas	nc 2				Net	\$40.00F.00
Cusi	omer Section. On a	ie following scale	Thow would you rate	Tiumcane Services	110.1	Total Taxable	\$ -	Tax Rate:	Net:	\$19,285.00
Ba	ased on this job, ho	w likely is it you	u would recommend	I HSI to a colleague	?		<u> </u>	ducts and services	Sale Tax:	\$ -
	Unlikely 1 2	3 4 5	6 7 8	9 10 Ext	remely Likely	used on new well: Hurricane Service well information a services and/or pi	s relies on the bove to make	customer provided a determination if	Total:	\$ 19,285.00
						HSI Represe			ı otal.	10,200.00
TERMS: Cash in adva	ance unless Hurricane	Services Inc. (HSI)	has approved credit pr	ior to sale. Credit terms	s of sale for approved	accounts are tota	l invoice due o	n or before the 30th	day from the d	ate of invoice. Past

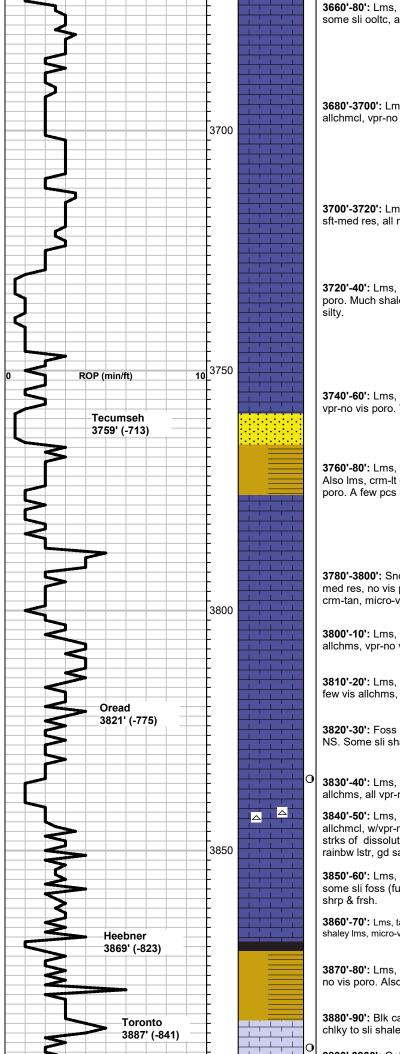
TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 ½% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. <u>DISCLAIMER NOTICE</u>: Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results fom the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

CUSTOMER AUTHORIZATION SIGNATURE



MENT TREA	ASSESSED TO		JKI			100.100	
Customer:				Well:	Younkin # 3-10	Ticket:	WP-3308
City, State:		⟨S		County:	Logan KS	Date:	8/31/2022
Field Rep:	Jesse			S-T-R:	10-14S-34W	Service:	Port collar
Downhole In	nformatio	on		Calculated SI	lurry - Lead	Calcu	ılated Slurry - Tail
Hole Size:	7 1/4	in		Blend:	H-LD	Blend:	H-Plug
Hole Depth:	4750			Weight:	14.8 ppg	Weight:	13.8 ppg
Casing Size:	5 1/2			Water / Sx:	6.5 gal / sx	Water / Sx:	6.9 gal / sx
asing Depth:	4699			Yield:	1.51 ft ³ / sx	Yield:	1.42 ft ³ / sx
bing / Liner:		in		Annular Bbls / Ft.:	0.0309 bbs / ft.	Annular Bbls / Ft.:	0.0309 bbs / ft.
Depth: ool / Packer:	Port c	ft		Depth:	4699 ft	Depth:	50 ft 1.545 bbls
Tool Depth:	2516			Annular Volume: Excess:	145.2 bbls	Annular Volume: Excess:	
splacement:	111.3			Total Slurry:	40.3 bbls	Total Slurry:	12.6 bbls
		STAGE	TOTAL	Total Sacks:	150 sx	Total Sacks:	50 sx
ME RATE	PSI	BBLs	BBLs	REMARKS			
5:00p			-	Arrival			
5:05p			-	Safety meeting			
5:45p			-	Run float equipment P	ort collar on top of joint 51 Baskets	on joint # 3&50 Turbos # SJ	5,8,10,12,14,16
8:15p			-	Drop ball			
8:17p	350.0		-	Circulate for 1.5 hour			
10:03p 4.0	420.0	5.0		H2O ahead			······································
10:05p 4.1	470.0	12.0	12.0	Mixed 500 gallons of mu	ud flush		
10:09p 4.0	450.0	5.0	17.0	H2O behide			
10:13p 4.0	420.0	12.6	29.6	Mixed 50 sks of H-plug			
10:16p 7.0 10:32p	450.0	40.3	69.9 69.9	Mixed 150 sks of H-LD (Shut down and wash up			
10:32p			00.0	Drop plug	p pump and imes		
10:44p 7.0	400.0	111.3		Displace H2O			
11:00p 3.5	1,650.0	111.5		Land plug			
11:04p				Wash up			
11:16p				Rig down	-t		
11:45p				Depart location			
		,					
100	CREW			UNIT	A STARLEY BY STA	SUMMARY	
Cementer:	Jesse	e		78	Average Rate	Average Pressure	Total Fluid
ımp Operator:	Spen	cer		528-520	4.8 bpm	576 psi	298 bbls
THE RESERVE TO SHARE THE PARTY OF THE PARTY				180-530			





3660'-80': Lms, It gry, micro-vfn xtln, med res, some sli mealy, some sli ooltc, all vpr-no vis poro.

3680'-3700': Lms, crm to off-wht, micro-vfn xtln, med res, mst nonallchmcl, vpr-no vis poro.

3700'-3720': Lms, tan, vfn xtln, med res, some gry, shaley, mealy, sft-med res, all no vis poro, NS. Trc blk carb shale, & trc chrt.

3720'-40': Lms, tan, vfn xtln, med res, few vis allchms, vpr-no vis poro. Much shale, gry, maroon, grn, trc prpl, & red earthy, some

3740'-60': Lms, tan to It gry, vfn xtln, med res, mst non-allchmcl, all vpr-no vis poro. Trc chrt. Some chlk, off-wht, sft.

3760'-80': Lms, gry, vfn xtln, med-hrd res, mealy, some poss foss. Also Ims, crm-lt gry, vfn xtln, med res, non-allchmcl. All vpr-no vis poro. A few pcs blk carb shale.

3780'-3800': Sndy shale to shaley SS, maroon, vfn grained, sftmed res, no vis poro. Some gry shale, sli sndy/silty. Some lms, crm-tan, micro-vfn xtln, med res, no vis poro.

3800'-10': Lms, crm to tan, vfn-fn xtln, med-hrd res, mst vfw allchms, vpr-no vis poro, NS.

3810'-20': Lms, tan to gry, fn xtln, med res, some sli shaley, mst few vis allchms, all vpr-no vis poro. Some shale, gry, red, etc.

3820'-30': Foss Ims, tan, micro-vfn xtln, med-hrd res, vpr vis poro, NS. Some sli shaley lms as abv, few-no allchms, no vis poro.

3830'-40': Lms, crm to It gry, sft-med res, some sli chlky, few vis allchms, all vpr-no vis poro.

3840'-50': Lms, crm to tan, vfn xtln, med to hrd res, mst nonallchmcl, w/vpr-no vis poro. Several pcs lms, w/good lv blk stn in strks of dissolution poro, and scat pnpnt vugs, SSFO on brk, fr rainbw lstr, gd sat in poro, no odr. Pr overall poro.

3850'-60': Lms, crm to It gry, micro-vfn xtln, med-hrd res, sli chlky, some sli foss (fus), vpr-no vis poro. Some chrt, lt gry, w/spicuals,

3860'-70': Lms, tan vfn xtln, med-hrd res, grainy txt. Some It gry, mottled shaley lms, micro-vfn xtln, also much sft, off-wht chlky. All vpr-no vis poro.

3870'-80': Lms, crm- micro-vfn xtln, med-hrd res, vry sli foss, vprno vis poro. Also much chlk, off-wht, sft.

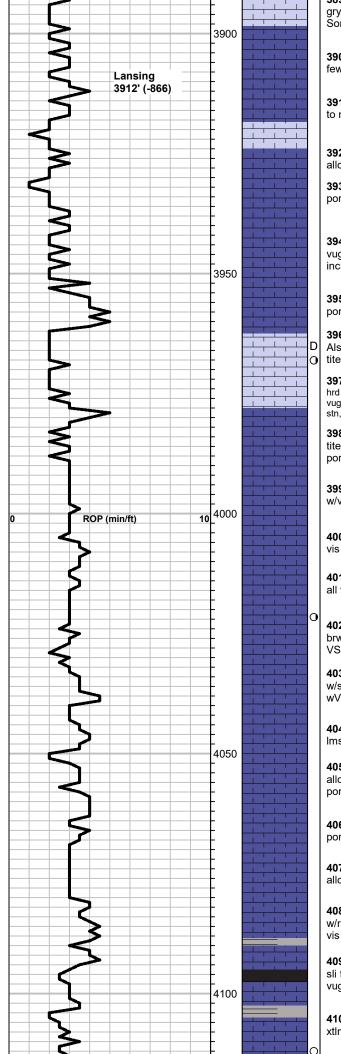
3880'-90': Blk carb shale. Mstly lms, crm to lt gry, sft-med res, sli

chlky to sli shaley, all no vis poro.

CFS @ 4320' 20 min: Lms, gry, micro-xtln, hrd res, sli foss, mst no vis poro. Some pcs, lms, tan-gry, micro-xtln, hrd res, w/scat lv blk stn in intr-xtln dissolution & intrfoss vugs, vpr-no intr-vugular poro, pr vugular poro, trc FO, sli odr.

CFS @ 4320' 40 min: Lms, gry, micro-xtln, hrd res, gd lv blk stn in fr-gd intr-foss & intr-xtln, vugular poro, fr sat, SSFO, vsli odr. Better poro than 20 min smpl, still many pcs w/vpr poro. Mst pcs lms, gry, dns, tite, non-allchmcl. Much shale, maroon, red, gry, blk, grnsh/gry.

CFS @ 4330' 20 min: Lms,



gry-blk ooids, mst no vis poro. 1 pc w/gd lv blk stn on edge, NSFO. Some lms vry chlky.

3900'-10': Chlk, off-wht, sft. Some Ims, crm to gry, micro-vfn xtln, few-no vis allchms, med res, vpr-no vis poro.

3910'-20': Lms, crm, micro xtln, med res, some sft, sli chlky, vfew to no vis allchms, vpr-no vis poro.

3920'-30': Lms, crm to gry, micro-xtln, sft-med res, few-no vis allchms, some chlky, vpr-no vis poro.

3930'-40': Ooltc Ims, gry-tan, abndt ooids, mstly non-vuglar, pr poro, NS. Vry much sft off-wht chlk. A few pcs shale, grn, red, gry.

3940'-50': Chlk, off-wht, sft. Some ooltc lms, tan, abndtly, ooltic, sli vugular, pr poro, NS. Some dns tan to gry lms, micro-xtln. Sli increase in maroon & blk shales.

3950'-60': Lms, crm, micro xtln, med res, few vis allchms, no vis poro.

3960'-70': Shale, maroon, drk gry, red earthy, trc grn, some sli silty. Also, Ims, gry to brwn, micro-vfn xtln, hrd res, sli foss to sli ooltc, tite, no vis poro.

3970'-80': Lms, tan-brwn-gry, micro-vfn xtln, some sli ooltc to sli foss, medhrd res, many pcs w/scat blk tarry to asphltc stn in rare scat pnpnt and rare vugualr poro, vpr overall poro. Mst stn, dead to tarry/stky, a few pcs w/sli livley stn, NSFO, no odr. Wk shw.

3980'-90': Lms, crm, micro-vfn xtln, med res, vfew allchms, mst tite, vpr-no vis poro mst pcs. A couple pcs sli ooltc, w/vry pr vugular poro, NS.

3990'-4000': Lms, crm, micro-vfn xtln, med-hrd res, a few sli ooltc, w/vpr vugular poro, NS. Some off-wht chlky lms.

4000'-10': Lms, crm-tan, vfn xtln, med-hrd res, trc foss, mst few-no vis allchms, vpr-no vis poro.

4010'-20': Lms, crm-tan-lt gry, micro-vfn xtln, med res, few allchms, all vpr-no vis poro. Some blk carb shale, also grn & gry shale.

4020'-30': Lms, tan to gry, med res, micro-vfn xtln, scat spty lv drk brwn stn in rare scat pnpnt intr-xtln poro, and rare oomldc vugs, VSSFO on brk, no odr. Vpr poro overall.

4030'-40': Ooltc Ims, crm-tan, micro-vfn xtln, some sli chlky, some w/scat shallow oomldc vugs, pr poro, NS. 1 pc Ims as abv, wVSSFO on brk. Much shale, It gry, grn, red, blk carb sft.

4040'-4050': Lms, crm, micro-vfn xtln, med res, few allchms. Some lms, micro-xtln, med res, brwn, mottled. All vpr-no vis poro.

4050'-60': Lms, crm, micro xtln, med res, some hrd res, mst non-allchmcl, a few sli ooltc, w/rare oomldc vugs, NS. Mst vpr-no vis poro. Much chrt, off-wht to lt gry, shrp & frsh.

4060'-70': Lms, crm, med res, micro-xtln, mst non-allchmcl, no vis poro. Some pcs abndtly ooltc, to sli foss, w/rare vugular poro, NS.

4070'-80': Lms, crm to It gry, mst, micro-xtln, med-hrd res, non-allchmcl, no vis poro.

4080'-90': Lms, crm, micro-xtln, med-hrd res, some foss, a few w/rare scat intr-foss vugs, pr poro, NS. Mst wfew allchms, vpr-no vis poro.

4090'-4100': Lms, It gry, some tan, crypto-micro xtln, hrd res, some sli foss, mst vfw-no allchms, a few tan pcs w/vrare scat intr-xtln vugs, NS. Mst pr-no vis poro. Trc blk carb shale.

4100'-10': Much blk carb shale. Mstly lms, gry, some brwn, micro xtln, med, mst hrd res, few vis allchms, no vis poro.

some off-wht mshy chlk, some mshy lt gry shale, and some shale gry, red, drk gry, maroon. A few pcs Ims gry, w/scat lv stn in dissolution vugs, pr overall poro, SSFO, prob 4320' zone.

CFS @ 4330' 40 min: Lms, crm-gry, micro-xtln, med res, mst no vis poro. many w/drk gry to blk inclsns, much shale, gry to It gry, some mshy.

Short smpl @ 4345': Shale, gry, red, maroon, some blk carb fissile, Mstly Ims, crm to gry, micro-xtln, med res, mst vfw-no vis allchms, some sli chlky to shaley, all vpr-no vis poro.

CFS @ 4345' 20 min: Shale, gry, red, maroon, grn, a few blk carb fissile. Mstly Ims, gry, some crm, micro-xtln, med-hrd res, mst non-allchmcl, mst all vpr-no vis poro 1 pc Ims, gry, scat Iv stn in minute pnpnt poro, vpr poro, wtrc FO. Also some off-wht, mshy chlk.

CFS @ 4345' 40 min: Lms, gry, a few tan, crypto-micro xtln, med-hrd res, mstly non-allchmcl, tite, no vis poro. Much shale, gry, red, maroon, blk carb.

CFS @ 4370' 20 min: Lms, drk gry, vfn xtln, hrd res, sli foss, vpr-no vis poro. Abndnt chrt, drk brwn to smky gry, some lt gry smky trnslcnt, to pnk & reddish, some foss, mst sli weathrd, some shrp & frsh.

CFS @ 4370' 40 min: Shaley Ims, gry, vfn xtln, sft res, sli foss, no vis poro. Much shale, drk gry, grn, red, and fissile blk carb. Some chrt, as in 20 min smpl.

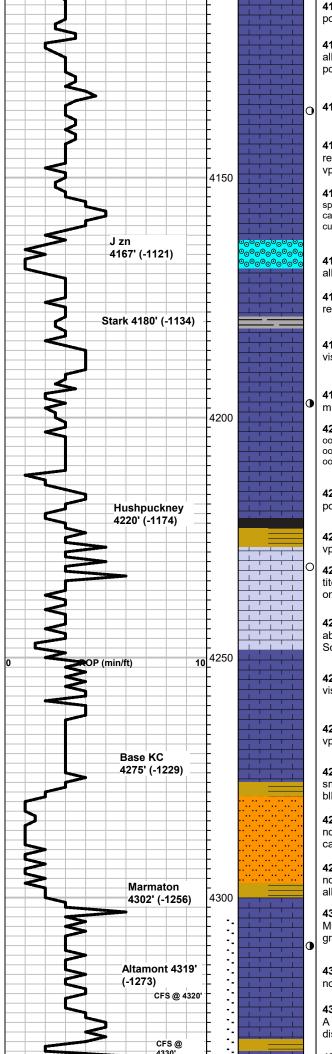
CFS @ 4380' 20 min: Lms, tan, some gry, micro-xtln, med-hrd res, some ooltc, non-vugular, all vpr-no vis poro.

CFS @ 4380' 40 min: Lms, tan, some It gry, micro-fn xtln, med-hrd res, some ooltic, mst few-no vis allchms, all vpr-no vis poro.

CFS @ 4400' 20 min: Lms, gry-tan, micro-xtln, mstly tite, non-allchmcl, no vis poro. A coulpe pcs Ims, gry, micro-xtln, w/wk-fr scat Iv blk stn in strks, VSSFO on brk, prob drilled past shw. Mstly shale, gry, blk carb, maroon, red.

CFS @ 4400' 40 min: Lms, gry to It gry, some crm, crypto-micro xtln, med-hrd res, non-allchmcl, no vis poro.

CFS @ 4434' 20 min: Lms, gry, micro-vfn xtln, hrd res, some med res, sli foss, vnr-



4110'-20': Lms, gry, micro xtln, med-hrd res, fossiliferous, pr-no vis poro, NS.

4120'-30': Lms, crm to It gry, micro-xtln, med res, mst non-allchmcl, no vis poro. 1 pc It gry Ims, w/gd Iv blk stn in scat pnpnt poro, trc FO on brk, no odr, pr poro overall. Trc chrt.

4130'-40': Lms, brwn, micro xtln, med-hrd res, sli foss, no vis poro.

4140'-50': Lms, gry, some sli shaley to vry sli chlky, micro xtln, med res, mst non-allchmcl, no vis poro. 1 pc gry lms, w/scat blk stn in vpr intr-xtln poro, trc stky brwn FO on brk, trc tarry blk oil.

4150'-60': Lms, crm-lt gry, micro-xtln, med res, sli chlky, several pcs w/gd spty blk stn, lv to flky, in pr intr-xtln & pr pnpnt poro, a few sli foss, w/rare foss cast poro, trc stky drk brwn-blk oil on brk, vsli odr, vdull yell fluor, gd strming cut. Mst pcs, crm-gry, sli chlky, non-allchmcl, no vis poro. Some off-wht chlk.

4160'-70': Lms, tan, crypto-micro xtln, med-hrd res, some sli foss, all vpr-no vis poro, NS. Much lt gry mshy shale.

4170'-80': Oomldc vugular lms, tan to lt gry, micro-xtln, med-hrd res, fr vugular poro, & pr matrix/intr-xtln poro, prly conn vugs, NS.

4180'-90': Lms, gry to tan, crypto-micro xtln, med-hrd res, mst vfew vis allchms, tite, no vis poro.

4190'-4200': Lms, gry to drk gry/brwn, crypto-micro xtln, hrd res, mst few-no vis allchms, tite, no vis poro.

4200'-10': Ooltc Ims, tan, micro-xtln, med res, w/gd Iv blk stn in strks of introoltc poro, VSSFO on brk, some tarry oil, sli odr, vpr matrix poro, mstly pr introoltc vugular poro, some fr vugular poro, pr overall poro. Mstly Ims, tan-gry, sli ooltc, micro xtln, hrd res, no vis poro, & NS.

4210'-20': Lms, crm, vfn xtln, med-hrd res, non-allchmcl, vpr-no vis poro.

4220'-30': Lms, crm, micro-xtln, med res, mst few-no vis allchms, vpr-no vis poro. Some gry chrt, shrp, sli weathrd.

4230'-40': Lms, crm-gry, micro-xtln, med res, some hrd res, mst tite, no vis poro, 1 pc w/scat lv blk stn in minute pnpnt poro, trc FO on brk, vpr poro, vwk shw. Much blk carb shale. Trc chrt.

4240'-50': Ooltc Ims, sli shaley, gry, micro to vfn xtln, med-hrd res, abndt blk ooids, vpr-no vis poro. Also, Ims, tan tite, vpr-no vis poro. Some off-wht chlk, sft.

4250'-60': Lms, gry, cypto-xtln, hrd res, vfw-no vis allchms, dns, no vis poro.

4260'-70': Lms, crm-gry, micro-xtln, med res, some sli allchmcl, all vpr-no vis poro.

4270'-80': Lms, gry to some crm, micro-xtln, med res, foss, w/many small inclsns, all vpr-no vis poro. Also much chlk, sft, off-wht. Some blk carb shale.

4280'-90': Lms, crm, some It gry, micro-xtln, med res, mst w/few-no allchms, a few w/sli foss inclsns, all vpr-no vis poro. Some blk carb shale.

4290'-4300': Lms, gry, micro-xtln, med-hrd res, some sli foss, mst non-allchmcl. Also lms, tan, sli chlky, micro-xtln, sft-med res, non-allchmcl. All vpr-no vis poro. Some shale, drk gry to blk fissile.

4300'-10': Sndy shale, gry, poss trc shaley SS, No vis poro, NS. Much mshy silty shale, It gry/brwn. Some shale red, maroon, blk, grn.

4310'-20': Lms, crm to gry, micro-xtln, med res, mst non-allchmcl, no vis poro.

4320'-30': Lms, crm-gry, micro-xtln, med res, mst vpr-no vis poro. A few pcs lms, gry, micro-xtln, w/scat lv blk stn in rare intr-xtln & dissolution vugs, slli foss, pr overall poro, NSFO. Much shale.

no vis poro. Some shale, blk carb, gry, grnish. A few pcs chrt, drk gry.

CFS @ 4434' 40' min: Lms,crm to tan, vfn xtln, med-hrd res, non-allchmcl, vpr-no vis poro. Some offwht chlk, sft.

Short smpl @ 4456': Much blk carb shale. Also, Ims, tan to gry, mst abndtly ooltc, crypto-micro xtln, med res, vpr-no vis poro. 1 pc tan ooltc Ims, w/wk lv stn in pr intr-ooltc poro, sli rainbw lstr on brk, vfnt odr in smpl.

CFS @ 4456' 20 min: Ooltc lms, tan, abndtly ooltc, crypto-micro xtln, med-hrd res, vpr-no poro mst pcs. Some pcs w/wk rare spty lv stn in vpr intr-ooltc pnpnt poro, wk rainbw lstr, vwk sat & trc FO on brk, wk odr. A few pcs foss lms, gry-tan, vpr-no vis poro, NS.

CFS @ 4456' 40 min: Shaley lms, drk gry-gry, crypto-micro xtln, med res, trc foss inclsns, no vis poro. Also lmy drk gry shale, and shale, gry, some mshy.

CFS @ 4493' 30 min: Lms, crm, micro-xtln, med res, mst w/few vis allchms, a few pcs tan-gry lms, sli foss (fus), all vpr-no vis poro. Some sft mshy chlk. Also some shale, blk carb, gry, grn.

CFS @ 4493' 60 min: Lms, drk gry to tan, micro-xtln, med-hrd res, mst vfew to no vis allchms, a few ooltc to vsli foss. All vpr-no vis poro.

CFS @ 4520' 30 min: Lms, It gry to crm, micro-xtln, med res, mst non-allchmcl, no vis poro. 1 pc gry, vfn xtln, w/trc lv drk brwn stn, vpr poro, NSFO. Some crm lms, sli chlky, no vis poro.

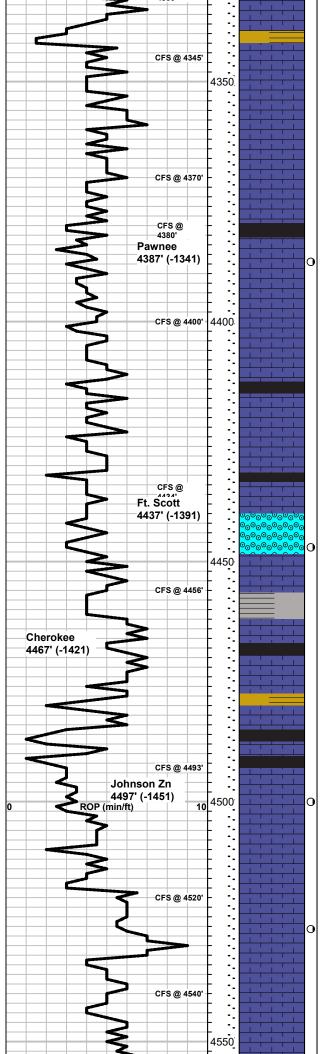
CFS @ 4520' 60 min: Much gry mshy shale. Also Ims, gry-tan, micro-xtln, sft-med res, sli shaley to chlky, no vis poro.

CFS @ 4540' 30 min: Lms, tan to gry, micro xtln, med res, sli foss, vpr-no vis poro.

CFS @ 4540' 60 min: Lms, gry to tan, micro-vfn xtln, med-hrd res, mst vfew-no vis allchms,vpr-no vis poro.

Short sample @ 4556': Lms, gry-tan, micro-xtln, med res, vfew-no vis allchms, no vis poro. A few pcs dolo, as abv. Some shale, gry, grn, maroon.

CFS @ 4556' 30 min: Mstly shale, gry-drk gry, grn, red. Much Ims, tan-gry, micro-xtln, med-hrd res, mstly non-allchmcl. A few pcs, shaley, conglimite Ims, gry/grn mottled. 1 pc shaley dolo,



4230°-40°: Lms, gry some crm, micro-xtin, med-nrd res, mst few allchms, some sli ooltc, all vpr-no vis poro. Some chlky/shaley lms. Much shale, gry, red, grnsh.

4345'-50': Lms, It gry, micro-xtln, med-hrd res, mstly non-allchmcl, no vis poro. Much shale, maroon, drk gry, prpl, red, grn.

4350'-60': Lms, crm to tan, micro-xtln, med res, sli foss (pelycpd), some sli chlky, all vpr-no vis poro.

4360'-70': Shaley Ims, gry to prpl, 1 pc mottled, micro-xtln, med-hrd res, few-no vis allchms, no vis poro. Also, Imy shale, drk gry-prpl. Some shale, gry, maroon, red, grnsh/gry.

4370'-80': Lms, tan to gry, micro-xtln, med-hrd res, mst few-no vis allchms, & vpr-no vis poro. 1pc lms, gry, micro-xtln, w/scat lv blk stn in rare intr-xtln dissolution vugs, VSSFO, pr overall poro. Some shale, gry, blk, maroon,trc red.

4380'-90': Lms, crm-gry, crypto-micro xtln, med res, mst non-allchmcl, no vis poro. Several pcs lms, lt gry, crypto-micro xtln, med res, w/scat spty lv blk stn in pnpnt poro and strks intr-xtln pnpnt poro, pr poro, wk sat, trc FO on brk, fr odr in smpl.

4390'-4400': Shale, much blk carb, maroon, gry, red, grn. A few pcs lms, gry, micro-xtln, med res, w/strk lv blk stn in pnpnt poro, fr rainbw lstr on brk, NSFO, Some similar lms, dns, tite, no vis poro.

4400'-10': Lms, gry, micro-xtln, med-hrd res, mst non-allchmcl, trc foss (crnds), no vis poro. Much chrt, drk gry, shrp & frsh. 1 pc xtln pyrite.

4410'-20': Lms, gry to tan, micro to vfn xtln, med-hrd res, fossiliferous, scat lv brwn stn in minute intr-xtln pnpnt poro, trc FO, vfnt odr, vpr poro, mst pcs tite, NS.

4420'-30': Lms, gry, micro-vfn xtln, hrd res, sli foss (pelycd, etc.), vpr-no vis poro. Some chrt, drk gry, sli foss, shrp & frsh. Much shale, blk carb, also, drk gry, maroon, drk grn, trc red.

4430'-40': Lms, tan, micro-vfn xtln, med res, Mst all non-allchmcl, no vis poro.

4440'-50': Lms, tan to gry, micro-xtln, med res, mst non-allchmcl, mst all no vis poro. A few small pcs w/spty scat lv stn in pr pnpnt intr-xtln poro, 1 pc ooltc w/lv stn btw ooids, vsli odr. Much chrt, gry, foss.

4450'-60': Shale, gry, blk carb, red, maroon, grn. Mstly lms, gry crypto-micro xtln, med-hrd res, mstly non-allchmcl. Also lms, tan, micro-xtln, sli chlky, sftmed res, mst all vpr-no vis poro. Many pcs ooltc lms, as abv, 1 pc w/spty lv stn & fr rainbw lstr on brk.

4460'-70': Lms, tan to gry, micro-xtln, med-hrd res, mst non-allchmcl, some oolto as abv, all vpr-no vis poro, NS. Tro It gry oolto chrt, & a few pcs gry chrt, shrp & frsh.

4470'-80': Lms, It gry to crm-tan, micro xtln, some crypto, med-hrd res, mstly non-allchmcl, vpr-no vis poro. Much shale, drk gry, drk grn, blk carb.

4480'-90': Blk carb shale, also drk gry, & grnsh shale. Mostly lms, drk gry to tan, micro-xtln, med-hrd res, some w/scat foss inclsns, all vpr-no vis poro

4490'-4500': Lms, gry-tan, crypto-xtln, med-hrd res, non-allchmcl, tite, no vis poro. Mstly shale, gry, red, maroon, grn, blk (trip trsh?).

4500'-10': Mstly blk carb shale. Also lms, gry, shaley to chlky, sftmed res, some pcs w/pr-fr scat spty lv stn in pnpnt poro, sli-fr rainbw lstr on brk, NSFO, no odr. Vpr poro.

4510'-20': Lms, gry, micro-xtln, med res, mst non-allchmcl, some w/drk gryblk inclsns, all no vis poro. Also, Ims, tan, micro-xtln, sli chlky, no vis poro. 1 pc crm Ims, w/spty lv stky stn in pnpnt poro, trc FO.

4520'-30': Lms, gry-tan, crypto-micro xtln, med res, mst non-allchmcl, no vis poro. Some lms, gry to brwn, micro-vfn xtln, w/fr spty lv stn in pr pnpnt intr-xtln poro, wk-fr sat mst pcs, (1 pc fully sat), VSSFO, sli odr, wk shw.

4530'-40': Lms, tan, micro-xtln, med res, foss, vpr-no vis poro. A few pcs lms, gry, as abv, w/fr-gd sat, NSFO. Much shale, gry, blk, grn, trc red. A few pcs shaley SS to sndy shale, grn, no vis poro.

4540'-50': Lms, tan-gry, some crm, micro-vfn xtln, med res, mst non-allchmcl, a few sli foss, all vpr-no vis poro. Also, dolo, gry-brwn, vfn-xtln, vpr-no vis poro. Some chrt, gry, off-wht to bone-pnkish, shrp & frsh. Much shale, drk gry, grn, red.

gry, fn xtln. All vpr-no vis poro.

CFS @ 4556' 60 min: Shale,

trc maroon. Some lms, tan to gry, micro-xtln, vfew-no vis

gry-drk gry, grn, grnsh, gry,

allchms, no vis poro.

grnsh.

CFS @ 4576' 20 min: Lms, tan-crm, micro-xtln, med res, mstly non-allchmcl, trc foss. Some shale, gry to drk gry,

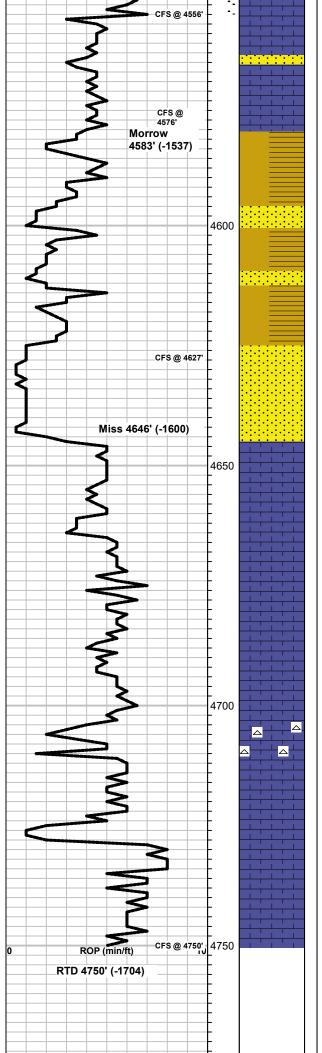
CFS @ 4576' 40 min: Increase in shales, gry & gry, a few maroon. Some Ims, crm-tan, crypto-micro xtln, med res, non-allchmcl. Trc pyritized Ims.

CFS @ 4627' 20 min: Shale, gry to grnsh gry, some splintry. Much lms, crm-tan, micro-xtln, med res, some sli foss (crnd, bryzn), no vis poro.

CFS @ 4627' 40 min: Shale, gry-drk gry, some grnsh gry. Much Ims, tan-crm, micro-xtln, med res, sli foss (crnd, bryzn), some chiky Ims, all no vis poro. A few pcs silty shale, gry.

CFS @ 4750' 30 min: Lms, tan-It gry, micro-vfn xtln, med res, mst non-allchmcl, no inclsns, some w/sprs fn-med sub ang qtz grains imbedded. All no vis poro.

CFS @ 4750' 60 min: Lms, tan-It gry, micro-vfn xtln, med res, mst non-allchmcl, no inclsns, a few w/sprs med qtz grains imbeded. All no vis poro.



4550'-60': Shale, gry, red, maroon, trc grn. A couple pcs SS, gry, shaley, fn grained, sft, no pr poro, NS. A few pcs pyrite.

4560'-70': Lms, crm-tan, micro-xtln, med res, mstly non-allchmcl,vpr-no vis poro. 1 pc SS gry, fn grained, sli shaley matrix, many grn glauconite grains incld, pr-fr intr-gran poro, NS. Some shale, gry, maroon, etc.

4570'-80': Lms, tan-crm, mst crypto-micro xtln, some vfn xtln, all med res, vfew-no allchms, vpr-no vis poro. Trc foss chrt, off-wht, sli weathrd. Much shale, gry-drk gry & grn.

4580'-90': Vari-colored shale, gry, grn, red earthy, maroon, yell, turq. A few pcs yellow & grn, banded conglmrtc chrt. A couple pcs silicified lms, brwn, abndtly ooltc. Much lms, crm-tan, as abv. All no vis poro.

4590'-4600': SS, off-wht, fn grained, sub-rnd qtz, well srtd, med res, vsli calc matrix, fr intr-gran poro, NS. A few pcs SS, sli pyrtc.

4600'-10': No sample

4610'-20': SS, gry, fn-med grained qtz, rnd to sub-rnd, mod well srtd, med-hrd res, some shaley matrix, pr-fr intr-gran poro, NS. Much shale, gry, blk carb, trc grn, maroon, etc. Some pyritized shale and pyritized SS.

4627'-40': Vari-colored shale, gry, grn, red, maroon, yell, etc. Some SS, gry, med-hrd res, med grained sub-rnd to sub-ang qtz, mod srtd, pr-fr intr-gran poro, some sli pyritized to sli shaley, some w/poss dead blk asphltc stn (prob shale laminations), no cut. NS. Also some SS, off-wht fn grained, well srtd, fr intr-gran poro, NS.

4640'-50': Varicolored shale. Some SS, off-wht to It gry, vfn-med grained sub-rnd to rnd qtz, sft-med res, sli calc matrix, a few sli glauc, pr-fr intr-gran poro mst pcs, several pcs med rnd qtz w/gd intr-gran poro, cln matrix, NS. A few pcs grn sndy shale.

4650'-60': SS, It grn, gluac clay matrix, vfn grained w/scat med sub ang qtz grains imbedded, sft res, vpr-no vis intr-gran poro, NS. A few pcs sndy Ims to Imy SS, tan, med res, pr poro, NS. Mstly shale, gry to drk gry, etc.

4660'-70': Sndy Ims, crm to tan, micro-xtln, med res, w/abndt vfn to med qtz grains imbedded, some chlky, vpr-no vis poro, NS

4670'-80': Lms, crm, micro-xtln, med res, mst non-allchmcl. Some sndy lms, as abv. All vpr-no vis poro.

4680'-90': No sample

4690'-4700': Lms, crm, micro-xtln, med res, mst non-allchmcl, no vis poro.

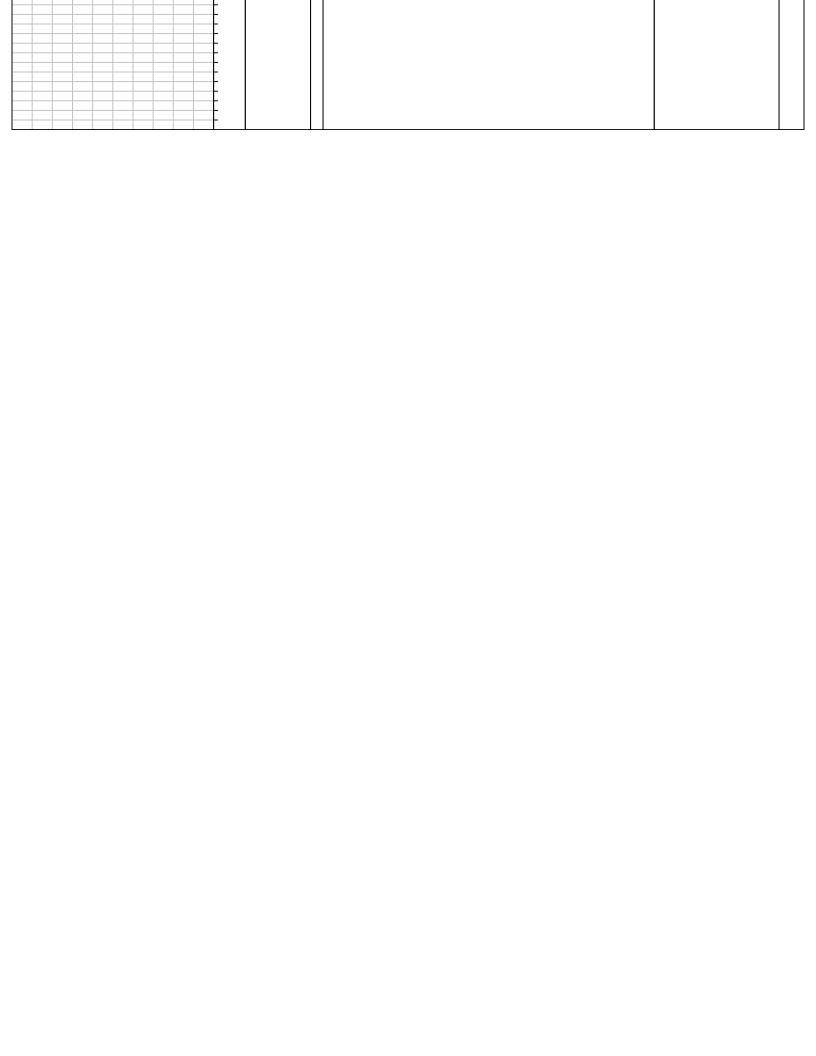
4700'-10': Lms, crm, micro-xtln, med res, as abv. Much sndy lms, off-wht to crm, some chlky, abndt fn-med qtz grains imbedded. All vpr-no vis poro.

4710'-20': Lms, crm-tan, micro-vfn xtln, med res, some sndy, as abv, trc ooltc lms, some vfew-no allchms, or inclsns, all vpr-no vis poro. Abndnt chrt, off-wht, smokey, bone, peach, clr/trnlsnct, trc pnk, mst shrp & frsh.

4720'-30': Lms, tan, crypto-xtln, med-hrd res, non-allchmcl, no vis poro.

4730'-40': Lms, tan to lt gry, crypto-xtln, med res, non-allchmcl, no vis poro.

4740'-50': Lms, tan-lt gry, crypto-micro xtln, some vfn xtln, med-hrd res, mst non-allchmcl, a few sli sndy to trc ooltc. All vpr-no vis poro.



Conservation Division 266 N. Main St., Ste. 220 Wichita, KS 67202-1513



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Laura Kelly, Governor

Dwight D. Keen, Chair Susan K. Duffy, Commissioner Andrew J. French, Commissioner

December 27, 2022

Cooper Seely Darrah Oil Company, LLC 125 N MARKET SUITE 1015 WICHITA, KS 67202-1700

Re: ACO-1 API 15-109-21655-00-00 YOUNKIN 3-10 SW/4 Sec.10-14S-34W Logan County, Kansas

Dear Cooper Seely:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 8/22/2022 and the ACO-1 was received on December 23, 2022 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department