

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
--	---

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
---	--	------------------------------------

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>

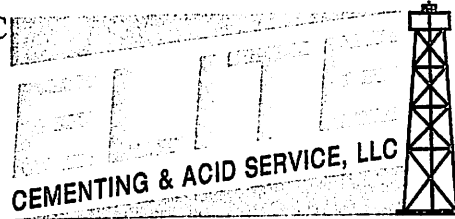
TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	W.D. Short Oil Co., LLC
Well Name	BROWN 14
Doc ID	1576334

All Electric Logs Run

Gamma Ray/Cement Bond Log
Sonic Log
Dual Induction Log
Neutron Log

Elite Cementing & Acidizing of KS, LLC
 PO Box 92
 Eureka, KS 67045



Date	Invoice #
1/12/2021	5376

Bill To	
W.D. Short Oil Company PO Box 729 Oxford, KS 67119	
Customer ID#	1019

Job Date	1/11/2021
Lease Information	
Brown #14	
County	Cowley
Foreman	DG

Item	Description	Qty	Terms	Net 15
			Rate	Amount
C101	Cement Pump-Surface	1	890.00	890.00
C107	Pump Truck Mileage (one way)	75	4.20	315.00
C200	Class A Cement-94# sack	190	15.75	2,992.50T
C205	Calcium Chloride	535	0.63	337.05T
C206	Gel Bentonite	355	0.21	74.55T
C209	Flo-Seal	50	2.35	117.50T
C108B	Ton Mileage-per mile (one way)	669.75	1.40	937.65
D101	Discount on Services		-107.14	-107.14
D102	Discount on Materials		-176.08	-176.08T

We appreciate your business!

Phone #	Fax #	E-mail
620-583-5561	620-583-5524	rene@elitecementing.com

Send payment to:
 Elite Cementing & Acidizing of KS, LLC
 PO Box 92
 Eureka, KS 67045

Subtotal	\$5,381.03
Sales Tax (6.5%)	\$217.46
Total	\$5,598.49
Payments/Credits	\$0.00
Balance Due	\$5,598.49

810 E 7TH
 PO Box 92
 EUREKA, KS 67045
 (620) 583-5561



Cement or Acid Field Report
 Ticket No. 5376
 Foreman David Coulter
 Camp Eureka

Date	Cust. ID #	Lease & Well Number		Section	Township	Range	County	State
6-11-21	1019	Porcupine #14		2	345	5 E.	Cowley	KS
Customer				Safety Meeting	Unit #	Driver	Unit #	Driver
W.D. Street Oil Company				LG	115	Steve		
Mailing Address				JH	112	Steve		
P.O. Box 729				EM				
City		State	Zip Code					
Oxford		KS	67449					

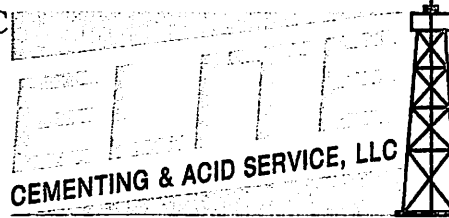
Job Type Surface Hole Depth 358' KR Slurry Vol. 46 Bbl Tubing _____
 Casing Depth 337.59' GL Hole Size 12 1/4" Slurry Wt. 15^o Drill Pipe _____
 Casing Size & Wt. 8 5/8" 24" Cement Left in Casing 15' 4 1/2 Water Gal/SK 4.5 Other _____
 Displacement 2 1/2 Bbl Displacement PSI _____ Bump Plug to _____ BPM _____

Remarks: Safety Meeting. Rig up to 8 5/8" casing. Break circulation w/ 10 Bbl fresh water. Mixed 190 sac Class 'A' Cement w/ 3% Cactz 2% Gel, 1/4" Floreal /sr @ 15^o/gal, yield 1.35 = 46 Bbl slurry. Displace w/ 2 1/2 Bbl fresh water. Shut down. Close casing in. Good cement returns to surface = 6 Bbl slurry to pit. Job complete. Rig down.

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C101	1	Pump Charge	890.00	890.00
C107	75	Mileage	4.20	315.00
C200	190 sac	Class 'A' Cement	15.75	2992.50
C205	535 ^{lb}	Cactz 3%	.63	337.05
C206	355 ^{lb}	Gel 2%	.21	74.55
C209	50 ^{lb}	Floreal 1/4" /sr	2.35	117.50
C108B	8.93 Tons	Tax Mileage - Pull Truck	1.46	937.65
<u>Thank You</u>				
			Sub Total	5,664.25
			Less 5%	294.66
			Sales Tax	728.90
			6.5%	
Authorization <u>by Charles Coulter</u> Title <u>Tool Pusher - Lyndhurst DR10</u>			Total	5,598.49

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office

Elite Cementing & Acidizing of KS, LLC
 PO Box 92
 Eureka, KS 67045



Date	Invoice #
1/20/2021	5420

Bill To	
W.D. Short Oil Company PO Box 729 Oxford, KS 67119	
Customer ID#	1019

Job Date	1/16/2021
Lease Information	
Brown #14	
County	Cowley
Foreman	KM

Item	Description	Qty	Rate	Amount
			Terms	Net 15
C102	Cement Pump-Longstring-Stage 1	1	1,100.00	1,100.00
C107	Pump Truck Mileage (one way)	75	4.20	315.00
C102	Cement Pump-Longstring-Stage 2	1	1,100.00	1,100.00
C200	Class A Cement-94# sack	210	15.75	3,307.50T
C206	Gel Bentonite	790	0.21	165.90T
C205	Calcium Chloride	395	0.63	248.85T
C208	Pheno Seal	420	1.30	546.00T
C203	Pozmix Cement 60/40	320	13.40	4,288.00T
C206	Gel Bentonite	1,650	0.21	346.50T
C208	Pheno Seal	640	1.30	832.00T
C108B	Ton Mileage-per mile (one way)	1,772.25	1.40	2,481.15
C761	5 1/2" Type B Basket Shoe	1	1,355.00	1,355.00T
C681	5 1/2" Float Collar Body Only	1	215.00	215.00T
C776	5 1/2" DV Tool with Plugs	1	3,490.00	3,490.00T
C604	5 1/2" Cement Basket	2	236.00	472.00T
C504	5 1/2" Centralizer	5	50.00	250.00T
C781	5 1/2 " Stop Collar	1	32.00	32.00T
D101	Discount on Services		-249.81	-249.81
D102	Discount on Materials		-777.44	-777.44T

We appreciate your business!

Phone #	Fax #	E-mail
620-583-5561	620-583-5524	rene@elitecementing.com

Send payment to:
 Elite Cementing & Acidizing of KS, LLC
 PO Box: 92
 Eureka, KS 67045

Subtotal	\$19,517.65
Sales Tax (6.5%)	\$960.14
Total	\$20,477.79
Payments/Credits	\$0.00
Balance Due	\$20,477.79

13,338.55 ck# 25639
 2-9-21
 ck# 25603

J E 7TH
 PO Box 92
 JUREKA, KS 67045
 (620) 583-5561



Cement or Acid Field Report

Ticket No. **5420**
 Foreman Kevin McCoy
 Camp EUREKA

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
1-11-21	1019	BROWN #14	2	34S	5E	Cowley	Ks
Customer			Unit #	Driver	Unit #	Driver	
W.D. Short Oil Company			104	ALAN M.			
Mailing Address			113	DAVE G.			
P.O. Box 729			116	STEVE M.			
City	State	Zip Code	114	JOHN A.			
Oxford	Ks	67119					

Job Type Longstring Hole Depth 3950' Slurry Vol. 56.66 Stage #1
79.11 Stage #2 Tubing _____
 Casing Depth 3622.11' C.L. Hole Size 7 7/8" Slurry Wt. 14.2" - 13.2" Drill Pipe _____
 Casing Size & Wt. 5 1/2" used R 5 5/8" Cement Left in Casing 43.57 Water Gal/SK _____ Other _____
 Displacement 57.11' + 1.87' BBL Displacement PSI 1100 - 900 PSI Bump Plug to _____ BPM _____

Remarks: Safety Meeting: 5 1/2" used Tested Casing Set @ 3622.11 C.L. DV Tool Set @ 2019.25 Below C.L. Rig up to 5 1/2" Casing. Drop BRASS BALL wait 10 minutes. Set Basket Shoe @ 900 PSI. Pump 7 BBL Fresh water ahead mixed 210 SKS Class "A" Cement w/ 4% Gel. 2% Cacle. 2" Phenoseal 1st for 14.2" hole yield 1.50 = 56 BBL Slurry. wash out pump & lines. Shut down. Release. Latch down flex plug. Displace plug to seat w/ 87 BBL Fresh water. Final Pumping Pressure 1100 PSI. Bump plug to 1100 PSI. Release Pressure. Drop Tool Joint wait 10 minutes. Open DV Tool to 950 PSI. Circulate w/ mud pump for 2 hrs. No Cement Above DV Tool. (Note Lost Circulation for 10 BBL @ 57 BBL Displacement in Stage #1) Stage #2 Pump 10 BBL Fresh water ahead. Mixed 275 SKS 60/40 Formix Cement w/ 6% Gel. 2" Phenoseal 1st for 13.2" hole yield 1.60 = 78 BBL Slurry. Wash out pump & lines. Release Closing Plug. Displace plug to seat w/ 49 BBL Fresh water. Final Pumping Pressure 900 PSI. Bump plug to 1100 PSI. Release Pressure. No flow back. DV Tool closed. 8 BBL Cement to fit. (bvt tool opened @ 900 PSI) 25 SKS in R.H. 20st. N.H. DV Tool on top of #38. Cement Loss #13.57.3% Tackoff #13.86

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C 102	1	Pump Charge Stage #1	1100.00	1100.00
C 107	75	Mileage	4.20	315.00
C 102	1	Pump Charge Stage #2	1100.00	1100.00
C 200	216 SKS	Class "A" Cement	15.75	3302.50
C 206	790 #	Gel 4% Stage #1	.21 #	165.90
C 205	395 #	Cacle 2%	.63 #	248.85
C 208	420 #	Phenoseal 2" 1st	1.50 #	546.00
C 203	320 SKS	60/40 Formix Cement Stage #2	13.40 #	4288.00
C 206	1650 #	Gel 6% 275 SKS on longstring	.21 #	346.50
C 208	640 #	Phenoseal 2" 1st 25 SK R.H. 20 N.H.	1.30 #	832.00
C 108 B	23.63 TONS	Ton Mileage	1.40	2461.15
C 761	1	5 1/2" Top B. Basket Shoe	1355.00	1355.00
C 181	1	5 1/2" Flat Collar Body only	215.00	215.00
C 776	1	5 1/2" DV Tool w/ Hops	3490.00	3490.00
C 604	2	5 1/2" Cement Baskets	236.00	472.00
C 504	5	5 1/2" x 7 7/8" Centralizers	50.00	250.00
C 781	1	5 1/2" Stop Ring	32.00	32.00
			Sub Total	20544.90
			Loss 5%	1027.24
			Sales Tax	1010.87

Authorization without by Charles Carter Title Lighthouse Rep Total 20,544.90
CALL BY Don Short

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.

LOCATION AND LEGALS DATA

WellSight Systems

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

Well Name: Brown #14
API: 15-035-24728
Location: SE NE NW SE S2-T34S-R5E
License Number: 33608
Spud Date: 1/11/21
Surface Coordinates: 1986' North 1540' West from SE corner
Region: Cowley County, KS
Drilling Completed: 1/15/21

Bottom Hole
Coordinates:
Ground Elevation (ft): 1286' K.B. Elevation (ft): 1298'
Logged Interval (ft): Surface To: 3657' Total Depth (ft): 3950'
Formation: Mississippi
Type of Drilling Fluid: WATER BASED

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

Formation

Sample Tops

Log Tops

Iatan	1902' (-608)	1902' (-608)
Stalnaker	1940' (-642)	1940' (-642)
Iola	2373' (-1075)	2368' (-1070)
Layton	2400' (-1102)	2393' (-1095)
Kansas City	2559' (-1261)	2552' (-1254)
Altamont	2788' (-1490)	2786' (-1488)
Pawnee	2847' (-1549)	2844' (-1546)
Cherokee	2918' (-1620)	2914' (-1616)
Mississippi Chert	3165' (-1867)	3166' (-1868)
Mississippi Lime	3182' (-1884)	3180' (-1882)
Kinderhook	3547' (-2249)	3543' (-2245)
Arbuckle	3604' (-2306)	3601' (-2303)

OPERATOR

Company: W.D. Short Oil Co., LLC
Address: 125 S River Rd
Oxford, KS 67119

GEOLOGIST

Name: Brandon Wolfe
 Company:
 Address: 1016 N Biddle St
 Moline, KS 67353

COMMENTS

5 1/2" Casing was ran to the top of the Arbuckle and cemented to top

ROCK TYPES

	Anhydrite		Shaly_ss_ii		Cherty_dolo		Qtz_wash
	Arkose		Sandstone		Dolomite		Qtz_wash_ii
	Ark_shale		Shaly_limy_ss		Limy_dolo		Argil_qtz_wash
	Granite		Washy_limy_ss		Cement		Ark_qtz_wash
	Coal		Limy_ss		Carb_wash		Sdy_gw
	Limy_sh		Sdy_ls		Sdy_carb_wash		Shaly_gw
	Shale		Limestone		Shaly_sdy_carb		Gw_a
	Hot_shale		Dolo_ls		Shaly_limy_qtz_w		Gw_b
	Hot_shale_ii		Shaly_ls		Shaly_limy_qtz_w		Gw_c
	Siltstone		Carb_shaly_ls		Limy_qtz_wash		Gw_d
	Siltstone_ii		Cherty_ls		Limy_qtz_wash_ii		
	Shaly_ss		Chert		Limy_qtz_wash_iii		

ACCESSORIES

FOSSIL

	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin
	Fish
	Foram
	Fossil
	Gastro
	Oolite
	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom

MINERAL

	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	Dol
	Feldspar
	Ferrpel
	Ferr
	Glau
	Gyp
	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr

STRINGER

	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff
	Arkosic inclusion
	Chert inclusion
	Anhydrite
	Arkosic qtz str
	Arkosic qtz str ii
	Arkosic str
	Arkosic str ii
	Carb wash str
	Sandy carb wash str
	Coal/carb sh
	Dolomite
	Granite str
	Limestone
	Limy ss str
	Qtz wash str
	Limy qtz wash str

	Sandy ls str
	Shale
	Siltstone
	Sandstone

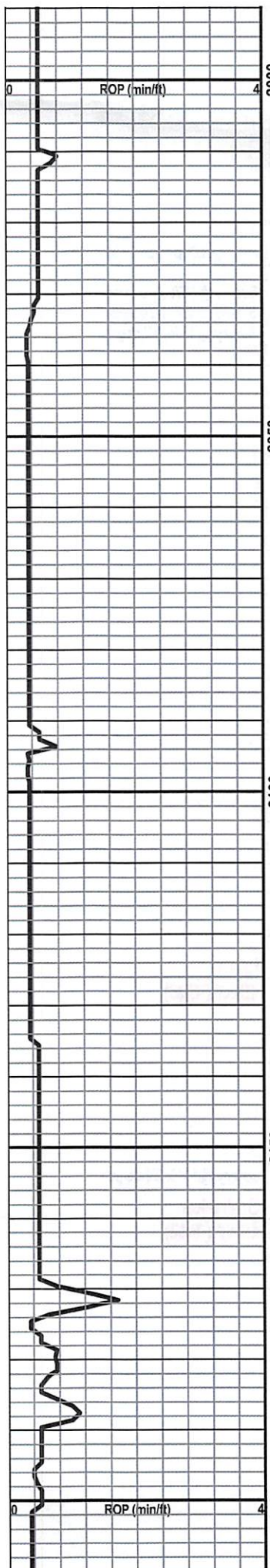
TEXTURE

	Boundst
	Chalky
	Cryxln
	Earthy
	Finexln
	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackest

OIL SHOW

	Even
	Spotted
	Ques
	Dead

Penetration Rate ROP (min/ft)	TVD	Lithology	Geological Descriptions	Oil Shows	Remarks
<p>0 ROP (min/ft) 4</p> <p>Note: Depth Scale is from 0-4 min/ft</p>	<p>18</p> <p>1850</p> <p>1900</p> <p>1950</p>	<p>337' of Surface Pipe was set @ 11:00PM on 1/11/2021</p> <p>Geo showed up on location @ 6:00AM on 1/13/20 - Depth: 1850'</p> <p>Start Kelly Down (KD) Wet & Dry Samples</p> <p>Mud up @ connection @ 1846'</p> <p>Sh: gry, sft.</p> <p>WT 8.7 Vis 35</p> <p>Sh, gry.</p> <p>LS: tan to bm, fn xln, hrd, scat foss, NS.</p> <p>Sh: gry, frm.</p> <p>SS: lt gry, fn to vry fn gm, sub md, wll srtd, sli mica, gd ig por, no odor, NS.</p> <p>Rig Service</p> <p>Ss: lt gry, vry fn to fn gm, sub md, mod srtd, fm, mica, gd ig por, no odor, NS.</p>	<p>Midnight Depth on 1/13/21: 1344'</p> <p>Survey @ 357: 3/4 degree Survey @ 894: 1/2 degree Survey @ 1344: 1/2 degree</p> <p>latan 1906' (-608)</p> <p>Survey @ 1940: 3/4 degree Stalnaker 1940' (-642)</p>		



Ss: lt g. / fn to fn gm, sub md, wll srted, sli mica, gd ig por, scat bm str, i or, NS.

Ls: tan to lt bm, fn xln, dns, sli hrd, foss, NS.

Sh: gry, slty.

Sh: gry, slty.

Ls: tan, fn xln, dns, NS.

Sh: gry, sli fm.

Sh: gry.

Ss: lt gry, fn gm, sub ang, NS.

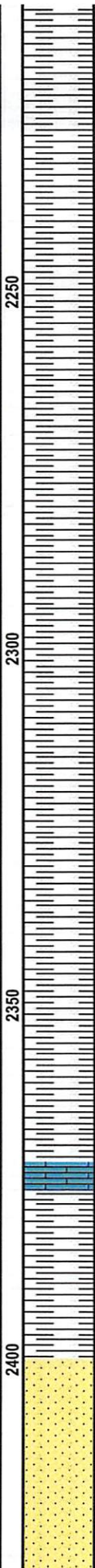
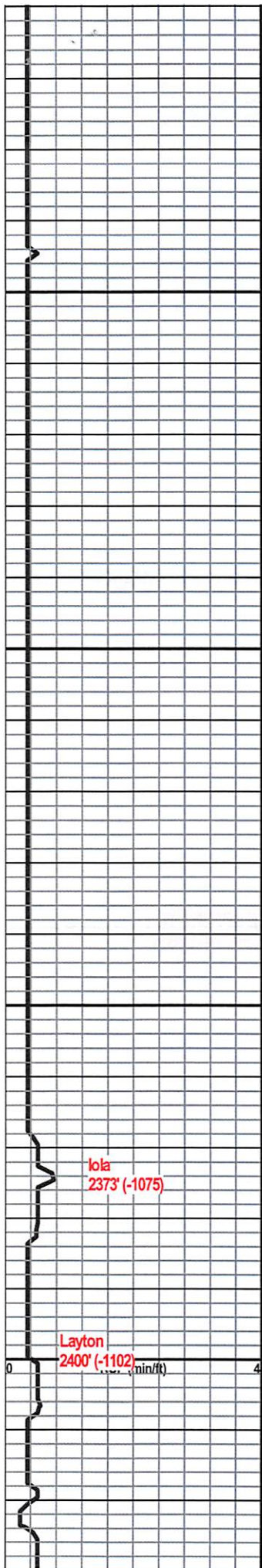
Sh: gry.

Ls: bm to gry, fn xln, dns, chrty, NS.

Ss: lt gry, fn gm, sub ang, NS.

Sh: gry.





Sh: gry,

2250

Sh: gry to occ lt gry.

Wt 9.3 Vis 35

2300

Sh: gry to occ vry drk gry.

Sh: gry to drk gry.

2350

Sh: gry to drk gry.

lola
2373' (-1075)

Ls: gry, fn xln, dns, foss, NS.

Sh: gry.

Layton
2400' (-1102)

2400

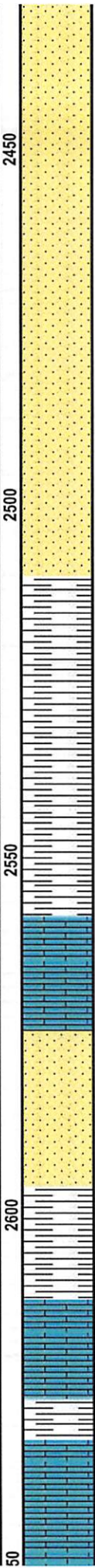
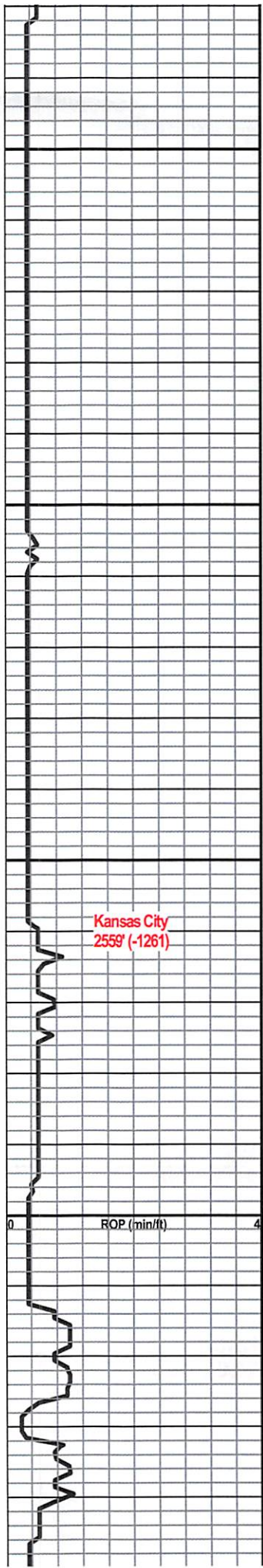
Ss: lt gry, mstly fn gm, sub ang, wll srted, sli calc, sli mica, gd ig por, scat bm strn, no odor, NS.

Wt 9.3 Vis 37



lola
2373' (-1075)

Layton
2400' (-1102)



Ss: lt g. fm, sub md, wll srtd, sli calc, sli mica, gd ig por, no odor, NS.

Ss: lt gry, fn gm, sub and, mod srtd, sli mica, gd ig por, no odor, NS.

Ss: AA.

Sh: gry, sft.

Sh: gry.

Ls: bm to lt bm, fn xln, dns, xln nclsn, NS.

Ss: lt gry, vry fn gm, gd ig por, no odor, NS.

Ss: AA

Sh: gry.

Ls: bm to tan, fn xln, dns, sli hrd, foss, sli pyr, pr vis por, NS.

Sh: gry.

Ls: crm to tan to occ bm, fn xln, dns, foss, no vis por, NS

Ls: tan to bm to occ gry, fn xln, dns, pr vis por, NS.

Noon Depth on 1/13/21: 2510'

Kansas City
2559' (-1261)

Kansas City
2559' (-1261)

ROP (min/ft)

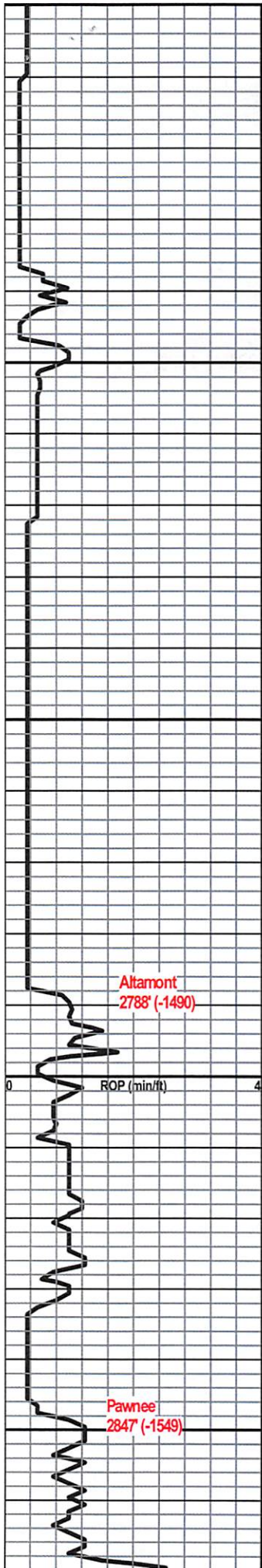
50

2600

2550

2500

2450



Sh: gry to blk, blk sh is carb.

Sh: gry to drk gry, sli fm.

Ls: gry to lt bm, fn xln, dns, sli hrd, foss, pr to no vis por, NS.

Ls: gry to lt bm, fn xln, dns, hrd, foss, no vis por, NS.

Sh: gry, fm.

Sh: lt gry to gry, silty, sft, chlky.

Sh: lt gry to gry, silty, sli sft, chlky.

Ls: lt bm to tan, fn xln, dns, pr vis por, NS.

Wt 9.2 Vis 40

Ls: bm to gry, fn xln, dns, chrt, foss

Work on Mud Pump

Sh: gry

Ls: tan to bm to gry, fn xln, dns, sli hrd, foss, pr vis por, NS.

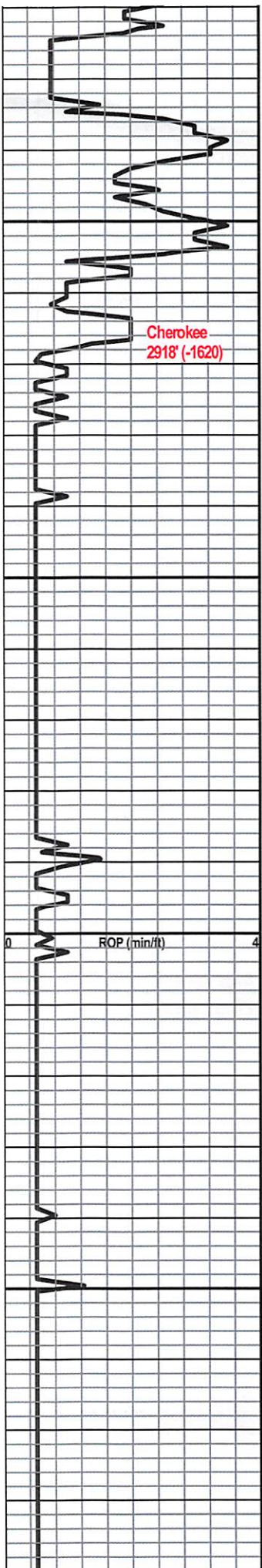
Survey @ 2690: 3/4 degree

Altamont
2788' (-1490)

Altamont
2788' (-1490)

Pawnee
2847' (-1549)

Pawnee
2847' (-1549)



Sh: gry to blk, blk sh is carb.

Ls: tan to occ gry, fn xln, dns, fw pc wthrd, trc xln por, scat flor, no odor, NS.

Ls: gry to lt bm, fn xln, dns, hrd, pr vis por, 10% flor, no odor, NS.

Sh: blk, carb.

Sh: gry, slty, occ trc mica, pyr.

Sh: gry, slty, trc mica, pyr.

Ls: bm vry fn xln, dns, hrd, no vis por, NS.

Sh: gry to trc blk, fm.

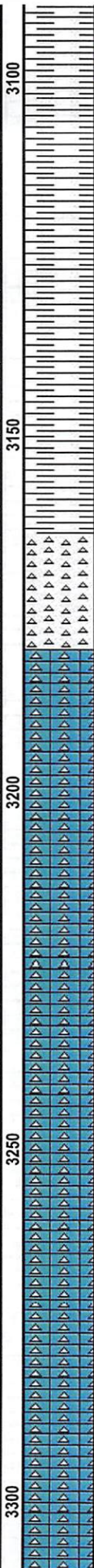
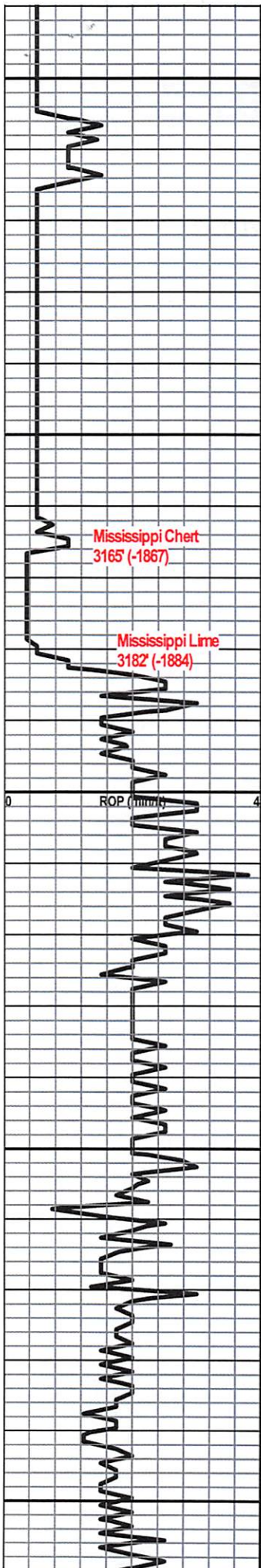
Sh: lt gry to gry.

Sh: gry to trc blk.

Wt 9.5 Vis 46

Cherokee
2918' (-1620)

Survey @ 3099: 7/8 degree
Midnight Depth on 1/14/21: 3099'



Normal valve wash out on mud pump @ 3099'. Bit tripped while waiting on parts to fix pump. It pulled very tight through the Layton on the way out.

Sh: gry, occ sli sily, pyr.

Sh: gry to drk gry. Ls: lt bm to gry, fn xln, dns, pr vis por, NS.

Sh: gry to drk gry to trc gm, fm, pyr. Fw pc Ls: tan to lt bm, fn xln, dns, foss, pr vis por, NS.

Sh: gry to trc gm, fm, pyr.

Cht: buff to wht, trc shrp & frsh, mstly wthrd & tripolitic, trc vug por, gd xln por, stn throughout, gd SGBOB, gd SGO, grt cut, 5% bright ylw flor, fr odor.

Cht: buff to cm, tripolitic, hghly wthrd, grt xln por, bm stn, gd SFO, gd cut, 10% bright flor, ft odor. Ls: tan to lt bm, fn xln, dns, hrd, sm wthrd, chrt, pr vis por.

Ls: lt bm to tan, fn xln, dns, wthrd, vry chrt, fr vis por, tr vug por, 5-10% brght flor, ft odor. Trc Cht: buff to wht, mstly frsh, shrp, hrd, trc tripolitic.

Ls: bm to lt bm, fn xln, dns, hrd, sli wthrd, chrt, pr vis por, <5% brght flor, no odor. Trc Cht: buff to wht, frsh, hrd, trc stn on edge.

Ls: lt bm to gry, fn xln, dns, vry chrt, sli wthrd, foss, pr vis por, sli SFO, scat brght flor, no odor.

Ls: bm to gry, fn xln, dns, sli chrt, sli wthrd, pr to no vis por, scat flor, no odor.

Rig Service

Ls: bm to gry, fn to vry fn xln, dns, hrd, trc chrt, no vis por, no odor, NS.

Wt 9.4 Vis 44 LCM 1.5

Ls: gry to bm, fn to vry fn xln, dns, hrd, sli chrt, pr to no vis por, no odor, NS.

LS: gry to lt bm, fn xln, dns, pr vis por, no odor, NS.

Ls: bm to gry, fn to vry fn xln, dns, hrd, vry pr vis por, no odor, NS.

Ls: bm to gry, fn xln, dns, pr vis por, no odor, NS.

Wt 9.45 Vis 48 LCM 3

Ls: bm to gry to trc drk bm, fn to vry fn xln, dns, hrd, vry pr vis por, no odor, NS.

LS: bm to gry, fn xln, dns, chrt, pr vis por, no odor, NS.

Ls: bm to grt to occ drk bm, fn xln, dns, trc dolo, pr vis por, no odor, NS.

Mississippi Chert

3165' (-1867)

● Gd Show of Free Oil
Show Gas & Oil @ Break

● Fair Odor

Mississippi Lime

3182' (-1884)

○ Very Sli Show of Free Oil
Ft Odor

Cowley Facies

Ls: AA w/ trc Cht

Ls: gry to bm, fn xln, dns, trc w/ hrd, pr vis por, no odor, NS. Trc Cht

Ls: gry to bm to trc drk br, fn xln, dns, trc dolo, pr to no vis por, no odor, NS

Ls: bm, fn to vry fn xln, dns, hrd, trc dolo, sli chrt, xln nclns, pr vis por, ft odor, NS. Trc Cht: frsh, shrp.

3350

Ls: gry to bm, fn xln, dns, sli chrt, trc dolo, pr vis por, vry ft odor, NS. Trc Cht.

Ls: bm to gry to drk bm, fn xln, dns, trc dolo, pr to no vis por, no odor, NS.

Ls: bm to drk bm, vry fn xln, dns, hrd, dolo, pr to no vis por, no odor, NS.

Ls: bm to drk bm, vry fn xln, dns, hrd, dolo, no vis por, no odor, NS.

Ls: drk bm, vry fn xln, dns, hrd, dolo, sli chrt, no vis por, no odor, NS.

3400

Ls: AA.

Ls: drk bm to drk gry, vry fn xln, dns, hrd, dolo, sli chrt, pr to no vis por, no odor, NS.

Ls: drk bm, vry fn xln, dns, hrd, dolo, sli chrt, xln nclns, pr vis por, no odor, NS.

Ls: increasing in darkness, drk bm to drk gry, vry fn xln, vry dns, dolo, pr vis por, NS.

Ls: drk gry, vry fn xln, dns, dolo, pr to no vis por, NS.

3450

Ls: AA.

Ls: AA.

Ls: AA.

Ls: AA.

Ls: drk gry, fn xln, dns, dolo, pr vis por, no odor, NS.

Ls: drk gry, fn xln, dns, dolo, pr vis por, no odor, NS

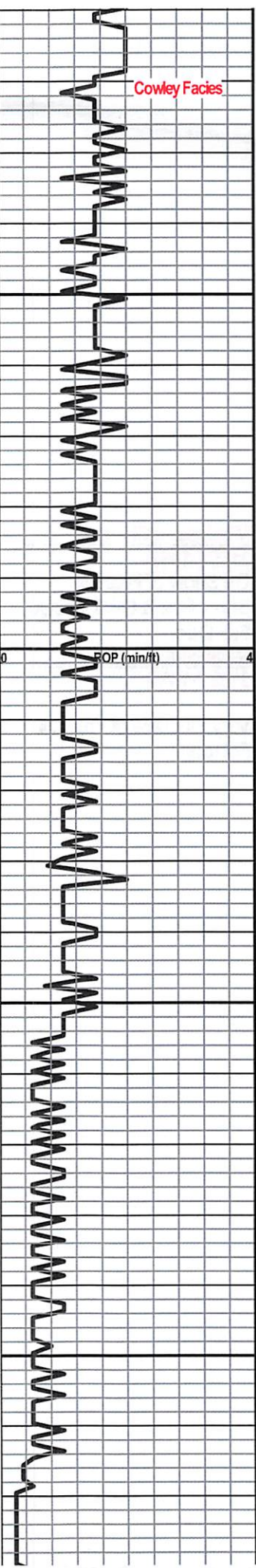
3500

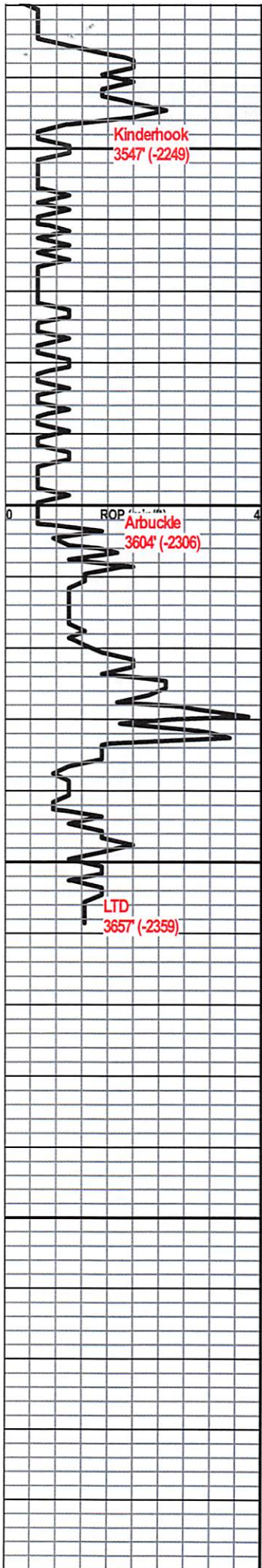
Ls: gry gry to trc gry, fn xln, dns, dolo, pr vis por, no odor, NS.

Sh: gry to lt gry.

Sh: lt gry, sli frm, sub chnky.

Ft Odor





Ls. tan to lt gry, fn xln, dns, pr vis por, no flor, no odor, NS.

Ls: AA.

Sh: drk gry to gry, sub carb.

Sh: drk gry to gry, sub carb, pyr.

Sh: blk to vry drk gry, carb, sh odor.

Sh: blk to vry drk gry, carb, sh odor.

Sh: AA.

Sh: AA.

Dol: cm to lt gry, md xln, sli dns, grt interxn por, scat bm stn, sli SFO, 5% bright flor, dull mnrl flor throughout, ft odor. Cht: off wht to lt gry, shrp, frsh.

Dol: tan to lt bm, fn to md xln, sli dns, xln ncins, gd interxn por, scat bm stn, vry sl SFO, dull mnrl, no odor. Scat Cht: wht to off wht, mrstly frsh, shrp, occ chlky.

Dol: tan to lt bm, fn xln, dns, hrd, xln ncins, pr vis por, no odor, NS. Scat Cht: AA.

Wt 9.2 Vis 60 LCM 4

Dol: lt bm to tan, vry fn xln, dns, hrd, pr vis por, NS. Cht: off wht to gry, frsh, shrp.

Dol: lt bm, vry fn xln, dns, pr to fr vis por, NS. Cht: gry to off wht, frsh, shrp, hrd.

Stopped drilling @ 3659' for log. Circulated for 30 min before short trip. Short tripped to above the Layton & back down & circulated for 1 hr before tripping out to log.

LTD: 3657' @ 4:00AM on 1/15/21

Samples not observed, well was deepened after the logs were run.

Drilling ahead @ 7:30AM

Vibration hose blew a hole in it. Down from 8:30AM till 1:30PM.

Kinderhook
3547' (-2249)

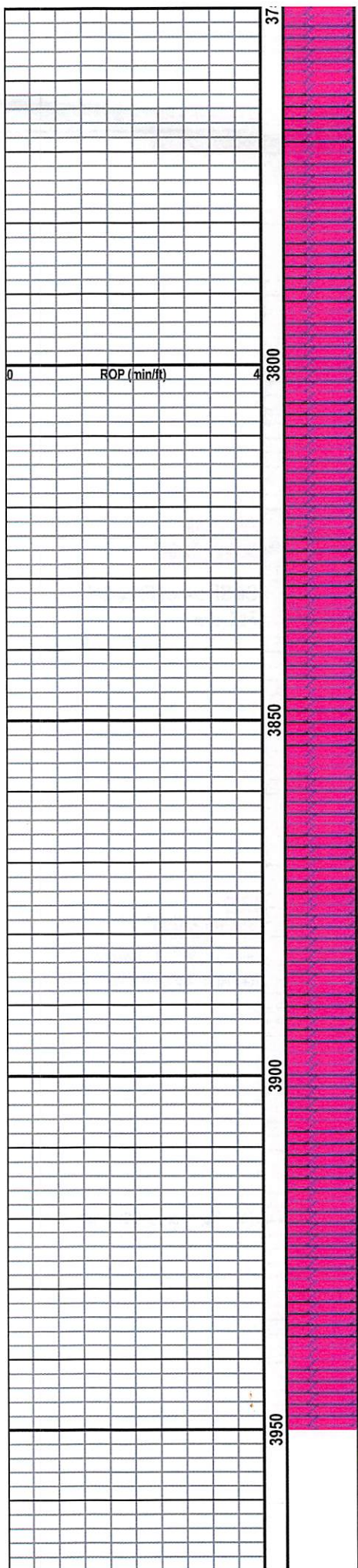
Arbuckle
3604' (-2306)

Shi Show of Free Oil
Ft Odor

LTD
3657' (-2359)

Survey @ 3659: 1 1/8 degree
Midnight Depth on 1/15/21: 3659'

Noon Depth on 1/15/21: 3700'



RTD: 3950' @ 8:30PM on 1/15/21
Circulated for 1 hr before tripping out & laying down drill pipe.



