KOLAR Document ID: 1486426

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 # 34916
Name: FourWinds Oil Corporation
Address 1: PO BOX 1063
Address 2:
City: HAYS State: KS Zip: 67601 + 1063
Contact Person: Dan Windholz
Phone: (785) 259-8403
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Cameron Brin
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 #:

11/12/2019 Spud Date or Recompletion Date
11/16/2019 Date Reached TD
11/17/2019 Completion Date or Recompletion Date

API No.: 15-137-20752-00-00
Spot Description:
NW - NW - NE - SW Sec. 22 Twp. 5 S. R. 21 ☐ East ☑ West
2550 Feet from ☐ North / ☑ South Line of Section
1415 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Norton
Lease Name: KS BRAND Well #: 5
Field Name:
Producing Formation: LKC
Elevation: Ground: 2163 Kelly Bushing: 2171
Total Vertical Depth: 3614 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 220 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: 1000 ppm Fluid volume: 320 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

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

Submitted Electronically

KCC Office Use ONLY
☐ **Confidentiality Requested**
Date:
☐ **Confidential Release Date:**
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ **I** ☑ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 01/07/2020

Operator Name: FourWinds Oil Corporation Lease Name: KS BRAND Well #: 5

Sec. 22 Twp. 5 S. R. 21 ☐ East ☑ West County: Norton

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

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

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

List All E. Logs Run:

Density/Neutron
Micro
Dual Induction

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

Name	Top	Datum
Topeka	3181	-1010
LKC	3363	-1192
Regan Sand	3604	-1433

CASING RECORD ☑ New ☐ Used

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

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	15.5	221	comm	150	5% Gil
Production	8.75	5.5	15.5	3603	comm	600	5% Gil

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

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

Date of first Production/Injection or Resumed Production/ Injection: 01/02/2020

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	10		20		

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

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

PRODUCTION INTERVAL:

Top	Bottom
3352	3533

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
			CIBP Cast Iron Bridge Plug	3570	
4	3533	3538			250gal 15%,
4	3480	3482			250 gal 15%, 1500gal 20%
4	3365	3369			250 gal 15%
4	3349	3352			250 gal 15%

TUBING RECORD: Size: Set At: Packer At:

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

Form	ACO1 - Well Completion
Operator	FourWinds Oil Corporation
Well Name	KS BRAND 5
Doc ID	1486426

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	15.5	221	comm	150	5% Gil
Production	8.75	5.5	15.5	3603	comm	600	5% Gil

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 1827

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-12-19	22	5	21	Norton	KS		9:30p

Location Logan W E-12RD 1S 1W E-11RD 2S E into

Lease KS Brand Well No. 5

Contractor Discovery #2

Type Job Surface

Hole Size 12 1/4 T.D. 221

Csg. 8 5/8 Depth 220

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 10 Shoe Joint

Meas Line Displace 13 BL

EQUIPMENT

Pumptrk 5 No. Cementer Craig

Helper

Bulktrk No. Driver Tony L.

Driver

Bulktrk 9 No. Driver

Driver Lance

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

8 5/8 on bottom. Est Circulation. Mix ~~150~~ SK & Displace 150SK

Cement Circulated

Thanks

X Signature Joe Wil

Owner

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

Charge To Farwin's Oil Co

Street

City State

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

Cement Amount Ordered ~~150~~ 150 com 3%cc 2% gel

Common	120
Poz. Mix	30
Gel.	3
Calcium	6
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	159
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	1 Surface
Mileage	67
Tax	
Discount	
Total Charge	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107
Phone 785-483-1071
Cell 785-324-1041
Home Office P.O. Box 32 Russell, KS 67665

No. 1832

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-12-19	22	5	21	Norton	KS		8:15 AM

Location: Logan SW E RR 1S 1 W E into 3S Rinto

Lease: KS Brand
Well No.: 5
Contractor: Discovery #2
Type Job: Production String
Hole Size: 7 7/8
T.D.: 3625
Csg.: 5 1/2 15.5#
Depth: 3603
Tbg. Size:
Depth:
Tool:
Depth:
Cement Left in Csg.: 42.06
Shoe Joint: 42.06
Meas Line:
Displace: 84 3/4 BBL

Owner:
To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Charge To: Forward Oil
Street:
City:
State:
The above was done to satisfaction and supervision of owner agent or contractor.
Cement Amount Ordered: 450 8% gel ... 1/4# FC
150 com 10% Salt 5# Gilsonite 500 gal mud clear

EQUIPMENT

	No.		
Pumptrk	5	Cementer / Helper	Craig
Bulktrk	14	Driver / Driver	Tom
Bulktrk	19	Driver / Driver	Doug / Dave

JOB SERVICES & REMARKS

Remarks:
Rat Hole: 30 SK
Mouse Hole: 15 SK
Centralizers:
Baskets:
D/V or Port Collar:

5 1/2 set @ 3603 Baffle @ 3560.94
Est Circulation Pump 500 gal mud clear
Plug Rathole mousehole
Cement 5 1/2 with 555 SK.
Clear lines Displace Plug
Cement Circulated
Plug Land @ 1500#
Lift pressure 1100#

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

FLOAT EQUIPMENT

Item	
Guide Shoe	
Centralizer 7	
Baskets 3	
AFU Inserts	
Float Shoe 1	
Latch Down 1	
Pumptrk Charge	
Mileage	
Tax	
Discount	
Total Charge	

X
Signature [signature]

FOURWINDS OIL CORPORATION

Scale 1:240 Imperial

Well Name:	KS BRAND #5		
Surface Location:	NW NW NE SE Sec. 22, T5S, R21W		
Bottom Location:			
API:	15-137-20752		
License Number:	34916		
Spud Date:	11/12/2019	Time:	9:00 AM
Region:	NORTON COUNTY		
Drilling Completed:		Time:	
Surface Coordinates:	2550' FSL & 1515' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	2163.00ft		
K.B. Elevation:	2171.00ft		
Logged Interval:	0.00ft	To:	0.00ft
Total Depth:	0.00ft		
Formation:	REAGAN SAND		
Drilling Fluid Type:	CHEMICAL		

OPERATOR

Company:	FOURWINDS OIL CORPORTATION		
Address:	1414 W 45TH		
Contact Geologist:	DAN WINDHOLZ		
Contact Phone Nbr:	(785) 259-8403		
Well Name:	KS BRAND #5		
Location:	NW NW NE SE Sec. 22, T5S, R21W		
API:	15-137-20752		
Pool:		Field:	RAY WEST
State:	KS	Country:	

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	-99.67881
Latitude:	39.60323
N/S Co-ord:	2550' FSL
E/W Co-ord:	1515' FWL

LOGGED BY

Company:			
Address:	2717 HICKORY HAYS, KS 67601		
Phone Nbr:	(785) 639-0721		
Logged By:	Geologist	Name:	CAMERON BRIN

CONTRACTOR

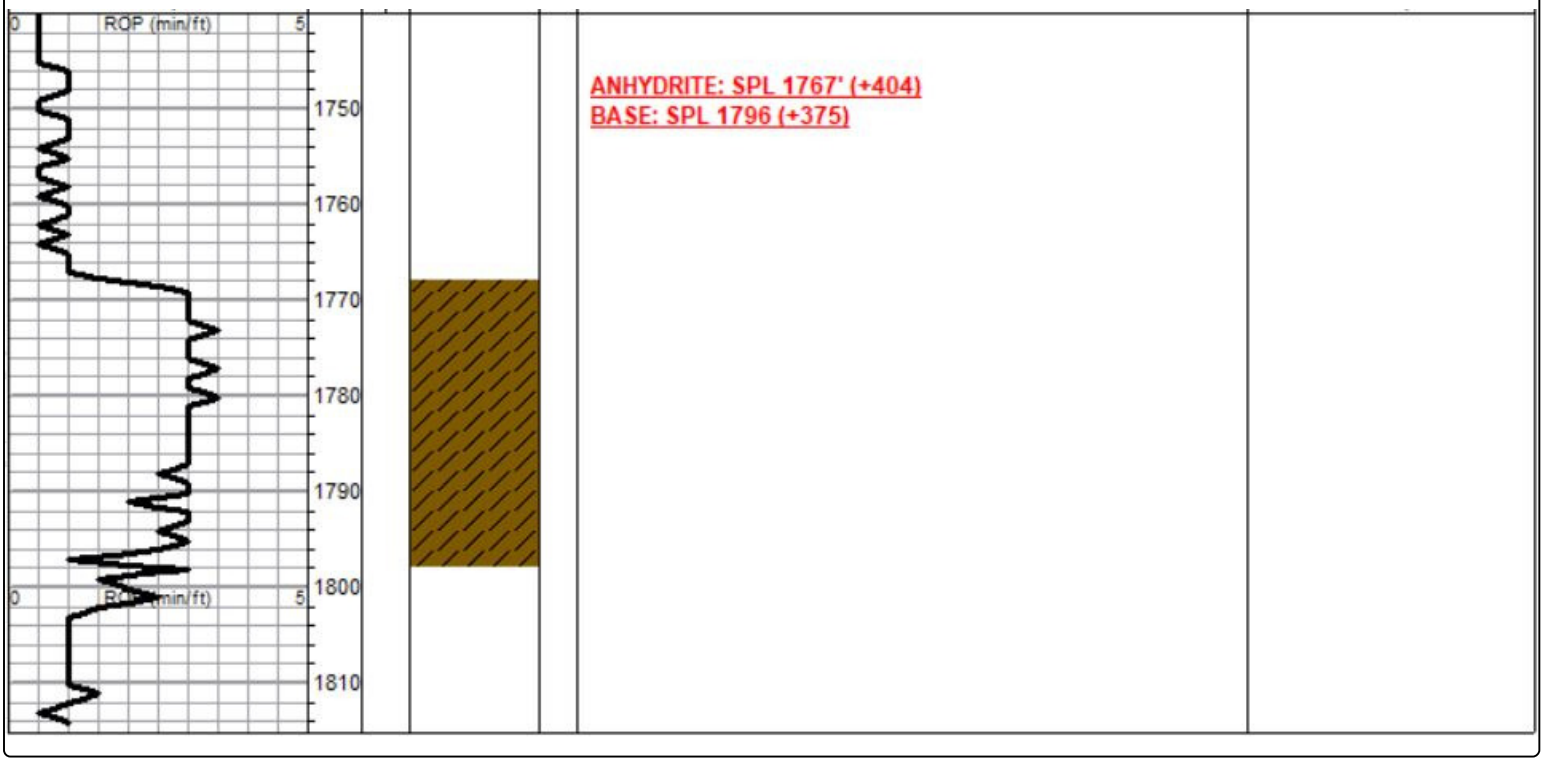
Contractor:	DISCOVERY DRILLING INC.		
Rig #:	2		
Rig Type:	MUD ROTARY		
Spud Date:	11/12/2019	Time:	9:00 AM
TD Date:		Time:	
Rig Release:		Time:	

ELEVATIONS

K.B. Elevation: 2171.00ft
K.B. to Ground: 8.00ft
Ground Elevation: 2163.00ft

NOTES

ANHYDRITE



TOPS COMPARISON

					•					•				P&A 1/4/1985				SWD			
					BLACK DIAMOND OIL INC					BLACK DIAMOND OIL INC				A. SCOTT RITCHIE				BLACK DIAMOND OIL INC			
					KS BRAND #1					KEMPER A #1				KEMPER A #1				KS BRAND #2			
	KS BRAND #5				SW NW SE NW, Sec. 22, T5S, R21W					NE SW SW NE, Sec. 22, T5S, R21W				SW NE SW, Sec. 22, T5S, R21W				SE NW NE NW, Sec. 22, T5S, R21W			
	KB	2171	GL	2163	KB	2149				KB	2134			KB	2207			KB	2154		
	LOG TOPS		SAMPLE TOPS		LOG		LOG	SMPL.		LOG		LOG	SMPL.	LOGS		LOG	SMPL.	LOG		LOG	SMPL.
FORMATION	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.		DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.
ANHYDRITE TOP			1767	404	1753	396		+ 8		1731	403		+ 1	1802	405		- 1	1751	403		+ 1
BASE			1796	375	1780	369		+ 6		1755	379		- 4	1831	376		- 1	1780	374		+ 1
TOPEKA			3182	-1011	3161	-1012		+ 1		3145	-1011		+ 0	3210	-1003		- 8	3172	-1018		+ 7
HEEBNER SHALE			3323	-1152	3305	-1156		+ 4		3288	-1154		+ 2	3357	-1150		- 2	3307	-1153		+ 1
TORONTO			3350	-1179	3333	-1184		+ 5		3314	-1180		+ 1	3386	-1179		+ 0	3334	-1180		+ 1
LKC					3350	-1201				3330	-1196			3402	-1195			3349	-1195		
BKC					3535	-1386				3518	-1384			3587	-1380			3536	-1382		
REAGAN SAND					3585	-1436				3568	-1434			3538	-1331			3594	-1440		
GRANITE																		3648	-1494		
TOTAL DEPTH					3583	-1434				3568	-1434			3636	-1429			3720	-1566		

ROCK TYPES

Cht vari
Lmst fw7>
shale, grn
shale, gry
Carbon Sh
shale, red

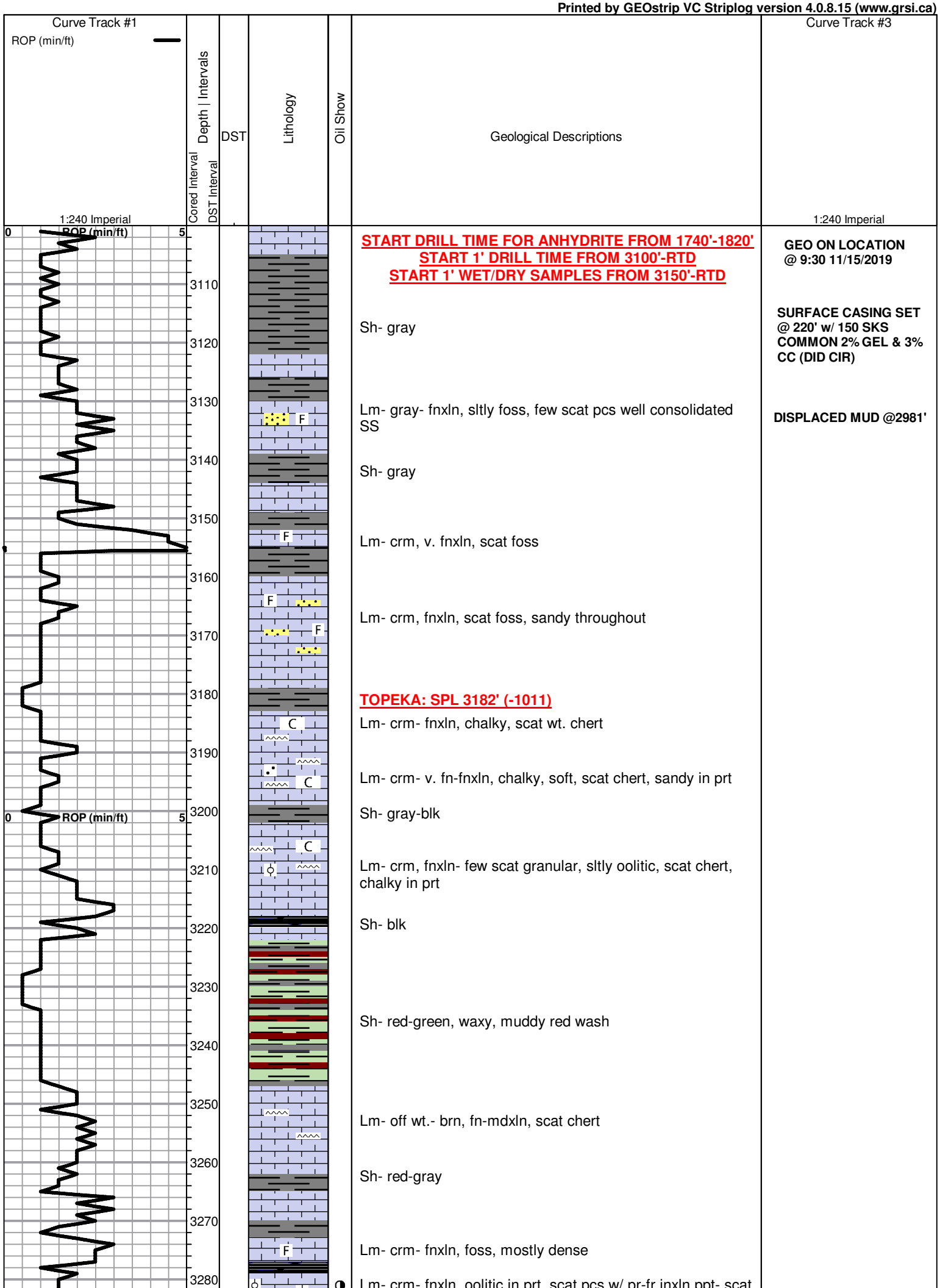
ACCESSORIES

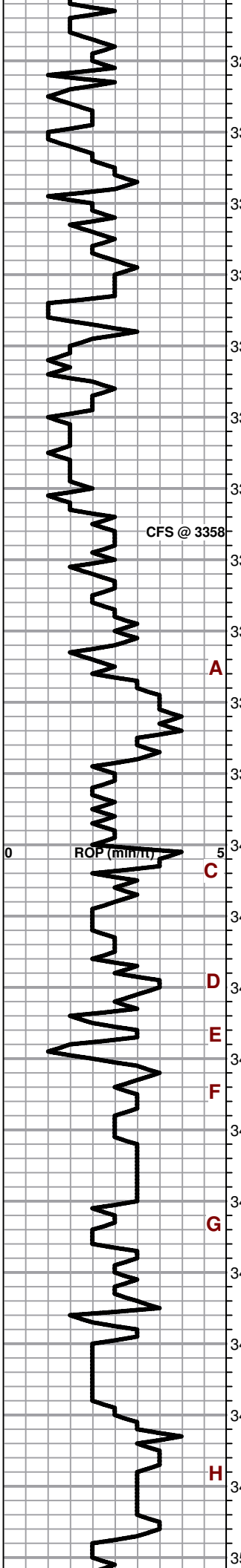
MINERAL
- Sandy
- Chert White

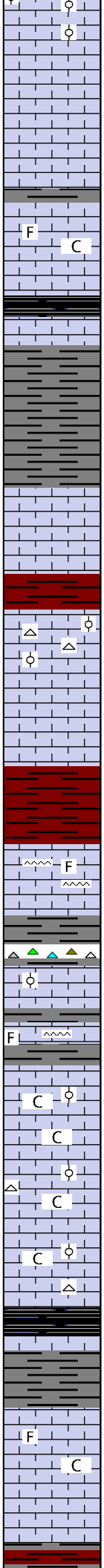
FOSSIL
- F Fossils < 20%
- Oolite

STRINGER
- Chert
- Conglomerate
- Sandstone

TEXTURE
- C Chalky


Curve Track #1
ROP (min/ft)
1:240 Imperial
Depth | Intervals
Cored Interval
DST Interval
DST
Lithology
Oil Show
Geological Descriptions
Curve Track #3
1:240 Imperial
0
ROP (min/ft)
5
3110
3120
3130
3140
3150
3160
3170
3180
3190
3200
3210
3220
3230
3240
3250
3260
3270
3280
F
C
START DRILL TIME FOR ANHYDRITE FROM 1740'-1820'
START 1' DRILL TIME FROM 3100'-RTD
START 1' WET/DRY SAMPLES FROM 3150'-RTD
Sh- gray
Lm- gray- fnxln, sltly foss, few scat pcs well consolidated SS
Sh- gray
Lm- crm, v. fnxln, scat foss
Lm- crm, fnxln, scat foss, sandy throughout
TOPEKA: SPL 3182' (-1011)
Lm- crm- fnxln, chalky, scat wt. chert
Lm- crm- v. fn-fnxln, chalky, soft, scat chert, sandy in prt
Sh- gray-blk
Lm- crm, fnxln- few scat granular, sltly oolitic, scat chert, chalky in prt
Sh- blk
Sh- red-green, waxy, muddy red wash
Lm- off wt.- brn, fn-mdxln, scat chert
Sh- red-gray
Lm- crm- fnxln, foss, mostly dense
GEO ON LOCATION @ 9:30 11/15/2019
SURFACE CASING SET @ 220' w/ 150 SKS COMMON 2% GEL & 3% CC (DID CIR)
DISPLACED MUD @2981'





vuggy por, pr-fr brn stn, fr SFO sheen in cup on on rocks, fr-gd odor, fr-gd streaming dry cut, dull purple flour

Lm- crm- fnxln, mostly clean and dnse, few pcs w/ same show as above, most likely came from above

Lm- crm- fnxln, mostly dnse, slightly chalky, slightly foss

HEEBNER: SPL 3323' (-1152)

Sh- blk, carb

Sh- blk- gray- red

TORONTO: SPL 3350' (-1179)

Lm- crm- fnxln, mostly dense and fairly barren, cherty, 4-5 pc w/ pr ppt por, pr brn stn, v, slight sheen FO on top of cup, 1 chip FO droplets upon crush, no odor

LKC: SPL 3366' (-1195)

Lm- crm-fnxln, oolitic, scat fr inxln- inoolitic por, fr brn stn in por, slight sheen FO in cup, slight odor

Lm- crm- v. fnxln, dense, clean, barren

Sh- red

Lm- crm- fnxln, foss, scat chert, few scat pcs w/ pr inxln-infoss por, pr brn stn, NSFO, pr odor

Sh- gray
Chert- blue-orange

Lm- crm- fnxln, oolitic in prt, few scat pcs w/ pr inxln por, pr brn stn, 1 pc FO droplets upon crush, no odor

Lm- crm- fnxln, mostly barren, slightly foss, scat chert, slightly chalky, 1pc fr oolitic por, pr-fr brn stn, NSFO, no odor

Lm- crm- fnxln, oolitic, chalky in prt, few scat pcs pr inxln-inoolitic por, pr brn stn, NSFO, no odor

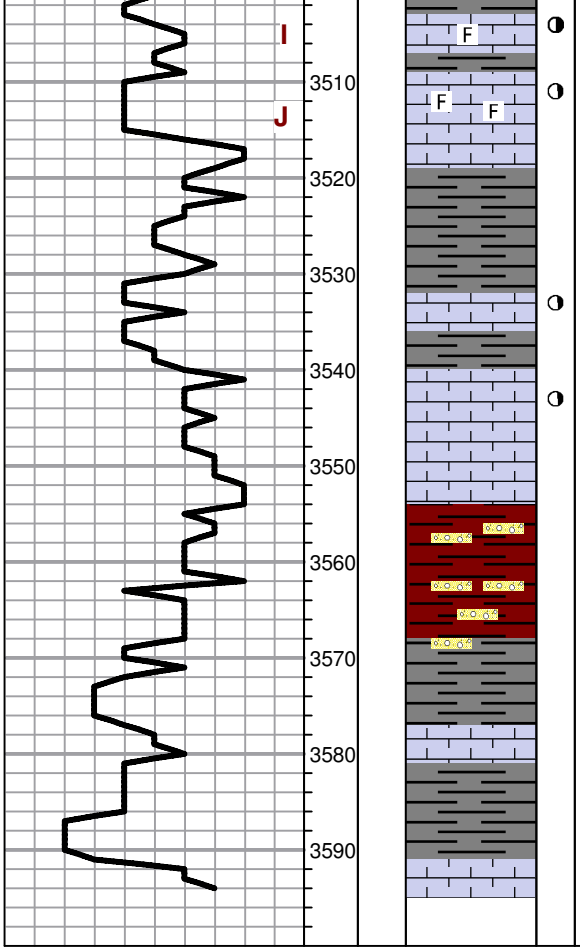
Lm- crm- fnxln, oolitic, chalky, slightly cherty, few pcs w/ pr inxln por, NSO

Lm- crm- v. fn-fnxln, chalky, scat chert, oolitic in prt

Sh- brn- gray-blk

Lm- crm- fnxln, foss in prt, slightly chalky in prt, consistent pr w/ a some fr inxln por, consistent pr-fr lt brn stn, slight FO sheen in cup, fr odor, fr streaming dry cut, fr yellow flour

Sh- gray- red



Lm- crm- fnxln, foss, fairly tight, fairly consistent pr inxln-infoss por, fairly consistent pr-fr lt brn stn, NSFO, no odor, fr streaming dry cut

Lm- crm- v. fn-fnxln, foss, fairly tight, scat pr inxln-infoss por, scat pr lt brn stn, slt FO sheen in cup, pr odor

Sh- red- gray

Lm- crm- fnxln, foss, consistent pr-fr infoss por, consistent fr blk stn, slt FO sheen on cup, no odor

Lm- crm-gray, fnxln, foss, slightly chalky, few pcs w/ pr infoss por, fr blk stn, no SFO no odor

BKC: SPL 3554' (-3554)

Sh- red

Lm-cong- brn-red, granular, foss throught