Confidentiality Requested:

Yes No

#### Kansas Corporation Commission Oil & Gas Conservation Division

1259592

Form ACO-1 November 2016 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.xxxxx) (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:
□ Oil □ WSW □ SWD	Producing Formation:
Gas DH EOR	Elevation: Ground: Kelly Bushing:
	Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used? ☐ Yes ☐ No
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)
	Chloride content: ppm Fluid volume: bbls
Commingled Permit #:	Dewatering method used:
☐ Dual Completion         Permit #:	Location of fluid diapocal if hould affaita:
EOR Permit #:	Location of fluid disposal if hauled 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 III Approved by: Date:							

Page Two



Operator Name:					Lease Na	ame: _			Well #:	
SecTw	pS. R		] East	West	County:					
	, flowing and shu	ut-in pressure	s, whe	ther shut-in pro	essure reach	ed stati	c level, hydrosta	tic pressures,		val tested, time tool erature, fluid recovery,
Final Radioactivi files must be sub							ogs must be ema	illed to kcc-we	ll-logs@kcc.ks.gov	. Digital electronic log
Drill Stem Tests 7			Ye	es No		L	· ·	on (Top), Deptl		Sample
Samples Sent to	Geological Surv	/ey	Ye	es 🗌 No		Nam	е		Тор	Datum
Cores Taken Electric Log Run Geolgist Report / List All E. Logs R	/ Mud Logs		Ye	es No						
LIST All E. LOGS I	iun.									
			Repo		RECORD conductor, surf	Ne	ew Used ermediate, product	ion, etc.		
Purpose of St		e Hole rilled		e Casing t (In O.D.)	Weigh		Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
				( 2.2.)						
				ADDITIONAL	CEMENTING	0 / 001	 JEEZE RECORD			
Purpose:		epth	Type	of Cement	# Sacks U		DEEZE NECOND	Type a	nd Percent Additives	
Perforate		Bottom	71					7,		
Plug Back Plug Off Zo	TD									
: .ug 0										
Did you perform	=	-				200 !!-	Yes	=	, skip questions 2 ar	nd 3)
<ol> <li>Does the volume</li> <li>Was the hydraul</li> </ol>		•		•		•			, skip question 3) , fill out Page Three	of the ACO-1)
Date of first Produ	ction/Injection or R	Resumed Produc	tion/	Producing Met	hod:					
Injection:				Flowing	Pumping		Gas Lift C	Other (Explain) _		
Estimated Produc Per 24 Hours		Oil Bbls	-	Gas	Mcf	Wate	er B	bls.	Gas-Oil Ratio	Gravity
DISPO	OSITION OF GAS:	:			METHOD OF C	COMPLE	ETION:			ON INTERVAL:
	Sold Used	d on Lease		Open Hole [	Perf.	_ ,		mmingled mit ACO-4)	Тор	Bottom
Shots Per	Perforation	Perforation		Bridge Plug	Bridge Plug		Acid,		Cementing Squeeze	Record
Foot	Тор	Bottom		Type	Set At			(Amount and	Kind of Material Used)	
TUBING RECORI	D: Size:		Set At:		Packer At:					
. 52		`								

Form	ACO1 - Well Completion
Operator	Lebsack Oil Production Inc.
Well Name	Garden City 2-13
Doc ID	1259592

## Tops

Name	Тор	Datum
Anhydrite	2018	907
Heebner	3808	-883
Toronto	3827	-902
Lansing	3912	-987
Base KC	4333	-1408
Marmaton	4354	-1429
Pawnee	4440	-1515
Miss. St Gen	4748	-1823
RTD	4850	-1925

Form	ACO1 - Well Completion
Operator	Lebsack Oil Production Inc.
Well Name	Garden City 2-13
Doc ID	1259592

### Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Type and Percent Additives
Surface	12.250	8.625	24	418	Class A Common	3% CC 2% Gel

# ALLIED OIL & GAS SERVICES, LLC 065447 Federal Tex I.D. # 20-868/1478

southlake, tbxas	3 76092	•		ELERKA	185 601
DATE 7-/0 /5 SEC. TWP	RANGE.	CALLED OUT	ом госатіон	JOB START	10d finish Log Affa
LEASE WILLIAM WELLE 2-1		cuden City, Hus		FYONEY.	arvie
OLD ON NEW (Circle one)		197 Wiles Non	KAZIA WEST	dozasis	
CONTRACTOR Sterling	45	OWNER	701	1.65	
TYPE OF JOB STATES FOR	T.D. 4/7	CEMENT		_	
CASING SIZE 85/8 ALF	DEPTH GAD	AMOUNT	RDERED 265	Trus F	37/4,21 Angah
TUBING SIZE DRUL PIPB	DEPTH DEPTH				
TOOL	DEPTH			,	
PRES MAX MEAS LINE	MINIMUM SHOE JOINT 4/	COMMON_	<u> </u>	· 0 1290	4743.50
	BBC	SEL POZMIX _	Bentante 4995	1.05	503.98
PERFS.		CHLORIDE	7484 19	@ 7.70	18210
DISPLACEMENT 23-8 EQUIPMI		ASC		_@ _@.	
PAORIMI	MAT.	, —		_@	
	Exilitain	<del></del>		-@	
# COR-SOI HELPER ALL BULK TRUCK	lo Esposza	<u> </u>		<u>@</u>	
# 105-X4) DRIVER	Se Coldens	<u>, 3</u>	·	Ø	·
BULK TRUCK	<i></i>			_@	
1 "1		- Handling Mileage .		@	
-HONKYOOG REMARK	ζS;			TITIT'À Ì	6090.00
		$\mathcal{Z}(\omega)$	59/35-90	(O I/ID	
			7		
			SERVIC	CE	
		DEPTH OF	SERVIC	CE	100000
		DEPTH OF .	SERVIO	70	1572.25 23000
		DEPTH OF PUMP TRUE EXTRA FOO MILBAGE	SERVIO OB OK CHARGE / OTAGE / L/M SCO	@ <u>4:40</u> @ 7.50	1512-35 1220-00 232-00
		DEPTH OF PUMP TRUE EXTRA FOO MILEAGE MANIFOLD	SERVIO OB OK CHARGE / OTAGE / L/M STO	9,40 9,70 9,2530	1572.25 230.00 235.00 216.12
		DEPTH OF PUMP TRUE EXTRA FOO MILBAGE	Servic OB X. Charge/ YAGE   LM SC IVMSO NO. DSY OO	6 4:40 @ 7:40 @ 2520	15/13/25 23/25/25 23/25/25 25/25/25
CHARGE TO: Lebson Ko	ri pedudi	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTHER (1)	SERVIO OB	2 9 4:40 9 3:30 9 3:23 9 3:48 9 3:55	1500 16710 16710
CHARGE TO: Lebsocker STREET	ri Pedude	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTHER (1)	SERVIO OB	6 4:40 @ 7.50 @ 42520 @ 42520	1500 16710 16710
	zie_	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTHER (1)	SERVIO OB	9 4:40 9 7:40 9 3:25 9 3:48 9 3:05 70 TOTAL	4901.4.
STREET	· · · · · · · · · · · · · · · · · · ·	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTHER (1)	SERVICE  CHARGE /  CHARGE	90 TOTAL	4901.4.
STREET	· · · · · · · · · · · · · · · · · · ·	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTHER (1)	SERVICE  CHARGE /  CHARGE	9 4:40 9 7:40 9 3:25 9 3:48 9 3:05 70 TOTAL	49014.
STREET	ZIP	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTHER (1)	SERVICE  CHARGE /  CHARGE	6 4:40 6 7:40 9 37525 9 305 70 TOTAL EQUIPMENT	49014.
STREETSTATE CITYSTATE To: Allied Oil & Gas Services, L You are hereby requested to reat	ZIP LC. comenting equipm	DEPTH OF PUMP TRUE EXTRA FOR MILBAGE ANIFOLD HICKORY	SERVICE  CHARGE /  CHARGE	6 4:40 6 7:40 9 17:20 9 20:5 70 TOTAL EQUIPMEN 6 23/20 8	49014.
CITYSTATE_  To: Allied Oil & Gas Services, L You are hereby requested to rent and furnish comenter and helper(	ZIP  LC. comenting equipm (5) to assist owner	DEPTH OF PUMP TRUE EXTRA FOR MILBAGE ANIFOLD HICKORY TO A TOP TO A	SERVICE  OB  OK CHARGE  OFAGE! LM STO  OFAGE! LM ST	6 4:40 6 7:40 9 27523 9 27523 9 2755 70 TOTAL EQUIPMENT 6 25/20 6 6	12502 127850 127850 14101.4.
CITYSTATE_  To: Allied Oil & Gas Services, L You are hereby requested to rent and furnish camenter and helper( contractor to do work as is listed done to satisfaction and supervisi	ZIP  LC. comenting equipm (5) to assist owner. The above work ion of owner agen	DEPTH OF PUMP TRUE EXTRA FOO MILEAGE - MANIFOLD FOR THE PUMP TRUE  MANIFOLD FOR THE PUMP TRUE TRUE TRUE TRUE TRUE TRUE TRUE TRUE	SERVICE  CHARGE /  CHARGE	6 4:40 6 7:40 9 3:2525 9 3:75 70 TOTAL EQUIPMENT 6 3:250 6	12502 127850 127850 14101.4.
CITYSTATE_  To: Allied Oil & Gas Services, L. You are hereby requested to rent and furnish comenter and helper(contractor to do work as is listed done to satisfaction and supervision tractor. I have read and unds)	ZIP	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTEL TO THE PUMP TRUE TO THE PUMP TO THE	SERVICE  SER	6 4:40 6 7:40 9 27523 9 27523 9 2755 70 TOTAL EQUIPMENT 6 25/20 6 6	12502 127850 127850 14101.4.
CITYSTATE_  To: Allied Oil & Gas Services, L You are hereby requested to rent and furnish camenter and helper( contractor to do work as is listed done to satisfaction and supervisi	ZIP	DEPTH OF FUMP TRUE EXTRA FOR MILEAGE - MANIFOLD ACCIDING TO THE PROPERTY OF WAS US OF RAL SALES TAX	SERVICE  OB  OK. CHARGE  OTAGE LIM STO  NO. DRY 100  TO 10 / 85  PLUG & FLOAT  READ FIG. 1  (If Any) 479	6 4:40 6 7:40 9 27523 9 27523 9 2755 70 TOTAL EQUIPMENT 6 25/20 6 6	12502 127850 127850 14101.4.
CITYSTATE_  To: Allied Oil & Gas Services, L. You are hereby requested to rent and furnish comenter and helper(contractor to do work as is listed done to satisfaction and supervision tractor. I have read and unds)	ZIP	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE - MANIFOLD HOTEL TO THE PUMP TRUE TO THE PUMP TO THE	SERVICE  SER	6 4:40 6 7:40 6 7:40 6 2:52 6 2:05 70 TOTAL EQUIPMEN 6 3:20 6 6 6 6 6 72	121.00 121.00 121.00 121.00
CITYSTATE_  To: Allied Oil & Gas Services, L. You are hereby requested to rent and furnish comenter and helper(contractor to do work as is listed done to satisfaction and supervision tractor. I have read and under TERMS AND CONDITIONS" in	ZIP	DEPTH OF PUMP TRUE EXTRA FOO MILBAGE AMANIFOLD ACTION OF WAS U.S. COTAL CHARLES TAX TOTAL CHARLES TAX DISCOUNT	SERVICE  SER	6 4:40 6 7:40 6 7:40 6 2:52 6 2:05 70 TOTAL EQUIPMEN 6 3:20 6 6 6 6 6 72	12502 127850 127850 14101.4.



# Joshua R. Austin

# Petroleum Geologist



## Lebsack Oil Production, Inc.



COMPANY: Lebsack Oil Production, Inc.

LEASE: Garden City #2-13

FIELD: West Ext. Dame

LOCATION: E2-E2-W2-Ne (1320' FNL & 1420' FEL)

SEC: <u>13</u> TWSP: <u>22s</u> RGE: <u>34w</u>

COUNTY: Finney STATE: Kansas

KB: 2925' GL: 2912'

API # 15-055-22417-00-00

CONTRACTOR: Sterling Drilling Co. (rig #5)

Spud: <u>07/09/2015</u> Comp: <u>07/17/2015</u>

RTD: <u>4850</u> LTD: <u>4851</u>

Mud Up: 3400' Type Mud: Chemical was displaced

Samples Saved From: 3700' to RTD.

Drilling Time Kept From: 3600' to RTD.

Samples Examined From: 3700' to RTD.

Geological Supervision From: 3850' to RTD.

Geologist on Well: <u>Josh Austin</u> Surface Casing: 8 5/8" @418'

Production Casing: none

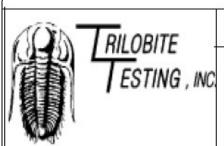
Electronic Surveys: By Pioneer Energy Services

#### **NOTES**

On the basis of the low structural position, negative drill stem test and after reviewing the electric logs it was recommended by all parties involved in the Garden City 2-13 that it be plugged and abandoned at the rotary total depth 4850.

# Lebsack Oil Production, Inc. well comparison sheet

	DRILLING WELL					COMPARIS	SON WELL		
		Garden City 2-13				Garden City 1-13			
				1					
							Struct	ural	
	2925	KB			2923	KB	Relatio	nship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	
Anhydrite	2023	902	2018	907	2020	903	-1	4	
Heebner	3808	-883	3808	-883	3796	-873	-10	-10	
Toronto	3829	-904	3827	-902	3816	-893	-11	-9	
Lansing	3905	-980	3912	-987	3893	-970	-10	-17	
Base KC	4330	-1405	4333	-1408	4318	-1395	-10	-13	
Marmaton	4355	-1430	4354	-1429	4341	-1418	-12	-11	
Pawnee	4441	-1516	4440	-1515	4422	-1499	-17	-16	
Ft. Scott	4474	-1549	4471	-1546	4450	-1527	-22	-19	
Cherokee Sh.	4483	-1558	4482	-1557	4459	-1536	-22	-21	
Morrow Shale	4666	-1741	4668	-1743	4642	-1719	-22	-24	
Miss. St. Gen.	4737	-1812	4748	-1823	4708	-1785	-27	-38	
St. louis C	4807	-1882	4809	-1884	4768	-1845	-37	-39	
RTD	4850	-1925			4860	-1937			
LTD			4851	-1926	4858	-1935			



#### DRILL STEM TEST REPORT

Lebsack Oil Production Inc

13-22-34 Finney, Ks

P.O. box 354

Garden City 2-13

Chase, Ks 67524

Job Ticket: 61734

DST#:1

ATTN: Josh Austin

Test Start: 2015.07.14 @ 23:00:46

GENERAL INFORMATION:

Formation:

Interval: Total Depth: Pawnee

Deviated: No Time Tool Opened: 00:59:16

Time Test Ended: 06:05:46

Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

4430.00 ft (KB) To 4460.00 ft (KB) (TVD)

4460.00 ft (KB) (TVD)

Reference Bevations:

2925.00 ft (KB) 2912.00 ft (CF)

Hole Diameter: 7.88 inchesHole Condition: Good KB to GR/CF:

13.00 ft

Serial #: 8166 Press@RunDepth:

Outside

4431.00 ft (KB)

Capacity:

8000.00 psig

Start Date:

340.99 psig @ 2015.07.14

End Date:

2015.07.15

Last Calib .: Time On Btm: 2015.07.15

Start Time:

2015.07.15 @ 00:58:46

23:00:51

End Time:

06:05:45

Time Off Btm:

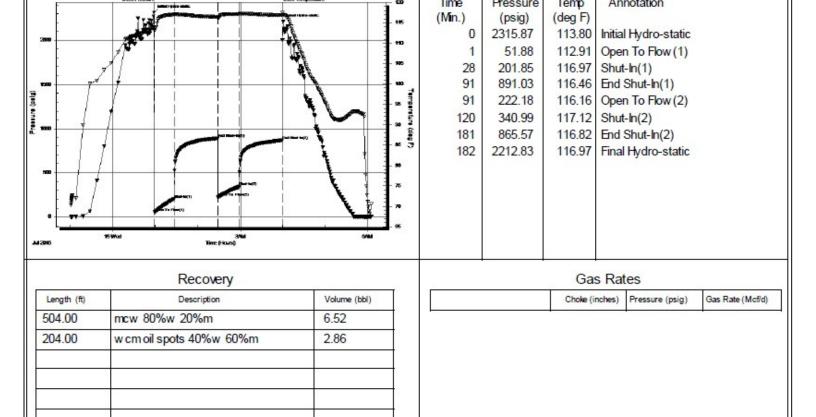
2015.07.15 @ 04:00:46

TEST COMMENT: IF: 1/4 blow BOB in 5 min.

IS: No return. FF: BOB in 10 min. FS: No return.

Pressure vs. Time

PRESSURE SUMMARY





#### DRILL STEM TEST REPORT

Lebsack Oil Production Inc

P.O. box 354

Chase, Ks 67524

ATTN: Josh Austin

13-22-34 Finney, Ks

Garden City 2-13

Job Ticket: 61735

DST#: 2

Test Start: 2015.07.17 @ 01:15:37

#### GENERAL INFORMATION:

Formation: Miss

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:52:37

Time Test Ended: 08:23:37

Interval: 4754.00 ft (KB) To 4850.00 ft (KB) (TVD)

Total Depth: 4850.00 ft (KB) (TVD)

Hole Diameter: 7.88 inchesHole Condition: Good

Tester: Brandon Turley

Unit No: 79

Offictio. 15

Reference Bevations: 2925.00 ft (KB)

Test Type: Conventional Bottom Hole (Reset)

2912.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8166 Outside

Press@RunDepth: 36.69 psig @ 4755.00 ft (KB) Capacity: 8000.00 psig

 Start Date:
 2015.07.17
 End Date:
 2015.07.17
 Last Calib.:
 2015.07.17

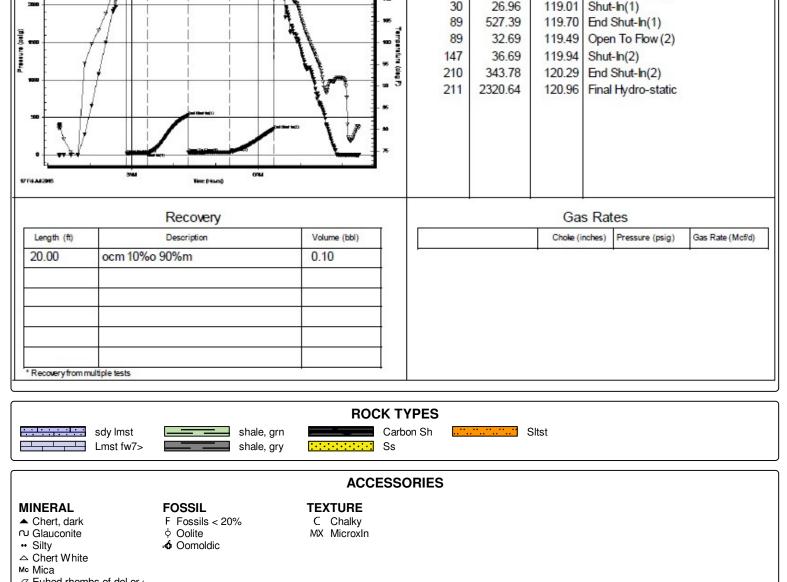
 Start Time:
 01:15:42
 End Time:
 08:23:36
 Time On Btm:
 2015.07.17 @ 02:52:07

Time Off Btm: 2015.07.17 @ 06:23:07

TEST COMMENT: IF: 1/4 blow died in 8 min.

IS: No return. FF: No blow . FS: No return.

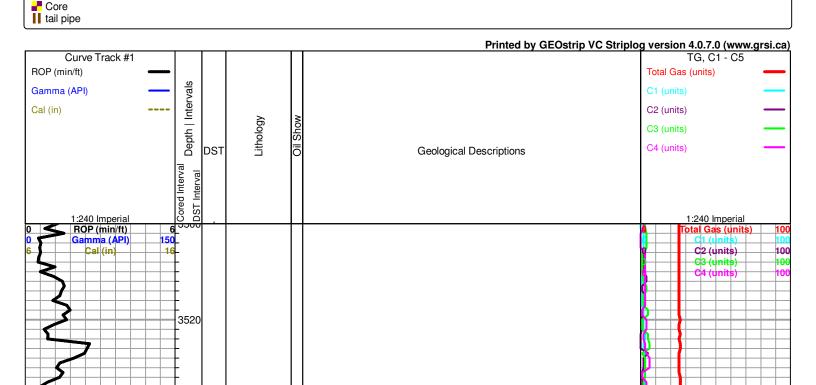
Pressure vs. Time			PF	RESSUR	RE SUMMARY
SECONOMIC SECONOMIC	- 600	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
200	195	0	2398.07	119.21	Initial Hydro-static
	. 110	1	18.78	118.73	Open To Flow (1)

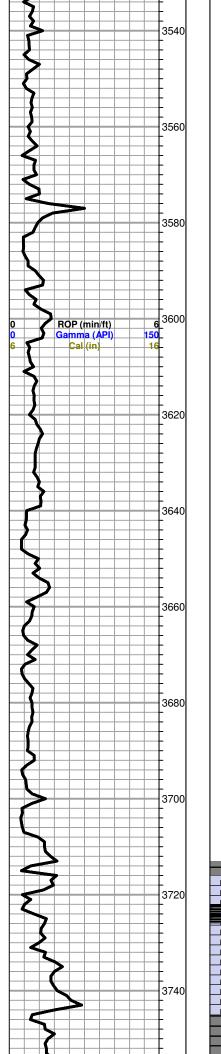


∠ Euhed rhombs of dol or (

**DST** BST Int DST alt

#### **OTHER SYMBOLS**







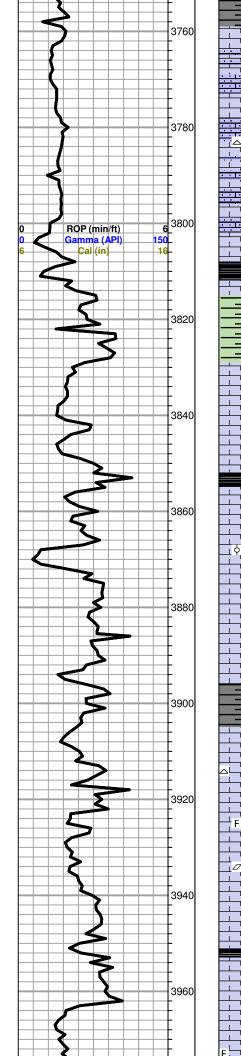
Shale; black-grey

Limestone; cream-lt. grey, fossiliferous, chalky in part, few scattered porosity, no shows

Shale; brick red-maroon, green-greyish green

otal Gas (units)

C2 (units) C3 (units) C4 (units)



silty in part

Limestone; cream-buff, fossiliferous, chalky, granular, plus white chalk

Limestone; cream, chalky, slightly oolitic, granular in part, trace Chert; grey, opaque, boney

#### **HEEBNER 3808 (-883)**

black carboniferous shale

grey-green shale

#### **TORONTO 3829 (-904)**

Limestone; cream, white, fine-medium xln, cherty in part, fossiliferous, few scattered porosity, no shows

trace black shale

Limestone; cream, fine xln, oollitic in part, few scattered pin point-oolicastic type porosity (barren) Chert; cream-It. grey, boney, fossiliferous

Limestone; cream-tan, fine xln, dense, cherty, poor visible porosity, plus chert as above

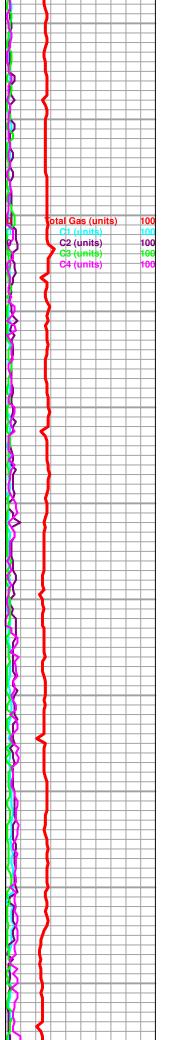
#### **LANSING 3905 (-980)**

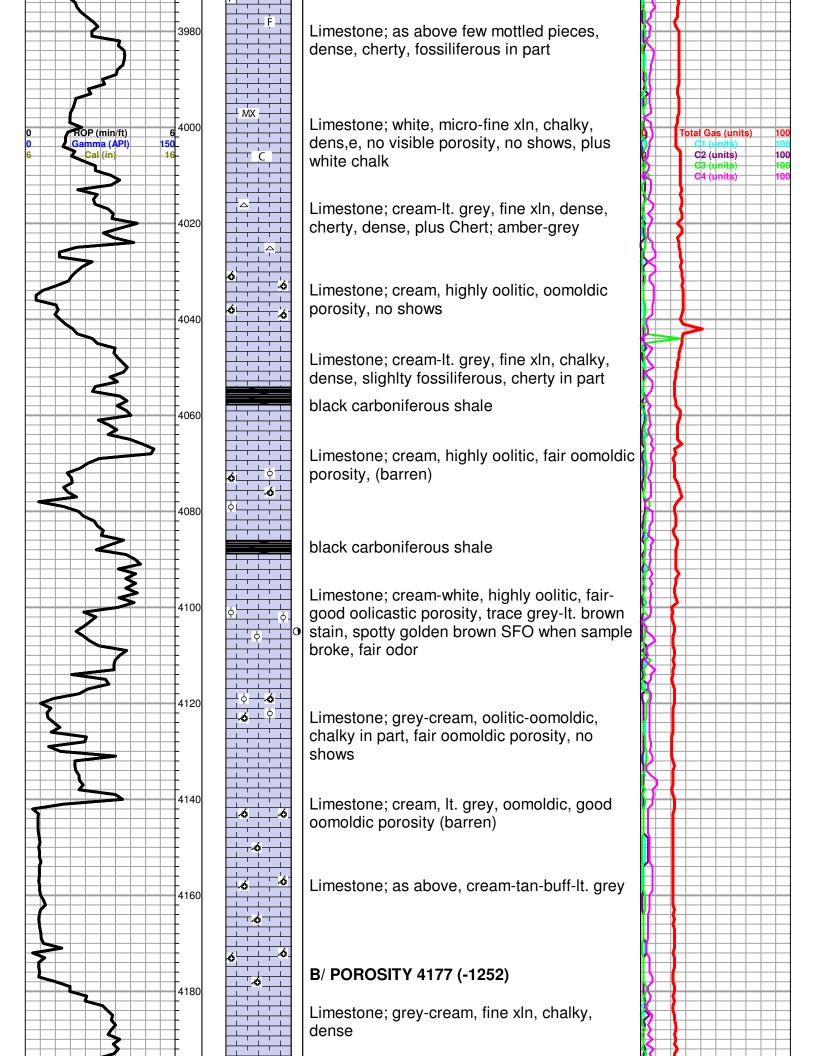
Limestone; cream, fine xln, chalky, dense,. fossiliferous, plus Chert; amber-translucent

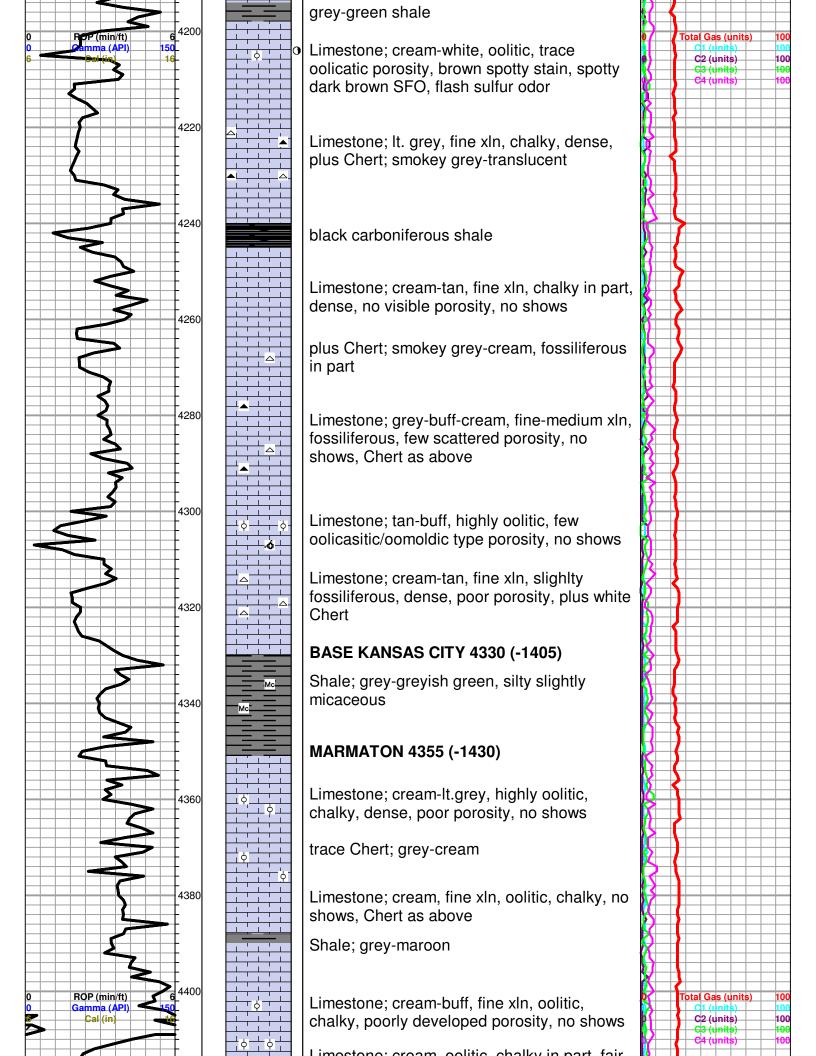
Limestone; cream-white, fine xln, fossilfierous, sparry calcite in porosity, chalky in part

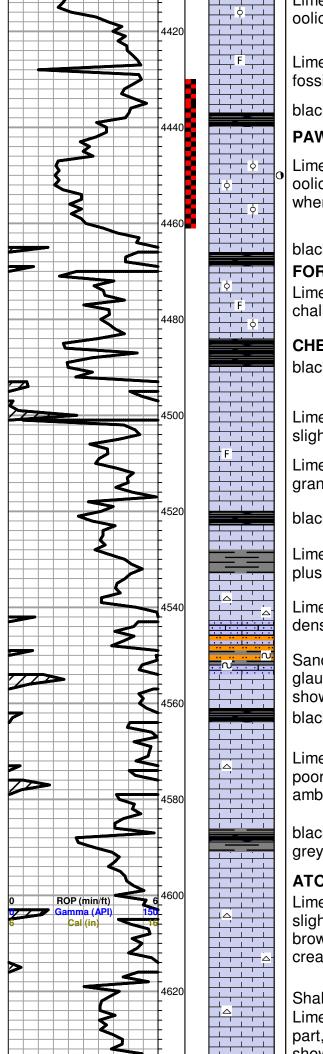
trace black shale

Limestone; tan, fine xln, slightly fossiliferous, dense, cherty









Linestone, cream, dontic, charky in part, rain oolicastic type porosity, no shows

Limestone; tan-cream, fine xln, slighlty fossiliferous/oolitic, dense, no porosity

black carboniferous shale

#### **PAWNEE 4441 (-1516)**

Limestone; white, oolitc, chalky, fair inter ixloolicastic porosity, brown stain, spotty SFO when sample broke, faint-fair odor

black carboniferous shale

#### FORT SCOTT 4474 (-1549)

Limestone; cream, fossiliferous-oolitic, chalky, trace spotty stain, trace FO, faint odor

#### CHEROKEE SHALE 4483 (-1558)

black carboniferous shale

Limestone; cream-tan, fine xln, chalky, slighlty fossiliferous, poor porosity, no shows

Limestone; as above, highly fossiliferous, granular, no shows

black carboniferous shale

Limestone; tan-buff, finee xln, dense, cherty, plus grey Shale

Limestone; grey-tan, fine xln, fossilfierous, dense, cherty, plus Chert; tan-translucent

Sandy Limestone; grey-cream, few glauconitic pieces, plus trace Sand; grey, no shows

black carboniferous shale

Limestone; tan-buff, fine xln, dense, cherty, poor visible porosity, no shows, Chert; amber-translucent

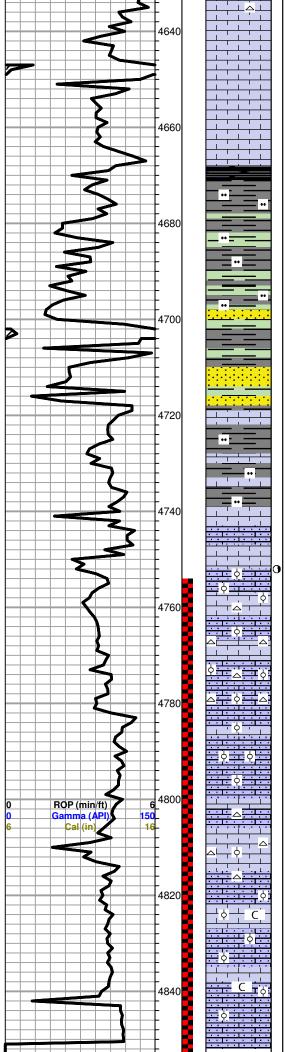
black carboniferous shale, plus grey-dark grey shale

#### **ATOKA**

Limestone; cream-tan-buff, fine-medium xln, slighlty fossiliferous in part, cherty, trace It. brown stain, NSFO, no odor, plus Chert; cream-tan, slighlty fossiliferous, boney

(units)

Shale; grey-greyish green-maroon, silty in Limestone; cream, fine-medium xln, chalky in part, finely fossiliferous, granular in part, no



10...

Limestone; cream-grey, fine xln, fossiliferous in part, chalky, dense, plus Chert; grey, fossiliferous, boney, no shows

Trace Limestone; brown-tan, fine xln, finely fossilifeorus, brown stain, spotty SFO, faint odor

#### **MORROW SHALE 4666 (-1741)**

black carboniferous shale, plus grey-green soft, silty Shale

Shale; dark grey-green, soft, silty in part

Shale; as above

#### **MORROW SAND**

Shale; as above, trace "dirty" Sand; shaley, micaceous, no shows

Shale; grey-green, silty in part, soft Sand; white-grey, sub rounded, sub angular, glauconitic, no shows

Abundant Shale variety of colors

Shale; grey-green, silty

#### MISSISSIPPI 4737 (-1812)

trace Limestone; cream, sandy/granular, finely oolitic, fair porosity, brown stain, spotty SFO, no odor

Limestone; as above no shows

plus Chert; orange, cream, translucent boney

Limestone; cream-lt. grey, highly oolitic, few scattered oolitcastic porosity, dense, trace dark brown stain, slight SFO, odor when broke

#### ST. LOUIS 'C' 4807 (-1882)

Limestone; cream-buff, fine xln, slighlty oolitic, dense, cherty, poorly developed porosity, no shows, plus smokey grey, boney, Chert

Limestone; cream, fine-mediu xln, oolitic, chalky, poor porosity, no shows, plus white chalk

Limestone; as above

