

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](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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

TUBING RECORD:	Size:	Set At:	Packer At:	
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# CEMENTING LOG

STAGE NO. \_\_\_\_\_

Date 8-13-16 District Oakley Ticket No. 48094  
 Company Berexco Rig Beredco 1  
 Lease R.A. Well No. 2-6  
 County Stanton State KS

Location Le 29 40 Field \_\_\_\_\_  
Johnson ls 1/4 E N 10

CASING DATA: Conductor  PTA  Squeeze  Misc   
 Surface  Intermediate  Production  Liner   
 Size 8 5/8 Type \_\_\_\_\_ Weight \_\_\_\_\_ Collar \_\_\_\_\_

Casing Depths: Top KB Bottom 1706'

Drill Pipe: Size \_\_\_\_\_ Weight \_\_\_\_\_ Collars \_\_\_\_\_  
 Open Hole: Size 12 1/4 T.D. 1706 ft. P.B. to \_\_\_\_\_ ft.

CAPACITY FACTORS:  
 Casing: Bbbls/Lin. ft. 0.0637 Lin. ft./Bbl. \_\_\_\_\_  
 Open Holes: Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Drill Pipe: Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Annulus: Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Perforations: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Amt. \_\_\_\_\_

CEMENT DATA:

Spacer Type: \_\_\_\_\_  
 Amt. \_\_\_\_\_ Sks Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG

LEAD: Pump Time \_\_\_\_\_ hrs. Type Lite 38cc  
4" Hoscon Excess \_\_\_\_\_

Amt. 580 Sks Yield 2.20 ft<sup>3</sup>/sk Density 12.07 PPG

TAIL: Pump Time \_\_\_\_\_ hrs. Type Com 38cc  
 Excess \_\_\_\_\_

Amt. 150 Sks Yield 1.33 ft<sup>3</sup>/sk Density 14.90 PPG

WATER: Lead \_\_\_\_\_ gals/sk Tail \_\_\_\_\_ gals/sk Total \_\_\_\_\_ Bbls.

Pump Trucks Used 431  
 Bulk Equip. 891  
818

Float Equip: Manufacturer Weatherford  
 Shoe: Type Guide shoe Depth \_\_\_\_\_  
 Float: Type Annular Depth \_\_\_\_\_  
 Centralizers: Quantity 3 Plugs Top \_\_\_\_\_ Btm. \_\_\_\_\_  
 Stage Collars \_\_\_\_\_  
 Special Equip. \_\_\_\_\_  
 Disp. Fluid Type Water Amt. 106 Bbls. Weight \_\_\_\_\_ PPG  
 Mud Type \_\_\_\_\_ Weight \_\_\_\_\_ PPG

COMPANY REPRESENTATIVE \_\_\_\_\_

CEMENTER Andrew

TIME AM/PM	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
6:20						start mixing cement Cement mixed Release plug start displacement
				10		
				10		
	300			10		
				10		
				10		
	500			10		
				10		
	600			10		cement started circulating
2:00	1500			7		plug landed float held circulated 20 bbl to pt



### Cement Job Summary

Job Number:	LIB1608240310	Job Purpose	03 Plug
Customer:	Berexco LLC		Date: 8/24/2016
Well Name:	RA	Number:	2-6
County:	Stanton	City:	State: Kansas
Cust. Rep:		Phone:	Rig Phone:
Legal Desc:	SEC-6-29S-40W		Rig Name: BEREDCO # 1
Distance	50 miles (one way)		Supervisor: Aldo Espinosa

Employees:	Emp. ID:	Employees:	Emp. ID:
ALDO ESPINOZA			
JOSE CALDERON			
CRISTIAN CAMACHO			
Equipment:			
984-			
994-550			
1080-842			

Well Information						
Tubulars						
Description:	Size (in):	Wgt. (lb/ft)	ID (in)	Grade:	Top MD (ft)	Btm MD (ft)
PREVIOUS CASING	8 5/8	24	8.097	J-55	0	1,650
TUBING/DRILL PIPE	4 1/2	16.6	3.826	J-55	0	1,730
Squeeze Information						
Description:	# of Perfs	Perf/Leak Depth		Packer/Retainer Depth		
Leak	0			1730		
Perfs				1730		

Materials - Pumping Schedule						
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Spacer 1	FRESH WATER	10	8.30	n/a	n/a	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Lead 1	ALLIED 40/60/4 POZ BLEND - CLASS A	260	13.96	1.43	6.80	
Add. Additive	Description	Conc. (lb/sk)	Determined by	Load Volume	UOM	
CGEL	GEL - BENTONITE	3.44	% BWOC	894.4	lbm	
Fluid Name	Description	Rqstd Qty	Density	Yield	Water (gal/sk)	
Disp. 4	Displacement	24.17229612	0.00	n/a	n/a	

Job Number:	LIB1608240310	Job Purpose	03 Plug		
Customer:	Berexco LLC		Date: 8/24/2016		
Well Name:	RA	Number:	2-6		
County:	Stanton	City:	State: Kansas		
Cust. Rep:		Phone:	Rig Phone: 0		
Distance	50 miles (one way)		Supervisor: Aldo Espinosa		
TIME	PRESSURE - (PSI)		FLUID PUMPED DATA		COMMENTS
AM/PM	CASING	ANNULUS	VOLUME	RATE (BPM)	
8/23/2016					DATE
700pm					arrive to locagtion
715pm					rig up
800pm	40		22.7	3	right after pumping first plug, company men found out that the rig crew didn't set drill pipe where he told them @ 1730 ft

### Cement Job Summary

					they set it at 720 ft, so circulated cement out and got more cement from yard
8/24/2016					
1248am					
	40		22.7	3	1st plug @ 1730 ft
			2	3	pump 10 bbl water, 50 sk/12.7 bbl cement
			17	3	2 water behind, and 17 bbl mud as displacement
145am	30				
			17.9	3	2nd plug @ 720ft
					40sk/10.2 bbl cement, 7.7 bbl displacement
204am	30				
			13.9	3	3rd plug @ 300 ft
					50sk/12.7 bbl cement, 1.2 bbl displacement
230AM	20			3	
			5		4th plug from 60 ft to surface
					20 sk/5 bbl cement
255AM					
			7.6	3	Rat hole
					30 sk/7.6 bbl cement
310AM					
			5	3	Mouse hole
320am					20 sk/5 bbl cement
330AM					wash pumping lines to pit
400AM					rig down
					leave location
					thanks

COMPANY Berexco LLC  
 LEASE RA NO. 2-6  
 LOCATION 1800' FSL + 1780' FWL  
 SEC. 6 TWP. 29S RNG. 40W  
 COUNTY Stanton STATE Kansas  
 FIELD Arroyo Northeast

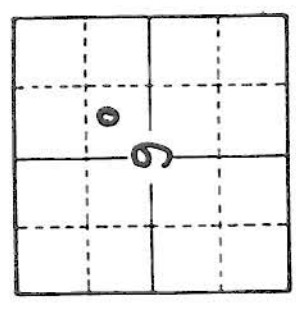
ELEVATIONS  
 KB 3333  
 DF 3331  
 GL 3321  
 MEASUREMENTS ARE ALL FROM KB

CONTRACTOR Berexco Drilling Rig #1  
 COMM. 8-11-2016 COMP. \_\_\_\_\_  
 RTD \_\_\_\_\_ LTD \_\_\_\_\_  
 No. of DST'S \_\_\_\_\_ No. of CORES \_\_\_\_\_

GAISING RECORD  
 898' of 1702' w/ 730 SX.  
 DI \_\_\_\_\_ W/ \_\_\_\_\_ SX.  
 DI \_\_\_\_\_ W/ \_\_\_\_\_ SX.  
 DI \_\_\_\_\_ W/ \_\_\_\_\_ SX.  
 EL. LOG ACT' RES. SPGR  
 Den. Alerts GR. Caliper  
 M.L. Sonic \_\_\_\_\_

SAMPLES SAVED FROM 3500 TO TD  
 DRILLING TIME KEPT FROM 3500 TO TD  
 SAMPLES EXAMINED FROM 3500 TO TD  
 GEOLOGICAL SUPERVISION FROM 3500 TO TD  
 GEOLOGIST ON WELL Edwin H. Grievens

FORMATION TOPS	SAMPLE	LOG	SUBSEA
<u>Base Hechmer</u>	<u>3707</u>		
<u>Kansing</u>	<u>3766</u>		
<u>Marionston</u>	<u>4365</u>		
<u>Ft. Scott</u>	<u>4542</u>		
<u>Morrow Fm</u>			
<u>St Genevieve</u>			
<u>St. Louis</u>			
<u>TD</u>			



APT #15-187-21332

REMARKS Earth-Tech had an unmanned gas detection trailer on this well from 3500 feet to total depth.

*Thank you  
 Edwin H. Grievens  
 Geologist*

LITHOLOGY  
 SANDSTONE  
 LIMESTONE  
 SHALE  
 CHERT

SILTSTONE  
 DOLOMITE  
 GRANITE WASH  
 ANHY & GYP

CHROMATOGRAPH  
 HOT WIRE BY  
 TOTAL GAS VOLUME

C1 = METHANE  
 C2 = ETHANE  
 C3 = PROPANE  
 C4 = ISOBUTANE  
 C5 = BUTANE  
 C6 = ISOPENTANE  
 C7 = PENTANE

SANDSTONE  
LIMESTONE  
SHALE  
CHERT

SANDSTONE  
DOLOMITE  
GRANITE WASH  
ANNY & GYP

HOT WIRE BY  
TOTAL GAS VOLUME

C4 = ISOBUTANE  
C5 = BUTANE  
C6 = ISOPENTANE  
C7 = PENTANE

DRILL TIME  
SCALE  
5 10 15

SAMPLE DESCRIPTION

GAS SCALE

10 100 1000

Interbedded Limestones  
 ① Faster Drly. Lms. trs. to ext. tan. wht. to crm. chlk + lt. tan to tan, grayish. IP's; crypto to v. vfn. xln.; trs. sub-chlk, sub-sucro to v. sucro.; trs. to zbn. phantom oolites for trs. to zbn. oolites IP's; dul. lt. yel. fluor.; No cut; zbn. pr. to fr. + hv. trs. gd. to excel. micro-pp por + prob. inter v. por.  
 ② Slower Drly Lms. tanish lt. gray, grayish. tan to tan; crypto. to v. vfn. xln.; trs. sub-chlk, sub-sucro + packstn; dul. yel. to dul. lt. yel. fluor.  
 No cut; No vis porosity

3600

Base Heebner  
3707-374

3700

— Sh v. dk. gray to black-carb —  
 Lms. trs. wht. to crm. chlk + crm. to lt. tan; crypto. to v. vfn. xln.; sub-chlk sub-sucro. to trs. sucro.; dul. yel. to dul. lt. yel. fluor.; No cut scattered trs. v. pr. micro-pp por  
 Lms. med. to lt. gray-shly. to grayish tan to tan; crypto to vfn. xln.; trs. sub-chlk + or shly. sub-sucro + packstn.; dul. yel. fluor. IP's; No cut  
 No Vis. Porosity

Cl

Cl



3700

Sh v. dk. gry. to black - carb

3707-374

Lms. tes. wlst. to crm - chlk + crm. to  
H. tan; crypto. to v. v. fn. xln. subchlk  
sub-sucro. to tes sucro. dul. yel.  
to dul. H. yel. fluor. No cut  
scattered tes. v. pr. micro-pp por

Lms. med. to lt. gry - shly. to grayish tan  
to tan; crypto to v. v. fn. xln. subchlk  
or shly. sub-sucro + packstn. ;  
dul. yel. fluor. IP's; No cut  
No Vis. Porosity

sh. H. to med. + tes dk. gry. ;  
slit to extaly calc

Lansing Fm  
3766-433

Interbedded Limestones

3800

① Slower Drlg. Lms. H. to med. gry  
slit to faly shly to tan; crypto  
to v. v. fn. xln. ; sub-chlk or shly  
sub-sucro. packstn to TRS.  
sub-lithogr. ; scattered tes to  
TRS. phantom, oolitic to oolitic  
IP's; dul. yel. fluor. ; No cut;  
No Vis Porosity

② Faster Drlg Lms. tes. wht. crm to  
tan-chlk + grayish tan to tan  
crypto to v. v. fn. xln. ; subchlk  
sub-sucro to sucro + tes  
packstn. ; slit to faly. phantom  
oolitic to oolitic IP's; dul. yel. to  
dul. H. yel. fluor. ; No cut  
scattered TRS to hvy tes.  
PR. to TR. micro-pp por. +  
poss. interalu por. IP's

③ tes. chert gry to tan; opaque

3900

Lms. faly. to extaly. wht. to cem chlk. +  
grayish tan to tan. crypto. to v. v. fn.  
xln. ; tes sub-chlk, sub-sucro to  
v. sucro + tes packstn. ; slit to faly  
oolitic or phantom oolitic  
slit to faly or phantom oolitic

Lms. faly. to extly. wht. to cream chlk. +  
 grayish tan to tan; crypto. to v. utn.  
 xln.; trs sub-chlk, sub-succo to  
 v. succro + trs packsta, slt to faly  
 oolitic / or phatom oolitic / or  
 slt to faly phatom oolitic to  
 trs oolitic; dul. yel. to yel.  
 fluor.; No cut; abn. pr. to fr. to  
 excel. micro-pp. interxl. por  
 w/huy trs to abn. pr. to fr. + tr  
 gd oolitic por.

4000

C1

Lms. lt. to med. gray - slt. to v. shly.  
 + grayish. tan to tan; sub-chlk. / or shly  
 sub-succro. + packsta.; trs dul. yel.  
 fluor. IP's; No cut; No vis por

Interbedded Limestones

① Faster Drlg. Lms. huy. tan. to  
 extra abn. wht. to cream-chlk. +  
 cream, lt. tan to tan; crypto. to v. utn.  
 xln.; v. to extly. oolitic  
 + or frly. to v. oolitic; matrix  
 sub-chlk. sub-succro. + packsta.  
 dul. lt. to yel. + dul. yel. to yel. fluor.  
 No cut; abn. pr. to fr. to excel.  
 oolitic por. + trs pr. to fr.  
 micro-pp. por. IP's; Quest. Perm.

4100

② Lms. lt. to med. gray - slt. to v. shly.  
 + grayish. tan to tan; crypto. to  
 v. v. to xln.; sub-chlk. / or shly.  
 sub-succro. + packsta.; trs dul.  
 yel. fluor. IP's; No cut  
 No vis por

C1

4200

4200

Lms. lt. med. to tan dk gray to  
v. dk. gray. - sli to very shly  
w/ tan. tanish gray, grayish tan  
to sli trs tan; Crypto to trs  
v. v. fin. j sub-chlk for shly;  
sli trs. sub-sucro + packstr.;  
v. sli trs. dul. yel fluor. IP's  
No cut; No vis porosity

C1

C1

Sh. lt. med. dk to v. dk gray  
extrly. calc grading to shly. lms.

Marmaton  
4365-1032

Lms. trs. wht. to cream-chlk +  
lt. gray, CRM to tan; crypto. to  
v. v. fin. j sub-chlk, sub-sucro,  
to tan sucro, packstr and tan.  
sub-litho gr. j dul. yel to dul. lt.  
yel. fluor. IP's; No cut;  
No vis por

4400

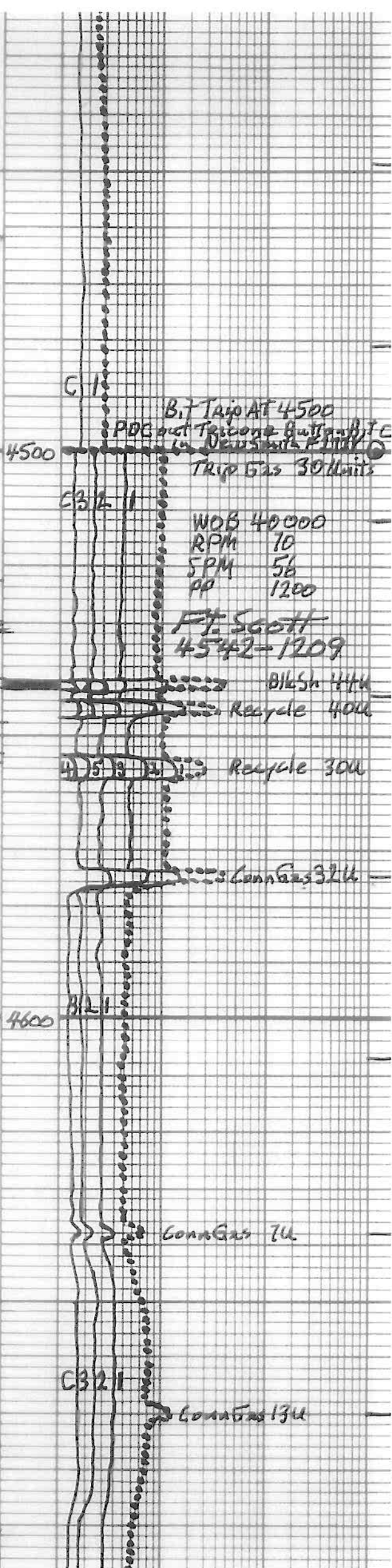
Lms. extra. abn. wht to cream-chlk + ft. tan  
to tan; grayish. IP's; crypto. to v. v. fin. j  
sub-chlk, sub-sucro to sucro + packstr.  
trs to huy trs. sli to v. calc. str. or trs  
to huy trs. sli to v. calc. str. dul. lt.  
yel. fluor. IP's; No cut; huy trs pr  
to micro-por to intergr. por.  
trs to huy trs, pr to v. calc. str.  
por; Quest. Perm in calc. str.

- 4418-4462 Interbedded Lmsts
- (1) Faster Dely Lms. similar  
4402-4418
- (2) Slower Dely Lms. similar  
4365-4402

tas to hv. tas, pp to cr. calc. sh.  
por; Quest. Perm. in calc. sh.

4418-4462 Interbedded Lms  
① Faster Delg Lms. similar  
4402-4448  
② Slower Delg Lms. similar  
4365-4402

Lms. lt. to med. gray. tanish lps  
crypto to v. v. xln. sl. tas.  
sub-sucrot + packstn; sl. tas  
w/ dul. yel. fluor.; No cut;  
No vis por.



4523-32 Lms. hv. tas. wbt. to crm chlk  
+ crm to tan; crypto to v. v. xln.;  
chlk, sub-chlk, sub-sucrot to sucrot  
+ tas packstn. i. phant. oolitic lps to  
oolitic lps. tas. fas.; dul. lt. yel. fluor.  
No cut, No vis por; tas. chert; ta. op. sh.  
Lms. similar 4462-4523

Sh v. drk. gray to black carb  
Sh. med to v. drk gray; ext. calc.  
grading to shly lms

Lms. w/ chert similar 4523-4532

4555-4905 Interbedded  
Limestones and Shales

① Lms. sl. tas. wbt. to crm chlk lps  
+ lt. gray. grading to tan; crypto  
to v. v. xln.; chlk, sub-chlk,  
sub-sucrot + packstn. i. phant.  
oolitic to oolitic lps;  
dul. lt. yel. lps to tas. lt. yel. fluor.  
No cut; No vis por.

② Lms. lt. med to drk. gray-sli. to  
ext. shly. lps, grading to  
calc shs. crypto. xln.; sub-chlk  
+ / or shly. i. packstn + sub-lithoge

NO LAB, NO VIS. POR.

① Lms. lt. med to drk. gray-sli. to  
extly. Shly. IP's, grading to  
calc Shs. crypto. xln.; subrotlle  
+ or Shly. packsta + sub-lithoge  
TAS. w/ dil. yel. fluor.; No cut  
No Vis. POR.

② Sh. lt. med. drk to v. drk. gray  
+ trs black; v. to extly. calc. IP's  
grading to extly Shly Lmsts

4700

Conn Gas BU

Conn Gas BU

Conn Gas 12U

4800

B21

3 2 1

Conn Gas 18U

4900

Interbedded Limestones and  
Shales similar 4555-4905  
with zbn. interbeds  
Shs. v. drk. gray to black-carb.

Blk Sh 19U

45312

Blk Sh 18U

Blk Sh 22U

Interbedded Lmsts + Shales

- ① Lms. sl. tas. wht, crm to tan-chlky IP's + H. gray to tan; crypto. to v. f. xln. Sub-chlk, sub-sucro + packstn. + 25 w/phatom oolites + foss. frags tas. w/dul. lt. yel. fluor; No Cut; No Vis Por.
- ② Lms. lt. med. to drk gray-sli. to extrly shly. gradng to cak. Shs. crypto. xln. sub-chlk to shly; packstn + sub-lithagr.; sl. tas v. dul. yel. fluor; No Cut; No Vis Por.
- ③ Shs. med, drk to v. drk. gray very to extrly Calc gradng to extrly shly. Lmsts
- ④ Shs v. drk gray to black-carb.

← Log Pick Morrow Fm Top →

Sh. med. gray., soft w/silky luster IP's + drk. gray. splintery IP's; tas pyrite; w/ tas to huytas thin interbeds Lms. lt. to med. gray. gradng to tan; crypto. to v. u. f. xln.; tas sl. to v. foss.; sub-sucro., packstn. to sub-lithogr.; tas dul lt. yel. fluor. IP's; No Cut; No Vis Por + v. sl. tas. siltstn. lt. gray to wht. + lt. green from glauc. + forchlorite dense, tight + hard; No fluor; No Cut; No Vis. Por Lmsts + siltstn decreasing w/ depth

Blk Sh 184

Blk Sh 224

Blk Sh 304

5000

WOB 4000  
RPM 70  
SPM 56  
PP 1100  
WOB 3500  
RPM 65  
SPM 56  
PP 1100

Morrow Fm  
5036-1703

Blk Sh  
5036-1703

Morrow Sh  
5082-1709

Poss Show  
any of 1100  
count 25

5200

5200

5270-5357 Sh. med. gray, soft to v. soft + mushy w/ silky luster to drk. gry. soft to splintery w/ sl. tzs. v. thin interbed sh. 14. to med. gr. grading. to tan; crypto to v.v. tn. sh. packsta to tzs. sub-lithogr. No fluor No cut; No vis por

5300

A 5357-5397 Lms + Qtz Sdst 60% is 100% Lmgas grading to 5 to 10% being 100% Qtz grs. in faster dalg. Lms. H. gry. to tan; v. tn. to med. + tas. coarse grs.; composed Lmgas, oolites + foss. fragm; grs. sub-sucro. to tzs. sub-ang. packsta; sl. to faly glauc or chloritic IPs; No fluor. No cut No vis por And Qtz Sdst. H. gry. to tanish H. gry. greenish IP's from being sl. to faly glauc or chloritic IPs; v. tn. to v. tn w/tes. to med + sl. tzs coarse grs.; ang. to tzs sub-ang; pr to fr. sort; soft for lms filled; No fluor; No cut; v. sl. tzs. pr. micro-pp por. IP's

WOB 38000  
RPM 70  
SPM 56  
PP 1100

MORROW L  
5357-202

A

5397-5426 B. Sh. med. gray, soft, abn. w/ silky luster + abn. drk. gry. very splintery

C 5426 - Qtz Sdst H. gry, whitish. gry. to tanish gry, greenish IP's fr. m. tzs to abn. glauc, or chlorite; v. v. tn to tn. gr. w/ huy tzs. (slower dalg) to zon. (faster dalg) med to coarse gr. tzs. Lmgas. + foss frag in slower dalg ang w/ tzs. sub-ang. to sl. tzs sub-ang. pr. to fr. sort; fr. oil oolite; tzs pyr. IP's; No fluor. wet to huy tes yel. to yel. dry. fluor when air dried; flush. to good stem cuts IP's to good ring cuts IP's. slow dalg tzs to huy tes pr to tzs. fr micro-pp to intergr. por; faster dalg. huy tes. to tzs + tzs. fr micro-pp to intergr. por; faster dalg. has abn loose Qtz gas

5400

MORROW K-1 SH  
5426-2099

Show 686

Show 630

DST # 1  
see below

C

C 45 32 1

4 5 3 2 1 Trip 629 156

DST # 1

see below

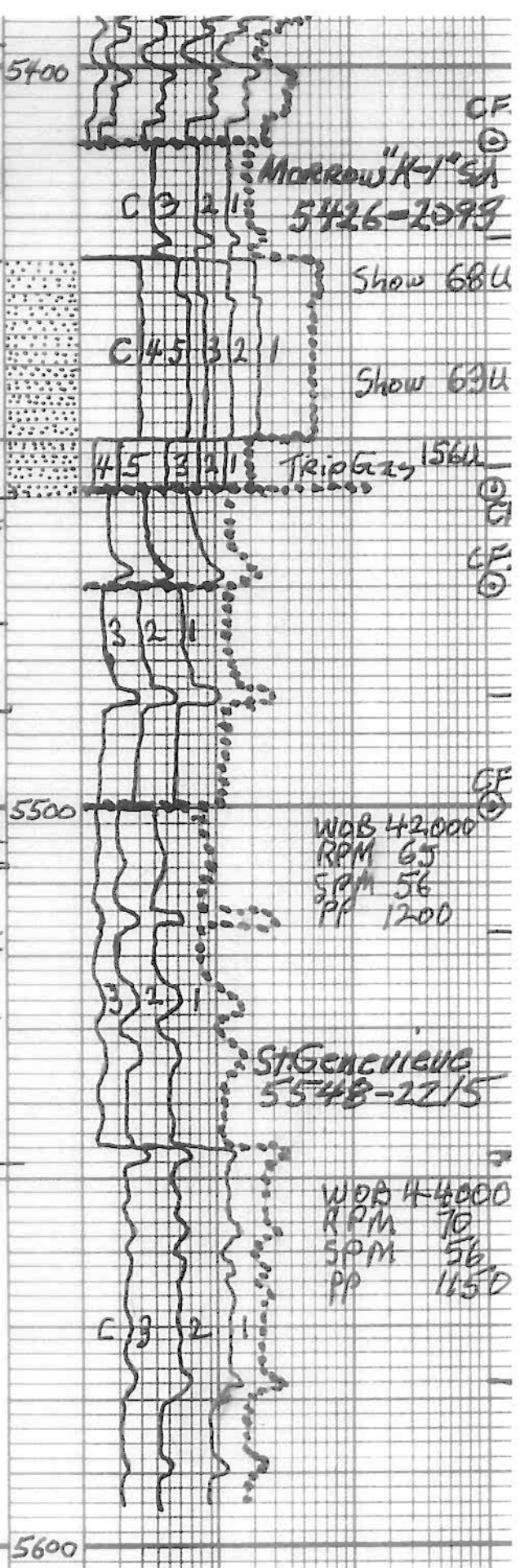
whish-gr. - tanish-gr, greenish  
 IP's frim. fast to abn. glauc, or  
 chlorite; v.v. to tota gr. w/  
 hv, tas. (slower dalg) to con.  
 (faster dalg) med to coarse gr.  
 Trs. Lm gas. + fess frag in slower dalg  
 ang w/tas. sub-ang. to sil. tas sub-ridel  
 pr. to fr. sort; fr. oil ader; tas  
 pyr. IP's; No fluor. wet to hvytas  
 yel. to yd nycl. fluor when  
 air d rich; flush. to qd stemng  
 cuts IP's to good ring cuts IP's.  
 slow dalg tas to hvytas pr totas. fr  
 micro-pp to intergr. por;  
 faster. dalg. hvytas. totas + tas qd  
 micro-pp to inter. gr. por; faster dalg.  
 has abn loose Qtz gas

Sh med gray, soft w/silky luster  
 IP's w/tas. laminations + v. thin beds  
 wht, dense, rite + hard and Qtz sdsst  
 similar to slower dalg 5426-5428  
 5426 - 5428 No fluor, No cut  
 No vis Por No show

Sh med gray, soft w/silky luster IP's  
 w/hvy. trs. laminations + v. thin beds  
 siltstus wht, dense, rite + hard +  
 Qtz. sdsst similar to slower dalg 5426-5428  
 No fluor, No cut, No vis Por No show  
 verigated km + sh conglomerate  
 sh. gray, reds, + trs greens

Lms. gray, tan, reds + trs grn, crypto  
 to vufn. tas sub-succo, padest.  
 + tas sub-dithoga; abn. micro-oolitic  
 sil. Qtz sh. - vufn. gr-ang.; No fluor  
 No cut; No vis Por

Lms. w/prob interbeds Shs  
 Lms. grayish tan to tan, redish IP's  
 crypto to vufn. xlm; abn  
 micro-oolites + sil. to taly  
 Qtz sdy - vufn. gr-ang; matrix  
 chlk, sub-chlk, sub-succo;  
 trs chert orange appne  
 No fluor, No cut; No vis Por  
 w/prob thin beds sh. med to dk  
 gray w/tas reds + greens



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Mud Info.

Date	8-16 10:45A	8-17 7:55A	8-18 12:46P	8-19 10:45A	8-20 12:25P	8-21 10:20A
Depth	3368	4481	4732	5022	5360	5457
WT.	9.15	9.25	9.4	9.0	9.3	9.4
Vis	34	53	51	55	64	74
PV	4	16	16	18	18	20
YP	4	18	17	17	22	23
GS	4/5	17/50	16/47	17/54	19/59	19/59
WL	N/C	8.4	8.4	8.0	8.4	8.8
Cake	-	1/32	1/32	1/32	1/32	1/32
pH	7.0	9.5	9.5	9.0	9.0	9.0
chl	7700	2900	3300	2300	1400	2300
Ca	HVY	20	20	40	80	60
LCM	2	9	9	13	18	16

OPERATOR Berexco LLC

LEASE RA NO. 2-6

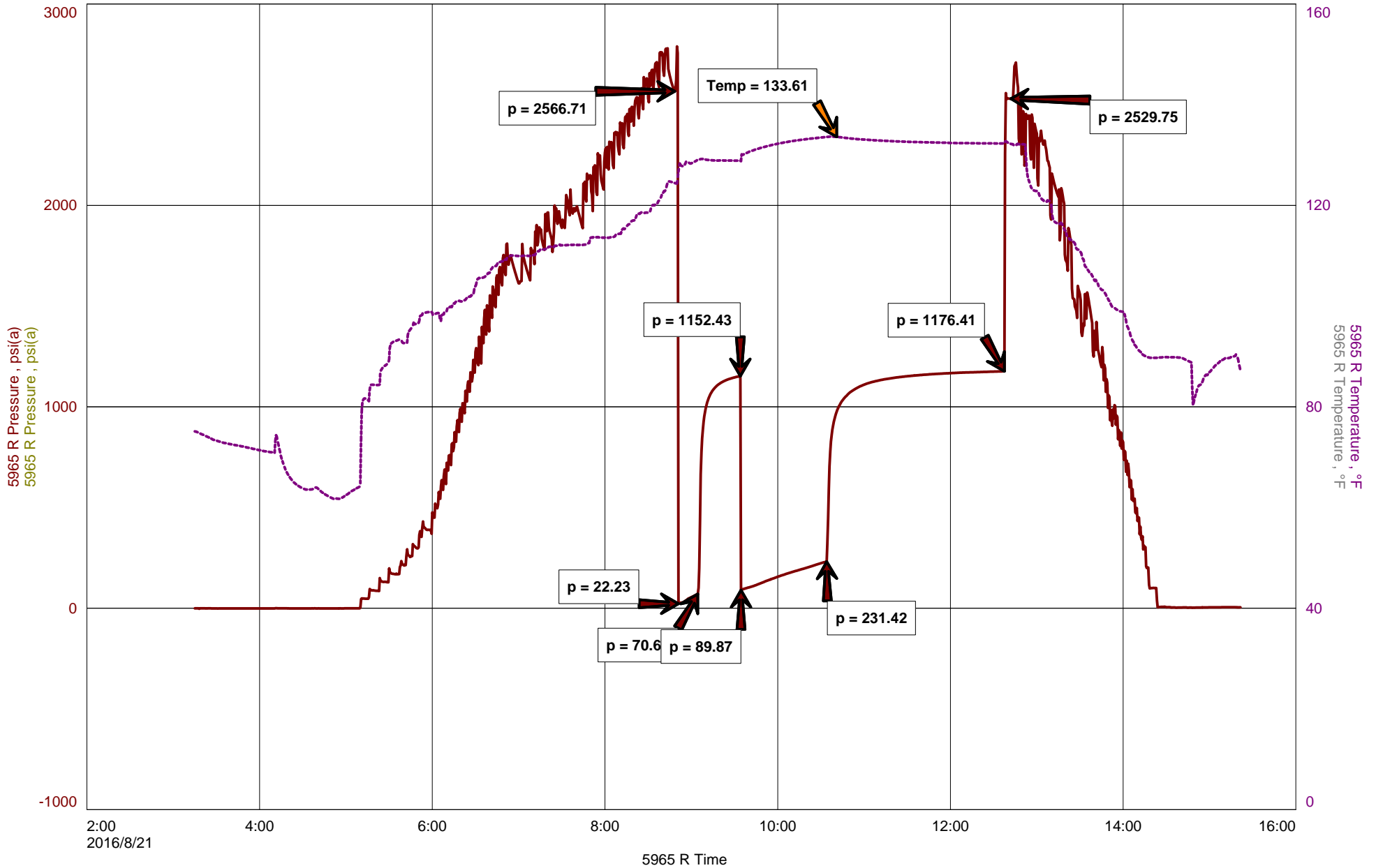
ELEVATION 3333 KB RTD

LOCATION 1800' FSL + 1780' FWL

SEC. Sec 6 TWP. 29S RANG. 40W

COUNTY Stanton STATE Kansas

# RA 2-6 DST 1





# Diamond Testing General Report

**Wilbur Steinbeck**  
**TESTER**  
**CELL: 620-282-1573**

## General Information

<b>Company Name</b>	Berexco LLC	<b>Ed Grieves</b>	<b>Job Number</b>	W240
<b>Contact</b>		RA 2-6 DST 1	<b>Representative</b>	Wilbur Steinbeck
<b>Well Name</b>		DST 1 Marrow K-1 5431-5457	<b>Well Operator</b>	Beredco LLC
<b>Unique Well ID</b>		6-29s-40w Stanton/Ks	<b>Report Date</b>	2016/08/16
<b>Surface Location</b>		Wildcat	<b>Prepared By</b>	Wilbur Steinbeck
<b>Field</b>			<b>Qualified By</b>	Kent Matson

## Test Information

<b>Test Type</b>	Conventional		
<b>Formation</b>	Morrow K-1		
<b>Well Fluid Type</b>	01 Oil		
<b>Test Purpose (AEUB)</b>	Initial Test		
<b>Start Test Date</b>	2016/08/16	<b>Start Test Time</b>	03:15:00
<b>Final Test Date</b>	2016/08/16	<b>Final Test Time</b>	15:22:00

## Test Recovery

**Recovery**  
**180' OWCM 10%O 15%W 75%M**  
**380' MCW 10%M 90%W**  
**560' Total Fluid**

Tool Sample=N/A Filled with cuttings

RW=82



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: RA 2-6 DST 1

TIME ON: 3:15  
TIME OFF: 15:22

Company Berexco LLC Lease & Well No. RA 2-6  
Contractor Beredco Rig 2 Charge to Berexco LLC  
Elevation 3321 GL Formation Marrow K-1 Effective Pay \_\_\_\_\_ Ft. Ticket No. W240  
Date 8-21-16 Sec. 6 Twp. 29 S Range 40 W County Stanton State KANSAS  
Test Approved By Ed Grieves Diamond Representative Wilbur Steinbeck

Formation Test No. 1 Interval Tested from 5431 ft. to 5457 ft. Total Depth 5457 ft.  
Packer Depth 5426 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 5431 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 5417 ft. Recorder Number 5965 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 5432 ft. Recorder Number 5587 Cap. 5,000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type Chem Viscosity 64 Drill Collar Length 615 ft. I.D. 2 1/4 in.  
Weight 9.2 Water Loss 9.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 1400 P.P.M. Drill Pipe Length 4783 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 7 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? Yes Reversed Out No Anchor Length 26 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Built to 8" No Return  
2nd Open: BOB in 18 min Built to 6"

Recovered 180 ft. of OWCM 10%O 15%W 75%M  
Recovered 380 ft. of MCW 10%M 90%W  
Recovered 560 ft. of Total Fluid Ruined Shale Packer

Recovered _____ ft. of _____	210 Miles RT	Price Job
Recovered _____ ft. of _____		Other Charges
Remarks: <u>Tool Sample=N/A Filled with cuttings</u>		Insurance
<u>Shale Packer used</u>		
<u>RW=82,000</u>		Total

Time Set Packer(s) 8:50 A.M. P.M. Time Started Off Bottom 12:35 A.M. P.M. Maximum Temperature 134

Initial Hydrostatic Pressure..... (A) 2567 P.S.I.  
Initial Flow Period..... Minutes 15 (B) 22 P.S.I. to (C) 71 P.S.I.  
Initial Closed In Period..... Minutes 30 (D) 1152 P.S.I.  
Final Flow Period..... Minutes 60 (E) 90 P.S.I. to (F) 231 P.S.I.  
Final Closed In Period..... Minutes 120 (G) 1176 P.S.I.  
Final Hydrostatic Pressure..... (H) 2530 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.