

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1262462
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1262462



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 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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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#1 Mense-Albers

2160' FNL & 2420' FWL

150' N & 110' E of SE SE NW Section 24-10S-30W

Sheridan County, Kansas

API# 15-179-21405-0000

Elevation: 2842' GL, 2847' KB

Sample Tops			Ref. Well
Anhydrite	2426'	+421	-5
B/Anhydrite	2456'	+391	-5
Stotler	3553'	-706	-4
Heebner	3894'	-1047	+3
Toronto	3920'	-1073	-3
Lansing	3934'	-1087	+2
Muncie Shale	4063'	-1216	-2
Stark Shale	4150'	-1303	-5
Hush	4181'	-1334	-3
BKC	4205'	-1355	-1
Marmaton	4232'	-1385	-1
Altamont	4247'	-1400	-1
Pawnee	4325'	-1478	-4
Myrick	4378'	-1531	-3
Fort Scott	4404'	-1557	-5
Cherokee Shale	4439'	-1586	-5
Mississippian	4493'	-1646	-10
RTD	4600'	-1753	



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

2960

2881

INVOICE # 84334

FIELD TICKET & TREATMENT REPORT

TICKET NUMBER 49430

LOCATION Oakley KS

FOREMAN Dane Petzloff

CEMENT

KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5-27-14	7173	Mense - Albers #1	24	10	30	Gore
CUSTOMER Ritchie Exploration			Grinnel KS 3 miles North E into			
MAILING ADDRESS			TRUCK#	DRIVER	TRUCK#	DRIVER
CITY			399	Mike		
STATE			530	Keith		
ZIP CODE				Colin		
				Lance		

JOB TYPE Port Collar HOLE SIZE _____ HOLE DEPTH _____ CASING SIZE & WEIGHT 5 1/2
 CASING DEPTH _____ DRILL PIPE _____ TUBING 2 7/8 OTHER PC at 2407
 SLURRY WEIGHT 132 SLURRY VOL 1.59 WATER gals/sk 8.09 CEMENT LEFT in CASING _____
 DISPLACEMENT 13.9 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting. Rig up. Test backside at 1500 psi. Take injection rate. mix 450 sks of 60/40 Poz mix 6% gal 1/4 flo seal. Displace 13 BBLs of water. Test tool at 1500 psi. Mix 150 LBS of cottonseed hulls with first 150 sks. Lost returns. Mix 150 LBS cottonseed hulls with tail end of cement. No returns. Reverse out with 28 BBLs. Rig down.

Thanks Dane + crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54010	1	PUMP CHARGE	CG 0452	1785.00
5406	15	MILEAGE	CG 0002	78.75
5407	19.35	Ton mileage Delivery	CG 0716	507.93
1131	450 SKS	60/40 Poz mix	CC5842	17137.00
118A	2322#	Bentonite	CC5905	626.94
1105	500#	Cottonseed Hulls	CC6080	290.00
1107	1122	Flo Seal	CC6075	262.34
			Sub	10787.96
			less 25%	2696.99
			Total	8,090.97
			SALES TAX	451.32
			ESTIMATED TOTAL	8542.31

Ravin 3737

AUTHORIZATION [Signature] TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



CONSOLIDATED
Oil Well Services, LLC

2914
2842
884279
Invoice #

TICKET NUMBER 47969
LOCATION Oakley ks
FOREMAN Cory Davis
M. J.

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5/20/15	7173	Mense-Albers #1	24	10	30 W	Sheridan
CUSTOMER Ritchie Exploration		Grinnell 3N East side	TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			445	Cody R		
CITY			693	Keith C		
STATE				Robert S		
ZIP CODE						

JOB TYPE lung string HOLE SIZE 7 7/8 HOLE DEPTH 4600 CASING SIZE & WEIGHT 5 1/2
 CASING DEPTH 4582 DRILL PIPE _____ TUBING _____ OTHER Port collar at 2407
 SLURRY WEIGHT 14.8 SLURRY VOL 1.42 WATER gal/sk 6.7 CEMENT LEFT In CASING Shoe 2 1/2
 DISPLACEMENT 108 1/2 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: safety meeting - rig up on WWS - run casing with float equipment - shoe joint at turbos on joint
 1, 3, 6, 8, 10, 13, 15, 51, 57 Baskets on 10, 52, 73, 85. Port collar on 52 at 2407 finish running casing hole
 up to rig circ. for L. Tower Hook up to pump truck Pump 5 BBL water chesd mix mud flush 5 BBL Backing
 mix 2.25 sks OWC 5# Kol seal with COI 26 & CAF 38 shutdown wash up pump & lines release plug
 Displace 109 1/2 BBL water plug land w at 1800 psi lift was 1300 psi
 Plug Old Hold

Thanker cory Davis

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	CE 0453 3,175.00	3,175.00
5406	20	MILEAGE	CE 0002 5.25	105.00
5407A	12.49	Ton mileage Delivery	CE 0710 1.75	437.15
1126	225	OWC	CE 5800 23.70	5,332.50
1110A	1125#	Kol seal	CC 6077 .56	630.00
1137	62#	COI 26	CC 10000 10.20	632.40
1146	31#	CAF 38	CC 10155 10.20	316.20
4136	9	Turbolizor 5 1/2	CP 8576 75.75	681.75
4104	5	Baskets 5 1/2	CP 8629 290.00	1,450.00
4454	1	latchdown 5 1/2	CP 8254 567.00	567.00
4159	1	AFU float shoe 5 1/2	CP 8485 433.75	433.75
4285	1	Port collar 5 1/2	CP 8776 2,178.75	2,178.75
1144	500 gal	Mud flush	CC 10125 1.00	500.00
			sub total	116439.50
			25% less	4109.88
			sub total	12329.62
			SALES TAX	1777.66
			ESTIMATED TOTAL	18107.28

Ravin 3737

AUTHORIZATION [Signature] TITLE _____ DATE 5-20-15

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

**Ritchie Exploration, Inc.
Mense-Albers No. 1
2160' FNL and 2420' FWL
150'N & 110'E of SE SE NW
Sec 24 T10S R30W
Sheridan County, Kansas**

Geological Report
by

Macklin M. Armstrong, P.G.
License Number 743

Scale 1:240 Imperial

Well Name:	Mense-Albers No. 1	
Surface Location:	Sec 24 T10S R30W	
Bottom Location:	2160' FNL and 2420' FWL	
API:	15-179-21405	
License Number:	4767	
Spud Date:	5/12/2015	Time: 8:15 AM
Region:	Sheridan County, Kansas	
Drilling Completed:	5/20/2015	Time: 2:37 AM
Surface Coordinates:		
Bottom Hole Coordinates:		
Ground Elevation:	2842.00ft	
K.B. Elevation:	2847.00ft	
Logged Interval:	3400.00ft	To: 4600.00ft
Total Depth:	4600.00ft	
Formation:	Mississippi	
Drilling Fluid Type:	Chemical/Fresh Water Gel	

OPERATOR

Company:	Ritchie Exploration, Inc.	
Address:	800 East 22nd Street North, Building 700 Wichita, Kansas 67226	
Contact Geologist:	Mike Engelbrecht	
Contact Phone Nbr:	316-691-9500	
Well Name:	Mense-Albers No. 1	
Location:	Sec 24 T10S R30W	API: 15-179-21405
Pool:	Oil	Field: Wildcat
State:	Kansas	Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: 100.619760341 Latitude: 39.170651466
N/S Co-ord:
E/W Co-ord:

CONTRACTOR

Contractor: WW Drilling, LLC
Rig #: 8
Rig Type: mud rotary
Spud Date: 5/12/2015 Time: 8:15 AM
TD Date: 5/20/2015 Time: 2:37 AM
Rig Release: 5/21/2015 Time: 1:30 AM

ELEVATIONS

K.B. Elevation: 2847.00ft Ground Elevation: 2842.00ft
K.B. to Ground: 5.00ft

NOTES

Date	Depth at 7 am	Activity
5-12-15	MIRT	Spud at 8:15 pm
5-13-15	1361	Drilling
5-14-15	2950	Drilling
5-15-15	3705	Drilling
5-16-15	3970	TOH after DST No. 1
5-17-15	4088	CFS
5-18-15	4202	TOH for DST No. 4
5-19-15	4340	Drilling
5-20-15	4600	TOH for Log
5-21-15	4600	Set 5 1/2"

Surface Casing: 8 5/8" 23# at 220'
Production Casing: 5 1/2" 15.5# at 4582'

Deviation: 220' - 1/2°
3970' - 1 1/4°
4600' - 1°

Bit Record:	Make	Size	Type	Depth In	Depth Out	Hours
	Smith	12 1/4"	RR	Surface	220	2 1/4
	Smith	7 7/8"	F-27	220	4600	99 1/4

Drill Stem Tests:

DST No. 1 3950 to 3970 Lansing A, C Zones
30-45-45-60
Recovery: 530' Water (Chl 115,000 ppm)
IHP 1886 FHP 1883
IFP 11-135 FFP 138-253
ISIP 1221 FSIP 1207
Temp 127°

DST No. 2 3994 to 4014 Lansing E, F Zones
30-45-30-45
Recovery: 10' Mud
IHP 1905 FHP 1891
IFP 9-12 FFP 12-18
ISIP 921 FSIP 872
Temp 114°

DST No. 3 4060 to 4088 Lansing H Zone
30-45-45-60
Recovery: 190' Water (Chl 82,000 ppm)

Recovery: 150 water (Oil 62,000 ppm)
 IHP 1931 FHP 1923
 IFP 10-69 FFP 72-103
 ISIP 1320 FSIP 1318
 Temp 126°

DST No. 4 4173 to 4202 Lansing L Zone
 30-45-45-60

Recovery: 1270' CGO (10%G, 90%O - 39 degree gravity)
 210' GMCO (10%G, 25%M, 65%O)

IHP 2043 FHP 2039
 IFP 74-319 FFP 334-586
 ISIP 1256 FSIP 1222
 Temp 131°






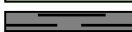


Formation	Sample	E-Log	Datum	Well 1	Well 2	Well 3	Well 4
Anhydrite	2426	2425	+422	-4	+3	-20	-32
Base/Anhydrite	2456	2453	+394	-2	+6	-15	-26
Stotler	3554	3550	-703	-1	-2	-32	-20
Topeka	3681	3678	-831	0	-1	-33	-20
Heebner	3894	3891	-1044	+6	+6	-29	-16
Toronto	3928	3926	-1079	-9	-5	-36	-23
Lansing	3941	3940	-1093	-4	+1	-37	-23
Muncie Creek	4163	4162	-1215	-1	+1	-34	-18
Stark	4149	4146	-1299	-1	+1	-34	-16
Hushpuckney	4180	4178	-1331	0	+1	-34	-12
Base/Kansas City	4204	4202	-1355	-1	0	-34	-11
Marmaton	4234	4232	-1385	-1		-36	-9
Altamont	4252	4250	-1403	-4		-36	-9
Pawnee	4321	4318	-1471	+3		-29	-10
Myrick Station	4374	4373	-1526	+2		-27	-8
Fort Scott	4401	4400	-1553	-1		-34	-10
Cherokee Shale	4429	4426	-1579	+2		-30	-8
Mississippi	4493	4492	-1645	-3		-25	
Total Depth	4600	4600	-1753				

Well 1: Samuel Gary Jr. & Associates Kevin Zerr No. 1-25 700' FNL and 760' FWL Sec 25 T10S R30W
 Well 2: Samuel Gary Jr. & Associates Caldwell No. 1-18 1800' FNL and 430' FWL Sec 18 T10S R29W
 Well 3: Samuel Gary Jr. & Associates Fellhoelter No. 1-15 1660' FSL and 220' FEL Sec 15 T10S R30W
 Well 4: Samuel Gary Jr. & Associates K & K Farms No. 1-25 640' FSL and 790' FWL Sec 25 T10S R30W

Pipe was set to further test the Lansing zone.

Respectfully submitted,
 Macklin M. Armstrong

ROCK TYPES

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

ACCESSORIES

MINERAL

▲ Chert, dark
 ∩ Glauconite
 P Pyrite
 △ Chert White

FOSSIL

F Fossils < 20%
 ○ Oolite
 ⊕ Oomoldic

STRINGER



••• Sandstone
 ••• Siltstone

TEXTURE

C Chalky


OTHER SYMBOLS

MISC

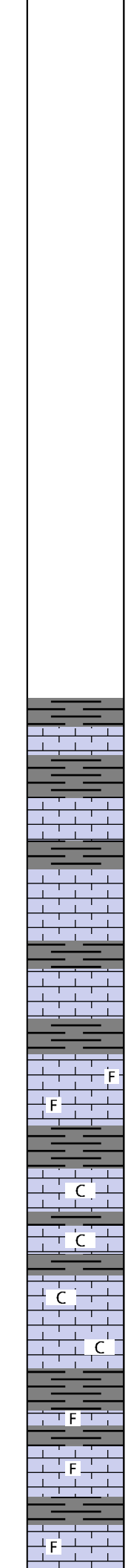
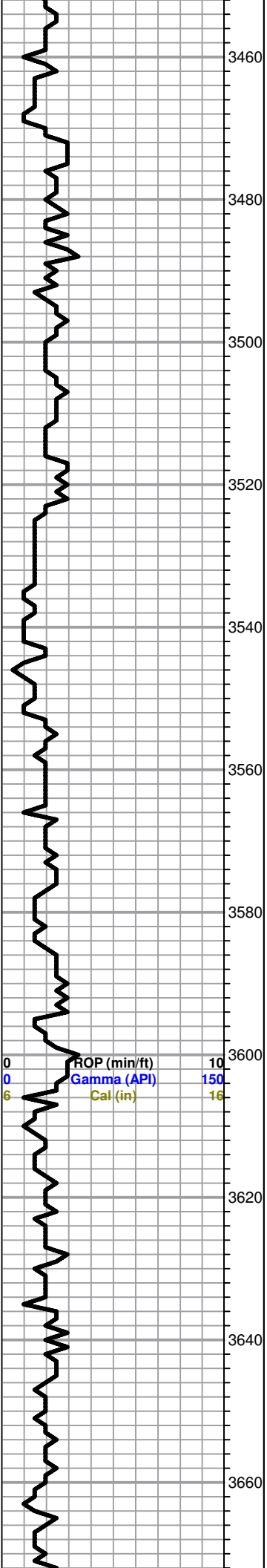
 Daily Report
 Digital Photo
 Document

DST

 DST Int
 DST alt
 Core

-  Folder
-  Link
-  Vertical Log File
-  Horizontal Log File
-  Core Log File
-  Drill Cuttings Rpt

	Curve Track #1	Depth Intervals	DST	Lithology	Oil Show	Geological Descriptions	Comment
<p>ROP (min/ft) ———</p> <p>Gamma (API) ———</p> <p>Cal (in) - - - -</p> <p>1:240 Imperial</p> <p>0 ROP (min/ft) 10</p> <p>0 Gamma (API) 150</p> <p>6 Cal (in) 16</p>	<p>0 ROP (min/ft) 10</p> <p>0 Gamma (API) 150</p> <p>6 Cal (in) 16</p>	<p>3320</p> <p>3340</p> <p>3360</p> <p>3380</p> <p>3400</p> <p>3420</p> <p>3440</p>				<p>Ritchie Exploration, Inc.</p> <p>Mense-Albers No. 1</p> <p>2160' FNL and 2420' FWL</p> <p>150'N & 110'E of SE SE NW</p> <p>Sec 24 T10S R30W</p> <p>Sheridan County, Kansas</p> <p>GL 2842 KB 2847</p>	<p>Mud Program: Kansas Drilling Technologies Chemical Gel/Premix</p> <p>Sample Cuttings: KGS Well Sample Library</p> <p>Testing: Diamond Testing</p> <p>Electric Logs: Pioneer Energy Services Company DIL CNL/CDL</p> <p>Deviation: 220' - 1/2° 3970' - 1 1/4° 4600' - 1°</p>



----- **Stotler 3554 -707** -----

Ls-lt gry/gry fxln mhd no por

Sh-gry/dk gry

Ls-lt gry/gry fxln mhd/dns no por

Sh-gry/dk gry

Ls-crm/lt gry fxln mhd no por

Sh-gry/dk gry

Ls-crm/lt gry fxln dns no por

Sh-gry/dk gry

Ls-lt gry/crm fxln dns sl fos no por

Ls-lt gry/crm fxln mhd sl fos no por

Sh-gry/dk gry

Ls-crm/lt gry fxln mhd sl clky no por

Sh-gry/dk gry

Ls-crm/lt gry fxln mhd/dns sl clky no por

Sh-gry/dk gry

Ls-crm/lt tan fxln mhd sl clky no por

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Sh-gry/dk gry

Ls-lt gry/tan fxln mhd sl fos no por

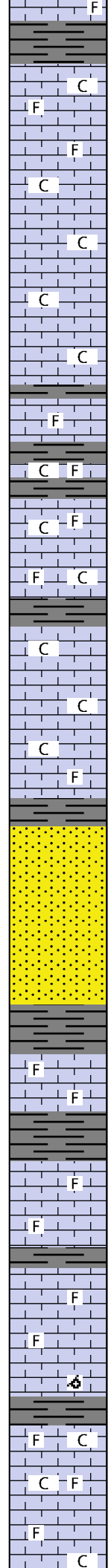
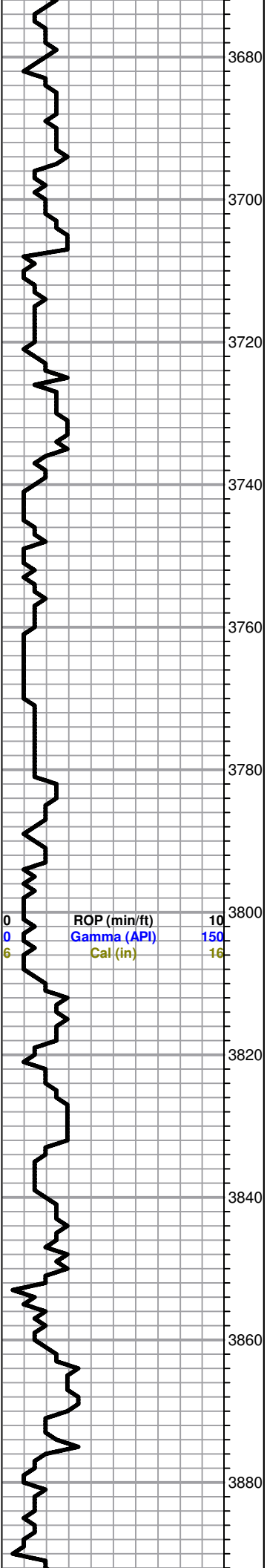
Sh-gry/dk gry

Ls-lt gry/tan fxln mhd/ds sl fos no por

Sh-gry/dk gry

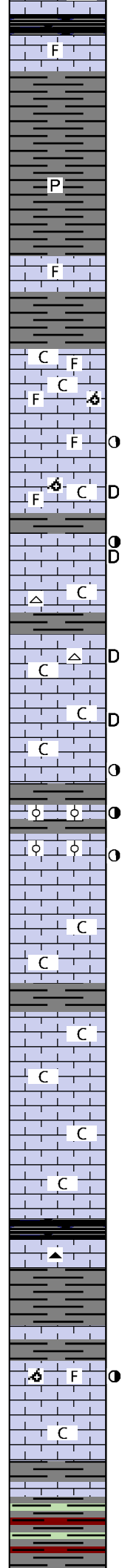
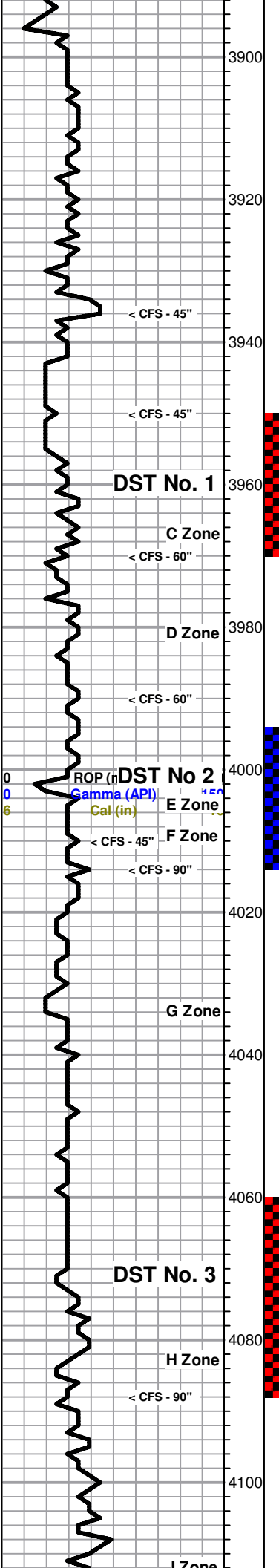
Ls-lt gry/tan f/mxln mhd sl fos no por

All formation tops on this geological log have been correlated back to the electric log



Sh-gry/dk gry
 ----- **Topeka 3681 -834** -----
 Ls-lt gry/tan f/mxln mhd sl clky no por
 Ls-lt gry/tan f/mxln mhd/dns sl fos no por
 Ls-AA
 Ls-crm/lt tan f/mxln mhd sl clky no por
 Ls-lt gry/tan fxln dns sl clky no por
 Ls-crm/tan fxln soft/mhd sl clky no por
 Ls-crm/tan fxln mhd sl clky no por
 Sh-gry/dk gry
 Ls-crm/tan fxln mhd/dns sl fos no por
 Sh-gry/dk gry
 Ls-crm/lt tan f/mxln mhd sl clky sl fos no por
 Sh-gry/dk gry
 Ls-crm/lt tan f/mxln mhd sl fos no por sm Ls-wt fxln soft clky
 Ls-AA
 Sh-gry/dk gry
 Ls-wt/crm fxln soft clky no por
 Ls-AA
 Ls-wt/crm fxln soft/mhd clky no por
 Ls-crm/lt tan fxln dns sl fos no por
 Sh-gry/dk gry
 Ss-lt gry fgrn sub ang to sub rnd sl fri to tite cement
 Ss-AA
 Ss-lt gry/gry fgrn sub ang to sub rnd sl fri to tite cement
 Ss-AA
 Sh-gry/dk gry
 Ls-lt gry f/mxln mhd sl fos no por
 Ls-crm/tan f/mxln dns sl fos no por
 Sh-gry/dk gry
 Ls-crm/tan f/mxln mhd sl fos no por
 Ls-crm/lt tan f/mxln dns sl fos no por
 Sh-gry/dk gry
 Ls-lt gry f/mxln mhd sl fos fr inter xln por nsfo
 Ls-lt gry f/mxln mhd/dns sl fos no por
 Ls-lt gryf/mxln dns with blk oom no por
 Sh-gry/dk gry
 Ls-lt gry/crm fxln mhd sl clky sl fos no por
 Ls-lt gry/crm fxln mhd sl clky sl fos no por
 Ls-AA

Mud Data at 3724'
 7:30 am 5-15-15
 Wt 8.8 Vis 54 WL 7.2
 pH 10.5 Chl 1500 Sol 3.5%
 YP 16 LCM 2.5#



Sh-blk carb
 Ls-lt gry/tan f/xln mhd/dns sl fos no por
 Sh-gry/dk gry
 Sh-AA
 Sh-gry/dk gry sm Pyrite
 Sh-AA
 ----- **Toronto 3928 -1081** -----
 Ls-lt gry/tan f/mxln mhd/dns fos no por sm Ls-lt gry mott red br fxl n mhd no por
 Sh-gry/dk gry
 ----- **Lansina 3941 -1094** -----
 Ls-lt gry/crm f/mxln mhd/dns sl fos no por sm Ls-wt fxl n soft clky
 Ls-lt gry/crm/wt f/mxln mhd sl clky sl fos fr inter xln por nsfo sm Ls-tan fxl n mhd fos oom no por
 Ls-lt gry/tan fxl n mhd no por sm Ls-brn/lt brn f/mxln mhd sl fos no por and sm Ls-crm (3 pcs) fxl n mhd fr inter xln por sl cut ssfo on brk
 Ls-lt gry/tan f/mxln mhd/dns no por sm Ls-tan fxl n mhd fos oom no por and Ls-lt gry/wt fxl n mhd sl clky sl gils no por
 Sh-gry/dk gry
 Ls-tan fxl n mhd pr inter xln por brn spt stn sl cut sl/fr sfo on brk no odor and sm Ls-lt gry/wt fxl n mhd high gils no por
 Ls-crm fxl n dns sl clky no por sm Ls-wt fxl n soft clky no por and Cht-wt fsh opa q
 Sh-gry/dk gry
 Ls-crm fxl n dns sl clky no por sm Cht-wt fsh opa q and sm Ls-wt fxl n dns sl clky highly gils no por
 Ls-crm/lt gry fxl n dns sl clky no por sm Ls-wt fxl n soft clky no por
 Ls-lt gry/crm fxl n dns sl clky no por sm Ls-lt gry fxl n dns sl gils
 Ls-crm/lt gry fxl n dns sl clky no por sm Ls-wt fxl n soft clky no por
 Ls-lt gry fxl n mhd fr vug por dk brn spt stn fr cut sl/fr sfo on brk no odor
 Sh-gry/dk gry
 Ls-lt gry fxl n mhd ool fr inter ool por dk brn spt stn fsfo on brk faint odor
 Sh-gry/dk gry
 Ls-lt gry/tan fxl n mhd mhd/dns sl fos no por sm Ls-lt gry fxl n mhd ool fr inter ool por brn spt stn sl cut ssfo on brk no odor
 Ls-lt gry/tan f/mxln dns no por
 Ls-lt gry/crm fxl n mhd/dns sl clky no por
 Ls-AA wm Ls-wt fxl n soft clky no por
 Sh-gry/dk gry
 Ls-lt gry/crm fxl n dns sl clky no por sm Ls-wt fxl n soft clky no por
 Ls-AA
 Ls-lt gry/crm fxl n dns sl clky no por
 Ls-AA
 ----- **Muncie Creek 4063 -1216** -----
 Ls-tan/gry fx/n dns no por sm Cht-gry/brn fsh opa q
 Sh-gry/dk gry
 Ls-tan fxl n dns no por
 Sh-gry/dk gry
 Ls-tan f/mxln mhd fos oom fr inter fos/vug por lt brn spt stn fr cut fsfo on brk sl odor
 Ls-lt gry/tan fxl n mhd/dns no por
 Ls-lt gry/crm fxl n dns no por sm Ls-wt fxl n soft clky no por
 Sh-gry/dk gry
 Ls-lt gry/gry fxl n dns no por
 Sh-gry/grn/mar

DST No. 1
 3950 to 3970
 30-45-45-60
 1st Open: BOB in 17.5"
 2nd Open: BOB in 31"
 Recovery:
 530' W (Chl 115,000 ppm)
 IHP 1886 FHP 1883
 IFP 11-135 IFP 138-253
 ISIP 1221 FSIP 1207
 Temp 127°

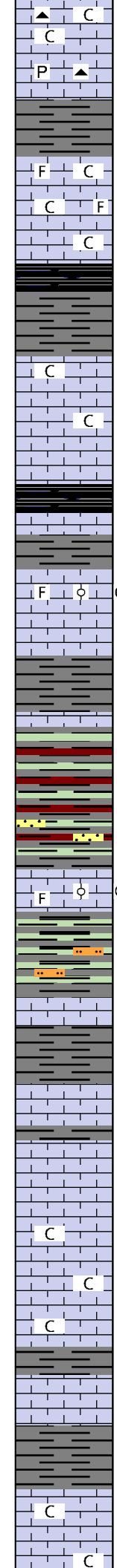
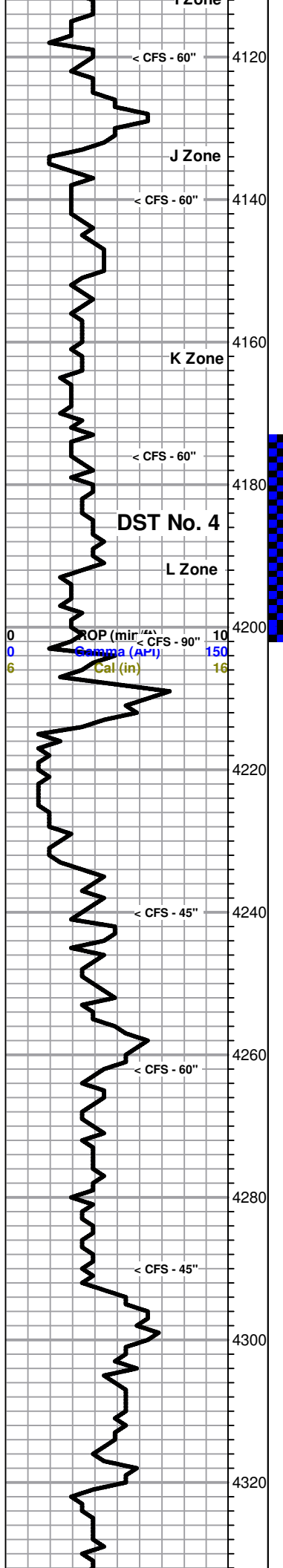
Pulled 50 stand short trip at 3970', then cir for test - 90"
 Pipe Strap at 3970'
 Short 0.45'

Mud Data at 3970'
 11:00 am 5-16-15
 Wt 9 Vis 47 WL 7.2
 pH 10 Chl 3000 Sol 4.8%
 YP 15 LCM 2#

DST No. 2
 3994 to 4014
 30-45-30-45
 1st Open: Surface blow
 2nd Open: No blow, flushed tool, no help
 Recovery: 10' Mud
 IHP 1905 FHP 1891
 IFP 9-12 FFP 12-18
 ISIP 921 FSIP 872
 Temp 114°

DST No. 3
 4060 to 4088
 30-45-45-60
 1st Open: Fair blow, building to 5.5"
 2nd Open: Fair blow, building to 6"
 Recovery:
 190' W (Chl 82,000 ppm)
 IHP 1931 FHP 1923
 IFP 10-69 FFP 72-103
 ISIP 1320 FSIP 1318
 Temp 126°

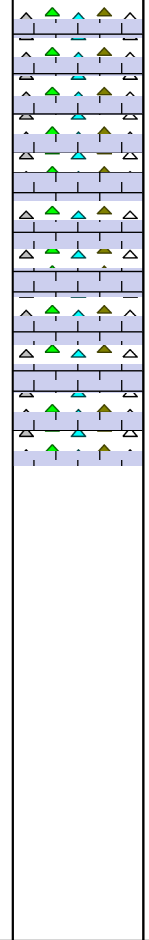
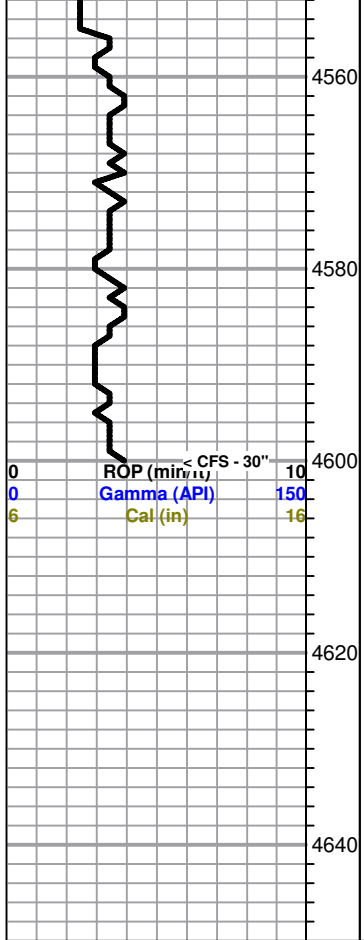
Mud Data at 4088'
 12:00 pm 5-17-15
 Wt 8.9 Vis 60 WL 7.2
 pH 10.5 Chl 2000 Sol 4.2%
 YP 20 LCM 2#



Ls-lt gry/crm fxl n dns sl clky no por sm Cht-lt gry/tan fsh opa q
 Ls-lt gry/crm fxl n mhd sl clky no por
 Ls-lt gry/crm fxl n dns no por sm Cht-tan fsh opa q and Pyrite
 Sh-gry/dk gry
 Ls-crm/wt fxl n soft/mhd clky sl fos no por
 Ls-crm/wt fxl n mhd sl clky sl fos no por
 Ls-crm/wt/lt gry fxl n dns sl clky no por
 ----- Stark 4149 -1302 -----
 Sh-blk carb
 Sh-gry/dk gry
 Ls-lt gry/crm/lt tan fxl n mhd/dns sl clky no por
 Ls-AA sm Ls-wt fxl n soft clky no por
 Ls-lt gry/gry fxl n dns no por
 ----- Hushpuckney 4180 -1333 -----
 Sh-blk carb
 Ls-lt gry/gry fxl n dns no por
 Sh-gry/dk gry
 Ls-tan fxl n mhd fos ool fr inter ool por dk brn spt stn fr cut fr/gd show fo and gas bub on brk sl odor
 Ls-lt gry/tan fxl n dns no por
 ----- Base/Kansas City 4204 -1357 -----
 Sh-gry/dk gry
 Ls-lt gry/gry fxl n dns no por
 Sh-gry/grn/sm red and mar
 Sh-AA
 Sh-AA sm Ss-red brn fgrn sub ang sl sity tite cement
 ----- Marmaton 4234 -1387 -----
 Ls-lt gry/gry f/mxl n mhd/dns sl fos no por with sm Ls-tan (3 pcs) fxl n fos sl ool pr inter ool por lt brn spt stn sl cut ssfo and gas bub on brk no odor
 Sh-gry/dk gry/grn
 Sh-AA sm Silt-lt gry
 ----- Altamont 4252 -1405 -----
 Ls-tan/lt gry fxl n mhd/dns no por
 Sh-gry/dk gry
 Ls-crm/lt tan fxl n mhd/dns no por
 Sh-gry/dk gry
 Ls-lt gry tan fxl n dns no por
 Ls-AA
 Ls-lt gry/tan fxl n mhd/dns sl clky no por
 Ls-AA
 Ls-lt gry/tan fxl n dns sl clky no por
 Sh-gry/dk gry
 Ls-lt gry/tan fxl n mhd/dns no por
 Sh-gry/dk gry
 ----- Pawnee 4321 -1474 -----
 Ls-crm/lt tan fxl n mhd/dns sl clky no por
 Ls-lt gry/lt tan fxl n mhd/dns sl clky no por

DST No. 4
 4173 to 4202
 30-45-45-60
 1st Open: BOB in 1.5"
 2nd Open: BOB in 2.5" GTS
 in 12" of 2nd Shut-in
 Recovery:
 1270' CGO (10%G, 90%O
 39 degree gravity)
 210' GMCO (10%G, 25%M
 65%O)
 IHP 2043 FHP 2039
 IFP 74-319 FFP 334-586
 ISIP 1256 FSIP 1222
 Temp 131 °

Mud Data at 4202'
 10:00 am 5-18-15
 Wt 9.1 Vis 50 WL 7.2
 pH 10 Chl 4000 Sol 5.4%
 YP 18 LCM 1.5#



Ls-crm/wt fxln mhd sl clky no por and Cht-wt/lt gry fsh opa
 Ls and Cht-AA
 Ls-cr/wt fxln mhd sl clky no por and Cht-wt/lt gry fsh opa
 Ls and Cht-AA
 Ls-crm/wt fxln mhd sl clky no pro and Cht-lt gry/gry fsh opa
 Ls and Cht-AA

----- **RTD 4600 -1753** -----

Finished drilling at 2:37 am on 5-20-15. Pulled 10 stand short trip, then circulated for log 90 minutes.

Finished Logging at 10:28 am on 5-20-15

-  menalb1dst1all-1.jpg
-  menalb1dst2all-1.jpg
-  menalb1dst3all-1.jpg
-  menalb1dst4all-1.jpg

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313



TEST INFORMATION

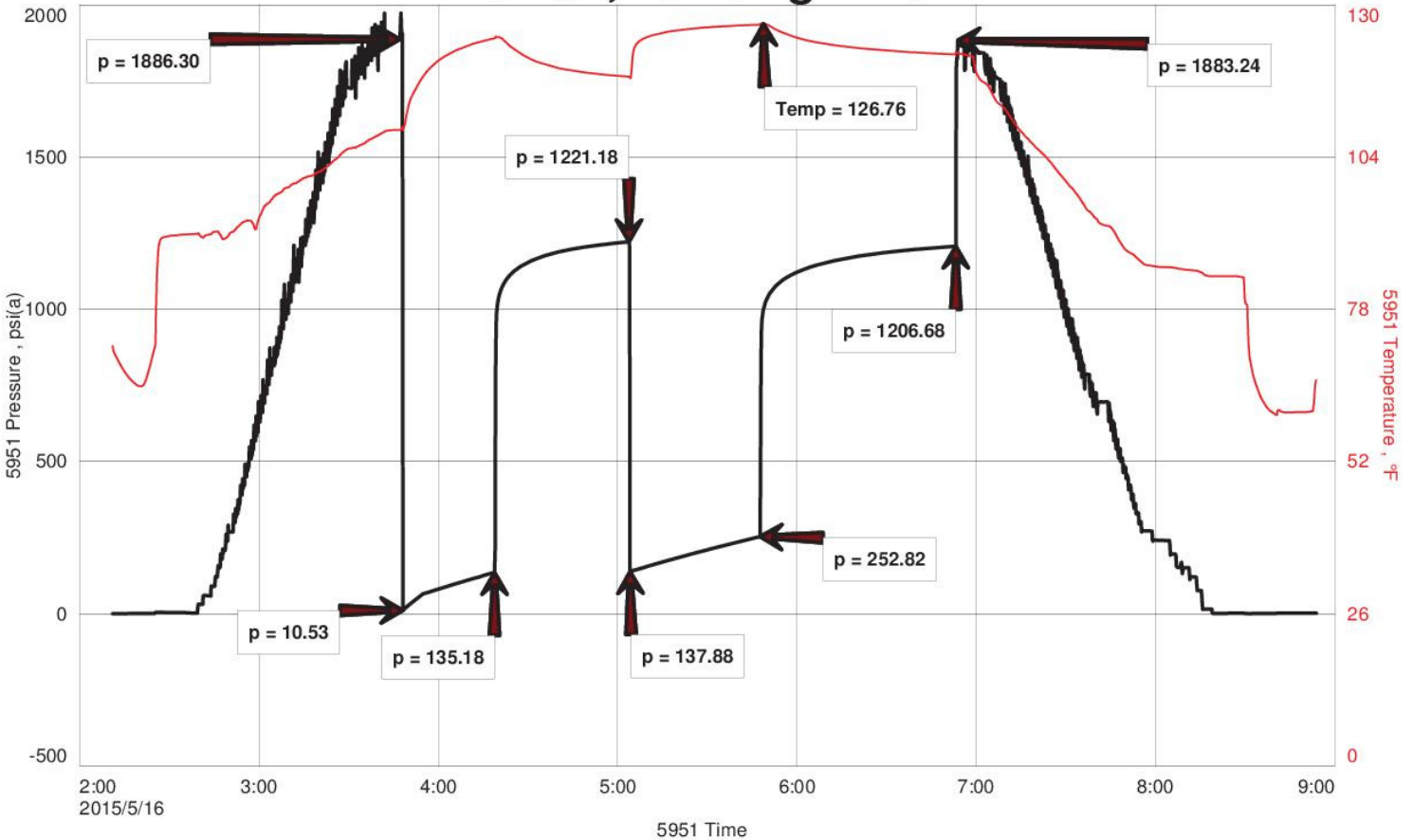
Well Name	Mense-Albers #1
Company Name	Ritchie Exploration, Inc.
Formation	Lansing "A-C" 3950'-3970'
Test Type	Bottom-Hole w/J&J
Surface Location	Sec 24-10s-30w-Sheridan Co.-KS
KB Elevation (SL)	2847.000
Gauge Name	5951
Start Test Date	2015/05/16
Start Test Time	02:11:00
Final Test Date	2015/05/16
Final Test Time	08:57:00
Job Number	F384
Contact	Justin Clegg
Site Contact	Mac Armstrong

TEST RESULTS

Initial flow, blow at BOB in 17.5 minutes. Surface blowback, died.
Final flow, blow at BOB in 31 minutes. No blowback.

Recovered 530' of salt water, 100% wtr
RW: .09 ohm @ 55 F
PH: 7.0
Chlorides: 115,000 PPM

DST #1, Lansing "A-C"



DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313



TEST INFORMATION

Well Name	Mense-Albers #1
Company Name	Ritchie Exploration, Inc.
Formation	Lansing "E&F" 3994'-4014'
Test Type	Bottom Hole w/J&J
Surface Location	Sec 24-10s-30w-Sheridan Co.-KS
KB Elevation (SL)	2847.000
Gauge Name	5951
Start Test Date	2015/05/16
Start Test Time	17:52:00
Final Test Date	2015/05/17
Final Test Time	00:07:00
Job Number	F385
Contact	Justin Clegg
Site Contact	Mac Armstrong

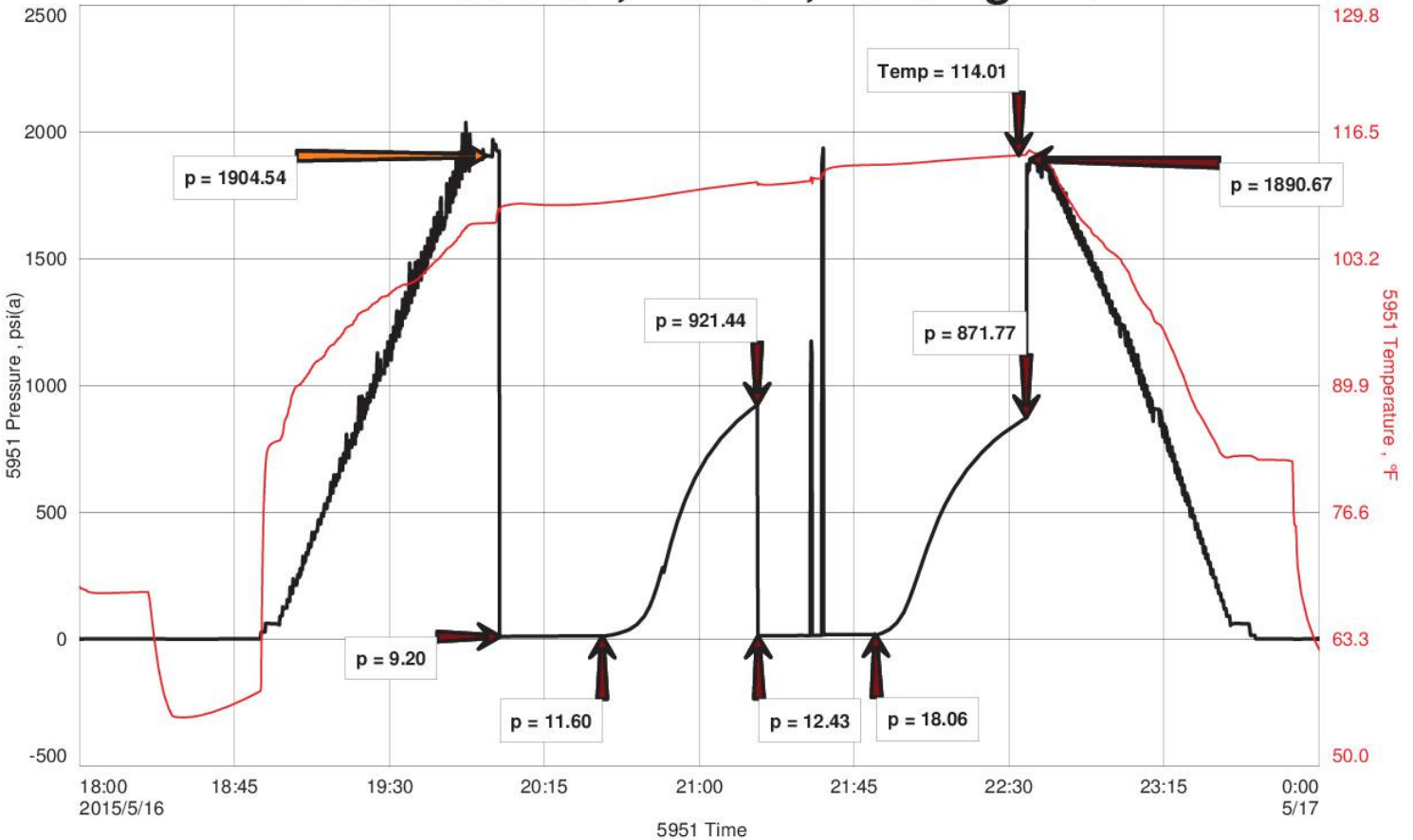
TEST RESULTS

Initial flow, surface blow.

Final flow, no blow, flushed tool, surge blow, no blow.

Recovered 10' of mud, 100% mud

Mense-Albers #1, DST #2, Lansing "E&F"

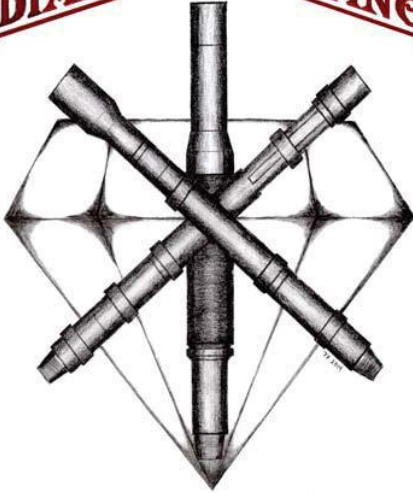


DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313

DIAMOND TESTING



TEST INFORMATION

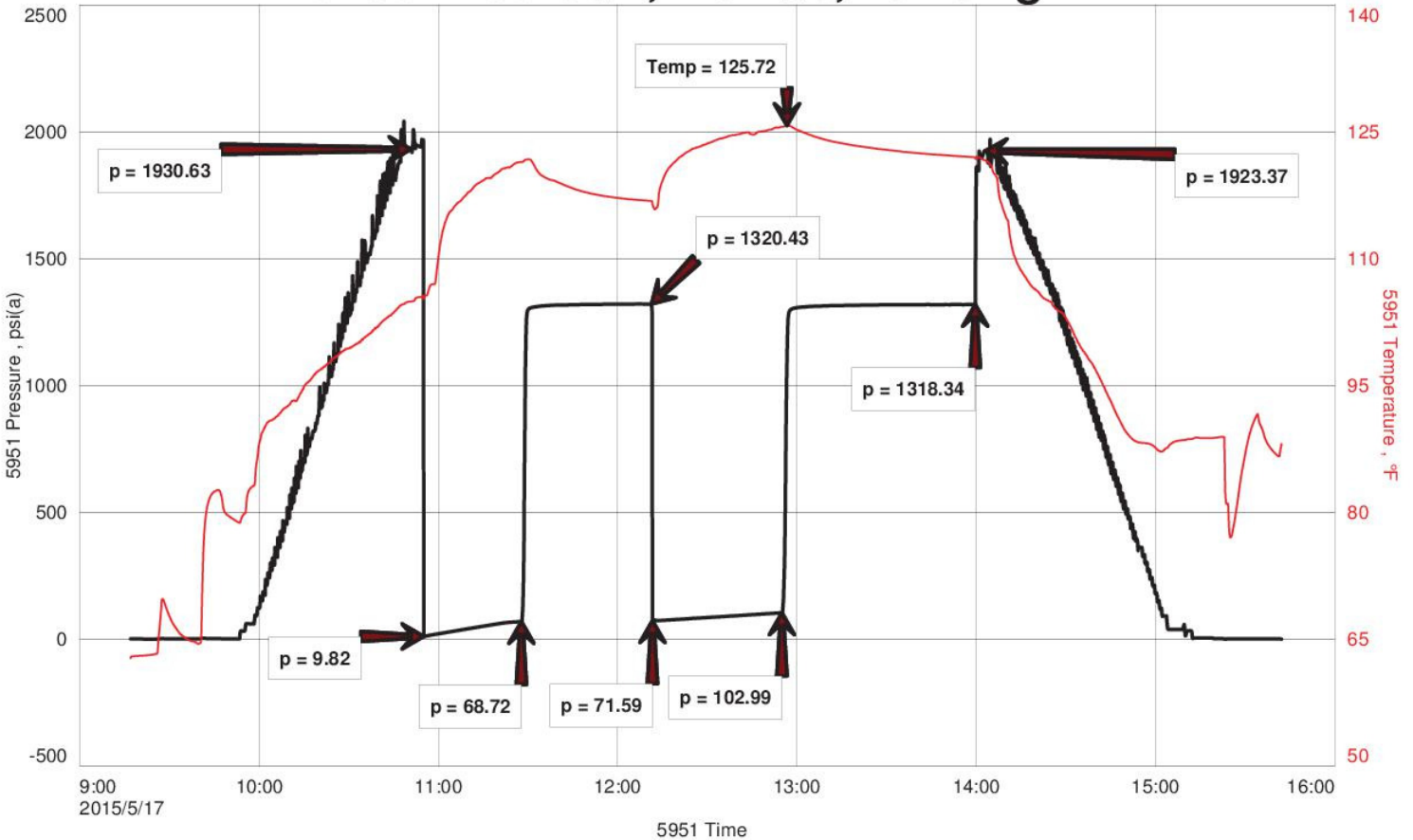
Well Name	Mense-Albers #1
Company Name	Ritchie Exploration, Inc.
Formation	Lansing "H" 4060'-4088'
Test Type	Bottom-Hole w/J&J
Surface Location	Sec 24-10s-30w-Sheridan Co.-KS
KB Elevation (SL)	2847.000
Gauge Name	5951
Start Test Date	2015/05/17
Start Test Time	09:17:00
Final Test Date	2015/05/17
Final Test Time	15:43:00
Job Number	F386
Contact	Justin Clegg
Site Contact	Mac Armstrong

TEST RESULTS

Initial flow, blow increased to 5.5". No blowback.
 Final flow, blow increased to 6". No blowback.

Recovered 190' of salt water, 100%w
 RW: .12 ohm @ 60 F
 PH: 7.0
 Chlorides: 82,000 PPM

Mense-Albers #1, DST #3, Lansing "H"



DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313



TEST INFORMATION

Well Name	Mense-Albers #1
Company Name	Ritchie Exploration, Inc.
Formation	Lansing "L" 4173'-4202'
Test Type	Bottom-Hole w/J&J
Surface Location	Sec 24-10s-30w-Sheridan Co.-KS
KB Elevation (SL)	2847.000
Gauge Name	5951
Start Test Date	2015/05/18
Start Test Time	07:08:00
Final Test Date	2015/05/18
Final Test Time	14:55:00
Job Number	F387
Contact	Justin Clegg
Site Contact	Mac Armstrong

TEST RESULTS

Initial flow, B.O.B. in 1.5 minutes. Blowback at B.O.B. in 13 minutes.
 Final flow, B.O.B. in 2.5 minutes. Blowback at B.O.B. in 12 minutes. G.T.S.

TOTAL RECOVERED FLUID: 1480'

1270' Clean Gassy Oil 10% g, 90%o
 210' Gas Cut Mud Cut Oil 10% g, 65% o, 25% m
 ---- Gravity: 39 @ 60 F

Mense-Albers #1, DST #4, Lansing "L"

