



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1138655  
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: \_\_\_\_\_



1138655

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

May 09, 2013

John Washburn  
Range Oil Company, Inc.  
9412 E. Central  
PO BOX 781775  
WICHITA, KS 67278-1775

Re: ACO1  
API 15-115-21441-00-00  
Savage A 2  
NW/4 Sec.22-21S-04E  
Marion County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
John Washburn

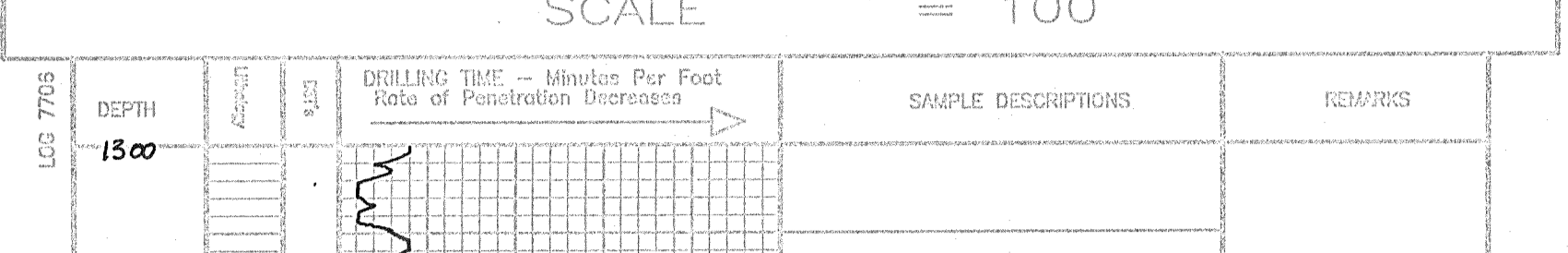
# GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

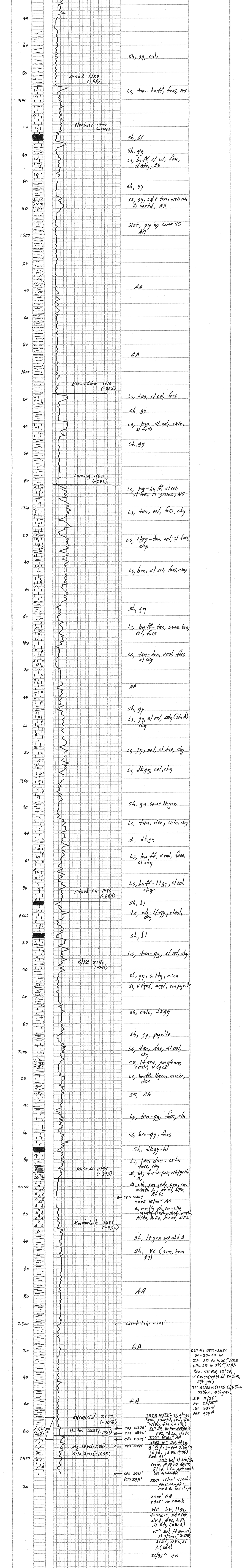
COMPANY	Range Oil Co	ELEVATIONS	
LEASE	Range "A" #2	KB	1301'
FIELD	1550' FNL & 1700' FNL, NW 1/4	DF	1291'
LOCATION		GL	1291'
SEC	22 T15P 215 R9E 4E	Measurements Are All From	KB
COUNTY	Marion STATE	CONTRACTOR	Summit Drilling Kistner
SPUD	2/13/13	DATE	2/13/13
RTD	2/11/13	LTD	2/11/13
MUD UP	1300'	TYPE MUD	chem
SAMPLES SAVED FROM	1680'	TO	RTD
DRILLING TIME KEPT FROM	1300'	TO	RTD
SAMPLES EXAMINED FROM	1600'	TO	RTD
GEOLOGICAL SUPERVISION FROM	1600'	TO	RTD
GEOLOGIST ON WELL	Ken Wallace		
FORMATION TOPS	LOG	SAMPLES	
Heebner	1624 (-1213)	1626 (-1212)	
Brown Lime	1615 (-1214)	1616 (-1215)	
Lansing	1681 (-1082)	1683 (-1082)	
Stark	1986 (-689)	1990 (-689)	
B/KC	2040 (-231)	2042 (-231)	
Miss Δ	2188 (-882)	2191 (-879)	
Kindershook	2328 (-1077)	2333 (-1076)	
Misner sd	2377 (-1076)	2377 (-1076)	
Hunton	2383 (-1082)	2383 (-1082)	
ME	2394 (-1093)	2394 (-1093)	
Viola	2400 (-1098)	2400 (-1098)	
1726	2409	2411	
1728	2409	2411	

REMARKS: Pipe set to further evaluate oil show in Hunton.  
Ken Wallace  
2/12/13 - MIRT  
2/13/13 - 8 am - drlg @ 90'  
2/14/13 - 8 am - drlg @ 121'  
2/15/13 - 8 am - drlg @ 1242'  
2/16/13 - 8 am - drlg @ 1725'  
2/17/13 - 8 am - RTD 2208', CFS in Miss Δ  
2/18/13 - 8:30 am - RTD 2386', DST #2 (2370'-2386')  
2/19/13 - 7 am - RTD 2411', ran e-log, running prod. casing

## LEGEND



SCALE 1" = 100'



DST #1 2370-2386  
30-30-60-60  
IF- SB to 4.25" NFB  
FF- SB to 3 3/4" NFB  
Rec. 45' 50", 32' 00",  
31' 60" (74% oil, 24% m,  
2% gas)  
77' 60" (19% oil, 5% m,  
72% m, 4% gas)  
IF 15/36 #  
FF 36/25 #  
ISP 839 #  
PSP 879 #

2378 15/30" - ss cl-gr,  
fg, part d, brd, slat,  
v. sp. FL (< 1%)  
CFS 2378' 30" AA better 50-45%  
CFS 2382' 30" FL of oil 11/47"  
CFS 2386' 2382 15/30" AA  
CFS 2391' 2386 15/30" Dr, 11/31"  
gd od, gd FL (5%)  
abd ss  
2382 dol fl blk, gy,  
su, p. part d, 65%  
gd od, FL, not much  
dol in sample  
RTD 2411' 2391 15/30" trash-  
poor samples -  
mud in bed slope  
2400' AA  
2405' no sample  
2411 - dol, Hgy,  
fnacro. s. p. tex,  
NFD, NFO, NFE,  
sl. dty, ch. m. A.  
15" dol, Hgy-wh,  
sl glanco, NFE,  
sl od, NFE, sl  
Δ (w. d.)  
30/45' AA



**CONSOLIDATED**  
Oil Well Services, LLC

**ENTERED**

TICKET NUMBER 41297

LOCATION Eureka KS

FOREMAN Shannon Feck

**FIELD TICKET & TREATMENT REPORT**

**CEMENT API # 15-115-21441**

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

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
2-13-13	6942	Savage A #2	22	21S	4E	Marion
CUSTOMER Range Oil Company Inc.				Summit Drlg		
MAILING ADDRESS 125 N. market Suite 1120						
CITY Wichita	STATE KS	ZIP CODE 67202	TRUCK #	DRIVER	TRUCK #	DRIVER
			445	Dave G		
			611	Joey K		

JOB TYPE S/P HOLE SIZE 12 1/4" HOLE DEPTH 232' CASING SIZE & WEIGHT 8 3/8"  
CASING DEPTH 215.306L. DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
SLURRY WEIGHT 14.5-15# SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
DISPLACEMENT 13.4 Bbl DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE 5BPM

REMARKS: Safety Meeting, Rig up to 8 5/8" casing, Break circulation w/10 Bbl water, mixed 125SKS Class "A" cement w/ 30% calcium, 2% Gel, + 1/4# Floccle/sk @ 14.5-15#/gal. Shut down, switch valves & displace 8 5/8" wooden plug w/13.4 Bbl water & shut casing in. Good circulation @ all times 3-4 Bbl slurry to pit. Job complete

"Thanks Shannon & crew"

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	825.00	825.00
5406	40	MILEAGE	4.00	160.00
11045	125 SKS	Class "A" Cement	14.95	1868.75
1102	355 #	Calcium @ 3%	.74	262.70
1118B	240 #	Gel @ 2%	.21	50.40
1107	32 #	Floccle @ 1/4#/SK	2.35	75.20
5407	5.875 TONS	Ton mileage bulk Truck	M/C	350.00
4411	1	8 5/8" wooden plug	108.00	108.00
4132	2	8 5/8" Centralizers	69.00	138.00
			Sub Total	3858.05
			7.8% SALES TAX	195.23
			ESTIMATED TOTAL	4033.28

AUTHORIZATION Dan Cox

TITLE [Signature]

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

**ENTER**

TICKET NUMBER 41299

LOCATION Evreka KS

FOREMAN Shannon Feek

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

**FIELD TICKET & TREATMENT REPORT**

**CEMENT APF # 15-115-21441**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
2-19-13	6942	Savage A #2	22	215	4E	marion
CUSTOMER <u>Range oil company Inc</u>			Summit Drk			
MAILING ADDRESS <u>125 N. market stc 1120</u>			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY <u>Wichita</u>			STATE <u>KS</u>	ZIP CODE <u>67202</u>		
			<u>520</u>	<u>John S</u>		
			<u>667</u>	<u>Chris B</u>		

JOB TYPE 1/S HOLE SIZE 7 7/8" HOLE DEPTH 2411' CASING SIZE & WEIGHT 5 1/2" @ 14 #  
 CASING DEPTH 2412.69 K.B. DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 13.6 # SLURRY VOL 49 Bbl WATER gal/sk 9.0 CEMENT LEFT in CASING 4.97'  
 DISPLACEMENT 58 1/2 Bbl DISPLACEMENT PSI 900 MIX PSI 1400 Bump Plug RATE 5 BPM  
 REMARKS: Safety Meeting, Rig up to 5 1/2" casing, Break circulation w/10 Bbl water, mixed 100# metasilicate pre flush w/ 14-15 Bbl, 10 Bbl water spacer, mixed 150 SKS ThickSet cement with 5# Kol-seal/SK @ 13.6 #/gal. Shut down wash out pump + lines displace with 58.5 Bbl water. Final pumping pressure of 900 psi, bumped plug @ 1400psi. Float + plug held. Good circulation @ all times. Job complete

*" Thanks Shannon & crew "*

*Centralizers on #1,3,5,7, Basket stacked on Top of centralizer #7*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	1030.00	1030.00
5406	40	MILEAGE	4.00	160.00
1126A	150 SKS	Thickset cement	19.20	2880.00
1110 A	750 #	Kol-seal @ 5#/SK	.46	345.00
1111 A	100 #	metasilicate pre flush (15 Bbl)	2.00	200.00
5407A	8.25 Tons	Ton mileage bulk Truck	1.34	442.20
4130	4	5 1/2" centralizers	48.00	192.00
4228B	1	5 1/2" AFU insert	172.00	172.00
4454	1	5 1/2" Latch down Plug	254.00	254.00
		Sub Total		5675.20
		SALES TAX 7.8%		315.36
		ESTIMATED TOTAL		5990.56

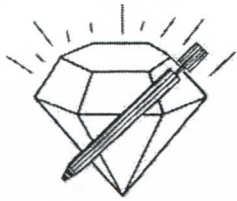
Ravin 3737

AUTHORIZATION Dary L Reed

TITLE X

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.



**DIAMOND TESTING, LLC**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(620) 653-7550 • (800) 542-7313  
SVGA2DST1

Company Range Oil Company, Inc. Lease & Well No. Savage "A" No. 2  
Elevation 1291 EGL Formation Hunton Effective Pay \_\_\_\_\_ Ft. Ticket No. M472  
Date 2-18-13 Sec. 22 Twp. 21S Range 4E County Marion State Kansas  
Test Approved By Ken Wallace Diamond Representative Mike Cochran

Formation Test No. 1 Interval Tested from 2,370 ft. to 2,386 ft. Total Depth 2,386 ft.  
Packer Depth 2,365 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Packer Depth 2,370 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.  
Depth of Selective Zone Set \_\_\_\_\_ ft.

Top Recorder Depth (Inside) 2,372 ft. Recorder Number 0063 Cap. 6,000 psi.  
Bottom Recorder Depth (Outside) 2,383 ft. Recorder Number 6884 Cap. 6,275 psi.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ psi.

Drilling Contractor Summit Drilling Company - Rig 1 Drill Collar Length 314 ft I.D. 2 1/4 in.  
Mud Type Chemical Viscosity 50 Weight Pipe Length \_\_\_\_\_ ft I.D. \_\_\_\_\_ in.  
Weight 9.3 Water Loss 8.0 cc. Drill Pipe Length 2,034 ft I.D. 3 in.  
Chlorides 1,500 P.P.M. Test Tool Length 22 ft Tool Size 3 1/2-IF in.  
Jars: Make Sterling Serial Number Not Run Anchor Length 16 ft. Size 4 1/2-FH in.  
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 3 1/2-XH in.

Blow: 1st Open: Weak, surface blow increasing to 4 1/4 ins. No blow back during shut-in.

2nd Open: Very weak, surface blow increasing to 3 3/4 ins. No blow back during shut-in.

Recovered 45 ft. of gas in pipe  
Recovered 32 ft. of clean oil = .157440 bbls. (Grind out: 100%-oil) Gravity: 25.4 @ 60°  
Recovered 31 ft. of gas & mud cut oil = .152520 bbls. (Grind out: 2%-gas; 74%-oil; 24%-mud)  
Recovered 77 ft. of gas & water cut oily mud = .378840 bbls. (Grind out: 4%-gas; 19%-oil; 5%-water; 72%-mud) Chlorides: 5,000 Ppm PH: 7.0 RW: 1.1 @ 56°  
Recovered 140 ft. of TOTAL FLUID = .688800 bbls.  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Remarks Tool Sample Grind Out: 2%-gas; 8%-water; 90%-mud w/ a thick scum of oil

Time Set Packer(s) 3:00 A.M. Time Started off Bottom 6:00 A.M. Maximum Temperature 98°  
Initial Hydrostatic Pressure.....(A) 1162 P.S.I.  
Initial Flow Period.....Minutes 30 (B) 15 P.S.I. to (C) 36 P.S.I.  
Initial Closed In Period.....Minutes 30 (D) 839 P.S.I.  
Final Flow Period.....Minutes 60 (E) 38 P.S.I. to (F) 75 P.S.I.  
Final Closed In Period.....Minutes 60 (G) 879 P.S.I.  
Final Hydrostatic Pressure.....(H) 1154 P.S.I.