



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1170695  
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: \_\_\_\_\_



1170695

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  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

<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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14-265-23W

# MIKE ENGELBRECHT

Licensed Geologist No. 334

2515 Spring Meadow  
Wichita, KS 67205

Phone: 316-721-9226  
Cell: 316-641-8009

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR RITCHIE EXPLORATION, INC.

LEASE GALEN DURLER #1

FIELD WILDCAT

LOCATION E SE SW SE = 335' ECL & 1680' FEL

SEC. 14 TWP. 26 RGE. 23 W

COUNTY FORD STATE KS.

CONTRACTOR VAL ENERGY RIG #1

COMPL. 08-02-13 COMP. 08-12-13

RTD 5120' LOG TD 5116'

SAMPLES SAVED FROM 3800' TO RTD

DRILLING TIME KEPT FROM 3350' TO RTD

SAMPLES EXAMINED FROM 3800' TO RTD

GEOLOGICAL SUPERVISION FROM 4177' TO RTD

MUD UP 3350' TYPE MUD CHEMICAL

API # 15-057-20,906-00 00

FORMATION	LOG	DEPTH	TOP	SAMPLE	STRUCT.
	TOP	BATHY	TOP	BATHY	COMP.
ANHYDRITE	1496	+940	1500	+936	-3
BASE	1529	+967	1533	+963	+6

STOLLER	3497	-1061	3497	-1061	-14
HEEGNER	4126	-1690	4128	-1692	-27
LANSING	4239	-1803	4240	-1804	-28
MUNCIE	4420	-1984	4424	-1988	-29
STARK SH	4550	-2114	4553	-2117	-32
BKG.	4630	-2194	4634	-2198	-32
ALDRMONT	4682	-2246	4682	-2246	-39
PAWNEE	4760	-2324	4762	-2326	-35
CHEROKEE SH	4802	-2366	4805	-2369	-31
HUCK	4885	-2449	4886	-2450	-32
ATOKA	4890	-2454	4894	-2458	-29
MISSISSIPPIAN	4914	-2478	4916	-2480	-25

### ELEVATION

KB 2436

DF 2426

Measurements Are All From KB 2436

### CASING RECORD

SURFACE 8 5/8" @ 364'

W/250' SXS.

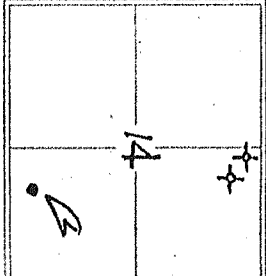
PRODUCTION 4 1/2" @

### WELL LOG SURVEYS

NABORS

COMP DENS/NEUTRON  
DUAL INDUCTION

ENG: MITCH BURP



ACTIVITY @ 7:50 AM	DEPTH	HS	SEE	WVE	TYPE	DEPTH COR
8-1-13	MIRT					
8-2-13	DRIG @ 352'					
8-3	DRIG @ 780'					
8-4	DRIG @ 2145'					
8-5	DRIG @ 2890'					
8-6	DRIG @ 3370'					
8-7	DRIG @ 4070'					
8-8	DRIG @ 4495'					
8-9	DRIG @ 4780'					
8-10	DST #1 @ 4904'					
8-11	DST #2 @ 4990'					
8-12	@ RTD 5120 L.D. PEE					

FORMATION

INTERVAL

DESCRIPTION OF STUDY

REFERENCE WELL FOR STRUCTURAL COMPARISON

RITCHIE EXPL. #1 DURLER-SCHMIDT  
N/2 N/2 N/2 14-26-23W

DRILL STEM TESTS



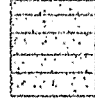
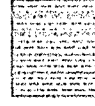


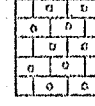
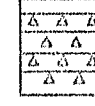
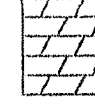
No.	Interval	FP/Tm	ESP/Tm	FP/Tm	RSP/Tm	HS-PH	REMARKS

IT WAS RECOMMENDED TO RUN 1/2 PRODUCTION CASING TO PRODUCE THE HUCK ZONE AS A RESULT OF DST#1 RECOVERY AND E-LOG EVALUATION.

MIKE ENGELBRECHT  
GEOLOGIST LIC# 334

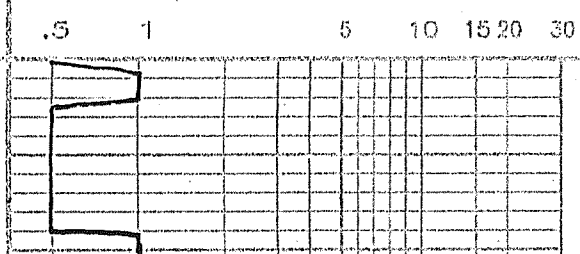
MUD BY MUD. Co.  
DST'S BY TRILOBITE TESTING  
E-LOGS BY A/ABOLTS  
GAS UNIT - N3C.

LEGEND

-  Anhydrite
-  Salt
-  Sandstone
-  Shale
-  Carbonate
-  Limestone
-  Oolitic Limestone
-  Chert
-  Dolomite

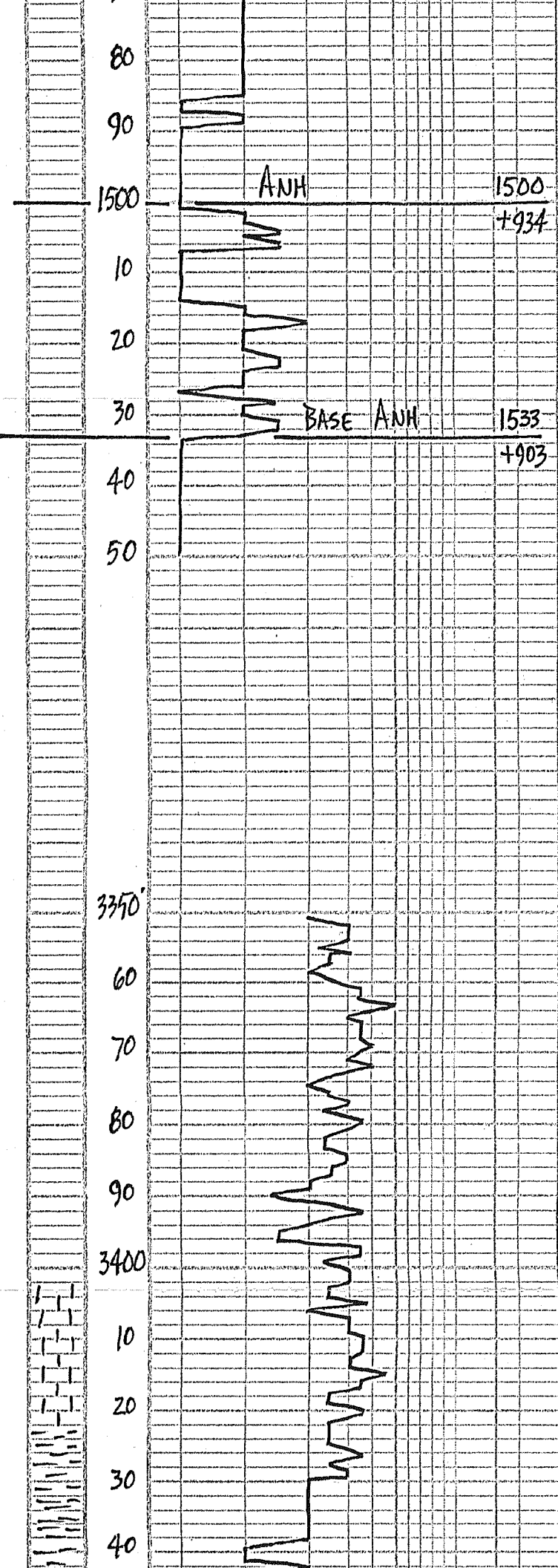
DRILLING TIME  
(Logarithmic Scale)

DEPTH



SAMPLE DESCRIPTIONS

REMARKS



ANH

1500

+934

BASE ANH

1533

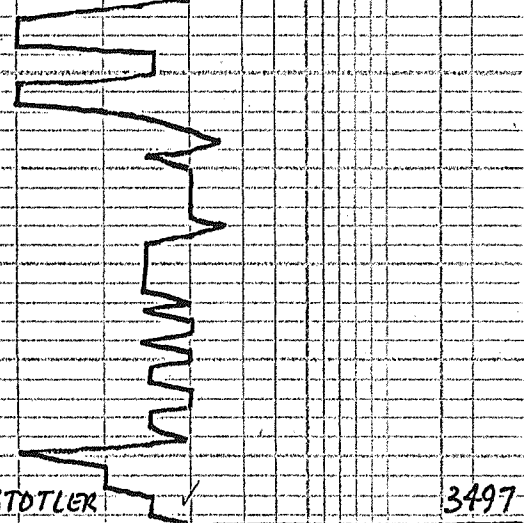
+903



50  
60  
70  
80  
90

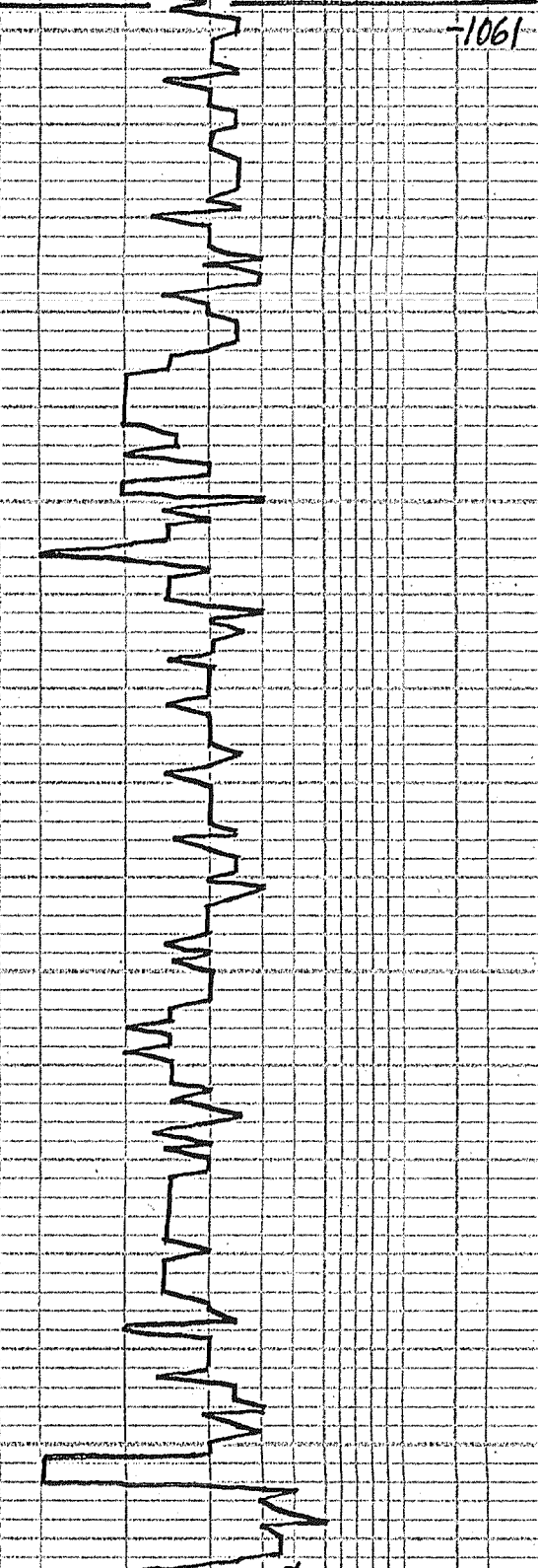
STOTLER

3497



3500  
10  
20  
30  
40  
50  
60  
70  
80  
90  
3600  
10  
20  
30  
40  
50  
60

-1061



70  
80  
90  
3700  
10  
20  
30  
40  
50  
60  
70  
80  
90  
3800  
10  
20  
30  
40  
50  
60  
70  
80



PREN. W/ CRAL. SMALL FOSS LS  
FAIR φ - NS NO ODOR

20 LS. TAN & LOTS GRAY SITS & MENCH  
GRAY LS - NS

40 LT BUFF FOSS LS W/ FAIR FOSS φ  
FEW SCAT STN, NO ODOR

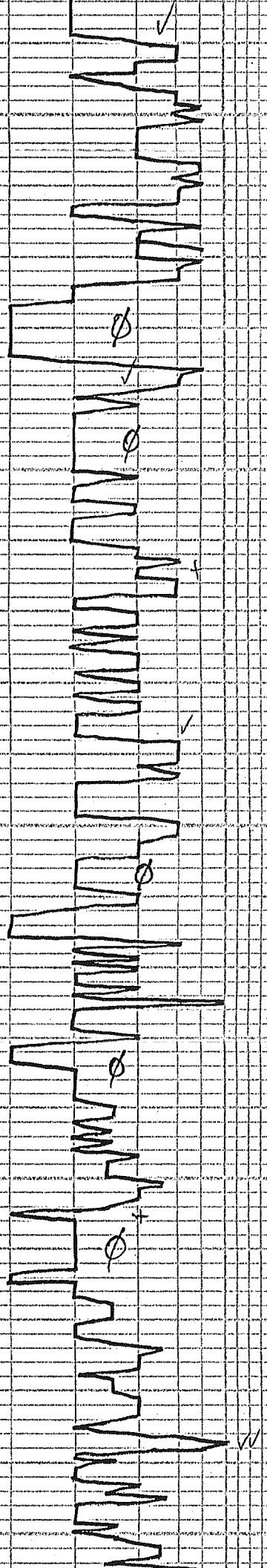
{  
SPLS LOTS SITS  
}

60 BUFF - TAN FOSS LS P-F φ - NS  
NO ODOR

80 CRAL - BUFF LS P-F φ - NS  
INC GRAY - RUSS SITS

∞ BUFF - TAN BLOCKY DNSE LS  
POOR φ - NS NO ODOR PLY AT

90  
3900  
10  
20  
30  
40  
50  
60  
70  
80  
90  
4000  
10  
20  
30  
40  
50  
60  
70  
80  
90  
4100



20 LT BUFF - LT TAN - OOL - LS - NS  
FAIR  $\phi$  - NS, NO ODOR PLY STG

40 TAN - BUFF - LS - POOR  $\phi$  - NS

60 BUFF - LT TAN - SLI - FOSS - LS  
P-F VUG  $\phi$  - NS NO ODOR

80 LS - AA - NS L&S RED BEDS

4000 WH - LT CRM - FOSS - OOL - LS - NS  
P-F  $\phi$  NO ODOR FEW STG

20 WH - CRM - BUFF - SEMI - FOSS - LS  
SLI STG P-F  $\phi$  - NS NO ODOR

40 WH - LT CRM - SEMI - OOL - LS - FAIR  
VUG  $\phi$  - NS FEW BLK SHS

60 WH - CRM - BUFF - LS - P-F  $\phi$  - NS

80 CRM - BUFF - SEMI - FOSS - LS  
P-F  $\phi$  - NS NO ODOR

PRED WH - LT CRM - SLI - FOSS - LS  
POOR - F  $\phi$  - NS NO ODOR

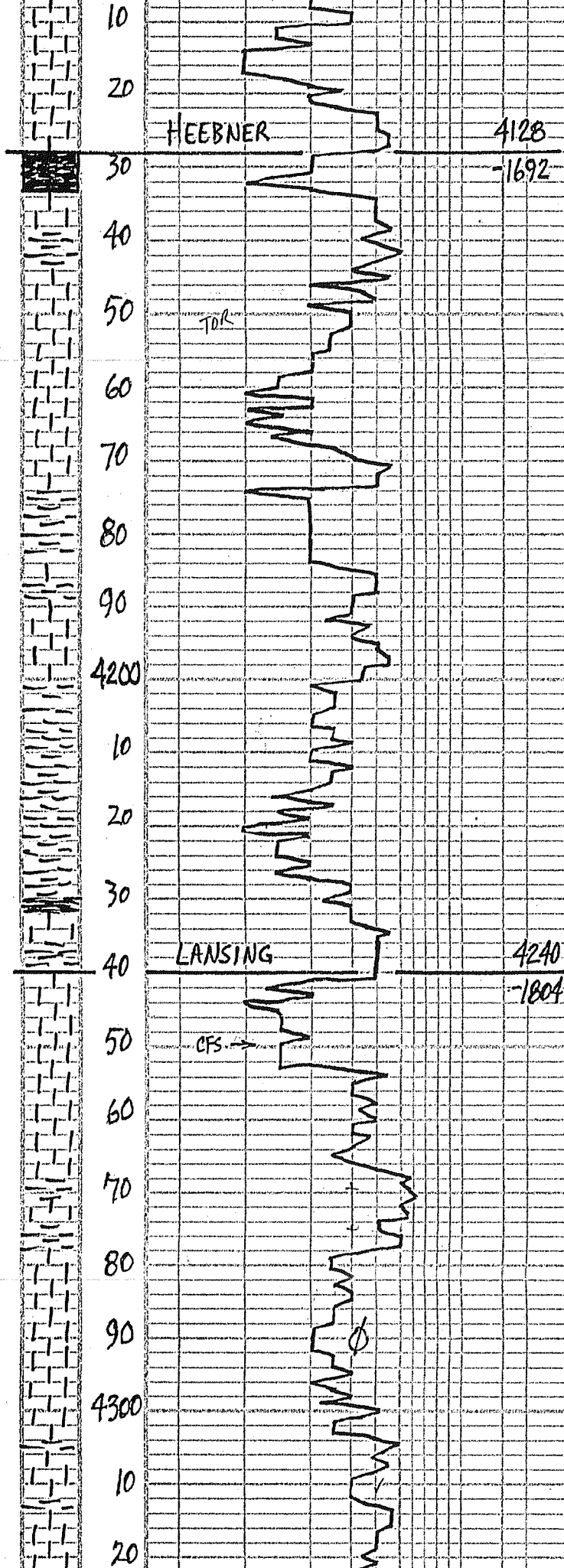
60 LT CRM - LT BUFF - SEMI - FOSS - LS  
NS

LOTS DR GRAY - BLK SHS

20 WH - CRM - FM - XLS - LS - NS

MUD - CO. CK  
VISE: 48 FILT: 15.6  
WT: 9.35 CHL: 5,600





WH-CRM-CLY LS FAIR  $\phi$  NS  
 ? LT GRN-GRN SHS

40 LT CRM-BUFF SLI-FOSS LS  
 P-F  $\phi$  - NS NO ODR

FLOOD BLK SHS!

60 GRN-GRN SHS FEN CRM LS  
 POOR  $\phi$  - NS NO ODR

WH-CRM-BUFF LS POOR  $\phi$  - NS

80 GRN-BUFF LS SLI-FOSS POOR  $\phi$   
 NS NO ODR

FLOOD WH-LT CRM CLY LS  
 P-F  $\phi$  - NS - NO ODR

90 CRM-TAN BUFF LS POOR  $\phi$  - NS

10 TAN-GRN-BUFF LS & LT GRN  
 GRN SHS

20 LS RA-NS NO ODR

30 LT BUFF-LT GRN MEXY LS  
 POOR  $\phi$  - NS NO ODR

40 FLOOD LT GRN-LT GRN SHS  
 SOME SILTY - NO ODR

50 TAN-BUFF SLI-FOSS LS POOR  $\phi$   
 NS NO ODR

30 MINS: LT CRM-BUFF SLI-FOSS  
 LS P-F  $\phi$  - NS NO ODR

60 MINS: FLOOD WH-CRM-FU-XLN  
 LS POOR  $\phi$  - NS GRN GRN BO

60 PRED WH-LT CRM CLY LS - NS  
 NO ODR

70 PRED WH-LT CRM SLI-FOSS LS  
 POOR  $\phi$  - NS LOTS CLY

80 LT TAN CRM FU-XLN DNSE LS  
 POOR  $\phi$  - NS NO ODR

90 LT CRM-BUFF FU-XLN LS  
 DNSE - CLY POOR  $\phi$  - NS

100 LT TAN FU-XLN LS & NH CLY LS  
 POOR  $\phi$  - NS NO ODR

110 WH-LT CRM-LT TAN SLI-FOSS LS  
 POOR  $\phi$  - NS LOTS CLY NO ODR

120 FLOOD WH-LT CRM FU-XLN LS  
 PTLY CLY POOR  $\phi$  - NS

130 PRED WH-LT CRM CLY LS - NS

900# PP  
 30 UGK HW & CHROM.

← GEOL ON LOC. 11-15 AM  
 WEANS. B-7-13

← VISC: 45  
 WT: 9.3  
 LCM: 2#

NO KICKS

NO KICK ✓  
 DROPPED CARBIDE →  
 100 H+KICK

← VISC: 53  
 WT: 9.2  
 LCM: 2#

30  
40  
50  
60  
70  
80  
90  
4400  
10  
20  
30  
40  
50  
60  
70  
80  
90  
4500  
10  
20  
30  
40

MUNCIE SH

4424

-1988

CFS

40 WH-LT CRM CLK LS POOR  $\phi$   
NS, NO ODOR

50 CRM-LT TAN FN-XLN LS  
POOR  $\phi$ -NS NO ODOR

60 BUFF MEALY LT TAN LS  
SEMI-OOB CLK LS - NS, NO ODOR

70 LT TAN LT BUFF SEMI-FOSS LS  
POOR  $\phi$ -NS NO ODOR

80 LT CRM-LT BUFF SLI-FOSS LS  
POOR-FAIR  $\phi$ -NS CLK

90 WH-LT CRM SLI-FOSS LS POOR  $\phi$   
NS NO OOB CLK

00 LT CRM-WH SLI-FOSS LS CLK  
POOR  $\phi$ -NS NO ODOR

← VISC: 54  
WT: 9.1

10 WH-LT CRM FN-XLN CLK LS  
NS NO OOB

20 WH-LT CRM-LT TAN SLI-FOSS LS  
POOR  $\phi$ -NS NO ODOR

30 PURE WH CLK LS - NS

40 LT GRN FN-XLN LS - NS & FEW  
BLK SHS

50 WH-CRM LT TAN SLI-FOSS LS  
POOR  $\phi$ -NS NO ODOR

LOTS RAIN!

30 MIN: LT TAN SUB OOB-OOB LS  
FAIR NUG  $\phi$ -NS NO ODOR  
60 MIN: FLOOD LT TAN OOB LS  
FAIR OOB  $\phi$ -NS NO ODOR

00 TAN SLI-FOSS OOB LS - NS  
SLI INC CLK NO ODOR

← VISC: 52  
WT: 9.0  
LCM: 2#

70 WH-LT CRM FN-XLN LS POOR  $\phi$   
NS, NO ODOR

80 WH-CRM FN-XLN LS - NS

90 WH-CRM-V LT GRN FN-XLN LS  
POOR  $\phi$ -NS NO ODOR

GAS UNIT NOT WORKING

00 WH-LT CRM-LT TAN FN-XLN  
LS POOR  $\phi$ -NS NO ODOR

10 LS AA- POOR  $\phi$ -NS

20 WH-CRM-LT TAN FN-XLN LS  
POOR  $\phi$ -NS NO ODOR

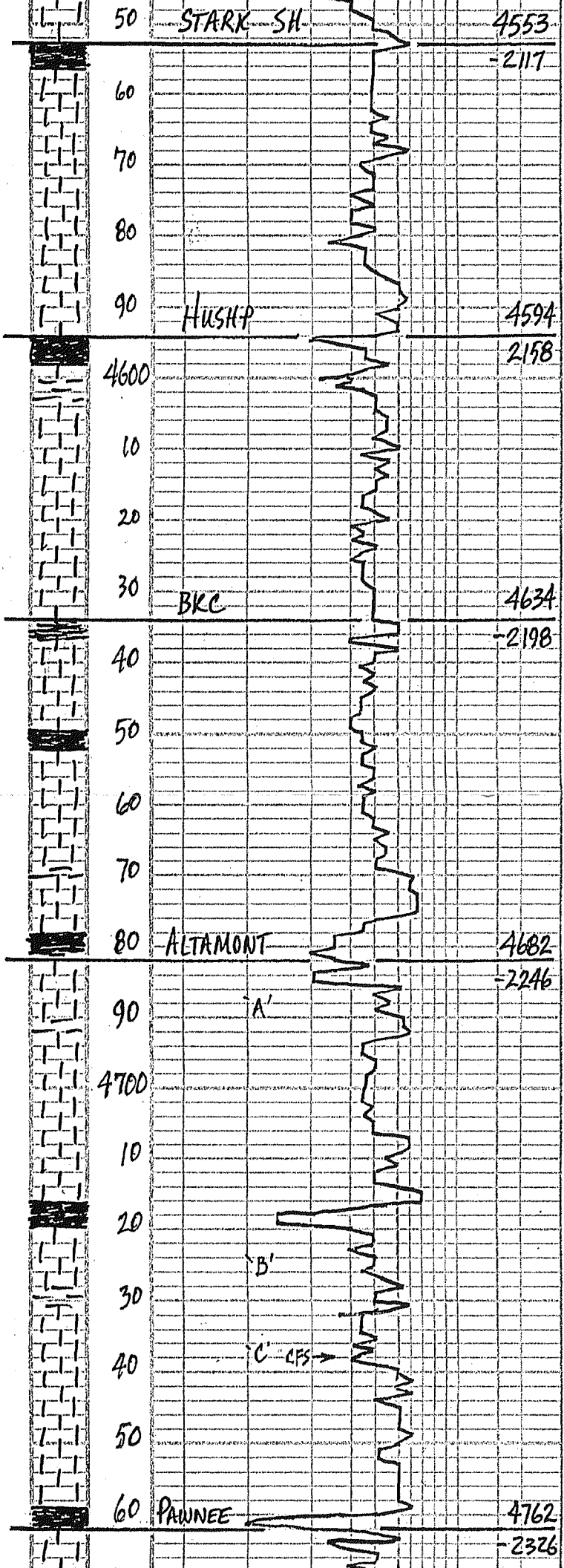
MUD: CD ✓  
VISC: 50 FILT: 13.6  
WT: 9.3 CHL: 4,800  
CAL: 240\*

30 WH-CRM LS AA- NS NO ODOR  
TAN-LT BRN TINY OOB-POOR  
 $\phi$ -NS NO ODOR

40 WH-LT TAN-BRN OOB LS  
P-F OOB  $\phi$ -NS NO ODOR

WH-LT CRM TINY OOB LS W/  
FAIR OOB  $\phi$ -NS NO ODOR

50 WH-CRM SEMI-OOB LS FAIR  $\phi$   
NS, NO ODOR



60 WH-CRM-SLI-FOSS-LS POOR  $\phi$   
NS, NO ODOR

70 FEN-FAIR AMT BLK SHS

GAS UNIT WORKING AGAIN

80 CRM-LT TAN SLI-FOSS-LS  
POOR  $\phi$  - NS NO ODOR

↓  
VISC: 53  
WT: 9.3  
LCM: 2#

90 CRM-BUFF SEMI-ODL-FOSS-LS  
P-F  $\phi$  - NS NO ODOR SLICKY

100 LT TAN GRAN SEMI-FOSS-LS  
P-F  $\phi$  - NS NO ODOR

← 10 UGR

10 LOTS GRAY-BLUE-BLK SHS

20 LOTS LT CRM-LT TAN FN-XLN  
LS POOR  $\phi$  - NS NO ODOR

30 WH-LT CRM-BUFF CRK ATY LS  
POOR  $\phi$  - NS NO ODOR

40 PRED WH-LT CRM FN-XLN LS  
DNSE - CRK - POOR  $\phi$  NS

50 LOTS GRAY LS  $\frac{1}{2}$  GRAY SHS

NO KICKS

60 LT CRM-TAN SLI-FOSS-LS  
POOR  $\phi$  - NS NO ODOR CRK

70 TAN-GRY SLI-FOSS-LS DNSE-  
ATY - CRK POOR  $\phi$  - NS

80 GRAY-TAN DNSE ATY LS - NS

VISC: 52  
WT: 9.3  
LCM: 2#  
850 #PP 53 SPM

90 GRAY-TAN DNSE ATY LS - NS  
INC GRAY SHS FEW BLK

100 WH-BUFF-TAN SLI-FOSS-CRY LS  
POOR  $\phi$  - NS NO ODOR

10 WH-LT CRM-TAN DNSE-CRY LS  
NS NO ODOR

ADDING PRE-MIX

20 WH-LT CRM-TAN FN-XLN LS  
POOR  $\phi$  - NS

30 LT CRM FUSSED LS POOR  $\phi$   
NS NO ODOR, INC GRY GRN SH

NO KICK

30 CRM-TAN SLI-FOSS-LS POOR  $\phi$   
NS, NO ODOR P-TLY CRK, BLK SHS

30 MIN: CRM-LT TAN FN-XLN LS  
POOR  $\phi$  - NS NO ODOR

← SHORT TRIP TO 1500'  
(52 STD'S) COND 1 HR  
MUD-CO CRK  
VISC: 54 FILT: 11.6  
WT: 9.0 CHL: 4.200  
CAL: 40 LCM: 2#

60 MIN: CRM-LT TAN FN-XLN LS  
POOR  $\phi$  - NS

50 LOTS SHS FROM S. TRIP

60 LT CRM-LT TAN FN-XLN LS  
POOR  $\phi$  - NS NO ODOR

70 LS AA - NS  $\frac{1}{2}$  BLK SHS

← 20 UGR HW

50 STARK SH 4553

2117

60

70

80

90 HUSH P 4594

4600 2158

10

20

30 BKC 4634

2198

40

50

60

70

80 ALTAMONT 4682

2246

90

4700

10

20

30

40

50

60 PAWNEE 4762

2326

70  
80  
90  
4800  
10  
20  
30  
40  
50  
60  
70  
80  
90  
4900  
10  
20  
30  
40  
50  
60  
70  
80

CHEROKEE SH 4805

HUCK 4886

ATOKA 4894

MISS 4916

4905

CFS →

CFS →

CFS →

80. PRED CRM-LT TAN FN-XLN LS POOR INTER-XLN & -NS NO ODOR PRY CRK

88) CRM-LT TAN SLI-FOSS LS POOR & NS, NO ODOR INC CRK

30 MIN: LT CRM-LT TAN SLI-FOSS LS POOR & -NS NO ODOR LOTS BLK SHS  
60 MIN: LS AA-NS, NO ODOR & BLK SHS  
80 CRM-LT TAN SLI-FOSS LS POOR & NS NO ODOR

10 CRM-LT TAN SLI-FOSS LS DNE-SLI CRK POOR & NS NO ODOR

20 LOTS BLK SHS & LT CRM SLI-FOSS LS POOR & -NS

30 CRM FN-XLN LS POOR & NS NO ODOR

40 LT CRM SLI-FOSS LS POOR & NS NO ODOR INC CRK

50 LT TAN-BUFF FOSS-ODL LS P-F INTER ODL & -NS NO ODOR

60 LT CRM-LT TAN FN-XLN DNSE LS POOR & -NS NO ODOR

70 TAN-BUFF FN-XLN DNSE LS POOR & -NS NO ODOR

80 CRM-LT BUFF FN-XLN LS POOR & -NS NO ODOR

90 CRM-BUFF TAN SLI-FOSS LS POOR & -NS NO ODOR

05 CRM-BUFF LT TAN SLI-FOSS LS POOR & -NS NO ODOR

04) LT CRM FN-XLN SLI-FOSS LS W/ POOR INTER-XLN & P-PCS W/ V-SLT ORN FD LT ODOR TRAC GAS  
30 MIN: LT CRM LS W/ POOR INTER XN & W/ SFO, LT ODOR, SLI CRK  
60 MIN: AA & FEW GRN-GRY SHS & FEW GRN-SHARP & LNS  
10 PRED SHS GRN, GOLD, PURP, GRN NO A, NO SST, FEW GRN LS  
20 SHS AA & LT BUFF, LT CRM LS-NS

20) FEW ORAO-LT VELL SHARP & POOR & -NS, NO ODOR NO SD OR SST  
30 MIN: INC LT BUFF LS & FEW WH WEA-SHARP & -POOR & -NS NO ODOR  
60 MIN: PRED LT CRM-BUFF FN-XLN LS POOR & -NS, NO ODOR NO SST

40 PRED LT CRM-VLT BUFF FN-XLN LS FEW OOL LS POOR & NS NO ODOR, DNSE-CRK

50 LT CRM-VLT BUFF LS-NS FEW MORE LT VELL ORAN A-NS

56) PRED WH-LT CRM LS POOR & NS, FEW LT TAN FN-XLN DOLD, P-F & NS NO ODOR  
30 MIN: WH-CRM LS-NS INC CRK FEW LT TAN DOLD-NS NO ODOR  
60 MIN: INC VLT TAN-BUFF DOLD P-F & -NS NO ODOR  
70 WH-LT CRM CRK LS P-F & FEW SCAT STN, NO ODOR, DK STN LT TAN FN-XLN DOLD-NS

80 WH-LT CRM FN-MD XLN LS 2 PCS W/ DE STN, TRACE DK HO, DROPS NO ODOR TRN DOLD-NS

90 PRED WH-LT CRM FN-MD XLN LS-NS POOR & NS NO ODOR  
30 MIN: WH-CRK LS POOR & NS NO ODOR  
60 MIN: PRED LT CRM FN-MD XLN

VISC: 54 52 SPM  
WT: 9.3 850 #PP  
LCM: 2#

ST. 10 STDS. STRAP=1.84 LONG  
S.A.T.= 1/2"

DST #1 4838-4904'  
30-45-45-60

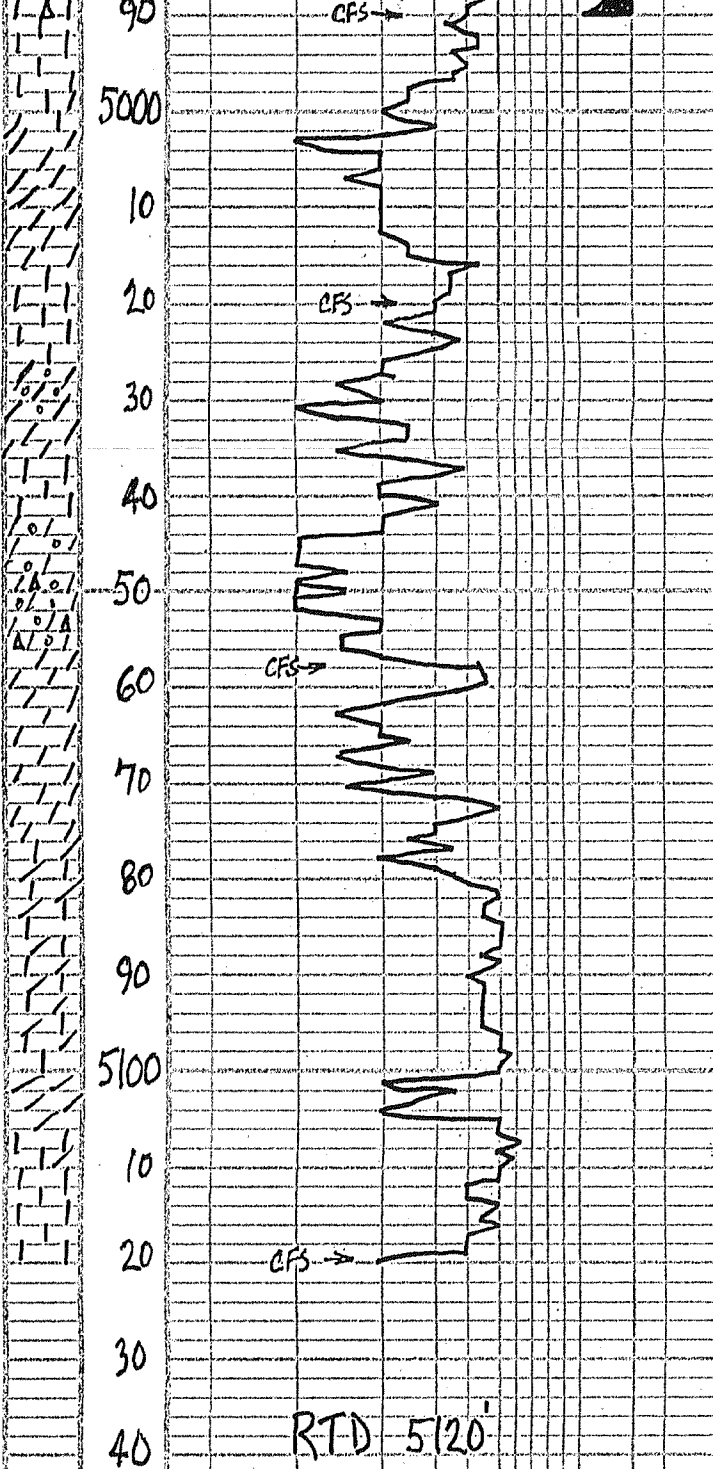
IF: WK BUILT TO BOB 20M  
FF: FAIR BUILT TO BOB 16M  
FSE: 1" BB.  
REC: 640 GIP

60' GCM=10%G, 40%M, 50%O  
60' MOCG=20%M, 30%O, 50%G  
60' O&MG=5%O, 45%M, 50%G  
180' O&GM=5%O, 10%G, 85%M  
360' TOTAL FLUID  
SIP: 1444-1382  
IFP: 28-283 FFP: 140-234  
TEMP: 120

GAS DETECTOR  
OFF CHART 100+ UNITS

DST #2 4894-4990  
30-45-45-60

IF: WK BUILT TO 7"  
FF: WK BUILT TO 7"  
REC: 435 GIP  
120' SOGCM=5%G, 5%O, 90%M  
60' O&GCM=10%G, 10%O, 80%M  
60' SOGCM=15%G, 5%O, 80%M  
120' SOGCM=30%G, 5%O, 60%M



RTD 5120'  
LTD 5118'

LS P-F Ø. NS. NO. ODOR  
 WH=LT CRM FN=MD XLN LS W/ SOME FOSS P-F Ø -NS NO ODOR CKY SCI 24

20 WH=LT CRM A & LS P-F Ø YLU CKY -NS NO ODOR FEW LT TAN FN XLN DOLO -NS NO ODOR

30 MIN: LOTS V. LT TAN=FRESH FN XLN DOLO P-F INTER=XLN Ø NS NO ODOR  
 60 MIN: LT TAN DOLO FN=XLN P-F Ø -NS NO ODOR INC CKY

LT TAN=Buff=FRESH FN XLN DOLO NS NO ODOR LOTS CKY

50 LT CRM=FN XLN LS=NS & LT TAN VUG DOLO W/ FAIR Ø -NS

59) WH=CKY LS & LT TAN VUGY DOL FAIR Ø -NS NO ODOR

30 MIN: LT TAN DOLO W/ FAIR VUG Ø -NS NO ODOR INC CKY

60 MIN: WH=LT TAN DOLO W/ FAIR VUG Ø -NS NO ODOR CKY

70 PRED WH=LT CRM A & DOLO SCAT VUG Ø -NS NO ODOR LOTS CKY

80 PRED WH=CRM DOLO -NS

90 WH=LT GRN DOLO P-F Ø=NS NO ODOR LOTS PURE WH CK

80 LT GRN=BUK CKY DOLO & LS POOR Ø -NS NO ODOR

10 WH=LT CRM LS & DOLO -CKY NS NO ODOR

20 LT GRN DOLO SCAT VUG Ø NS NO ODOR

30 MIN: LS & DOLO AA=NS & FLOOD PURE WH CK

300. 101RE FLUID  
 SIP: 1435-1387  
 IFP: 21-155 FFP: 131-240  
 TEMP: 123°  
 S.H.T. @ 4990' = 1°

← VISC: 56  
 WT: 9.2  
 LCM: 2 1/2

RTD 8:45 PM SUN AUG 11, 2013  
 CFS 30 MIN. SHORT TRIP 10 STD  
 COND HOLE 1 1/2 HRS  
 COME OUT FOR LOGS.



**#1 Galen Durler**  
335' FSL & 1680' FEL  
5' N & 30' W of SE SW SE Section 14-26S-23W  
Ford County, Kansas  
API# 15-057-20906-0000  
Elevation: 2426' GL, 2436' KB

Sample Tops			Ref. Well
Anhydrite	N/A		
B/Anhydrite	1533'	+903	+2
Stotler	3496'	-1060	-13
Heebner	4128'	-1692	-29
Lansing	4240'	-1804	-29
Muncie Shale	4426'	-1990	-35
Stark	4554'	-2118	-36
Hush	4599'	-2163	-38
BKC	4636'	-2200	-35
Marmaton	4651'	-2215	-36
Altamont	4682'	-2246	-39
Pawnee	4762'	-2326	-37
Fort Scott	4790'	-2354	-39
Cherokee Shale	4807'	-2371	-36
Huck	4886'	-2450	-33
Atoka	4896'	-2460	-35
Mississippian	4950'	-2484	-31
RTD	5120'	-2684	

# ALLIED CEMENTING CO., LLC. 040116

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

*Galen Dorman*

SERVICE POINT  
*Medicine Lodge*

DATE <i>8-2-15</i>	SEC <i>14</i>	TWP <i>36</i>	RANGE <i>23</i>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <i>4:15 Am</i>
LEASE <i>Day 1 on</i>	WELL # <i>1</i>	LOCATION <i>Wright Ks, SE on Jewell Rd.</i>			COUNTY <i>Ford</i>	STATE <i>Ks.</i>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR *Val #1*

TYPE OF JOB *Surface*

HOLE SIZE *12 1/4* T.D. *365*

CASING SIZE *8 5/8* DEPTH *366*

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. *20'*

PERFS.

DISPLACEMENT *22 Bbls Fresh H<sub>2</sub>O*

EQUIPMENT

OWNER *Ritzke*

CEMENT

AMOUNT ORDERED *250 SX R+3% CCT*

*22 gal*

COMMON	<i>250</i>	<i>SX</i>	@	<i>17.90</i>	<i>4475.00</i>
POZMIX			@		
GEL	<i>5</i>	<i>SX</i>	@	<i>23.40</i>	<i>117.00</i>
CHLORIDE	<i>9</i>	<i>SX</i>	@	<i>64.00</i>	<i>576.00</i>
ASC			@		

HANDLING *270* @ *2.48* *669.60*

MILEAGE *12-33/50/2-60* @ *2.60* *1602.90*

TOTAL *7440.50*

PUMP TRUCK CEMENTER *David Felio*

# *558-555* HELPER *Jason Thimish*

BULK TRUCK

# *581-252* DRIVER *Ron Gillroy*

BULK TRUCK

# DRIVER

REMARKS:

*See Cement Log*

*THX ☺*

CHARGE TO: *Ritzke*

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB *366*

PUMP TRUCK CHARGE *1512.25*

EXTRA FOOTAGE @

MILEAGE *50* @ *7.70* *385.00*

MANIFOLD *NA* @ *NA*

*Light Vehicle* *50* @ *4.00* *200.00*

TOTAL *2117.25*

PLUG & FLOAT EQUIPMENT

*None*

TOTAL

To Allied Cementing Co., LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME: *Walter Russell*

SIGNATURE: *[Signature]*

SALES TAX (if Any)

TOTAL CHARGES *9557.75*

DISCOUNT IF PAID IN 30 DAYS *(V&A) 7646.20*

*77*



**CONSOLIDATED**  
Oil Well Services, LLC

261575

TICKET NUMBER 44314

LOCATION OAKLEY KS.

FOREMAN WALT DINKEL

DAMON M. TRAINING

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	
8-20-13	7173	#1 GALEN DURLER	14	26S	23 W	FORD	
CUSTOMER		283+ 50 SET		TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS		1/2 E. 5 E NHW IN 60		463	TRAVIS W		
CITY		STATE	ZIP CODE	466	JACK		
				693	TIM W		

JOB TYPE PORT COLLAR HOLE SIZE \_\_\_\_\_ HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT 4 1/2  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER PORT COLLAR 1435  
 SLURRY WEIGHT 12.7 SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT 4.5 BAR DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: SAFETY MEETING RIG UP ON K.M. WELL SERV. TEST TOOL @ 1000 PSI  
IT HELD OPEN TOOL PUMP IN 400' @ 4 BAR A. MINUTE. MIXED 250SKS  
OF 60/40 690 GEL 1/4" FLO SEAL. W/ 300# OF HOLES DISPLACED  
4 1/2 BAR OF WATER SHUT TO TOOL TEST @ 1000' HELD RAN 5 JOINTS  
CIRCULATED HOLE CLEAN RIGGED DOWN.

CEMENT DID CIRCULATE

THANK YOU DAMON WALT FOR

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54018		PUMP CHARGE	1785.00	1785.00
5406	60	MILEAGE	5.25	315.00
5407A	10.75	TON MILEAGE DELIVERY	1.75	1129.20
1131	250 SKS.	60/40 POZ	15.86	3965.00
11188	1290#	BETONITE	.27	348.30
1107	63#	FLO SEAL	2.97	187.11
1105	300#	COTTON SEED HOLES	.58	174.00
				7903.61
		<input checked="" type="checkbox"/> completed	LESS 10%	790.36
			SUBTOTAL	7113.25
			SALES TAX	328.14
			ESTIMATED TOTAL	7441.39

Ravin 3737

AUTHORIZATION [Signature]

TITLE \_\_\_\_\_

DATE 8-20-13

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

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

261349

TICKET NUMBER 38023  
LOCATION Oakley  
FOREMAN Fuzzy

**FIELD TICKET & TREATMENT REPORT**

**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-12-13	7173	Galea Dumber #1	19	265	23w	Jord <sup>KS</sup>
CUSTOMER		TRUCK #		DRIVER	TRUCK #	DRIVER
Ritchie Exploration		283*	463	Travis W		
MAILING ADDRESS		505*	693	Daniel D		
CITY		STATE	ZIP CODE	5c	Steve O	Ridealong
				min		

JOB TYPE Production HOLE SIZE 7 7/8 HOLE DEPTH 5120' CASING SIZE & WEIGHT 4 1/2 - 10.5  
 CASING DEPTH 5106 DRILL PIPE TUBING P. Collar Serial #1305263 THER P. Collar - 1446  
 SLURRY WEIGHT 14.2 SLURRY VOL 1.42 WATER gal/sk \_\_\_\_\_ CEMENT Lb in CASING 2135  
 DISPLACEMENT 80.8 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting on Val #1. Float equip Cent 1-3-6-18-89  
91-128. Baskets (Bot) #90, 107, Port Collar Top of 90. Rig up  
and circulate 1 hr. Pump 500 gal water, 500 gal mud flush, 500 gal water  
Mix 200 sks MN, 300 sks BH. Mix 200 sks OWC w/ 5\* Kolgral, 1140 190  
CDI 26 w/ deframer. Wash pump and lines. Drop plug and displace  
80 1/2 BBL lift press 800\*. hand plug @ 1500\*. float hold.

Thanks Fuzzy & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	3175 <sup>00</sup>	3175 <sup>00</sup>
5406	60	MILEAGE	5 <sup>25</sup>	315 <sup>00</sup>
5407A	11.8 ton	Ton mileage Delivery	1 <sup>25</sup>	1239 <sup>00</sup>
1126	250 sks	OWC	23 <sup>20</sup>	5925 <sup>00</sup>
1110A	1250*	Kolgral	.56	700 <sup>00</sup>
1137	59*	CDI-26	10 <sup>20</sup>	601 <sup>80</sup>
1146	35*	CAF-38	10 <sup>20</sup>	357 <sup>00</sup>
11446	500 gal	Mud Flush	1 <sup>00</sup>	500 <sup>00</sup>
4161	1	4 1/2 - AEU Float Shoe (w)	359 <sup>25</sup>	359 <sup>25</sup>
4453	1	4 1/2 - Latchdown Assy (w)	290 <sup>00</sup>	290 <sup>00</sup>
4139	7	4 1/2 - Turbolizers (w)	60 <sup>00</sup>	420 <sup>00</sup>
4103	2	4 1/2 - Baskets (w)	275 <sup>00</sup>	550 <sup>00</sup>
4284	1	4 1/2 - Port Collar - (Hanson)	1984 <sup>50</sup>	1984 <sup>50</sup>
		# 1305263 sub total		16416 <sup>55</sup>
		less 1090		16416 <sup>66</sup>
		sub total		14774 <sup>89</sup>
		SALES TAX		820.47
		ESTIMATED TOTAL		15595.36

**completed**

Ravin 3737

AUTHORIZATION

*[Signature]*

TITLE PRODUCTION SUPERVISOR

DATE 8/12/13

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.

*[Handwritten mark]*

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

November 27, 2013

Debbie Phillips  
Ritchie Exploration, Inc.  
8100 E 22ND ST N # 700  
BOX 783188  
WICHITA, KS 67278-3188

Re: ACO1  
API 15-057-20906-00-00  
Galen Durler 1  
SE/4 Sec.14-26S-23W  
Ford 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,  
Debbie Phillips