



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1169450
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 |
|-----------------------------------|-----------------|---|

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: _____



1169450

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 |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
| | | | | | |

| | | |
|--|---|---|
| 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> _____ <i>(Submit ACO-4)</i> | PRODUCTION INTERVAL: _____ _____ |
|--|---|---|

| | |
|-----------|------------------------------------|
| Form | ACO1 - Well Completion |
| Operator | Samuel Gary Jr. & Associates, Inc. |
| Well Name | ROSEMARY 1-24 |
| Doc ID | 1169450 |

All Electric Logs Run

| |
|-------------------|
| |
| ARRAY COMPENSATED |
| SONIC ARRAY |
| SPECTRAL |
| MICRO |
| POROSITY |

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 21, 2013

CHRISTOPHER MITCHELL
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-051-26574-00-00
ROSEMARY 1-24
NW/4 Sec.24-15S-16W
Ellis 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,
CHRISTOPHER MITCHELL



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 8/7/2013
 Invoice # 7352

P.O.#:
 Due Date: 9/6/2013
 Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

Reference:
 ROSEMARY 1-24

Description of Work:
 LONG SURFACE JOB

RECEIVED

AUG 14 2013

**SAMUEL GARY JR.
 & ASSOCIATES, INC.**

DRLG COMP W/O LOE GG

| | |
|---------------|----------|
| Account | 8200.138 |
| Well/Prospect | |
| Deck | |
| AFE | |
| Approval | |
| Description | |

| Services / Items Included: | Quantity | Price | Taxable | Item | Quantity | Price | Taxable |
|--|----------|-------------|---------|------|----------|-------|---------|
| Labor | | \$ 991.39 | No | | | | |
| Common-Class A | 350 | \$ 4,765.20 | Yes | | | | |
| 8 5/8" Basket | 3 | \$ 1,029.26 | Yes | | | | |
| Bulk Truck Matl-Material Service Charge | 370 | \$ 803.43 | No | | | | |
| Calcium Chloride | 13 | \$ 672.69 | Yes | | | | |
| 8 5/8" Centralizer | 3 | \$ 208.46 | Yes | | | | |
| Pump Truck Mileage-Job to Nearest Camp | 19 | \$ 205.87 | No | | | | |
| Premium Gel (Bentonite) | 7 | \$ 123.73 | Yes | | | | |
| 8 5/8" Top Rubber Plug | 1 | \$ 115.09 | Yes | | | | |
| Bulk Truck Mileage-Job to Nearest Bulk Plant | 19 | \$ 120.47 | No | | | | |
| Baffle Plate Aluminum, 8 5/8" | 1 | \$ 97.71 | Yes | | | | |

Invoice Terms:

Net 30

| | | |
|--|-----------|-----------------|
| SubTotal: | \$ | 9,133.29 |
| Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice: | \$ | (1,369.99) |
| SubTotal for Taxable Items: | \$ | 5,960.31 |
| SubTotal for Non-Taxable Items: | \$ | 1,802.99 |
| Total: | \$ | 7,763.30 |
| Tax: | \$ | 366.56 |
| Amount Due: | \$ | 8,129.86 |
| Applied Payments: | | |
| Balance Due: | \$ | 8,129.86 |

6.15% Ellis County Sales Tax

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

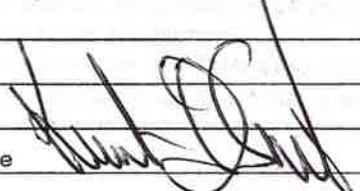
QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7352

| | | | | | | | | | | | | | | | | | | | |
|--|--------|------|----|-------|----|-------|----|---|-------|------------------------------------|----|--------------|--|--------|----------|-------|--|--|--|
| Date | 8-2-13 | Sec. | 24 | Twp. | 15 | Range | 16 | County | Ellis | State | KS | On Location | | Finish | 10:30 AM | | | | |
| Lease | | | | | | | | Well No. | | Owner | | | | | | | | | |
| Rosemary | | | | | | | | 1-24 | | To Quality Oilwell Cementing, Inc. | | | | | | | | | |
| Contractor | | | | | | | | You are hereby requested to rent cementing equipment and furnish | | | | | | | | | | | |
| Val #6 | | | | | | | | cementer and helper to assist owner or contractor to do work as listed. | | | | | | | | | | | |
| Type Job | | | | | | | | Charge To | | | | | | | | | | | |
| Surface | | | | | | | | Scum Cooney Jr & Associates | | | | | | | | | | | |
| Hole Size | | | | T.D. | | | | Street | | | | City | | | | State | | | |
| 12 1/4 | | | | 778 | | | | | | | | | | | | | | | |
| Csg. | | | | Depth | | | | Cement Amount Ordered | | | | | | | | | | | |
| 8 5/8 | | | | 778 | | | | 350 c.m. 3 1/2" 2 1/2" | | | | | | | | | | | |
| Tbg. Size | | | | Depth | | | | Cement Left in Csg. | | | | Shoe Joint | | | | | | | |
| | | | | | | | | 420 | | | | 42 | | | | | | | |
| Tool | | | | Depth | | | | Meas Line | | | | Displace | | | | | | | |
| | | | | | | | | | | | | 46 3/4" 1/2" | | | | | | | |
| EQUIPMENT | | | | | | | | Common | | | | | | | | | | | |
| Pumptrk 17 No. Cemente | | | | | | | | 350 | | | | | | | | | | | |
| Helper | | | | | | | | Poz. Mix | | | | | | | | | | | |
| Bulktrk No. Driver | | | | | | | | 7 | | | | | | | | | | | |
| Bulktrk 13 No. Driver | | | | | | | | Calcium | | | | | | | | | | | |
| Driver | | | | | | | | 13 | | | | | | | | | | | |
| JOB SERVICES & REMARKS | | | | | | | | Hulls | | | | | | | | | | | |
| Remarks: | | | | | | | | Salt | | | | | | | | | | | |
| Rat Hole | | | | | | | | Flowseal | | | | | | | | | | | |
| Mouse Hole | | | | | | | | Kol-Seal | | | | | | | | | | | |
| Centralizers | | | | | | | | Mud CLR 48 | | | | | | | | | | | |
| Baskets | | | | | | | | CFL-117 or CD110 CAF 38 | | | | | | | | | | | |
| D/V or Port Collar | | | | | | | | Sand | | | | | | | | | | | |
| 8' on bottom. Est. Circulation. | | | | | | | | Handling | | | | | | | | | | | |
| Mix 300SR & Displace Plug. | | | | | | | | 370 | | | | | | | | | | | |
| Cement Circulated. | | | | | | | | Mileage | | | | | | | | | | | |
| | | | | | | | | FLOAT EQUIPMENT | | | | | | | | | | | |
| | | | | | | | | Guide Shoe | | | | | | | | | | | |
| | | | | | | | | 8 5/8 | | | | | | | | | | | |
| | | | | | | | | Centralizer | | | | | | | | | | | |
| | | | | | | | | 3 | | | | | | | | | | | |
| | | | | | | | | Baskets | | | | | | | | | | | |
| | | | | | | | | 3 | | | | | | | | | | | |
| | | | | | | | | AFU Inserts | | | | | | | | | | | |
| | | | | | | | | Rubber Plug | | | | | | | | | | | |
| | | | | | | | | Float Shoe | | | | | | | | | | | |
| | | | | | | | | Baffle Plate | | | | | | | | | | | |
| | | | | | | | | Latch Down | | | | | | | | | | | |
| | | | | | | | | Pumptrk Charge | | | | | | | | | | | |
| | | | | | | | | Long Surface | | | | | | | | | | | |
| | | | | | | | | Mileage | | | | | | | | | | | |
| | | | | | | | | 19 | | | | | | | | | | | |
| X Signature  | | | | | | | | Tax | | | | | | | | | | | |
| | | | | | | | | Discount | | | | | | | | | | | |
| | | | | | | | | Total Charge | | | | | | | | | | | |



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 8/12/2013
 Invoice # 7286
 P.O.#:
 Due Date: 9/11/2013
 Division: Russell

Invoice

RECEIVED

AUG 28 2013

**SAMUEL GARY JR.
& ASSOCIATES, INC.**

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

Reference:
~~BRUNGARD 118~~ **Rosemary 1-24**

Description of Work:
 PLUG JOB

DRLG COMP W/O LOE GG

| | |
|---------------|----------|
| Account | 8200.145 |
| Well/Prospect | |
| Deck | |
| AFE | |
| Approval | KG |
| Description | |

| Services / Items Included: | Quantity | Price | Taxable | Item | Quantity | Price | Taxable |
|--|----------|-------------|---------|------|----------|-------|---------|
| Labor | | \$ 1,020.55 | Yes | | | | |
| Common-Class A | 150 | \$ 2,514.71 | Yes | | | | |
| POZ Mix-Standard | 100 | \$ 704.12 | Yes | | | | |
| Bulk Truck Matl-Material Service Charge | 259 | \$ 578.94 | Yes | | | | |
| Pump Truck Mileage-Job to Nearest Camp | 19 | \$ 211.93 | Yes | | | | |
| Premium Gel (Bentonite) | 9 | \$ 163.76 | Yes | | | | |
| Flo Seal | 62 | \$ 138.59 | Yes | | | | |
| Bulk Truck Mileage-Job to Nearest Bulk Plant | 19 | \$ 124.01 | Yes | | | | |
| Dry Hole Plug | 1 | \$ 62.59 | Yes | | | | |

Invoice Terms:

Net 30

SubTotal: \$ 5,519.19
 Discount Available ONLY if Invoice is Paid & Received
 within listed terms of invoice: \$ (827.88)

SubTotal for Taxable Items: \$ 4,691.31
 SubTotal for Non-Taxable Items: \$ -

6.15% Ellis County Sales Tax

Total: \$ 4,691.31
 Tax: \$ 288.52

Thank You For Your Business!

Amount Due: \$ 4,979.83

Applied Payments:

Balance Due: \$ 4,979.83

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7286

| | | | | | | | | | | | | | | | |
|------|---------|------|----|------|----|-------|----|----------|--------------------------------------|-------|----|-------------|--|--------|---------|
| Date | 8-12-13 | Sec. | 24 | Twp. | 15 | Range | 16 | County | Ellis | State | KS | On Location | | Finish | 9:45 AM |
| | | | | | | | | Location | Walker S to Chetolah Bold Rd E to DE | | | | | | |

| | | | | | |
|---------------------|------------|--|-------|--|-------------------------|
| Lease | Rosemary | Well No. | 1-24 | Owner | 1/2 S Einto |
| Contractor | Val #6 | To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. | | | |
| Type Job | Plug | Charge To Sam Gary Jr & Associates | | | |
| Hole Size | 7 7/8 | T.D. | 3570' | Street | |
| Csg. | Drill Pipe | Depth | | City | State |
| Tbg. Size | | Depth | | The above was done to satisfaction and supervision of owner agent or contractor. | |
| Tool | | Depth | | Cement Amount Ordered | 250 60/40 4% Gel 1/4#FB |
| Cement Left in Csg. | | Shoe Joint | | | |
| Meas Line | | Displace | | | |

EQUIPMENT

| | | | | | | |
|---------|----|-----|----------|----------|----------|-----|
| Pumptrk | 15 | No. | Cementer | | Common | 150 |
| | | | Helper | Nick | Poz. Mix | 100 |
| Bulktrk | 8 | No. | Driver | Lonnie M | Gel. | 9 |
| | | | Driver | | Calcium | |
| Bulktrk | pu | No. | Driver | Brett | | |
| | | | Driver | | | |

JOB SERVICES & REMARKS

| | | | |
|--------------------------|-------|-------------------------|-------|
| Remarks: | | Salt | |
| Rat Hole | 30 sk | Flowseal | 62# |
| Mouse Hole | 15 sk | Kol-Seal | |
| Centralizers | | Mud CLR 48 | |
| Baskets | | CFL-117 or CD110 CAF 38 | |
| D/V or Port Collar | | Sand | |
| | | Handling | 259 |
| 1st plug @ 3570' w/ 50sk | | Mileage | 8 5/8 |
| 2nd plug @ 1000' w/ 25sk | | FLOAT EQUIPMENT | |
| 3rd plug @ 825' w/ 40sk | | Guide Shoe | |
| 4th plug @ 600' w/ 80sk | | Centralizer | |
| 5th plug @ 40' w/ 10sk | | Baskets | |
| | | AFU Inserts | |
| | | Float Shoe | |
| | | Latch Down | |
| | | Wood Plug-1 | |
| | | Pumptrk Charge | plug |
| | | Mileage | 19 |

Thanks

X Signature Rick Smith

| | |
|--------------|--|
| Tax | |
| Discount | |
| Total Charge | |



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Rosemary 1-24
 Location: Sec. 24-15s-16w, Ellis County
 License Number: 15-051-26574
 Spud Date: 8/6/2013
 Surface Coordinates: 875 FnL, 740 FwL
 Region: WILDCAT
 Drilling Completed: 8/11/2013

Bottom Hole Coordinates:
 Ground Elevation (ft): 1877' K.B. Elevation (ft): 1887'
 Logged Interval (ft): 1800' To: 3570' Total Depth (ft): 3570'
 Formation:
 Type of Drilling Fluid:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

CORE

Contractor:
 Core #:
 Formation:
 Core Interval: From: Cut:
 To: Recovered:
 Bit type:
 Size:
 Coring Time:

OPERATOR

Company: SAMUEL GARY JR & ASSOC.
 Address: 1515 WYNKOOP ST, STE 700
 DENVER, COLORADO 80202
 CO. GEO;

GEOLOGIST



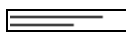

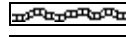



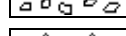

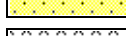

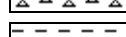



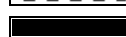




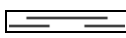
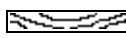


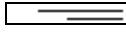




Name: Jeff Quimby
 Company: Earth Tech OGL, Inc.
 Address: PO Box 683
 Hooker, Okla . 73945
 Off. 888-543-8378

Circulating Report

DST's Report

DST's Report

ROCK TYPES

| | | | |
|---|---|--|---|
|  Anhy |  Gyp |  Shgy |  Sandy lms |
|  Bent |  Igne |  Sltst |  Shale |
|  Brec |  Lmst |  Ss |  Sltstn |
|  Cht |  Meta |  Till |  Shlyslts |
|  Clyst |  Mrlst |  Carb sh |  Sitysh |
|  Coal |  Salt |  Dol |  Lms |
|  Congl |  Shale |  Dtd | |
|  Dol |  Shcol |  Gry sh | |

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brefracg
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr

- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Slty

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram

- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh

- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang

- Angular

OIL SHOWS

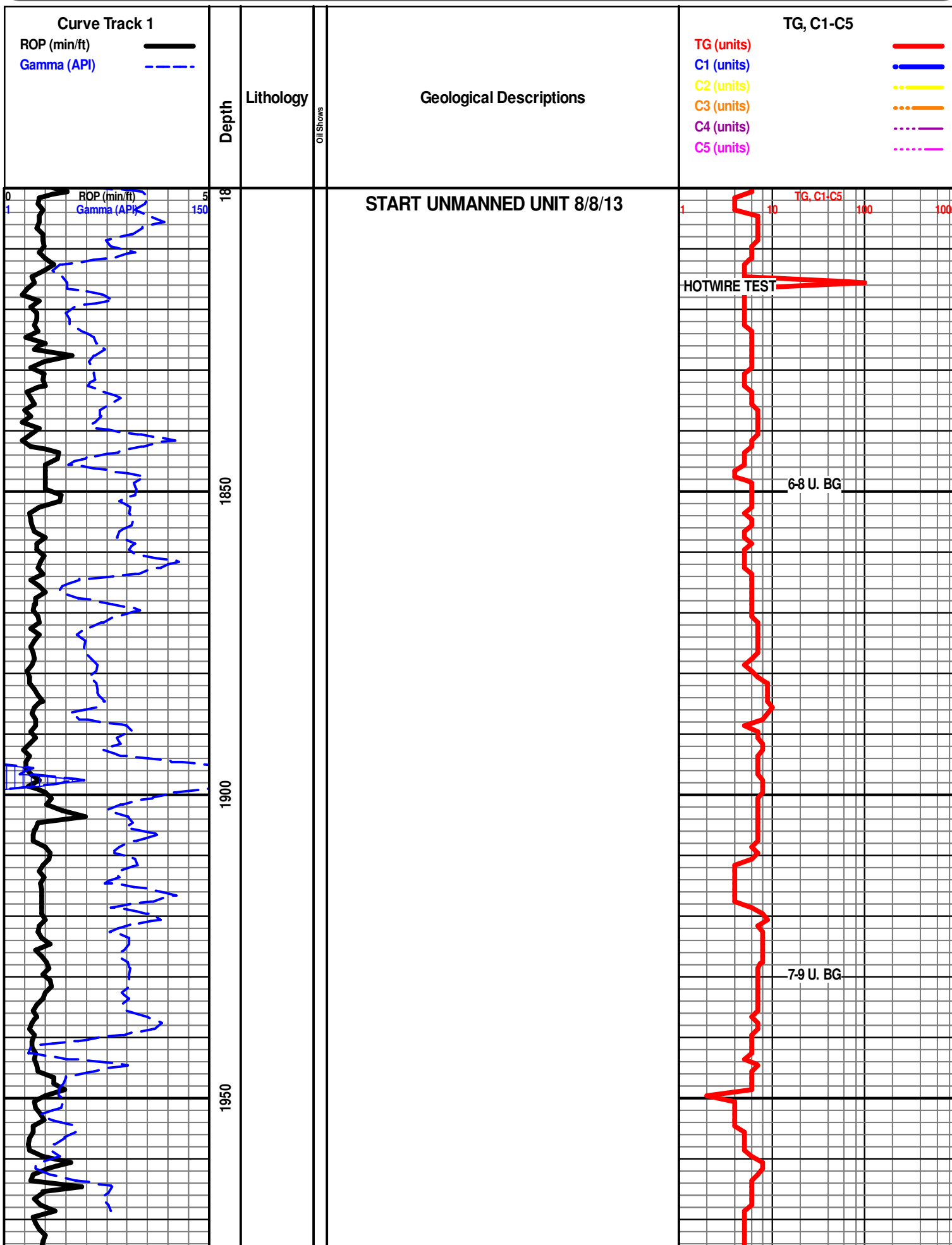
- Even
- Spotted
- Ques
- Dead
- Gas show

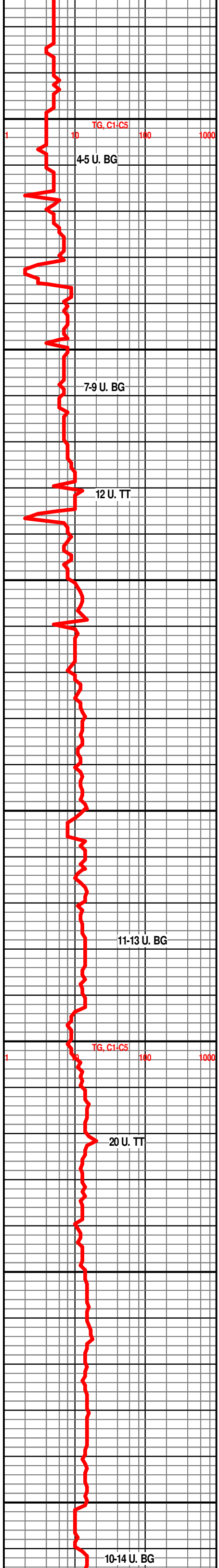
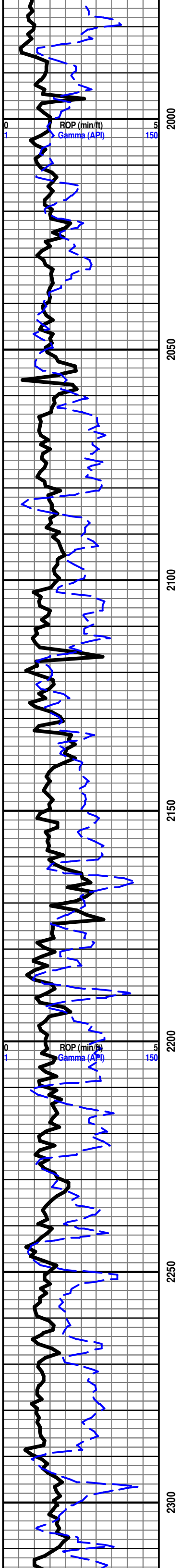
INTERVALS

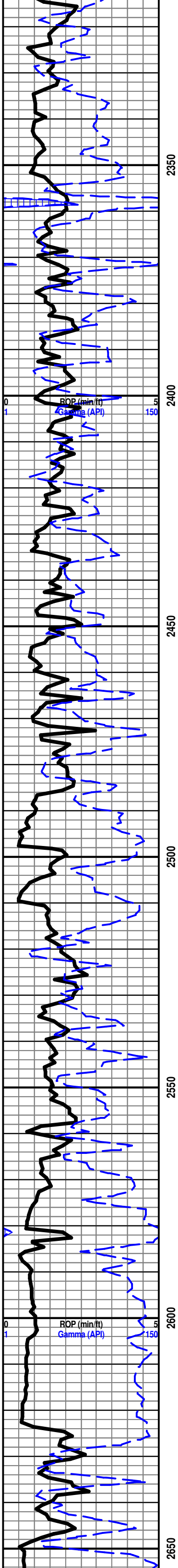
- Core
- Dst
- Dst

EVENTS

- Rft
- Sidewall







2350

2400

2450

2500

2550

2600

2650

ROP (min/ft)
Gamma (API)

0

1

5

150

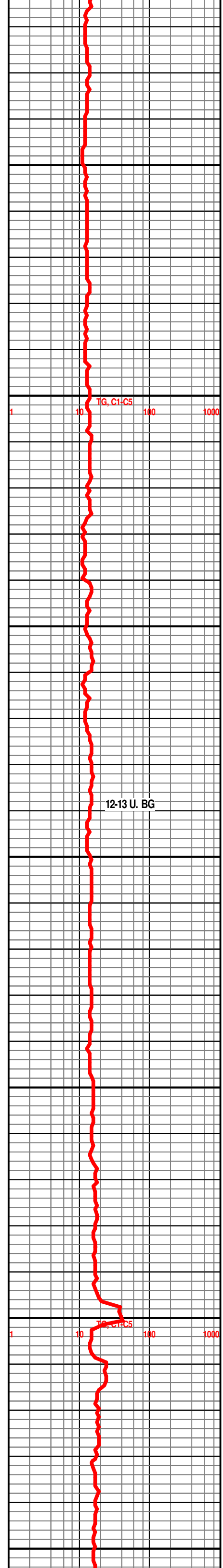
0

1

5

150

BASE ROOT SHALE 2623' -



TG, C1-C5

1

10

100

1000

12-13 U. BG

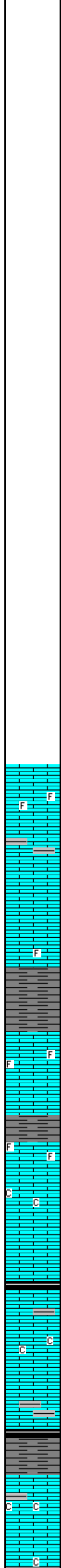
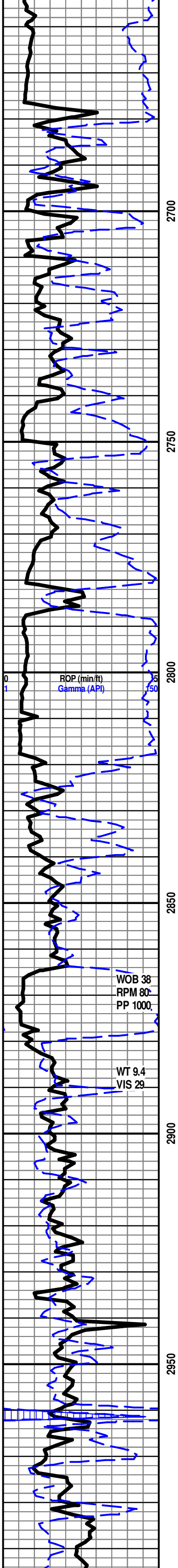
1

10

100

1000

TG, C1-C5



HOWARD 2818' -931'
 START 24 HR MANNED UNIT ON 8/9/2013

LS- OFF WHT WHT CRM TO MOTTED LT GRY IP, HD DNSE TO SLI BRITT IP, FN-XLN TO SLI RE-XLN MTRX IP, SCATT TRS IMBD GRY LT GRY SH IP, TRS IMBD FOSS FRGS IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- GRY DRK GRY, FRM TO BRITT, SPLNTY

TOPEKA 2878' -991'

LS- OFF WHT TO LT GRY, HD DNSE TO BRITT V/BRITT IP, FN-XLN TRS RE-XLN, IMBD FOSS FRGS IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT WHT, HD DNSE, FN-XLN RE-XLN TO SUB-CHLKY IP, TRS IMBD SFT WHT CHLK IP, IMBD FOSS FRGS IP, DLL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

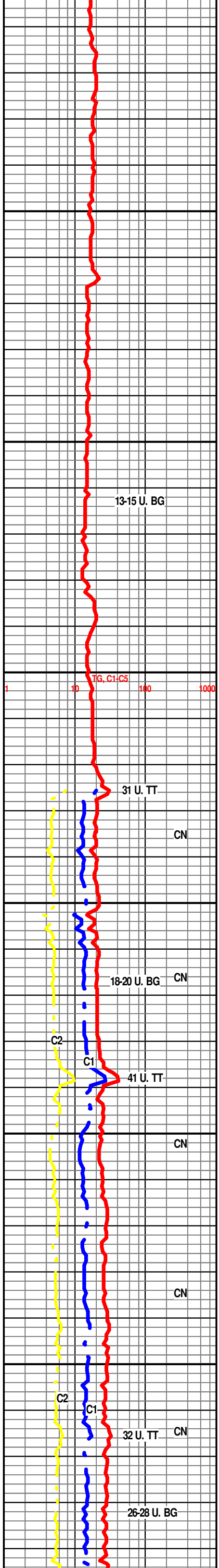
SH- BLK TO DRK GRY, FRM TO SFT BRITT IP, SPLNTY TO BLKY IP, BLK CARB IN TRAY

LS-OFF WHT LT GRY TO MOTTED GRY, HD DNSE, FN-XLN RE-XLN MTRX, TRS SFT GMMY CHLK IN TRAY, SCATT IMBD DISS GRY SH, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- DRK GRY TO BLK, SFT BRITT TO FRM, SPLNTY, TRS BLK CARB IN TRAY

LE COMPTON 2974' -1087'

LS- OFF WHT LT GRY, HD DNSE, FN V/FN-XLN TO SLI SUB-CHLKY IP, TRS IMBD SFT WHT TO GMMY CHLK IMBD, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW



13-15 U. BG

31 U. TT

CN

18-20 U. BG

CN

41 U. TT

CN

CN

32 U. TT

CN

26-28 U. BG

WOB 38
 RPM 80
 PP 1000

WT 9.4
 VIS 29

ROP (min/ft)
 Gamma (API)

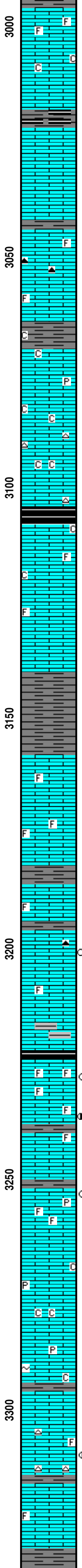
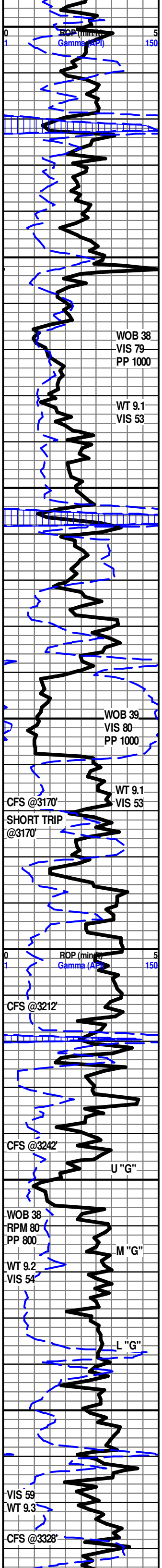
TG, C1-C5

C2

C1

C2

C1



LS- OFF WHT MOTTED LT GRY IP, HD DNSE TO SLI BRITT IP, FN-XLN TO SLI MD-XLN, RE-XLN MTRX IP, IMBD FOSS FRGS IP, TRS IMBD SFT CHLK IP, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT WHT, HD DNSE, FN-XLN SLI RE-XLN MTRX IP TO SLI SUB-SUCRO IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT TO LT GRY, HD DNSE, MD-FN-XLN SLI RE-XLN MTRX, OFF WHT TO LT GRY CHRT IN TRAY, TRS IMBD FOSS FRGS IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT WHT CRM, HD DNSE TO SLI BRITT IP, FN-XLN RE-XLN MTRX TO SUB-CHLKY IP, TRS IMBD SFT WHT CHLK IP, TRS IMBD PYR IP, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT WHT CRM TO GRY, HD DNSE TO BRITT IP, FN-XLN TO SUB-CHLKY, ABDT SFT WHT CHLK IN TRAY, WHT CHRT IN TRAY, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

HEEBNER 3104' -1217'

LS- OFF WHT TO LT GRY IP, HD DNSE, SLI MD XLN TO FN-XLN SUB-CHLKY MTRX IP, IMBD FOSS FRGS IP, TRS IMBD SFT CHLK IP, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

DOUGLAS 3142' -1255'

SH- MD GRY TO GRY, FRM TO SFT BRITT TO SLI GMMY IP, SPLNTY TO SLI BLKY IP

LANSING 3158' -1271'

LS- OFF WHT WHT TO CRM, HD DNSE, FN-XLN RE-XLN MTRX, IMBD CALC XLS IP, TRS IMBD FOSS FRGS IP, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT CRM TO LT TN, HD DNSE, FN-XLN TO V/FN-XLN RE-XLN MTRX IP, TRS IMBD FOSS FRGS IP, V/ DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

LANSING "C" 3185' -1298

3201'-3206' LS- GRY TO LT GRY SCATT OFF WHT (W/ DRK TN OIL STAIN ON 10%), HD DNSE, FN-XLN TO FN-MD-XLN IP, SCATT IMBD FOSS FRGS, TRS IMBD CALC XLS IP, TN CHRT IN TRAY, NO VIS FLO, SLI TRS MICRO PP POR IP, PR FLUSH CUT IN 20% PR SLW STRM CUT IN 10%, SLI TRS OIL ODOR

LS- OFF WHT WHT TO LT GRY, HD DNSE, FN-XLN TO V/ FN-XLN RE-XLN MTRX, SCATT TRS IMBD GRY SH, TRS IMBD CALC XLS IP, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

LANSING "F" 3230' -1343'

3226'-3233' LS- OFF WHT CRM TO TN (W/ TN LT TN OIL STAIN ON 20%), HD DNSE TO BRITT IP, FN-XLN RE-XLN MTRX TO SUB-CHLKY IP, ABDT IMBD FOSS FRGS THRU, PYR CLUSTERS IN TRAY, DLL YEL FLO IN 60% BRIT YEL FLO IN 3%, SCATT TRS INTER FOSS POR IP, PR TO FR FLUSH CUT IN 10% PR SLW STRM CUT IN 15%, FR OIL ODOR

3234'-3237' LS- OFF WHT CRM TO TN LT TN (W/ DRK TN TO TN OIL STAIN ON 30%), HD TO BRITT, MD-XLN TO CRS SUCRO IP, IMBD FOSS FRGS IP, TRS IMBD GRY SH, SCATT BRIT YEL GLD FLO IN 20%, TRS SMLL VUG POR IP, FR FLUSH CUT IN 30% FR SLW STRM CUT IN 30%, FR OIL ODOR

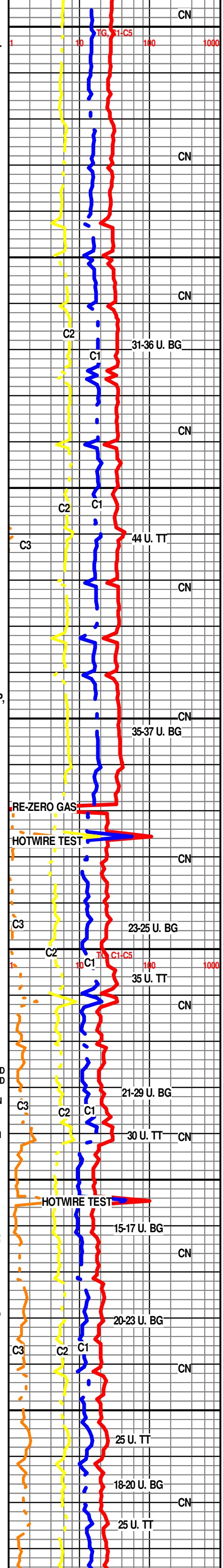
3253'-3256' LS- OFF WHT WHT TO LT IP (W/ LT TN TN OIL STAIN ON 30%), HD DNSE TO BRITT IP, MD-FN-XLN TO CRS SUCRO IP, IMBD PYR IP, TRS IMBD FOSS FRGS IP, DLL YEL FLO, SLI TRS VUG POR TO INTER-XLN POR, PR FLUSH CUT IN 7%, PR SLW STRM CUT IN 5%, PR OIL ODOR

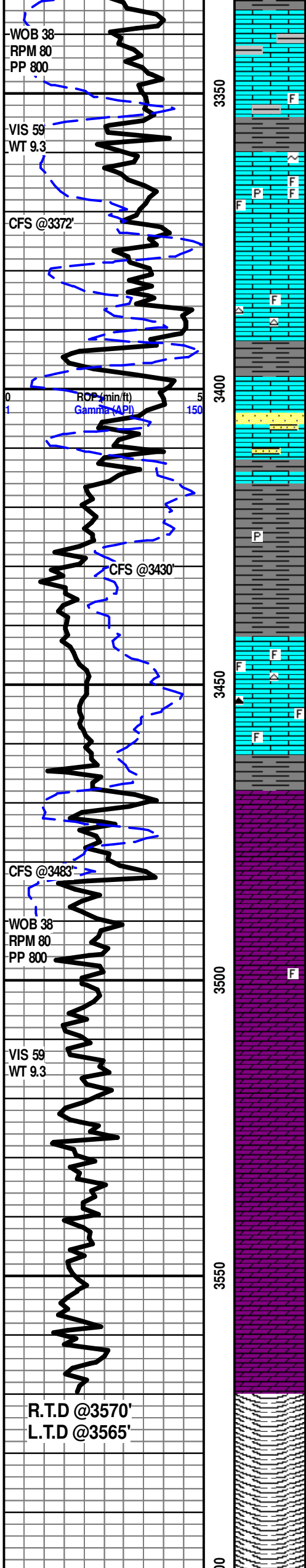
LS- OFF WH WHT TO CRM BFF, HD DNSE, FN-XLN SUB-CHLKY MTRX, SCATT IMBD CHLK IP, TRS IMBD PYR, DLL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW

LANSING "H" 3296' -1409'

LS- OFF WHT WHT, HD DNSE, FN-XLN RE-XLN MTRX IP, TRS SUB-CHLKY TO SUCRO IP, TRS IMBD PYR IP, SLI TRS IMBD GLAUC IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW, PR TO FR OIL ODOR, SAMPLE GROUND UP

LS- WHT TO CRM LT TN, HD DNSE (W/ TN TO LT TN OIL STAIN ON 32%), FN-XLN TO FN-MD-XLN IP, SUB-SUCRO MTRX IP, IMBD FOSS FRGS IP, OFF WHT WHT CHRT IN TRAY (W/ TRS DOS), DLL YEL FLO, INTER XLN POR IN 25% (W/ LIVE OIL IP), PR TO FR FLUSH CUT IN 30% PR SLW STRM CUT IN 18%, PR OIL ODOR





3340'-3343' LS- OFF WHT CRM LT TN IP (W/ TN OIL STAIN ON 7%), HD DNSE TO SLI BRITT IP, FN-XLN TO SLI MD-XLN IP SLI SUB-SUCRO IP, TRS IMBD LT GRY GRY SH IP, TRS IMBD FOSS FRGS IP, DLL YEL FLO IP, TRS INTER XLN POR, NO VIS CUT

LS- OFF WHT WHT CRM BFF, HD DNSE, FN-XLN TO V/FN-XLN, ABDT IMBD SMLL FOSS FRGS THRU, TRS IMBD PYR, TRS IMBD GLAUC IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT WHT, HD DNSE, FN-XLN TO SLI RE-XLN MTRX, TRS WHT CHRT IN TRAY, TRS IMBD FOSS FRGS IP, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

BKC 3393' -1506'

LS- OFF WHT GRY MOTTED, HD TO V/BRITT IP, MD-XLN SUB-CHLKY IP, ABDT SMLL TO MD GRNS W/ CALC CMNT IN TRAY, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- RED TO GRY, V/SFT GMMY, TRS IMBD PYR IP, BLKY

LS- OFF WHT WHT, HD TO BRITT, MD-XLN, IMBD FOSS FRGS THRU IP, OFF WHT TO TN CRM CHRT IN TRAY W/ IMBD FOSS FRGS THRU, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

SH-RED TO MOTTED GRY TO DRK GRY, FRM TO SFT BRITT IP, BLKY TO SPLNTY

ARBUCKLE 3468' -1581'

DOL- WHT, HD DNSE, MD-XLN TO CRS SUCRO MTRX, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

DOL- WHT, HD DNSE, MD-XLN SUCRO MTRX IP, TRS IMBD SMLL FOSS FRGS IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

DOL- WHT, HD DNSE, MD-XLN CRS SUCRO IP, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

DOL- WHT TO LT GRY IP, HD DNSE, MD-XLN, IMBD DOL XLS IP, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

R.T.D 3570' @3:15 P.M 08/11/13
CFS @3570'
CTCH FOR LOGS

