Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1184332

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 # 32278
Name: Tengasco, Inc.
Address 1: 1327 NOOSE RD
Address 2: PO BOX 458
City: HAYS State: KS Zip: 67601 + 9744
Contact Person: Gary Wagner
Phone: ( 785 ) 625-6374
CONTRACTOR: License # 33493
Name: American Eagle Drilling LLC
Wellsite Geologist: Mike Bair
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 #:

11/11/2013 Spud Date or Recompletion Date
11/18/2013 Date Reached TD
12/19/2013 Completion Date or Recompletion Date

API No. 15 - 15-163-24162-00-00
Spot Description:
SE - NW - NW - SE Sec. 21 Twp. 8 S. R. 19 ☐ East ☑ West
1990 Feet from ☐ North / ☑ South Line of Section
1990 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Rooks
Lease Name: Veverka D Well #: 3
Field Name:
Producing Formation: Arbuckle
Elevation: Ground: 2017 Kelly Bushing: 2024
Total Vertical Depth: 3570 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 263 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 1465 Feet
If Alternate II completion, cement circulated from: 1465
feet depth to: 0 w/ 280 sx cmt.

**Drilling Fluid Management Plan**
*(Data must be collected from the Reserve Pit)*

Chloride content: 77000 ppm Fluid volume: 440 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Tengasco, Inc.
Lease Name: Mosher License #: 32278
Quarter SW Sec. 33 Twp. 8 S. R. 19 ☐ East ☑ West
County: Rooks Permit #: D20839

**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:** Deanna Garrison **Date:** 01/27/2014

[redacted] 1184332

Operator Name: Tengasco, Inc. Lease Name: Veverka D Well #: 3

Sec. 21 Twp. 8 S. R. 19 ☐ East ☑ West County: Rooks

**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 ☑ Yes ☐ No
*(Attach Additional Sheets)*

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Induction
Neutron Density/PE
Micro

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ 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 |
|---|---|---|---|---|---|---|---|
| Surface | 12.25 | 8.625 | 23 | 263 | Com | 170 | 3% CC, 2% Gel |
| Production | 7.875 | 5.5 | 14 | 3569 | ASC | 150 | 10% Salt, 2% Gel |
| | | | | | | | |

ADDITIONAL CEMENTING / SQUEEZE RECORD

| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
|---|---|---|---|---|
| ___ Perforate<br>___ Protect Casing<br>___ Plug Back TD<br>___ 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 *(Amount and Kind of Material Used)* | Depth |
|---|---|---|---|
| 6 | 3464-69 | | |
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: 2.875 Set At: 3504 Packer At: N/A

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/07/2014

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

| Estimated Production Per 24 Hours | Oil | Bbls. | Gas | Mcf | Water | Bbls. | Gas-Oil Ratio | Gravity |
|---|---|---|---|---|---|---|---|---|
| | 20 | | | | 100 | | | |

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
*(If vented, Submit ACO-18.)*

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
Arbuckle 3464-69'

**Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202**

| | |
|---|---|
| Form | ACO1 - Well Completion |
| Operator | Tengasco, Inc. |
| Well Name | Veverka D 3 |
| Doc ID | 1184332 |

Tops

| Name | Top | Datum |
|---|---|---|
| Anhydrite | 1442 | +582 |
| Topeka | 2967 | -943 |
| Heebner | 3173 | -1149 |
| Toronto | 3193 | -1169 |
| Lansing | 3211 | -1187 |
| BKC | 3426 | -1402 |
| Arbuckle | 3461 | -1437 |
| TD | 3556 | -1532 |

# ALLIED OIL & GAS SERVICES, LLC 054825

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Russell KS

| DATE | SEC. | TWP. | RANGE | CALLED OUT | ON LOCATION | JOB START | JOB FINISH |
|---|---|---|---|---|---|---|---|
| 11-11-13 | 21 | 8 | 19 | | 9:30 | 11:30pm | 12:00AM |

| LEASE | WELL # | LOCATION | COUNTY | STATE |
|---|---|---|---|---|
| Veverka D | 3 | Zurich KS 7N 1W 1/2N Einto | Rooks | KS |

OLD OR (NEW) (Circle one)

CONTRACTOR American Eagle #2
TYPE OF JOB Surface
HOLE SIZE 12¼ T.D. 264
CASING SIZE 8⅝ 23# DEPTH 266
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 15
CEMENT LEFT IN CSG. 15
PERFS.
DISPLACEMENT 15¾ bbl

OWNER

CEMENT
AMOUNT ORDERED 170 com 3%cc 2%gel

**EQUIPMENT**

PUMP TRUCK CEMENTER Robert Y
# 417 HELPER Woody O
BULK TRUCK
# 410 DRIVER Danny S
BULK TRUCK
# DRIVER

| | | | |
|---|---|---|---|
| COMMON | 170 | @ 17.90 | 3043.00 |
| POZMIX | | @ | |
| GEL | 3 | @ 23.40 | 70.20 |
| CHLORIDE | 6 | @ 64.00 | 384.00 |
| ASC | | @ | |
| HANDLING | 183.51 ft³ | @ 2.48 | 455.11 |
| MILEAGE | 326.82 t/m | 2.60 | 849.73 |
| | | TOTAL | 4802.04 |

**REMARKS:**

run 6 jts of 8⅝ 23# csg recieve circulation mix 170 com 3%cc 2%gel displace 15¾ bbl of water

cement did circulate to surface

Thank you!!!

**SERVICE**

| | | | |
|---|---|---|---|
| DEPTH OF JOB | 264 | | |
| PUMP TRUCK CHARGE | 1512.25 | | |
| EXTRA FOOTAGE | | @ | |
| MILEAGE | 39 HVMI | @ 7.70 | 300.30 |
| MANIFOLD | | @ | |
| | 39 LVMI | @ 4.40 | 171.60 |
| | | @ | |
| | | TOTAL | 1984.15 |

CHARGE TO: Tengasco
STREET
CITY STATE ZIP

**PLUG & FLOAT EQUIPMENT**

| | | |
|---|---|---|
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | TOTAL | |

To: Allied Oil & Gas Services, 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.

SALES TAX (If Any)
TOTAL CHARGES 6786.19
DISCOUNT 1696.55 IF PAID IN 30 DAYS
net $ 5089.64

PRINTED NAME
SIGNATURE Keith Karlin

# ALLIED OIL & GAS SERVICES, LLC 056823

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Russell

| DATE 11.18.13 | SEC. 21 | TWP. 8 | RANGE 19 | CALLED OUT | ON LOCATION | JOB START 500 pm | JOB FINISH 530 pm |
|---|---|---|---|---|---|---|---|
| LEASE Ververka | WELL # D #3 | | LOCATION Zurich, KS | | | COUNTY Rooks | STATE KS |
| OLD OR (NEW) (Circle one) | | | 7 n to rd 8 1/2 w 1/2 n e into | | | | |

CONTRACTOR American Eagle
TYPE OF JOB Long String - Production
HOLE SIZE T.D.
CASING SIZE 5 1/2 DEPTH 3571.55'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 42'
CEMENT LEFT IN CSG. 42'
PERFS.
DISPLACEMENT 86.12 bbls

OWNER

CEMENT
AMOUNT ORDERED 180 com
10% salt 2% gel

EQUIPMENT

PUMP TRUCK CEMENTER Tony P.
# 409 HELPER Norman D
BULK TRUCK
# 410 DRIVER Danny S.
BULK TRUCK
# DRIVER

| | | | |
|---|---|---|---|
| COMMON | 180 sk | @ 17.9 | $3,222.00 |
| POZMIX | | @ | |
| GEL | 3.38 sk | @ 23.4 | $79.09 |
| CHLORIDE | | @ | |
| ASC | | @ | |
| Salt | 20sk | @ 26.35 | $527.00 |
| | | @ | |
| Mudd Flush | 12 bbl | @ 58.7 | $704.40 |
| | | @ | |
| | | @ | |
| | | @ | |
| | | @ | |
| | | @ 48 | |
| HANDLING | 199.72 | @ 2.60 | $495.36 |
| MILEAGE | 356.03 | @ 2.60 | $925.68 |
| | | TOTAL | $5,953.47 |

REMARKS:

* Ran Float Equipment - See Plug & Float Eq w/t.
* Broke circulation dropped ball - Circulated For 1hr.
* Ran 12 bbl mudd flush.
* Plugged RATHOLE @ 30sk - 4.6 bbl mix
* Ran 150sk @ 23.6 bbl mix -
* Displaced Latch Down Plug @ 86.12 bbl
* Landed Latch Down @ #1500 psi.

SERVICE

| | | | |
|---|---|---|---|
| DEPTH OF JOB | | | 3571.55' |
| PUMP TRUCK CHARGE | | | $2,600.47 |
| EXTRA FOOTAGE | | @ | |
| MILEAGE | Heavy 39m | @ 7.7 | $300.30 |
| MANIFOLD | Light 39m | @ 4.4 | $171.60 |
| | | @ | |
| | | @ | |
| | | TOTAL | $3,072.37 |

CHARGE TO: Texgasco
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

| | | | |
|---|---|---|---|
| 1 x 5 1/2 | Float Shoe | @ — | $339.30 |
| 1 x 5 1/2 | Latch Down | @ — | $398.75 |
| 1 x 5 1/2 | Port Collar | @ — | $1,831.25 |
| 5 x 5 1/2 | Centralizer | @ 28.40 | $142.00 |
| 2 x 5 1/2 | Baskets | @ 159.40 | $318.80 |
| | | TOTAL | $3030.10 |

To: Allied Oil & Gas Services, 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.

SALES TAX (If Any)
TOTAL CHARGES $12,055.94
DISCOUNT $2,256.46 IF PAID IN 30 DAYS
Net 9799.48

PRINTED NAME
SIGNATURE Keith Karlin

# ALLIED OIL & GAS SERVICES, LLC 054849

Federal Tax I.D.# 20-5975804

TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Russell KS

| DATE 12-18-13 | SEC. 21 | TWP. 9 | RANGE 19 | CALLED OUT | ON LOCATION | JOB START 12:30 pm | JOB FINISH 1:00 pm |
|---|---|---|---|---|---|---|---|
| LEASE Veverka | WELL # D-3 | | LOCATION Zurich KS 7N 1W 4E 4N | | | COUNTY Rooks | STATE KS |
| OLD OR (NEW) (Circle one) | | | Cinto | | | | |

CONTRACTOR Fischer
TYPE OF JOB Port collar
HOLE SIZE — T.D.
CASING SIZE 5½ 14# DEPTH 3569
TUBING SIZE 2⅜ DEPTH 2460
DRILL PIPE DEPTH
TOOL PC DEPTH 1465
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT 76 bbl

EQUIPMENT

PUMP TRUCK # 417 CEMENTER: Robert Y
HELPER Glenn G
BULK TRUCK # 481 DRIVER Joe G
BULK TRUCK # DRIVER

OWNER Used 280 sks

CEMENT
AMOUNT ORDERED 350 60/40 4% gel 1/4# flo

| | | | |
|---|---|---|---|
| COMMON | 168 | @ 17.90 | 3007.20 |
| POZMIX | 112 | @ 9.35 | 1047.20 |
| GEL | 9.63 | @ 23.40 | 225.34 |
| CHLORIDE | | @ | |
| ASC | | @ | |
| flo | 70# | @ 2.97 | 207.90 |
| HANDLING | 375.07 sks | @ 2.48 | 930.17 |
| MILEAGE | 61.8905 t/m | 2.60 | 1590.92 |
| TOTAL | | | ~~8093.57~~ 7008.73 |

REMARKS:

pump 50 bbl mud 25 water test pc to 800# pull two jts open pc pump 100 bbl mud 25 water mix 150 sks lt cmt mix 130 sks displace 76 bbl water close and test pc to 800# run to 2460 wash clean 70 bbl

cement did circulate to surface
Thank you!!

SERVICE

| | | | |
|---|---|---|---|
| DEPTH OF JOB | 2460 | | |
| PUMP TRUCK CHARGE | 2483.59 | | |
| EXTRA FOOTAGE | | @ | |
| MILEAGE 39 HUNT | | @ 7.70 | 300.30 |
| MANIFOLD | | @ | |
| 39 LUNT | | @ 4.40 | 171.60 |
| | | @ | |
| TOTAL | | | 2955.49 |

CHARGE TO: Tengasco
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

| | | |
|---|---|---|
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| TOTAL | | |

To: Allied Oil & Gas Services, 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.

SALES TAX (If Any)
TOTAL CHARGES 9964.22
DISCOUNT 2491.05 IF PAID IN 30 DAYS
net $ 7473.17

PRINTED NAME
SIGNATURE Dave Wagner

# MUD LOG

## WellSight Systems

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

| | | | |
|---|---|---|---|
| **Well Name:** | **VEVERKA D #3** | | |
| **Location:** | **SE NE NE NE SE Sec. 21 ;Twnsp. 8 s.; Rge. 19 w.** | | |
| **License Number:** | **34110** | **Region:** | **Rooks County, KS** |
| **Spud Date:** | **11-11-2013** | **Drilling Completed:** | **11-17-2013** |
| **Surface Coordinates:** | **1990' FSL 1990' FEL** | | |
| **Bottom Hole Coordinates:** | | | |
| **Ground Elevation (ft):** | **2017** | **K.B. Elevation (ft):** | **2124** |
| **Logged Interval (ft):** | **2550 To: 3533** | **Total Depth (ft):** | **3570** |
| **Formation:** | **Arbuckle** | | |
| **Type of Drilling Fluid:** | **Chemical** | | |

**Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com**

### OPERATOR

**Company:** TENGASCO, INC.
**Address:** 1327 Noose Rd.
Hays, KS. 67601

### GEOLOGIST

**Name:** Mike Bair
**Company:** Basin Resources L.L.C.
**Address:** Longmont, CO.

### FORMATION TOPS

| FORMATION | LOG TOP | SAMPLE TOP |
|---|---|---|
| Anhydrite | 1442 (+582) | 1444 (+580) |
| Topeka | 2967 (-943) | 2968 (-944) |
| Heebner | 3173 (-1149) | 3173 (-1149) |
| Toronto | 3193 (-1169) | 3193 (-1169) |
| Lansing | 3211 (-1187) | 3212 (-1188) |
| BKC | 3426 (-1402) | 3430 (-1406) |
| Arbuckle | 3461 (-1437) | 3459 (-1435) |
| TD | 3556 (-1532) | 3570 (-1546) |

## DSTs

**DST #1 45-45-45-45; 3099-3170**
**IFP: 2" blow blt to BOB in 23 min; ISI: No return**
**FFP: 2" blow blt to BOB in 23 min; FSIP: No return**
**FP: (44-107)(136-207) SIP: 923-914**
**REC: 415' mdy wtr**

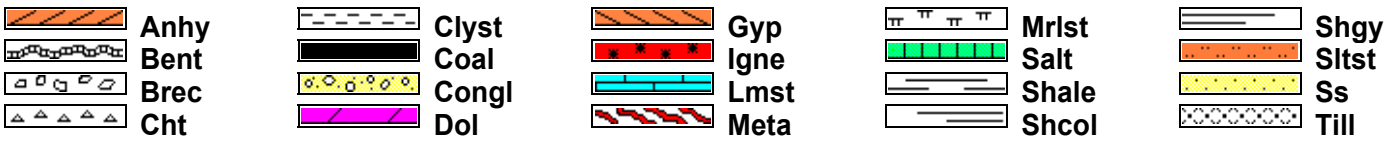
**DST#2 30-30-30-30 3461-3470 Tool slid approx. 3'**
**IFP: No blow, partical packer failure, mud dropped 30'. ISIP: No return: FFP: No blow, flushed, no help: FSIP: No return**
**FP: (87-90)(90-93) SIP: 1017-1010**
**REC: 125' mud**

**DST#3 Straddle Test 3458 - 3492**
**Mis-run: packer failure**

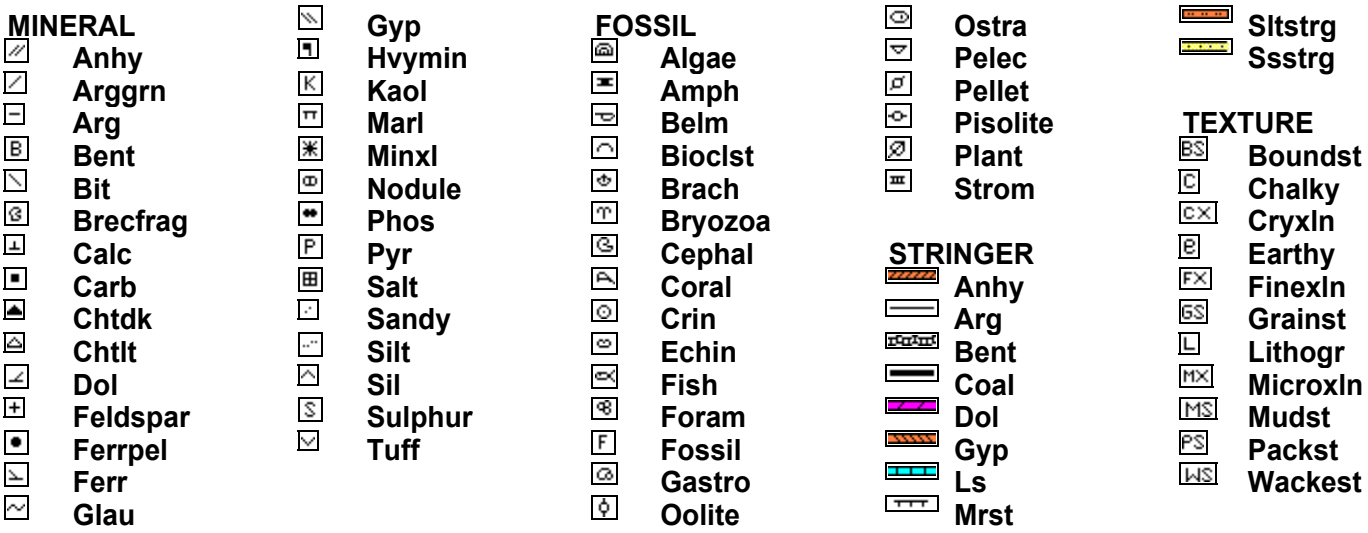
## Comments

**Production casing was ran to further test the economic potential of this well. Note: production casing depth verified RTD at 3570'.**

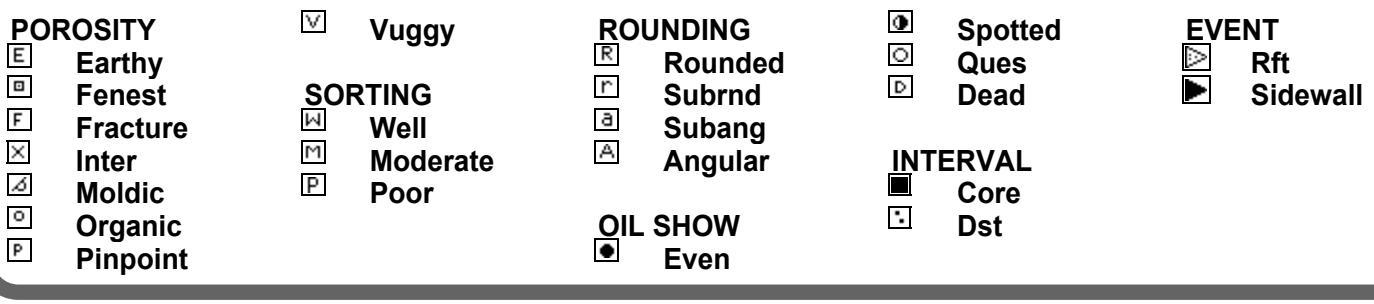
## ROCK TYPES

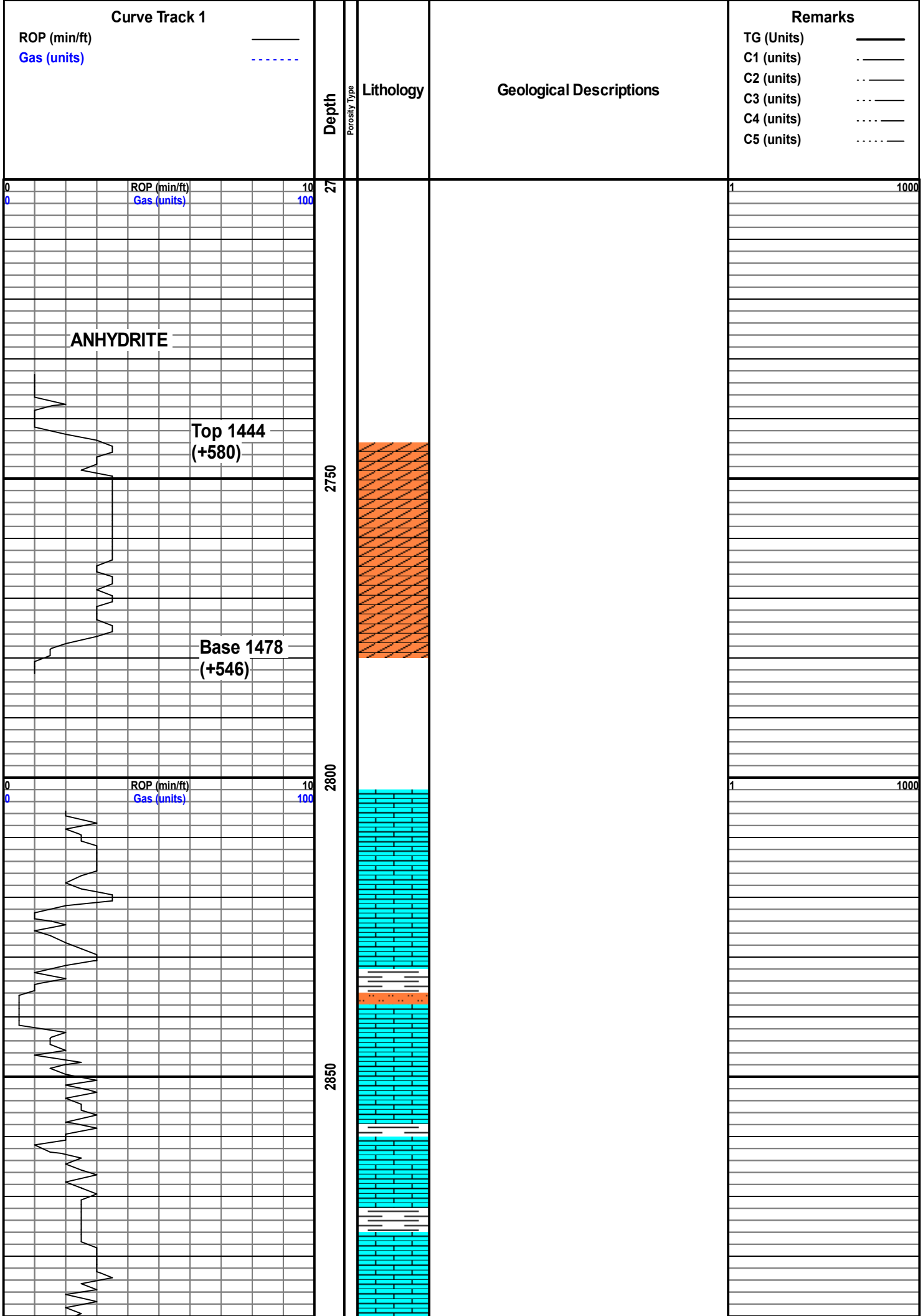


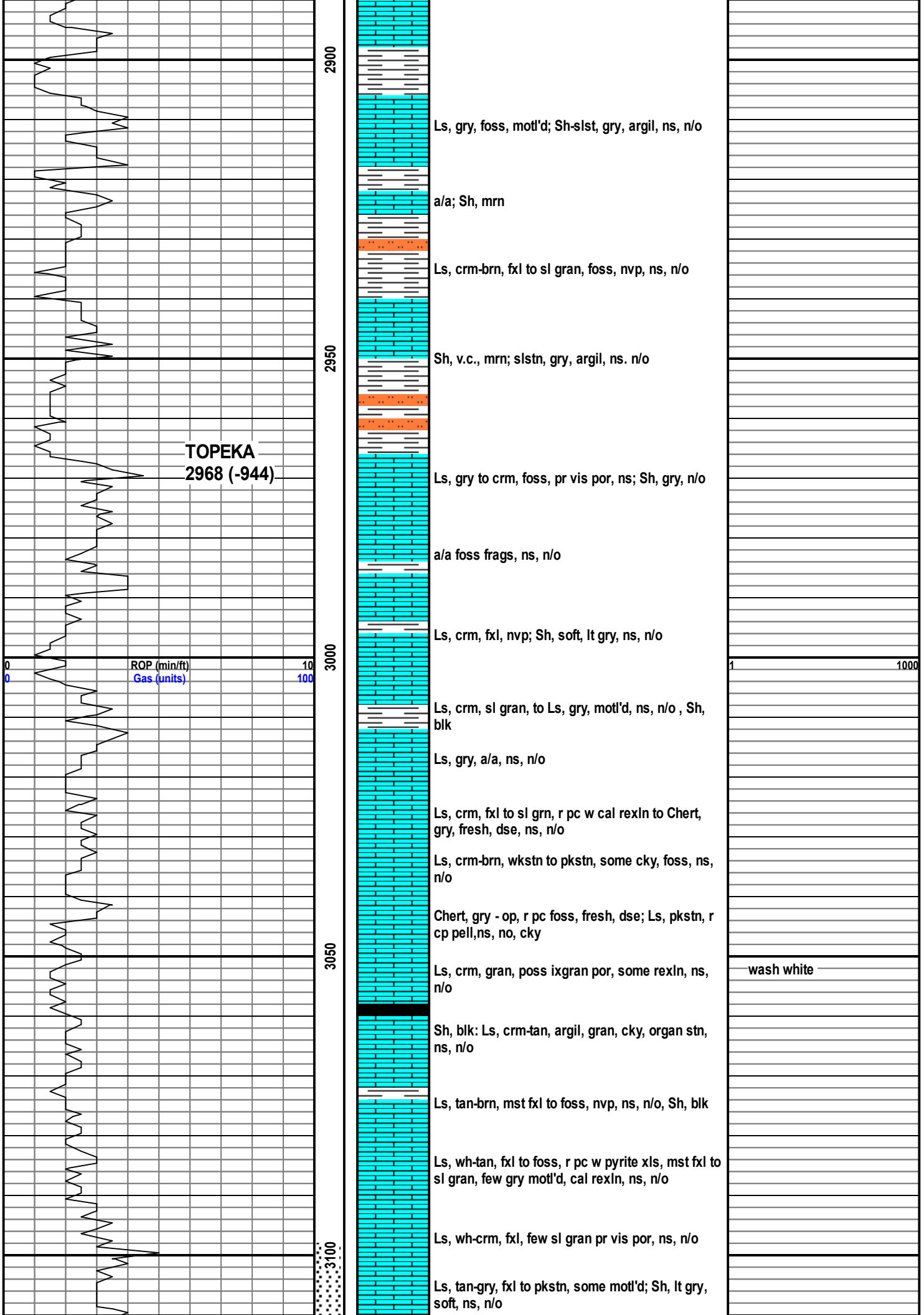

## ACCESSORIES

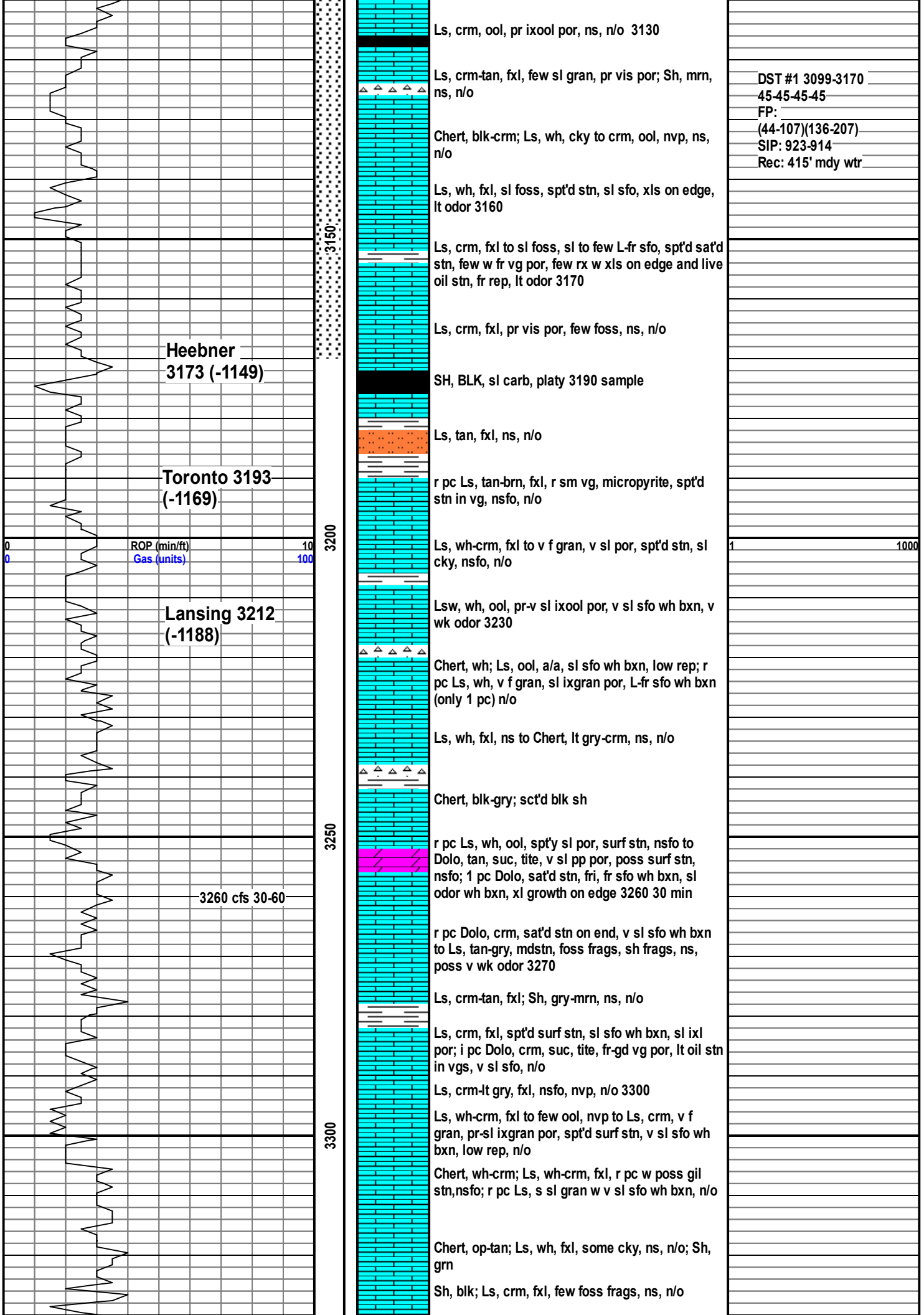


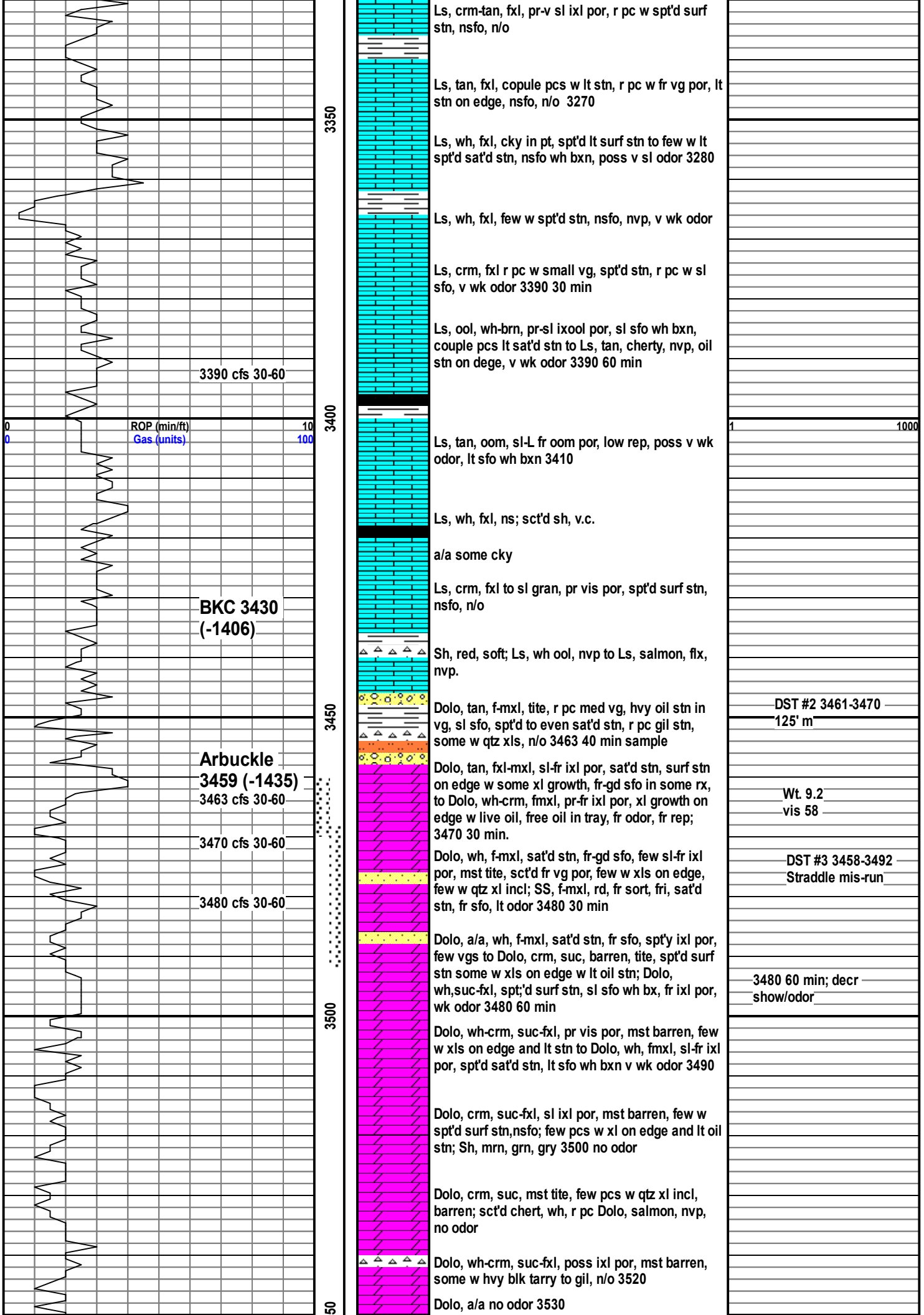

## OTHER SYMBOLS

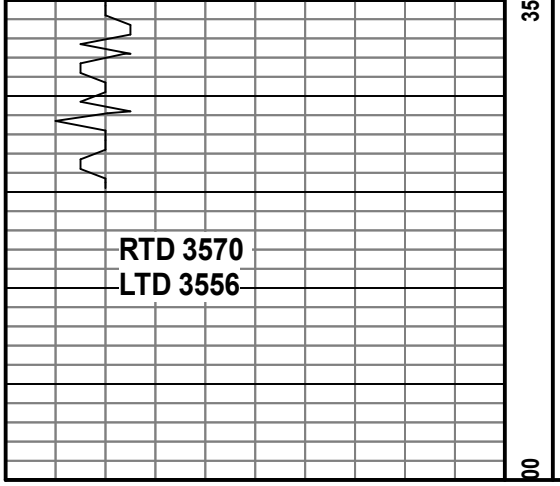



Curve Track 1
ROP (min/ft)
Gas (units)
Depth
Porosity Type
Lithology
Geological Descriptions
Remarks
TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)
0
ROP (min/ft)
10
0
Gas (units)
100
1
1000
ANHYDRITE
Top 1444
(+580)
Base 1478
(+546)
2750
2800
2850


2900
2950
3000
3050
3100
TOPEKA
2968 (-944)
0
ROP (min/ft)
10
0
Gas (units)
100
Ls, gry, foss, motl'd; Sh-slst, gry, argil, ns, n/o
a/a; Sh, mrn
Ls, crm-brn, fxl to sl gran, foss, nvp, ns, n/o
Sh, v.c., mrn; slstn, gry, argil, ns. n/o
Ls, gry to crm, foss, pr vis por, ns; Sh, gry, n/o
a/a foss frags, ns, n/o
Ls, crm, fxl, nvp; Sh, soft, lt gry, ns, n/o
Ls, crm, sl gran, to Ls, gry, motl'd, ns, n/o , Sh, blk
Ls, gry, a/a, ns, n/o
Ls, crm, fxl to sl grn, r pc w cal rexln to Chert, gry, fresh, dse, ns, n/o
Ls, crm-brn, wkstn to pkstn, some cky, foss, ns, n/o
Chert, gry - op, r pc foss, fresh, dse; Ls, pkstn, r cp pell,ns, no, cky
Ls, crm, gran, poss ixgran por, some rexln, ns, n/o
Sh, blk: Ls, crm-tan, argil, gran, cky, organ stn, ns, n/o
Ls, tan-brn, mst fxl to foss, nvp, ns, n/o, Sh, blk
Ls, wh-tan, fxl to foss, r pc w pyrite xls, mst fxl to sl gran, few gry motl'd, cal rexln, ns, n/o
Ls, wh-crm, fxl, few sl gran pr vis por, ns, n/o
Ls, tan-gry, fxl to pkstn, some motl'd; Sh, lt gry, soft, ns, n/o
1
1000
wash white


Heebner
3173 (-1149)
Toronto 3193
(-1169)
Lansing 3212
(-1188)
3260 cfs 30-60
3150
3200
3250
3300
0
ROP (min/ft)
10
0
Gas (units)
100
Ls, crm, ool, pr ixool por, ns, n/o 3130
Ls, crm-tan, fxl, few sl gran, pr vis por; Sh, mrn, ns, n/o
Chert, blk-crm; Ls, wh, cky to crm, ool, nvp, ns, n/o
Ls, wh, fxl, sl foss, spt'd stn, sl sfo, xls on edge, lt odor 3160
Ls, crm, fxl to sl foss, sl to few L-fr sfo, spt'd sat'd stn, few w fr vg por, few rx w xls on edge and live oil stn, fr rep, lt odor 3170
Ls, crm, fxl, pr vis por, few foss, ns, n/o
SH, BLK, sl carb, platy 3190 sample
Ls, tan, fxl, ns, n/o
r pc Ls, tan-brn, fxl, r sm vg, micropyrite, spt'd stn in vg, nsfo, n/o
Ls, wh-crm, fxl to v f gran, v sl por, spt'd stn, sl cky, nsfo, n/o
Lsw, wh, ool, pr-v sl ixool por, v sl sfo wh bxn, v wk odor 3230
Chert, wh; Ls, ool, a/a, sl sfo wh bxn, low rep; r pc Ls, wh, v f gran, sl ixgran por, L-fr sfo wh bxn (only 1 pc) n/o
Ls, wh, fxl, ns to Chert, lt gry-crm, ns, n/o
Chert, blk-gry; sct'd blk sh
r pc Ls, wh, ool, spt'y sl por, surf stn, nsfo to Dolo, tan, suc, tite, v sl pp por, poss surf stn, nsfo; 1 pc Dolo, sat'd stn, fri, fr sfo wh bxn, sl odor wh bxn, xl growth on edge 3260 30 min
r pc Dolo, crm, sat'd stn on end, v sl sfo wh bxn to Ls, tan-gry, mdstn, foss frags, sh frags, ns, poss v wk odor 3270
Ls, crm-tan, fxl; Sh, gry-mrn, ns, n/o
Ls, crm, fxl, spt'd surf stn, sl sfo wh bxn, sl ixl por; i pc Dolo, crm, suc, tite, fr-gd vg por, lt oil stn in vgs, v sl sfo, n/o
Ls, crm-lt gry, fxl, nsfo, nvp, n/o 3300
Ls, wh-crm, fxl to few ool, nvp to Ls, crm, v f gran, pr-sl ixgran por, spt'd surf stn, v sl sfo wh bxn, low rep, n/o
Chert, wh-crm; Ls, wh-crm, fxl, r pc w poss gil stn,nsfo; r pc Ls, s sl gran w v sl sfo wh bxn, n/o
Chert, op-tan; Ls, wh, fxl, some cky, ns, n/o; Sh, grn
Sh, blk; Ls, crm, fxl, few foss frags, ns, n/o
DST #1 3099-3170
45-45-45-45
FP:
(44-107)(136-207)
SIP: 923-914
Rec: 415' mdy wtr
1
1000


3350
3400
3450
3500
3550
0
ROP (min/ft)
10
0
Gas (units)
100
1
1000
3390 cfs 30-60
BKC 3430
(-1406)
Arbuckle
3459 (-1435)
3463 cfs 30-60
3470 cfs 30-60
3480 cfs 30-60
Ls, crm-tan, fxl, pr-v sl ixl por, r pc w spt'd surf stn, nsfo, n/o
Ls, tan, fxl, copule pcs w lt stn, r pc w fr vg por, lt stn on edge, nsfo, n/o 3270
Ls, wh, fxl, cky in pt, spt'd lt surf stn to few w lt spt'd sat'd stn, nsfo wh bxn, poss v sl odor 3280
Ls, wh, fxl, few w spt'd stn, nsfo, nvp, v wk odor
Ls, crm, fxl r pc w small vg, spt'd stn, r pc w sl sfo, v wk odor 3390 30 min
Ls, ool, wh-brn, pr-sl ixool por, sl sfo wh bxn, couple pcs lt sat'd stn to Ls, tan, cherty, nvp, oil stn on dege, v wk odor 3390 60 min
Ls, tan, oom, sl-L fr oom por, low rep, poss v wk odor, lt sfo wh bxn 3410
Ls, wh, fxl, ns; sct'd sh, v.c.
a/a some cky
Ls, crm, fxl to sl gran, pr vis por, spt'd surf stn, nsfo, n/o
Sh, red, soft; Ls, wh ool, nvp to Ls, salmon, flx, nvp.
Dolo, tan, f-mxl, tite, r pc med vg, hvy oil stn in vg, sl sfo, spt'd to even sat'd stn, r pc gil stn, some w qtz xls, n/o 3463 40 min sample
Dolo, tan, fxl-mxl, sl-fr ixl por, sat'd stn, surf stn on edge w some xl growth, fr-gd sfo in some rx, to Dolo, wh-crm, fmxl, pr-fr ixl por, xl growth on edge w live oil, free oil in tray, fr odor, fr rep; 3470 30 min.
Dolo, wh, f-mxl, sat'd stn, fr-gd sfo, few sl-fr ixl por, mst tite, sct'd fr vg por, few w xls on edge, few w qtz xl incl; SS, f-mxl, rd, fr sort, fri, sat'd stn, fr sfo, lt odor 3480 30 min
Dolo, a/a, wh, f-mxl, sat'd stn, fr sfo, spt'y ixl por, few vgs to Dolo, crm, suc, barren, tite, spt'd surf stn some w xls on edge w lt oil stn; Dolo, wh,suc-fxl, spt;'d surf stn, sl sfo wh bx, fr ixl por, wk odor 3480 60 min
Dolo, wh-crm, suc-fxl, pr vis por, mst barren, few w xls on edge and lt stn to Dolo, wh, fmxl, sl-fr ixl por, spt'd sat'd stn, lt sfo wh bxn v wk odor 3490
Dolo, crm, suc-fxl, sl ixl por, mst barren, few w spt'd surf stn,nsfo; few pcs w xl on edge and lt oil stn; Sh, mrn, grn, gry 3500 no odor
Dolo, crm, suc, mst tite, few pcs w qtz xl incl, barren; sct'd chert, wh, r pc Dolo, salmon, nvp, no odor
Dolo, wh-crm, suc-fxl, poss ixl por, mst barren, some w hvy blk tarry to gil, n/o 3520
Dolo, a/a no odor 3530
DST #2 3461-3470
125' m
Wt. 9.2
vis 58
DST #3 3458-3492
Straddle mis-run
3480 60 min; decr show/odor




35

00

Dolo, a/a, several w hvy blk tar, nsfo, n/o

Dolo, a/a couple pcs Dolo, crm, xl on edge, lt oil stn..sluff?, n/o

Dolo, crm, barren; chert, clr-wh nsfo, n/o 3560

Dolo, wh-lt tan, suc-fxl, pr vis por, ns, n/o

Strap .61 short:
Note wind was 30 mph +

# DRILL STEM TEST REPORT

Tengasco inc.

PO Box 458
Hays KS. 67601+9744

ATTN: Mike Bair

**21-8s-19w Rooks**

**Veverka "D" #3**

Job Ticket: 54338 **DST#: 1**

Test Start: 2013.11.15 @ 07:53:01

## GENERAL INFORMATION:

Formation: **OREAD**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:08:00
Time Test Ended: 15:01:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Andy Carreira
Unit No: 68

**Interval: 3099.00 ft (KB) To 3170.00 ft (KB) (TVD)**
Total Depth: 3170.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

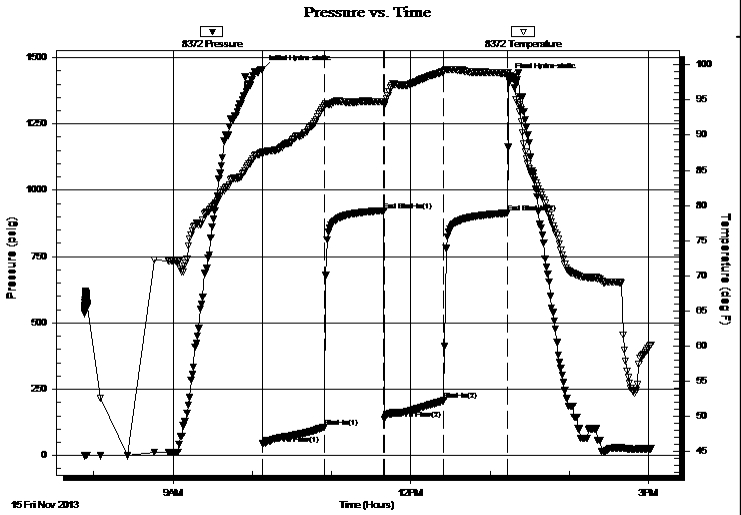
Reference Elevations: 2024.00 ft (KB)
2017.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8372** **Inside**

Press@RunDepth: 207.69 psig @ 3106.00 ft (KB)
Start Date: 2013.11.15 End Date: 2013.11.15
Start Time: 07:53:01 End Time: 15:01:30

Capacity: 8000.00 psig
Last Calib.: 2013.11.01
Time On Btm: 2013.11.15 @ 10:07:30
Time Off Btm: 2013.11.15 @ 13:14:00

TEST COMMENT: IF:(45min) 2" blow in 3 min. 6" in 11min. BOB in 23 min.
ISI:(45min) No Return
FF:(45min) 2" blow in 3 min. 6" in 11 min. BOB in 23 min.
FSI:(45min) No Return




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1455.59 | 87.59 | Initial Hydro-static |
| 1 | 44.02 | 87.33 | Open To Flow (1) |
| 47 | 107.37 | 94.13 | Shut-In(1) |
| 92 | 923.95 | 94.73 | End Shut-In(1) |
| 93 | 136.56 | 94.29 | Open To Flow (2) |
| 138 | 207.69 | 99.07 | Shut-In(2) |
| 186 | 914.10 | 98.82 | End Shut-In(2) |
| 187 | 1422.89 | 98.90 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 415.00 | MW | 5.54 |
| | | |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|---|---|---|---|

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Tengasco inc.

PO Box 458
Hays KS. 67601+9744

ATTN: Mike Bair

**21-8s-19w Rooks**

**Veverka "D" #3**

Job Ticket: 54338 **DST#: 1**

Test Start: 2013.11.15 @ 07:53:01

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | 20000 ppm |
| Viscosity: | 55.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 5.99 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 2200.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 415.00 | MW | 5.543 |

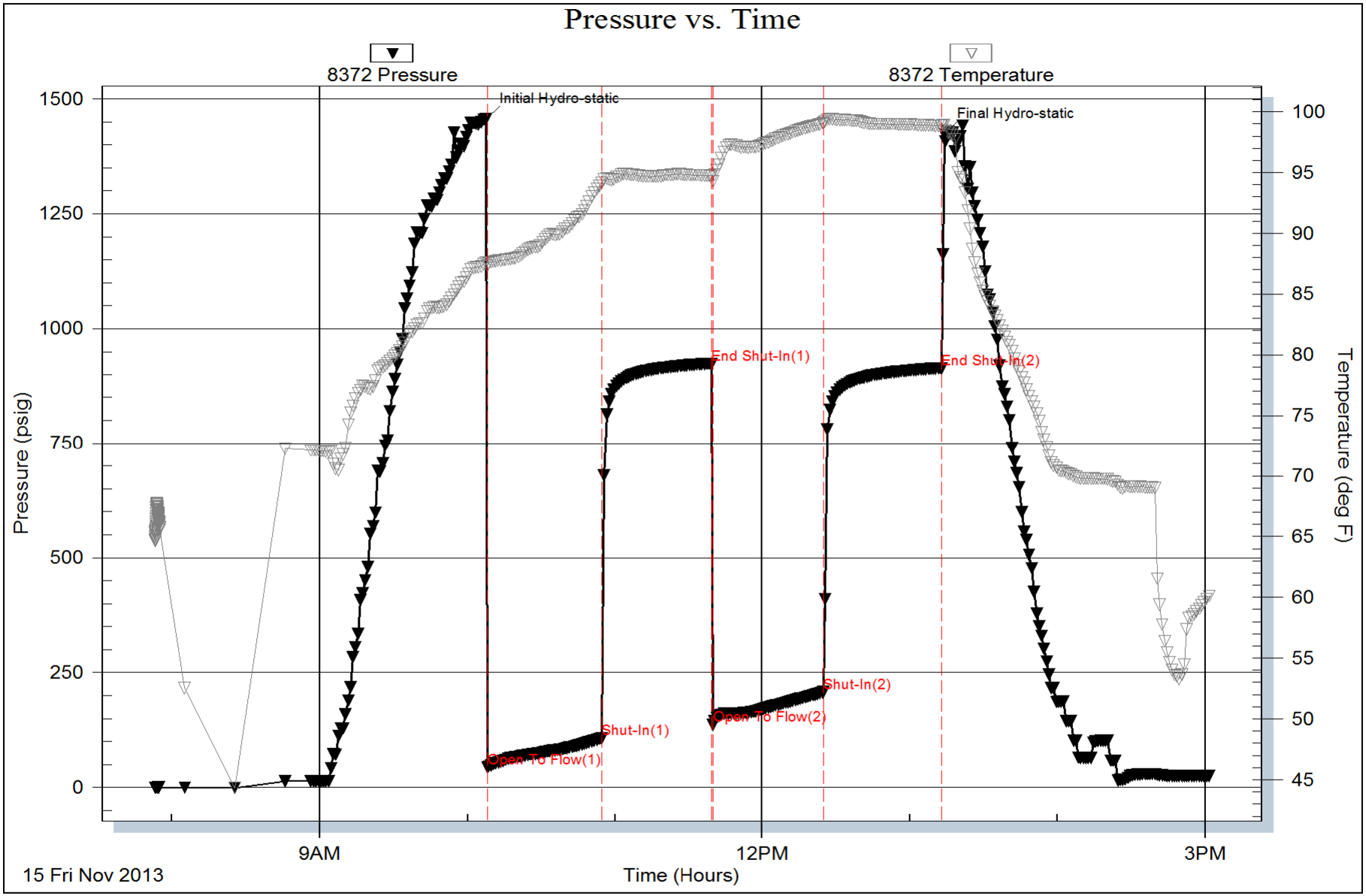
Total Length: 415.00 ft Total Volume: 5.543 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Resistivity - .53 @ 46 = 20000

Serial #: 8372 **Inside** Tengasco inc. Veverka "D" #3 DST Test Number: 1




Trilobite Testing, Inc Ref. No: 54338 Printed: 2013.11.15 @ 15:39:30

# DRILL STEM TEST REPORT

Tengasco inc.

PO Box 458
Hays KS. 67601+9744

ATTN: Mike Bair

**21-8s-19w Rooks**

**Veverka "D" #3**

Job Ticket: 54339 **DST#: 2**

Test Start: 2013.11.16 @ 19:31:01

## GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:12:30
Time Test Ended: 00:44:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Andy Carreira
Unit No: 68

**Interval: 3461.00 ft (KB) To 3470.00 ft (KB) (TVD)**
Total Depth: 3470.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

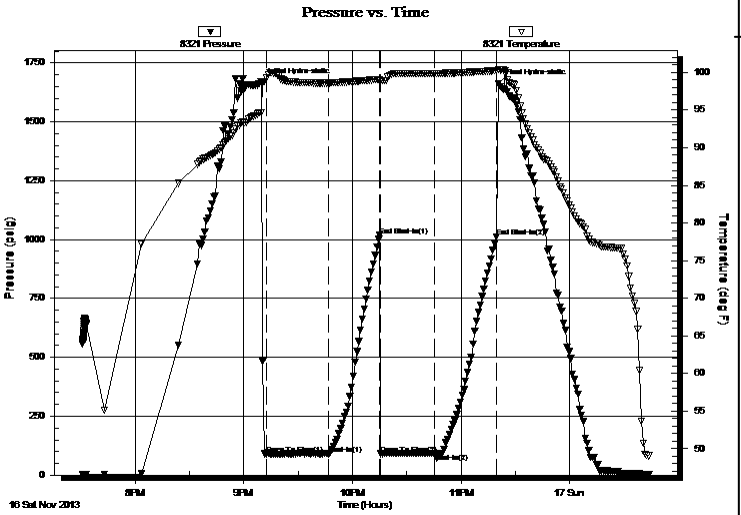
Reference Elevations: 2024.00 ft (KB)
2017.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8321** **Outside**

Press@RunDepth: 93.29 psig @ 3462.00 ft (KB)
Start Date: 2013.11.16 End Date: 2013.11.17
Start Time: 19:31:01 End Time: 00:44:00

Capacity: 8000.00 psig
Last Calib.: 2013.11.17
Time On Btm: 2013.11.16 @ 21:09:30
Time Off Btm: 2013.11.16 @ 23:20:30

TEST COMMENT: IF:(30min) Partial Packer failure. Mud dropped 30 ft. No Blow after bleed off.
ISI:(30min) No Return
FF:(30min) No Blow . Flushed, Surged, No Blow .
FSI:(30min) No Return




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1668.07 | 94.69 | Initial Hydro-static |
| 3 | 87.39 | 99.26 | Open To Flow (1) |
| 37 | 90.43 | 98.59 | Shut-In(1) |
| 66 | 1017.52 | 99.07 | End Shut-In(1) |
| 66 | 90.25 | 98.89 | Open To Flow (2) |
| 96 | 93.29 | 99.87 | Shut-In(2) |
| 130 | 1010.12 | 100.23 | End Shut-In(2) |
| 131 | 1663.17 | 100.40 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 125.00 | Mud | 1.47 |
| | | |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|---|---|---|---|

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Tengasco inc.

PO Box 458
Hays KS. 67601+9744

ATTN: Mike Bair

**21-8s-19w Rooks**

**Veverka "D" #3**

Job Ticket: 54339 **DST#: 2**

Test Start: 2013.11.16 @ 19:31:01

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | ppm |
| Viscosity: | 55.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 5.80 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 2200.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

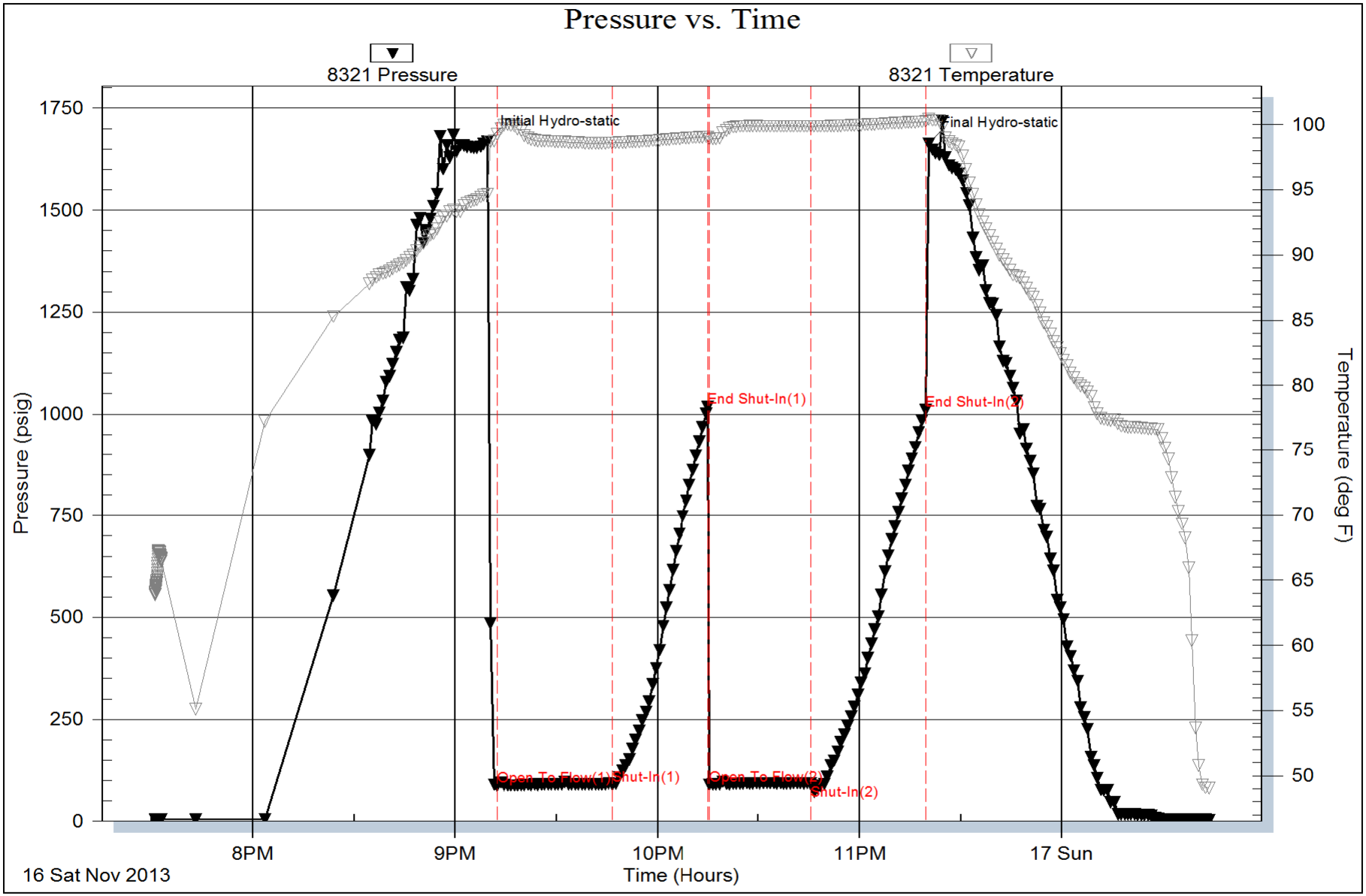
Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 125.00 | Mud | 1.475 |

Total Length: 125.00 ft Total Volume: 1.475 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8321 **Outside** Tengasco inc. Veverka "D" #3 DST Test Number: 2




Trilobite Testing, Inc Ref. No: 54339 Printed: 2013.11.17 @ 05:49:22

# DRILL STEM TEST REPORT

Tengasco inc.

PO Box 458
Hays KS. 67601+9744

ATTN: Mike Bair

**21-8s-19w Rooks**

**Veverka "D" #3**

Job Ticket: 54340 **DST#: 3**

Test Start: 2013.11.17 @ 19:35:01

## GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:00:00
Time Test Ended: 01:09:30

Test Type: Conventional Straddle (Reset)
Tester: Andy Carreira
Unit No: 68

**Interval: 3458.00 ft (KB) To 3492.00 ft (KB) (TVD)**
Total Depth: 3570.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

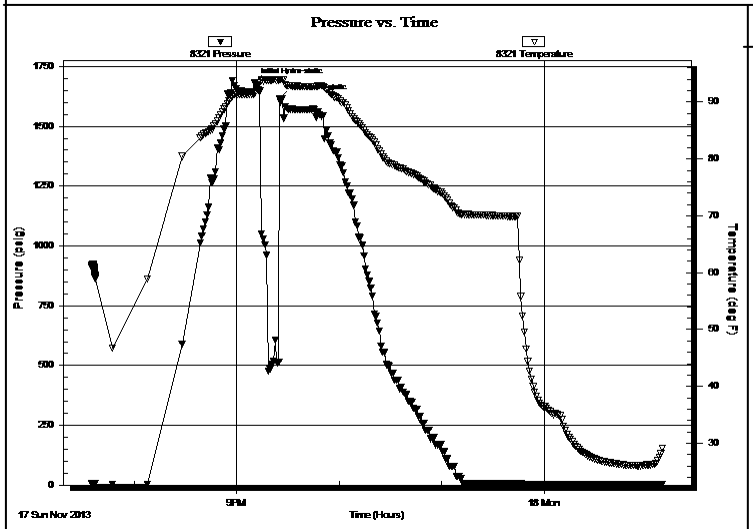
Reference Elevations: 2024.00 ft (KB)
2017.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8321** **Outside**

Press@RunDepth: psig @ 3459.00 ft (KB)
Start Date: 2013.11.17 End Date: 2013.11.18
Start Time: 19:35:01 End Time: 01:09:30

Capacity: 8000.00 psig
Last Calib.: 2013.11.18
Time On Btm: 2013.11.17 @ 21:10:30
Time Off Btm: 2013.11.17 @ 21:25:00

TEST COMMENT: Packer Failure Misrun




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1683.52 | 91.48 | Initial Hydro-static |
| 15 | 1615.22 | 93.98 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 1000.00 | Drilling Mud | 13.75 |
| | | |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|---|---|---|---|

# DRILL STEM TEST REPORT

Tengasco inc.

PO Box 458
Hays KS. 67601+9744

ATTN: Mike Bair

**21-8s-19w Rooks**

**Veverka "D" #3**

Job Ticket: 54340 **DST#: 3**

Test Start: 2013.11.17 @ 19:35:01

## GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:00:00
Time Test Ended: 01:09:30

Test Type: Conventional Straddle (Reset)
Tester: Andy Carreira
Unit No: 68

**Interval: 3458.00 ft (KB) To 3492.00 ft (KB) (TVD)**
Total Depth: 3570.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

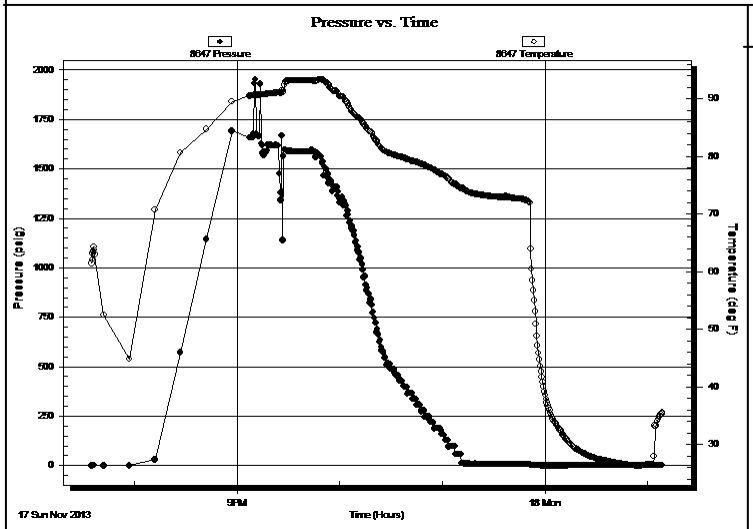
Reference Elevations: 2024.00 ft (KB)
2017.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8647** **Below (Straddle)**

Press@RunDepth: psig @ 3506.00 ft (KB)
Start Date: 2013.11.17 End Date: 2013.11.18
Start Time: 19:35:05 End Time: 01:08:40

Capacity: 8000.00 psig
Last Calib.: 2013.11.18
Time On Btm:
Time Off Btm:

TEST COMMENT: Packer Failure Misrun




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 1000.00 | Drilling Mud | 13.75 |
| | | |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

## Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|---|---|---|---|

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Tengasco inc.

PO Box 458
Hays KS. 67601+9744

ATTN: Mike Bair

**21-8s-19w Rooks**

**Veverka "D" #3**

Job Ticket: 54340 **DST#: 3**

Test Start: 2013.11.17 @ 19:35:01

## Mud and Cushion Information

| | | | | | |
|---|---|---|---|---|---|
| Mud Type: | Gel Chem | Cushion Type: | | Oil API: | deg API |
| Mud Weight: | 9.00 lb/gal | Cushion Length: | ft | Water Salinity: | ppm |
| Viscosity: | 55.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 5.79 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 2200.00 ppm | | | | |
| Filter Cake: | inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 1000.00 | Drilling Mud | 13.749 |

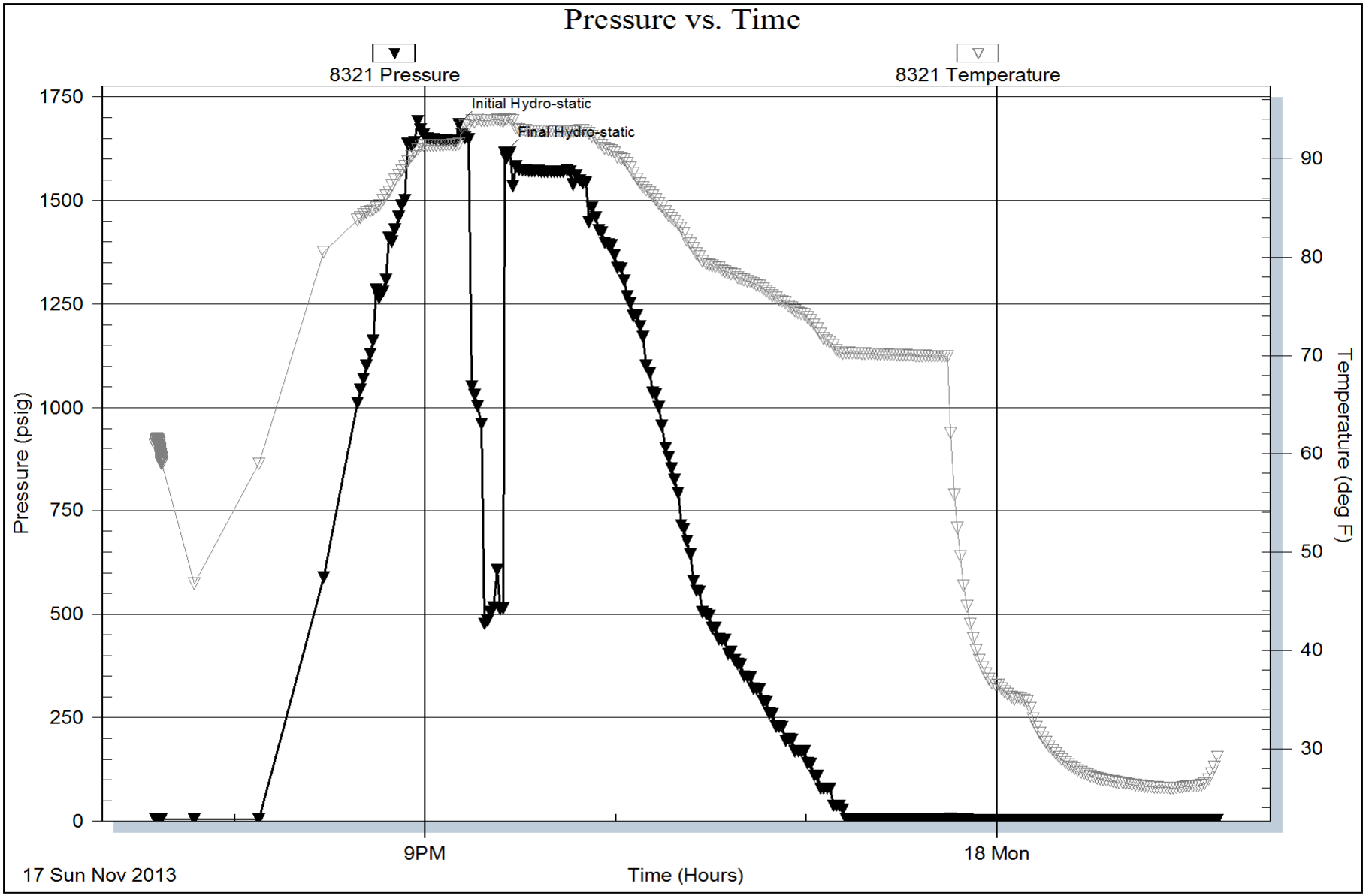
Total Length: 1000.00 ft Total Volume: 13.749 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

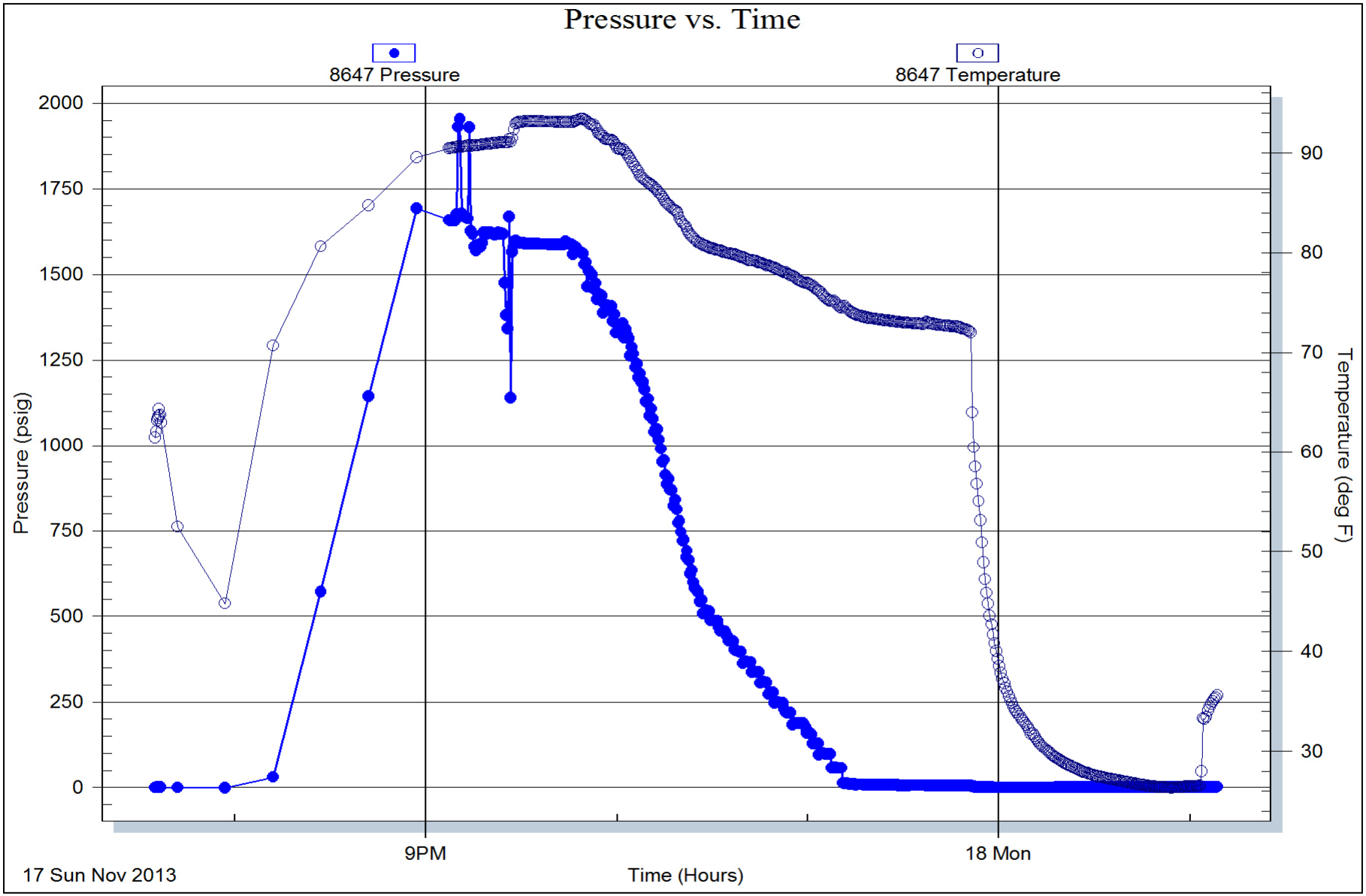
Recovery Comments: Packer Failure Misrun

Serial #: 8321 **Outside** Tengasco inc. Veverka "D" #3 DST Test Number: 3




Trilobite Testing, Inc Ref. No: 54340 Printed: 2013.11.18 @ 06:24:32

Serial #: 8647 Below (Straddle) Tedisco inc. Veverka "D" #3 DST Test Number: 3




Trilobite Testing, Inc Ref. No: 54340 Printed: 2013.11.18 @ 06:24:32