KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1082298

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 31725
Name: Shelby Resources LLC
Address 1: 2717 Canal Blvd.
Address 2: Suite C
City: HAYS State: KS Zip: 67601 + __ __ __ __
Contact Person: Chris Gottschalk
Phone: (785) 623-1524
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: Keith Reavis
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
☐ Conv. to GSW
☐ Plug Back: Plug Back Total Depth
☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

03/10/2012	03/17/2012	03/18/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-065-23816-00-00
Spot Description:
NE - NW - SE - SW Sec. 20 Twp. 9 S. R. 21 ☐ East ☑ West
1196 Feet from ☐ North / ☑ South Line of Section
1925 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
County: Graham
Lease Name: ACHESON TRUST Well #: 1-20
Field Name:
Producing Formation: Arbuckle
Elevation: Ground: 2361 Kelly Bushing: 2372
Total Depth: 4003 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 251 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: 50000 ppm Fluid volume: 1000 bbls
Dewatering method used: Evaporated

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

☐ Letter of Confidentiality Received
Date:
☐ Confidential Release Date:
☑ Wireline Log Received
☑ Geologist Report Received
☐ UIC Distribution
ALT ☐ I ☑ II ☐ III Approved by: Deanna Garrisor Date: 05/24/2012

Side Two

1082298

Operator Name: Shelby Resources LLC Lease Name: ACHESON TRUST Well #: 1-20

Sec. 20 Twp. 9 S. R. 21 ☐ East ☑ West County: Graham

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:
Attached

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

Name	Top	Datum
Heebner	3548	-1176
Lansing	3586	-1214
Lansing G	3682	-1310
Base KC	3802	-1430
Penn Congl	3864	-1492
Arbuckle	3907	-1535

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	251	60/40 Poz	160	3% gel, 2% cc

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

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

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:
☐ 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:

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

Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	ACHESON TRUST 1-20
Doc ID	1082298

All Electric Logs Run

Dual Induction
Compensated Neutron
Micro
Sonic

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 647

Cell 785-324-1041

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 3-10-12	20	9	21	Graham	KS		11:00 pm

Lease Acheson Trust Well No. 1-20 Location Palco Redline 4 to 350Rd W 18E into

Contractor Sterling

Type Job Surface

Hole Size 12 1/4 T.D. 254

Csg. 8 5/8 Depth 252

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 15' Shoe Joint

Meas Line Displace 15 BC

Owner

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.

Charge To Shelby Resources

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 160 Com 3% cc 2% Gel

EQUIPMENT

Pumptrk 5 No. Cementer Craig
Helper

Bulktrk No. Driver Cody
Driver

Bulktrk 13 No. Driver
Driver Nick

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

8 5/8 on bottom. Est Circulation. Mix 160 sx Displace. Cement Circulated

Thanks

X
Signature

Common	160
Poz. Mix	
Gel.	
Calcium	3
Hulls	5
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	168
Mileage	
FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	41
Tax	
Discount	
Total Charge	

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. 5469

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-16-12	20	9	21	Graham	Ks		10:30 PM

Lease Acheson Trust Well No. 1-20 Location Palco + Redline Rd, W on Redline Rd to 350th,

Contractor Sterling #4

Type Job Plug

Hole Size 7 7/8" T.D. 4000'

Csg. Depth

Tbg. Size 4½" D.P. Depth 3887'

Tool Depth

Cement Left in Csg. Shoe Joint

Meas Line Displace H20/mud

Owner ND, SE, N/Into

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.

Charge To Shelby Resources

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 250 sx 60/40 4% Gel ¼# F.S.

EQUIPMENT

Pumptrk 15 No. Cementer Cisco / Helper

Bulktrk 10 No. Driver / Driver LONNIE

~~Bulktrk~~ p.u. No. Driver / Driver Rick

JOB SERVICES & REMARKS

Remarks: Cement did Circulate,

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

3887' - 25 sx

1865' - 25 sx

1085' - 100 sx

300' - 40 sx

40' - 10 sx with plug

Rathole - 30 sx Mousehole 20 sx

Common	150
Poz. Mix	100
Gel.	9
Calcium	
Hulls	
Salt	
Flowseal	62#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	259
Mileage	

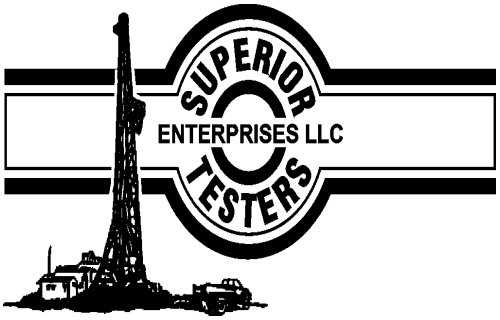
FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

1- Dry hole plug

Pumptrk Charge	plug
Mileage	41
Tax	
Discount	
Total Charge	

X Signature Jimmy L. Talbert



DRILL STEM TEST REPORT

Prepared For: **Shelby Resources LLC**

2717 Canal Blvd
Suite C
Hays, Kansas 67601

ATTN: Keith Reavis

Acheson Trust #1-20

20/9S/21W/Graham

Start Date: 2012.03.15 @ 14:22:00
End Date: 2012.03.15 @ 19:53:30
Job Ticket #: 17171 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.03.15 @ 20:04:37

DRILL STEM TEST REPORT

Shelby Resources LLC

2717 Canal Blvd
Suite C
Hays, Kansas 67601
ATTN: Keith Reavis

20/9S/21W/Graham

Acheson Trust #1-20

Job Ticket: 17171 **DST#: 1**

Test Start: 2012.03.15 @ 14:22:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:24:30
Time Test Ended: 19:53:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 3325 Hays/90

Interval: 3844.00 ft (KB) To 3920.00 ft (KB) (TVD)
Total Depth: 3920.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

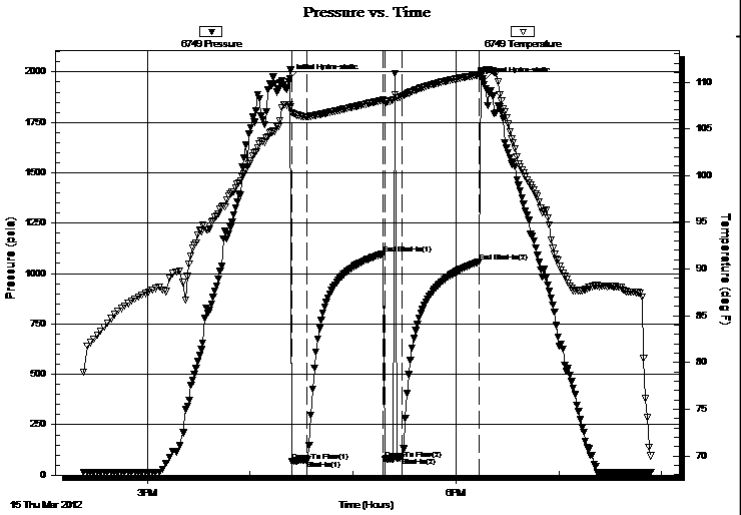
Reference Elevations: 2372.00 ft (KB)
2363.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 6749

Press@RunDepth: 87.52 psia @ ft (KB)
Start Date: 2012.03.15 End Date: 2012.03.15
Start Time: 14:22:00 End Time: 19:53:30

Capacity: 5000.00 psia
Last Calib.: 2012.03.15
Time On Btm: 2012.03.15 @ 16:23:00
Time Off Btm: 2012.03.15 @ 18:16:00

TEST COMMENT:
1ST Open 10 Minutes/Weak blow /Blow built to 1/2 inch in bucket of water
1ST Shut In 45 Minutes/No blow back
2ND Open 10 Minutes/No blow /Flush tool didnt help
2ND Shut In 45 Minutes/No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1965.78	107.56	Initial Hydro-static
2	69.29	106.74	Open To Flow (1)
10	75.04	106.28	Shut-In(1)
55	1097.11	108.06	End Shut-In(1)
56	77.94	107.85	Open To Flow (2)
66	87.52	108.46	Shut-In(2)
111	1058.41	110.77	End Shut-In(2)
113	1951.80	111.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100% with show of oil in tool	0.05

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Shelby Resources LLC

2717 Canal Blvd
Suite C
Hays, Kansas 67601
ATTN: Keith Reavis

20/9S/21W/Graham

Acheson Trust #1-20

Job Ticket: 17171 **DST#: 1**

Test Start: 2012.03.15 @ 14:22:00

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Deviated: No Whipstock: ft (KB)
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Time Test Ended: 19:53:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 3325 Hays/90

Interval: 3844.00 ft (KB) To 3920.00 ft (KB) (TVD)
Total Depth: 3920.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

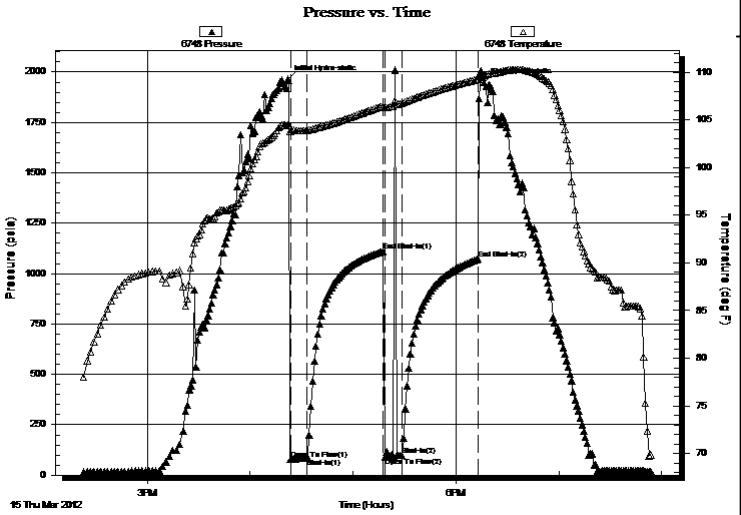
Reference Elevations: 2372.00 ft (KB)
2363.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 6748

Press@RunDepth: 1072.27 psia @ ft (KB)
Start Date: 2012.03.15 End Date: 2012.03.15
Start Time: 14:22:00 End Time: 19:53:30

Capacity: 5000.00 psia
Last Calib.: 2012.03.15
Time On Btm: 2012.03.15 @ 16:22:00
Time Off Btm: 2012.03.15 @ 18:16:30

TEST COMMENT:
1ST Open 10 Minutes/Weak blow /Blow built to 1/2 inch in bucket of water
1ST Shut In 45 Minutes/No blow back
2ND Open 10 Minutes/No blow /Flush tool didnt help
2ND Shut In 45 Minutes/No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1964.83	104.45	Initial Hydro-static
2	78.65	103.78	Open To Flow (1)
11	85.86	103.88	Shut-In(1)
56	1110.10	106.45	End Shut-In(1)
57	90.56	106.25	Open To Flow (2)
67	99.72	106.71	Shut-In(2)
111	1072.27	109.27	End Shut-In(2)
115	1947.62	109.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100% with show of oil in tool	0.05

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC

2717 Canal Blvd
Suite C
Hays, Kansas 67601
ATTN: Keith Reavis

20/9S/21W/Graham

Acheson Trust #1-20

Job Ticket: 17171 **DST#: 1**

Test Start: 2012.03.15 @ 14:22:00

Tool Information

Drill Pipe:	Length:	3668.00 ft	Diameter:	3.88 inches	Volume:	53.64 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	180.00 ft	Diameter:	2.25 inches	Volume:	0.89 bbl	Weight to Pull Loose:		72000.00 lb
					Total Volume:	54.53 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		31.00 ft					String Weight:	Initial	67000.00 lb
Depth to Top Packer:		3844.00 ft						Final	67000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		76.19 ft							
Tool Length:		103.19 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3822.00		
Hydrolic Tool	5.00			3827.00		
Jars	5.00			3832.00		
Safety Joint	2.00			3834.00		
Packer	5.00			3839.00	27.00	Bottom Of Top Packer
Packer	5.00			3844.00		
Perforations	6.00			3850.00		
Change Over Sub	0.65			3850.65		
Drill Pipe	31.89			3882.54		
Change Over Sub	0.65			3883.19		
Anchor	32.00			3915.19		
Recorder	1.00	6749	Inside	3916.19		
Recorder	1.00	6748	Outside	3917.19		
Bullnose	3.00			3920.19	76.19	Bottom Packers & Anchor
Total Tool Length:	**103.19**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Shelby Resources LLC

2717 Canal Blvd
Suite C
Hays, Kansas 67601
ATTN: Keith Reavis

20/9S/21W/Graham

Acheson Trust #1-20

Job Ticket: 17171 **DST#: 1**

Test Start: 2012.03.15 @ 14:22:00

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:	65.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.40 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psia		
Salinity:	1900.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

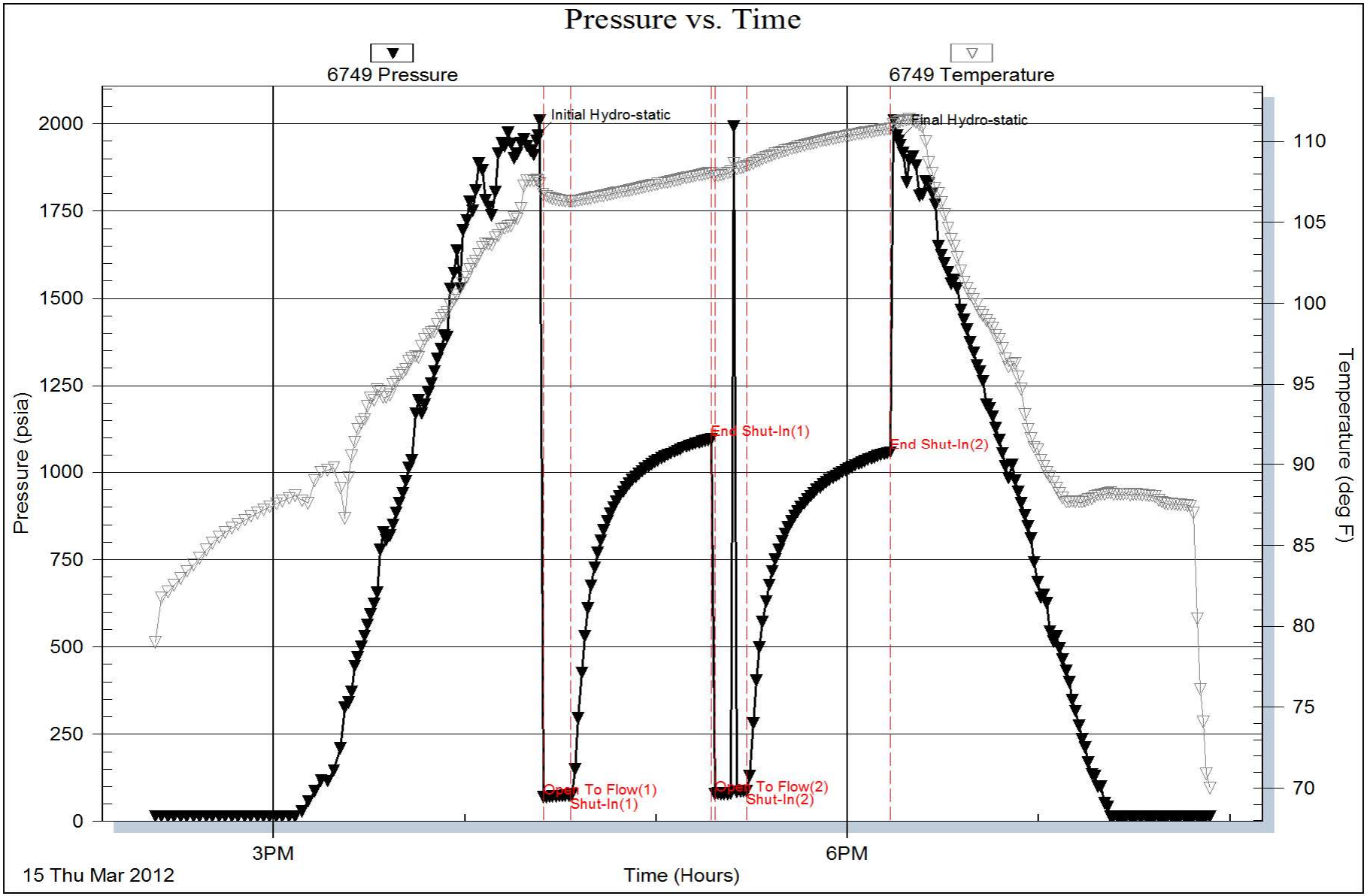
Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100% with show of oil in tool	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

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

Serial #: 6749 Shelby Resources LLC Acheson Trust #1-20 DST Test Number: 1



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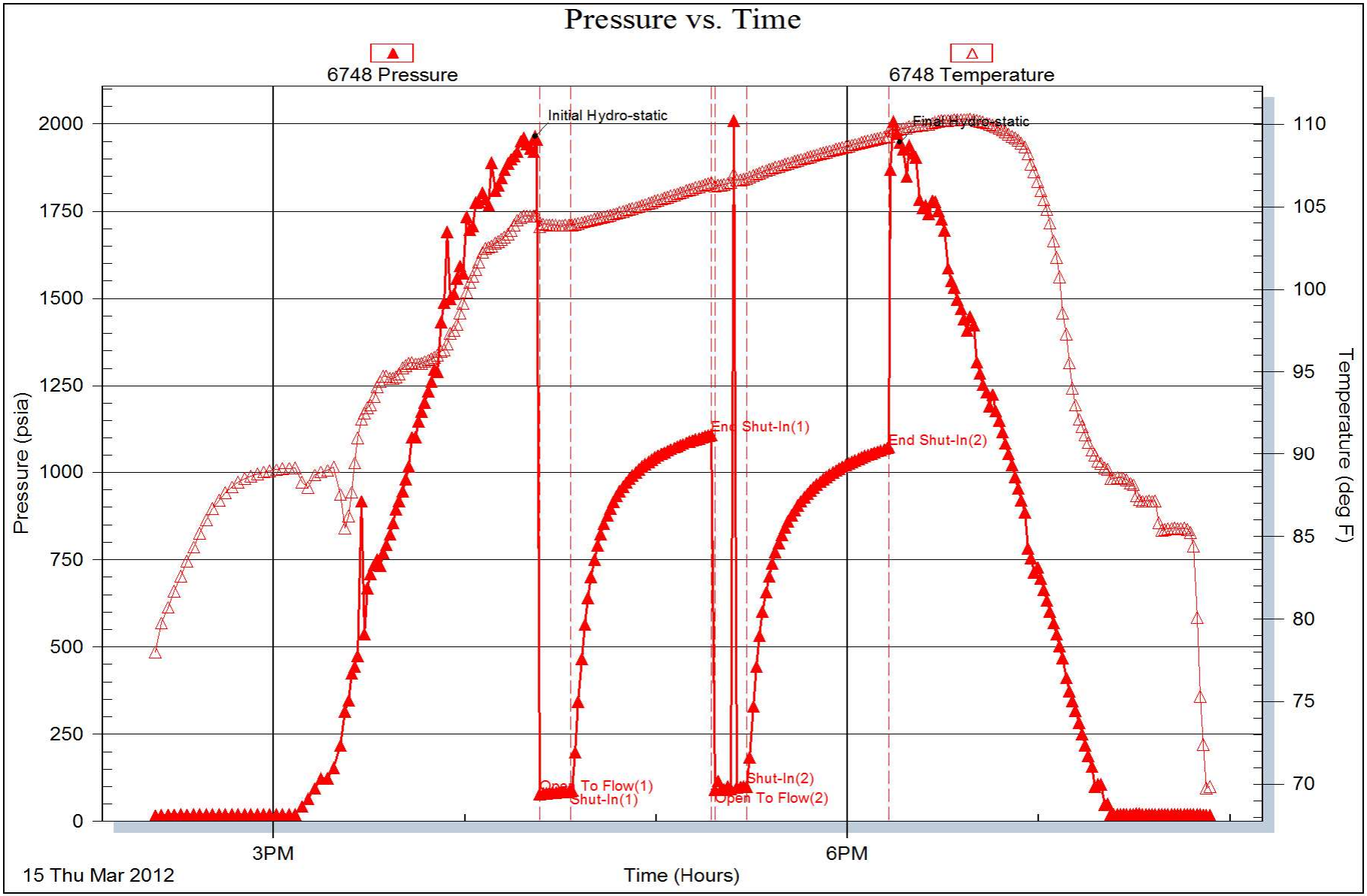
Serial #: 6748 Shelby Resources LLC Acheson Trust #1-20 DST Test Number: 1



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Curve Track #1
ROP (min/ft)
Gamma (API)
Cal (in)
1:240 Imperial
0 ROP (min/ft) 5
0 Gamma (API) 150
6 Cal (in) 16

Depth | Intervals
Cored Interval
DST Interval
DST
Lithology
Oil Show
Geological Descriptions

TG, C1 - C5
Total Gas (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
1:240 Imperial
0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100

3200

limestone, pinkish-beige, microcrystalline, lithographic to fossiliferous, dense to grainy/chalky with limited porosity, no shows, abundant chalk and shale.

3220

3240

as above

shale, green to maroon, soft

3260

limestone, beige to gray, microcrystalline, fossiliferous, grainy, no shows, abundant chalk

3280

limestone, tan, cryptocrystalline to microcrystalline, slightly fossiliferous, very dense, no shows

3300

Shale, gray and red, soft and pliable; sandstone, light gray, very fine grained, well-rounded, well-sorted, well-cemented; siltstone, micaceous, no shows

3320

Topeka 3341 -969

limestone, dark gray, cryptocrystalline, mostly lithographic, slightly fossiliferous

3340

limestone, gray mottled, microcrystalline, chalky, fossiliferous, spines-spiculites, some large clasts, poor visible porosity, no shows, abundant chalk

3360

limestone, as above, with cream, microcrystalline, dense, fossiliferous, dense, poor visible porosity, no shows

3380

as above, some large clasts, ammonites and crinoids, flood chalk

lighter and propane tests

3400

limestone, mostly cream, chalky, microcrystalline, fossiliferous, poor visible porosity, some gray mottled fossiliferous to pelletal, chalky, no visible porosity, no shows

3420

King Hill 3438 -1066

limestone, cream to tan, microcrystalline, slightly fossiliferous, dense to chalky, trace black chert, no shows,

3440

limestone, cream to gray, mixed fossiliferous to bioclastic, some scattered pinpoint porosity, no shows, abundant chalk in samples

3460

limestone, gray to tan, crypto-microcrystalline, fossiliferous to lithographic, mostly dense, poor visible porosity, no shows

3480

shale, black carbonaceous

3500

limestone, cream to tan and brown, microcrystalline, fossiliferous, some large clasts, chalky in part, poor visible porosity, no shows

Mud-Co Mud Ck
@ 3484'
0730 hrs 3/14/12
vis 67 wt. 8.9
pv 15 yp 29
wl 6.4 cake 1/32
pH 11.5
chl 1700
cal 0
sol 4.3 lcm 4#
dmc $1895.15
cmc $11855.45

limestone, cream to light gray, very chalky, microcrystalline, fossiliferous, poor visible porosity, appx 50% chalk, abundant chert, gray, fossiliferous, sharp, fresh, no show

3520

limestone, cream to light tan, microcrystalline, some very dense, fossiliferous, some large calcite crystals and secondary calcite, no shows

3540

Heebner 3548 -1176

black carbonaceous shale

3560

limestone, light gray, cryptocrystalline, some secondary calcite, fossiliferous in part, still carrying abundant chalk, no shows

3580

Lansing 3586 -1214

limestone, cream, micro to cryptocrystalline, spongy bioclastic, some fair porosity, barren, with some gray fossiliferous to oolitic, dense, some white recyrstallized flattened oolitic, no shows, some scattered white fossiliferous chert

propane test

cfs @ 3608 ft
1250 hrs 3/14/12

3600

as above, bioclastic drops out, chert increases

3620

limestone, cream to beige, oolitic, fossiliferous, some fair interoolite porosity, spotted stain, some gray cryptocrystalline dense fossiliferous, some solution vugs with stain, fair fluorescence, good cut fluoresence, trace light oil droplets in tray and some clingy tarry oil, no odor, trace traces of pyrite

3640

limestone, cream to gray/green, cryptocrystalline, dense, fossiliferous to lithographic, trace solution vug porosity with black stain, no show free oil, no odor

gray and green limey shales with soft red shales

3660

limestone as above, no shows

limestone, as above, with some white grainy fossiliferous, no show, few small pieces mature oolitic, white, slight stain, no free oil or odor, some fair fluoresence

3680

limestone, white, fine oolitic to sub-oomoldic, some fair oomold porosity, barren, grading to limestone, white to light gray, fossiliferous to dense flattened oolitic, no shows, some fair fluoresence

limestone, white to cream and light gray, cryptocrystalline, dense, slightly fossiliferous to lithographic, trace chalky oolitic, poor visible porosity, no shows, trace chert

3700

Huspuckney 3707 -1335

black carbonaceous shale

3720

limestone, gray/green to light gray, cryptocrystalline, dense, slightly fossiliferous to lithographic, some chalky, poor visible porosity, no shows, trace chert

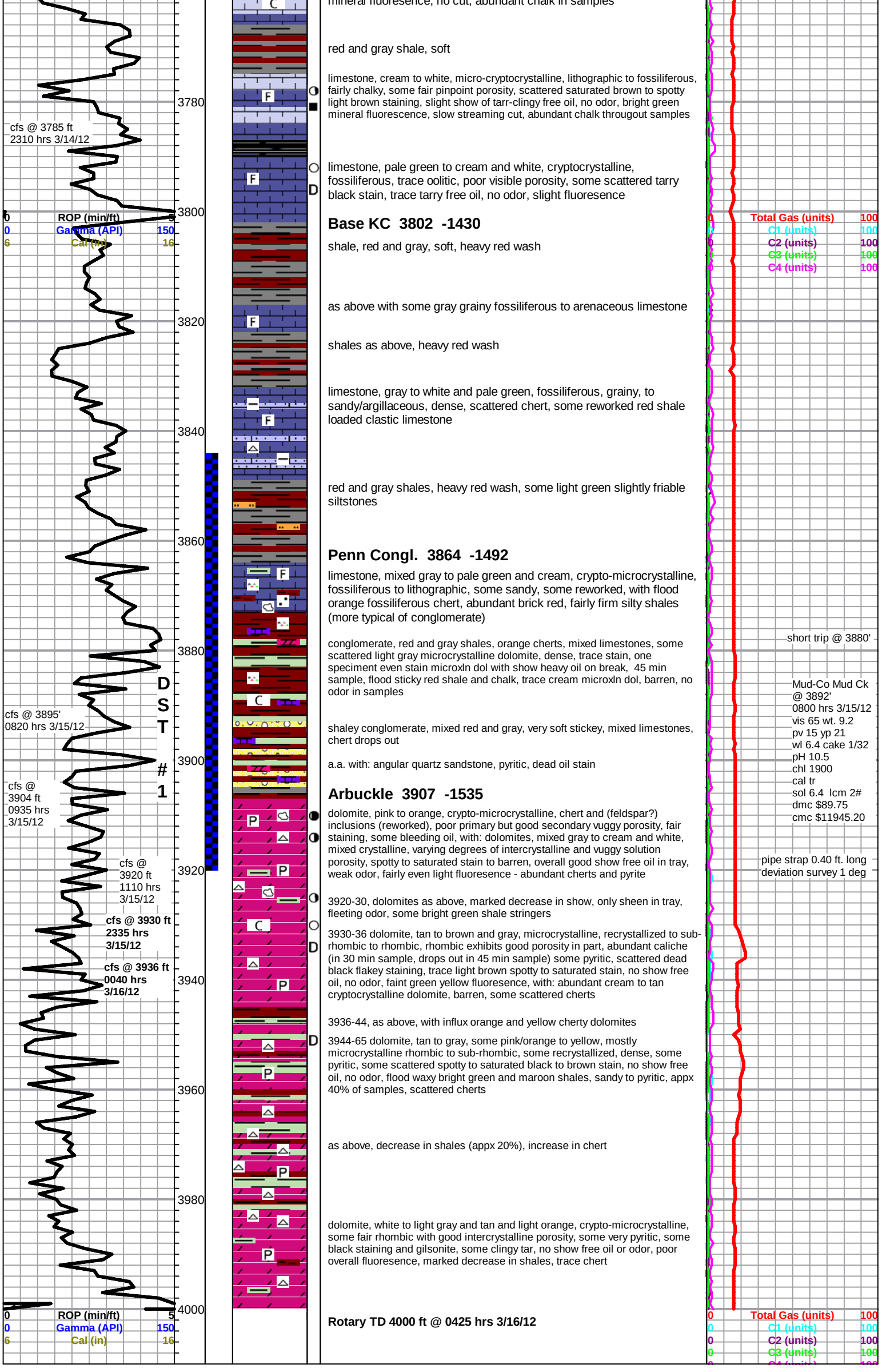
red and gray shale, soft, heavy red wash in samples

3740

limestones, mixed white to cream and light gray, grainy chalky fossilifeorus, poor visible porosity, to cryptocrystalline dense compact lithographic, no shows

limestone, cream to white, microcrystalline, fossiliferous to bioclastic, cherty to chalky, some fair pinpoint porosity, scattered saturated brown to spotty brown stain, no show free oil, no odor, fairly even bright green

3760



mineral fluoresence, no cut, abundant chalk in samples

red and gray shale, soft

limestone, cream to white, micro-cryptocrystalline, lithographic to fossiliferous, fairly chalky, some fair pinpoint porosity, scattered saturated brown to spotty light brown staining, slight show of tarr-clingy free oil, no odor, bright green mineral fluorescence, slow streaming cut, abundant chalk througout samples

limestone, pale green to cream and white, cryptocrystalline, fossiliferous, trace oolitic, poor visible porosity, some scattered tarry black stain, trace tarry free oil, no odor, slight fluoresence

Base KC 3802 -1430

shale, red and gray, soft, heavy red wash

as above with some gray grainy fossiliferous to arenaceous limestone

shales as above, heavy red wash

limestone, gray to white and pale green, fossiliferous, grainy, to sandy/argillaceous, dense, scattered chert, some reworked red shale loaded clastic limestone

red and gray shales, heavy red wash, some light green slightly friable siltstones

Penn Congl. 3864 -1492

limestone, mixed gray to pale green and cream, crypto-microcrystalline, fossiliferous to lithographic, some sandy, some reworked, with flood orange fossiliferous chert, abundant brick red, fairly firm silty shales (more typical of conglomerate)

conglomerate, red and gray shales, orange cherts, mixed limestones, some scattered light gray microcrystalline dolomite, dense, trace stain, one speciment even stain microxln dol with show heavy oil on break, 45 min sample, flood sticky red shale and chalk, trace cream microxln dol, barren, no odor in samples

shaley conglomerate, mixed red and gray, very soft stickey, mixed limestones, chert drops out

a.a. with: angular quartz sandstone, pyritic, dead oil stain

Arbuckle 3907 -1535

dolomite, pink to orange, crypto-microcrystalline, chert and (feldspar?) inclusions (reworked), poor primary but good secondary vuggy porosity, fair staining, some bleeding oil, with: dolomites, mixed gray to cream and white, mixed crystalline, varying degrees of intercrystalline and vuggy solution porosity, spotty to saturated stain to barren, overall good show free oil in tray, weak odor, fairly even light fluoresence - abundant cherts and pyrite

3920-30, dolomites as above, marked decrease in show, only sheen in tray, fleeting odor, some bright green shale stringers

3930-36 dolomite, tan to brown and gray, microcrystalline, recrystallized to sub-rhombic to rhombic, rhombic exhibits good porosity in part, abundant caliche (in 30 min sample, drops out in 45 min sample) some pyritic, scattered dead black flakey staining, trace light brown spotty to saturated stain, no show free oil, no odor, faint green yellow fluoresence, with: abundant cream to tan cryptocrystalline dolomite, barren, some scattered cherts

3936-44, as above, with influx orange and yellow cherty dolomites

3944-65 dolomite, tan to gray, some pink/orange to yellow, mostly microcrystalline rhombic to sub-rhombic, some recrystallized, dense, some pyritic, some scattered spotty to saturated black to brown stain, no show free oil, no odor, flood waxy bright green and maroon shales, sandy to pyritic, appx 40% of samples, scattered cherts

as above, decrease in shales (appx 20%), increase in chert

dolomite, white to light gray and tan and light orange, crypto-microcrystalline, some fair rhombic with good intercrystalline porosity, some very pyritic, some black staining and gilsonite, some clingy tar, no show free oil or odor, poor overall fluoresence, marked decrease in shales, trace chert

Rotary TD 4000 ft @ 0425 hrs 3/16/12

0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100

short trip @ 3880'

Mud-Co Mud Ck @ 3892'
0800 hrs 3/15/12
vis 65 wt. 9.2
pv 15 yp 21
wl 6.4 cake 1/32
pH 10.5
chl 1900
cal tr
sol 6.4 lcm 2#
dmc $89.75
cmc $11945.20

pipe strap 0.40 ft. long
deviation survey 1 deg

0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100