

1060473

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West County: _____

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:

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

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

ADDITIONAL CEMENTING / SQUEEZE RECORD

| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
|---------------------|------------------|----------------|--------------|----------------------------|
| ____ Perforate | | | | |
| ____ Protect Casing | | | | |
| ____ Plug Back TD | | | | |
| ____ Plug Off Zone | | | | |

| 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: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Date of First, Resumed Production, SWD or ENHR. | Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> 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 (If vented, Submit ACO-18.) | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. (Submit ACO-5) <input type="checkbox"/> Commingled (Submit ACO-4) <input type="checkbox"/> Other (Specify) _____ | PRODUCTION INTERVAL: _____ _____ |
|--|--|--|

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
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

July 29, 2011

DEAN PATTISSON
Woolsey Operating Company, LLC
125 N MARKET STE 1000
WICHITA, KS 67202-1729

Re: ACO1
API 15-007-23677-00-00
LUTHI GU 3
SW/4 Sec.36-33S-11W
Barber 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,
DEAN PATTISSON

ALLIED CEMENTING CO., LLC. 040067

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Medicine Lodge, KS

| | | | | | | | |
|--------------------------------|-----------------|---|------------------|--------------------------|---------------------------|--------------------------|--------------------------|
| DATE <u>4-8-2011</u> | SEC. <u>36</u> | TWP. <u>33S</u> | RANGE <u>11W</u> | CALLED OUT <u>8:00am</u> | ON LOCATION <u>8:00am</u> | JOB START <u>12:00pm</u> | JOB FINISH <u>1:00pm</u> |
| LEASE <u>Luth, GU</u> | WELL # <u>3</u> | LOCATION <u>Gerling & Bethel Rd</u> | | | | COUNTY <u>Berber</u> | STATE <u>KS</u> |
| OLD OR <u>NEW</u> (Circle one) | | <u>Y2 east, h/l into</u> | | | | | |

| | |
|---|--------------------------------|
| CONTRACTOR <u>H2 #3</u> | OWNER <u>Woolsey Operating</u> |
| TYPE OF JOB <u>Production</u> | |
| HOLE SIZE <u>7 7/8</u> | T.D. <u>5150'</u> |
| CASING SIZE <u>5 1/2</u> | DEPTH <u>5073'</u> |
| TUBING SIZE <u>4 1/2</u> | DEPTH |
| DRILL PIPE <u>4 1/2</u> | DEPTH |
| TOOL <u>Regulatory Correspondence</u> | DEPTH |
| PRES. <u>MAX</u> <u>Comp</u> <u>Workovers</u> | MINIMUM |
| MEAS. LINE <u>Meters</u> <u>Operations</u> | SHOE JOINT <u>42</u> |
| CEMENT LEFT IN CSG. | |
| PERFS. | |
| DISPLACEMENT <u>122 bbls of 2% KCL wgt.</u> | |
| EQUIPMENT | |

| | |
|------------------|--------------------------|
| PUMP TRUCK | CEMENTER <u>Darin F</u> |
| # <u>360-265</u> | HELPER <u>Jason T.</u> |
| BULK TRUCK | |
| # <u>363-250</u> | DRIVER <u>Raymond R.</u> |
| BULK TRUCK | |
| # | DRIVER |

REMARKS:

Pipe on bottom & break circulation, mix 255x for per hole, mix 50s of screw down cement, mix 150s of fill cement, shut down, wash pump & lines, Release plug, start displacement, lift pressure at 90 bbls, slow rate to 3bpm at 110 bbls, bump plug at 122 bbls 800-1600 PSI, float die held

| | | |
|-------------------------------------|-------|-----|
| CHARGE TO: <u>Woolsey Operating</u> | | |
| STREET | | |
| CITY | STATE | ZIP |

To Allied Cementing Co., LLC.

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

PRINTED NAME MIKE THARP

SIGNATURE Mike Tharp

| | | | |
|-----------------|--|--------------------|----------------------|
| CEMENT | | | |
| AMOUNT ORDERED | <u>75s x 60' 40' 4 9/16 G.</u> | | |
| | <u>150s x 19ss H + 10% Gyp + 10% SS + 6#</u> | | |
| | <u>Kolses + 8% FL16G + 1/4 # Floses</u> | | |
| COMMON | <u>class A</u> | <u>45x @ 16.25</u> | <u>731.25</u> |
| POZMIX | | <u>30s @ 8.50</u> | <u>255.00</u> |
| GEL | | <u>3x @ 21.25</u> | <u>63.75</u> |
| CHLORIDE | | @ | |
| ASC | | @ | |
| <u>class H</u> | <u>150s @ 19.25</u> | | <u>2887.50</u> |
| <u>Gyp seal</u> | <u>14s @ 34.20</u> | | <u>478.80</u> |
| <u>Salt</u> | <u>16s @ 23.95</u> | | <u>383.20</u> |
| <u>Kolses</u> | <u>900 # @ 1.89</u> | | <u>801.00</u> |
| <u>FL-160</u> | <u>112 # @ 17.20</u> | | <u>1926.40</u> |
| <u>Floresal</u> | <u>3B # @ 2.70</u> | | <u>102.60</u> |
| <u>Claplo</u> | <u>12 gals @ 31.25</u> | | <u>375.00</u> |
| | @ | | |
| HANDLING | <u>201</u> | @ <u>2.25</u> | <u>632.25</u> |
| MILEAGE | <u>15/11/201</u> | | <u>463.65</u> |
| | | | TOTAL <u>9100.40</u> |

SERVICE

| | | | |
|----------------------|--------------------------|---------------|----------------------|
| DEPTH OF JOB | <u>5073'</u> | | <u>2695.00</u> |
| PUMP TRUCK CHARGE | | | |
| EXTRA FOOTAGE | | @ | |
| MILEAGE | <u>30</u> | @ <u>7.00</u> | <u>210.00</u> |
| MANIFOLD | | @ | |
| | <u>Hess & rental</u> | @ | <u>200.00</u> |
| <u>Light Vehicle</u> | <u>30</u> | @ <u>4.00</u> | <u>120.00</u> |
| | | | TOTAL <u>3225.00</u> |

PLUG & FLOAT EQUIPMENT

| | | | |
|--------------------------|----------------|--|----------------------|
| <u>5 1/2</u> | | | |
| <u>1-BFD Float Shoe</u> | @ | | <u>314.00</u> |
| <u>1-Latch Down Plug</u> | @ | | <u>249.00</u> |
| <u>12-Turbolizers</u> | @ <u>66.00</u> | | <u>792.00</u> |
| <u>28-Scratchers</u> | @ <u>71.00</u> | | <u>1988.00</u> |
| | @ | | |
| | | | TOTAL <u>3343.00</u> |

SALES TAX (If Any)

TOTAL CHARGES 3343.00

DISCOUNT IF PAID IN 30 DAYS

ALLIED CEMENTING CO., LLC. 040131

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Mechanics

| | | | | | | | |
|--------------------------------|-----------------|--|----------------------|------------|----------------------|--------------------------|--------------------------|
| DATE <u>4-1-11</u> | SEC <u>36</u> | TWP <u>33s</u> | RANGE <u>11 W</u> | CALLED OUT | ON LOCATION | JOB START <u>12:30am</u> | JOB FINISH <u>1:00am</u> |
| LEASE <u>Luthi GV</u> | WELL # <u>3</u> | LOCATION <u>Gerlone Blk top + Bethel Rd.</u> | | | COUNTY <u>Barber</u> | STATE <u>KS</u> | |
| OLD OR <u>NEW</u> (Circle one) | | | <u>1/2 E, N into</u> | | | | |

CONTRACTOR H-2 Drilling
TYPE OF JOB Surface
HOLE SIZE 14 3/4 T.D. 235'
CASING SIZE 10 3/4 DEPTH 219'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 300 psi MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 20'
PERFS.
DISPLACEMENT 20 1/2 bbls H2O

EQUIPMENT

| | |
|------------------|-------------------------------|
| PUMP TRUCK | CEMENTER <u>Matt Thimesch</u> |
| # <u>360/265</u> | HELPER <u>Jason Thimesch</u> |
| BULK TRUCK | |
| # <u>356/290</u> | DRIVER <u>Raymond R</u> |
| BULK TRUCK | |
| # | DRIVER |

REMARKS:

Blk circ. with R13
pump 3 bbls H2O ahead
MTX 240 SK cement
dip 20 1/2 bbls H2O shut in
cement did circulate

CHARGE TO: Woolsey Operating
STREET
CITY STATE ZIP

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

PRINTED NAME MIKE THARP
SIGNATURE [Signature]

OWNER Woolsey Operating

CEMENT
AMOUNT ORDERED 240 sk class A 3% w/ 2% oil

| | | |
|---|-----------------------|----------------|
| COMMON <u>class A</u> | <u>240 sk @ 16.25</u> | <u>3900.00</u> |
| POZMIX | @ | |
| GEL | <u>5 sk @ 21.25</u> | <u>106.25</u> |
| CHLORIDE | <u>9 sk @ 58.20</u> | <u>523.80</u> |
| ASC | @ | |
| WELL FILE | | |
| Regulatory | Correspondence | @ |
| <u>Drill</u> / Comp | Workovers | @ |
| Tests / Meters | Operations | @ |
| HANDLING <u>254</u> @ <u>2.25</u> <u>571.50</u> | | |
| MILEAGE <u>157.11/254</u> <u>419.10</u> | | |
| TOTAL <u>5520.65</u> | | |

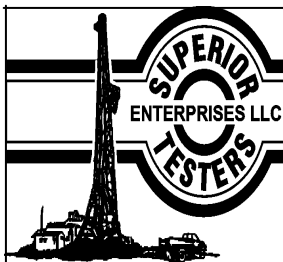
SERVICE

| | |
|--------------------------------|-----------------------------|
| DEPTH OF JOB <u>219'</u> | |
| PUMP TRUCK CHARGE | <u>1125.00</u> |
| EXTRA FOOTAGE | @ |
| MILEAGE <u>30</u> | @ <u>7.00</u> <u>210.00</u> |
| MANIFOLD | @ |
| <u>Light Vehicle</u> <u>30</u> | @ <u>4.00</u> <u>120.00</u> |
| TOTAL <u>1455.00</u> | |

PLUG & FLOAT EQUIPMENT

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

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS



DRILL STEM TEST REPORT

WOOLSEY OPERATING COMPANY L.L.C.

LUTHI GU #3

125 N MARKET STE 100 WICHITA KS 67202-1729

36-33-11 BARBER

ATTN: SCOTT ALBERG

Job Ticket: 15650

DST#: 1

Test Start: 2011.04.06 @ 20:30:00

GENERAL INFORMATION:

Formation: **MISSISSIPPI**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:43:30

Time Test Ended: 05:25:00

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-SCOTT CITY-

Interval: 4538.00 ft (KB) To 4665.00 ft (KB) (TVD)

Reference Elevations: 1457.00 ft (KB)

Total Depth: 4665.00 ft (KB) (TVD)

1447.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8524 Inside

Press@RunDepth: 162.67 psia @ 4661.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.04.06

End Date:

2011.04.07

Last Calib.:

2011.04.07

Start Time: 20:30:00

End Time:

05:25:00

Time On Btm:

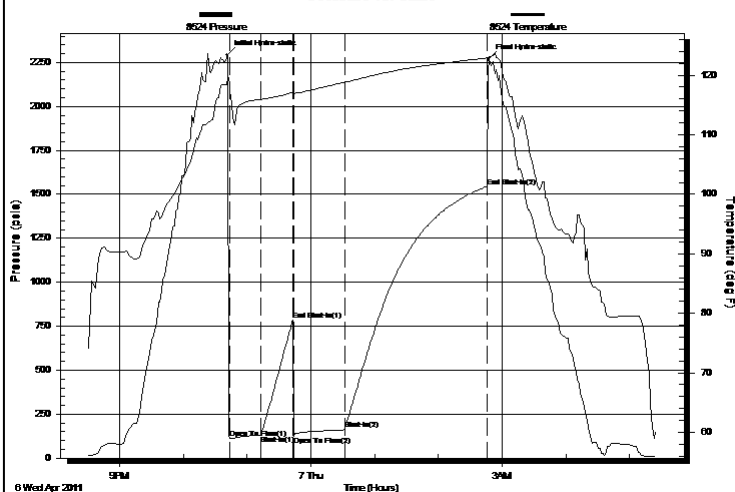
2011.04.06 @ 22:41:30

Time Off Btm:

2011.04.07 @ 02:47:30

TEST COMMENT: 30/INITIAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 1 MINUTE
60/INITIAL SHUT IN:VERY WEAK SURFACE BLOW
60/FINAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 1 MINUTE
120/FINAL SHUT IN:NO BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

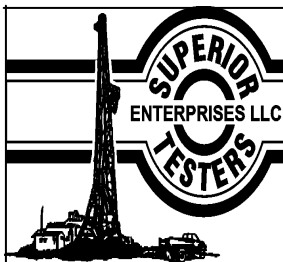
| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2292.88 | 119.46 | Initial Hydro-static |
| 2 | 111.93 | 118.51 | Open To Flow (1) |
| 32 | 131.39 | 115.94 | Shut-In(1) |
| 62 | 784.21 | 117.08 | End Shut-In(1) |
| 63 | 125.31 | 116.96 | Open To Flow (2) |
| 111 | 162.67 | 118.79 | Shut-In(2) |
| 245 | 1545.27 | 122.87 | End Shut-In(2) |
| 246 | 2269.74 | 123.09 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------|--------------|
| 180.00 | MUDDY WATER 30%MUD 70%WATER | 0.89 |
| 0.00 | CHLORIDES 20,000 | 0.00 |
| 0.00 | RESISTIVITY .3 @65 DEGREES | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

WOOLSEY OPERATING COMPANY L.L.C.

LUTHI GU #3

125 N MARKET STE 100 WICHITA KS 67202-1729

36-33-11 BARBER

Job Ticket: 15650

DST#: 1

ATTN: SCOTT ALBERG

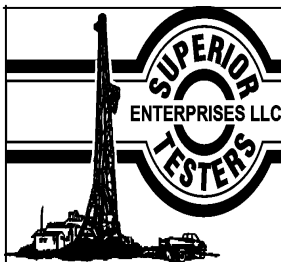
Test Start: 2011.04.06 @ 20:30:00

Tool Information

| | | | | | | | | |
|---------------------------|---------|------------|-----------|-------------|---------------|-----------|------------------------|-------------|
| Drill Pipe: | Length: | 4285.00 ft | Diameter: | 3.80 inches | Volume: | 60.11 bbl | Tool Weight: | 1000.00 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: | 240.00 ft | Diameter: | 2.25 inches | Volume: | 1.18 bbl | Weight to Pull Loose: | 65000.00 lb |
| | | | | | Total Volume: | 61.29 bbl | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | | 16.00 ft | | | | | String Weight: Initial | 58000.00 lb |
| Depth to Top Packer: | | 4538.00 ft | | | | | Final | 58000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | |
| Interval between Packers: | | 127.00 ft | | | | | | |
| Tool Length: | | 156.00 ft | | | | | | |
| Number of Packers: | | 2 | Diameter: | 6.75 inches | | | | |
| Tool Comments: | | | | | | | | |

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|--------------------------------|
| Change Over Sub | 1.00 | | | 4510.00 | |
| Shut-In Tool | 5.00 | | | 4515.00 | |
| Hydrolic Tool | 5.00 | | | 4520.00 | |
| Jars | 6.00 | | | 4526.00 | |
| Safety Joint | 2.00 | | | 4528.00 | |
| Packer | 5.00 | | | 4533.00 | 29.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4538.00 | |
| Change Over Sub | 0.75 | | | 4538.75 | |
| Drill Pipe | 95.50 | | | 4634.25 | |
| Change Over Sub | 0.75 | | | 4635.00 | |
| Perforations | 25.00 | | | 4660.00 | |
| Recorder | 1.00 | 8524 | Inside | 4661.00 | |
| Recorder | 1.00 | 8525 | Outside | 4662.00 | |
| Bullnose | 3.00 | | | 4665.00 | 127.00 Bottom Packers & Anchor |

Total Tool Length: 156.00



DRILL STEM TEST REPORT

FLUID SUMMARY

WOOLSEY OPERATING COMPANY L.L.C.

LUTHI GU #3

125 N MARKET STE 100 WICHITA KS 67202-1729

36-33-11 BARBER

Job Ticket: 15650

DST#: 1

ATTN: SCOTT ALBERG

Test Start: 2011.04.06 @ 20:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 9.60 in³

Resistivity: ohm.m

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psia

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------------------|---------------|
| 180.00 | MUDDY WATER 30%MUD 70%WATER | 0.885 |
| 0.00 | CHLORIDES 20,000 | 0.000 |
| 0.00 | RESISTIVITY .3 @65 DEGREES | 0.000 |

Total Length: 180.00 ft

Total Volume: 0.885 bbl

Num Fluid Samples: 0

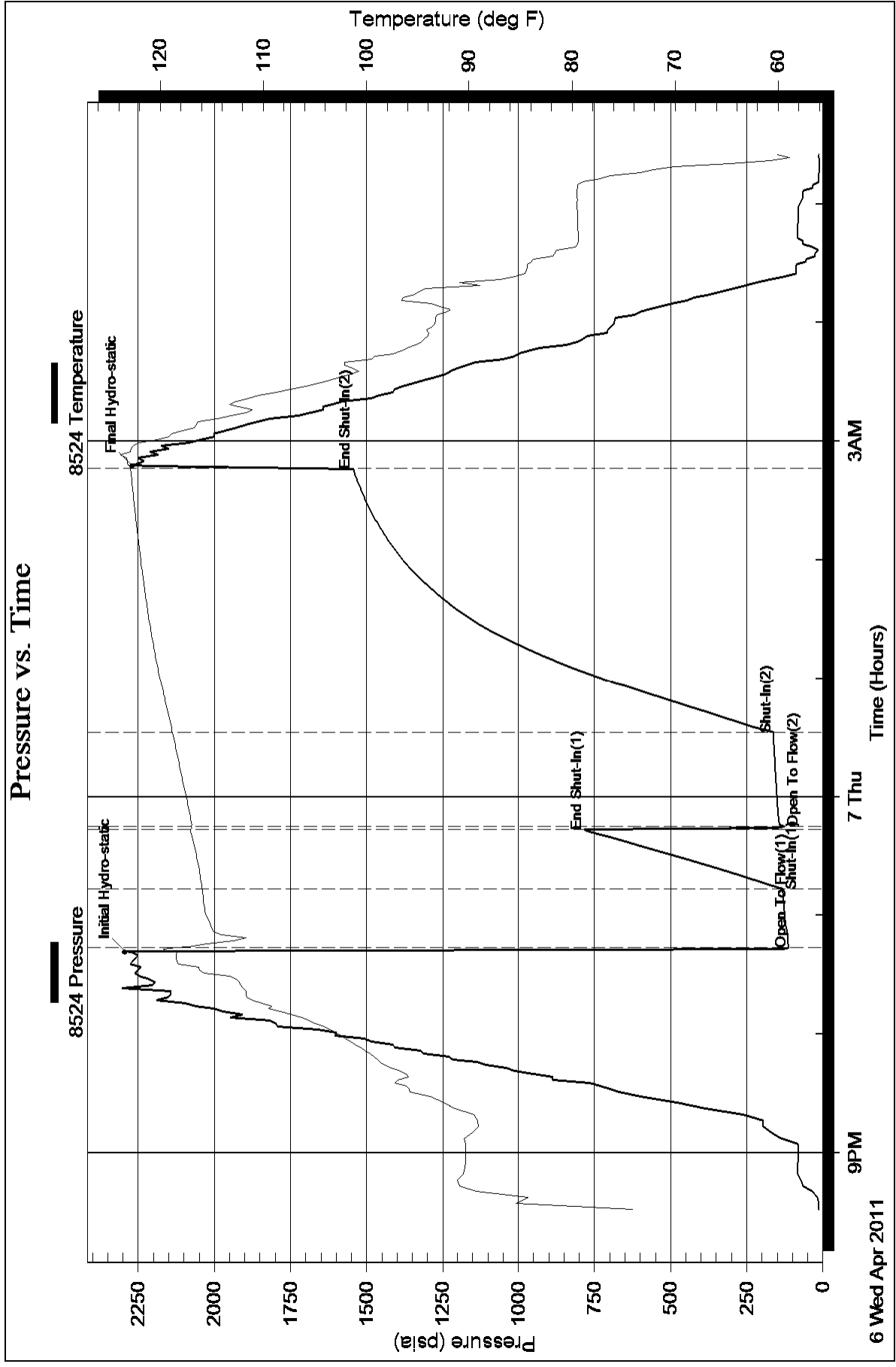
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





Woolsey Operating Company, LLC

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

Well Name: Luthi GU #3
Location: SE SE SW
License Number: API: 15-007-23677-00-00
Spud Date: March 31, 2011
Surface Coordinates: 330' FSL, 2310' FWL Section 36-Twp 33 South - Rge 11 West
Kochia Pool
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1447 K.B. Elevation (ft): 1456
Logged Interval (ft): 4000 To: 5150 Total Depth (ft): 5150
Formation: McLish Shale
Type of Drilling Fluid: Chemical Mud, Displace at 3441'

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

OPERATOR

Company: Woolsey Operating Company, LLC
Address: 125 N. Market, Suite 1000
Wichita, KS 67202

GEOLOGIST

Name: W. Scott Alberg
Company: Alberg Petroleum, LLC
Address: 609 Meadowlark Lane
Pratt, Kansas 67124

FORMATION TOPS

| | SAMPLE TOPS | LOG TOPS |
|-------------------|-------------|-------------|
| HUSHPUCKNEY SHALE | 4382(-2926) | 4374(-2918) |
| B/KC | 4436(-2980) | 4430(-2974) |
| PAWNEE | 4523(-3067) | 4518(-3062) |
| CHEROKEE GROUP | 4570(-3114) | 4566(-3110) |
| CHEROKEE SAND | 4594(-3138) | 4590(-3134) |
| MISSISSIPPIAN | 4610(-3154) | 4600(-3144) |
| KINDERHOOK SHALE | 4828(-3372) | 4823(-3367) |
| WOODFORD SHALE | 4908(-3452) | 4904(-3448) |
| VIOLA | 4940(-3484) | 4938(-3482) |
| SIMPSON GROUP | 5038(-3582) | 5034(-3578) |
| SIMPSON WILCOX | 5058(-3602) | 5053(-3597) |
| MCLISH SHALE | 5104(-3648) | 5098(-3642) |
| MCLISH SAND | NDE | NDE |
| RTD | 5150(-3694) | |
| LTD | | 5148(-3692) |

Note: Log Tops are 4 to 6' higher than all sample tops.

COMMENTS

Surface Casing: Set 6 joints 10 3/4" at 231' with 240 sxs Class A, 2% gel, 3% cc, plug down at 12:45 a.m. on April 1, 2011. Cement did Circulate.

Production Casing: Ran 5 1/2" Casing

Deviation Surveys: 0- 235', 1/4-1214', 1-1722', 1/2-2199', 1/2-2739', 3/4-3249', 1-3757', 1-3915', 1 1/4-4011', 1/4-4170', 1 - 4665', 1/2-5150'.

Contractor Bit Record:

1- 14 3/4" out at 235'.

2- 7 7/8" out at 4665'

3- 7 7/8" out at 5150'.

Gas Detector: Woolsey Operating Company, Trailer #2

Mud System: Mud Co, Brad Bortz, Arron Rush, Engineers

DSTs: Superior Testing Company

Logged by Superior Well Services

LTD - 5148'

DSTs

DST #1 Mississippian 4538' to 4665'

Times 30-60-60-120

Initial Opening: Strong Blow, BOB 1 minute, weak surface blow back

Second Opening: Strong Blow, BOB 1 minute, no blow back.

IHP 2282# FHP 2269#

IF 111#-131# FF 125#-165#

ISIP 784# FSIP 1545#

Recovery: 180' MW, 30% M, 70% W, Chlorides 20,000 ppm

CREWS

H2 Drilling Rig #3
 Tool Pusher - Randy Smith
 Drillers - Gary Axtell
 Luis Marquez
 Cain Charles

ROCK TYPES

| | | | | | | | |
|--|-------|--|----------|--|-------|--|----------|
| | Anhy | | Congl | | Lmst | | Black sh |
| | Bent | | Sdy dolo | | Mrlst | | Gry sh |
| | Brec | | Shy dolo | | Salt | | Shale |
| | Cht | | Dol | | Shale | | Shyslts |
| | Clyst | | Gyp | | Sltst | | Sltys |
| | Coal | | Sdy lmst | | Ss | | |

ACCESSORIES

| MINERAL | | | | | | | |
|---------|----------|--|----------|--|----------|--|----------|
| | Anhy | | Chlorite | | Pelec | | Grysh |
| | Arg | | Dol | | Pellet | | Gryslt |
| | Bent | | Sand | | Pisolite | | Lms |
| | Bit | | Silty | | Plant | | Sandylms |
| | Brecfrag | | | | Strom | | Sh |
| | Calc | | | | Fuss | | Sltstn |
| | Carb | | | | Oomoldic | | |
| | Chtdk | | | | | | |
| | Chtlt | | | | | | |
| | Dol | | | | | | |
| | Ferrpel | | | | | | |
| | Ferr | | | | | | |
| | Glau | | | | | | |
| | Gyp | | | | | | |
| | Marl | | | | | | |
| | Nodule | | | | | | |
| | Phos | | | | | | |
| | Pyr | | | | | | |
| | Salt | | | | | | |
| | Sandy | | | | | | |
| | Silt | | | | | | |

FOSSIL

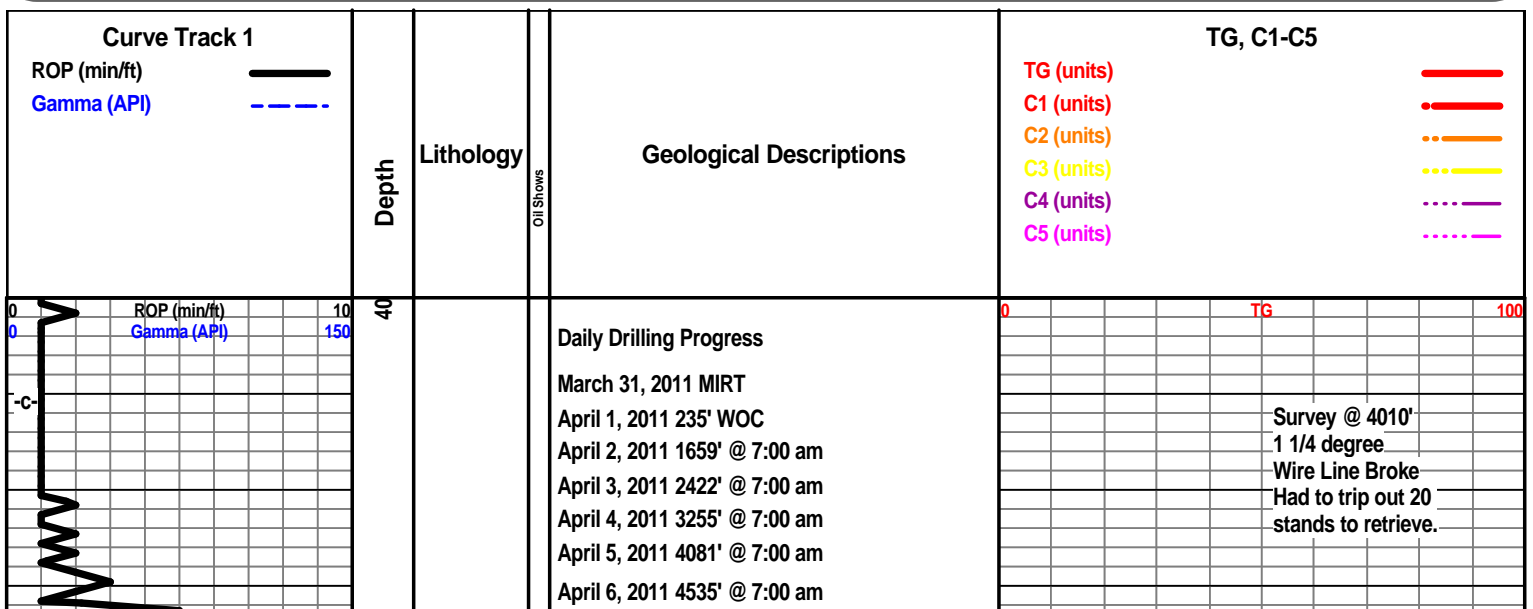
| | |
|--|---------|
| | Algae |
| | Amph |
| | Belm |
| | Bioclst |
| | Brach |
| | Bryozoa |
| | Cephal |
| | Coral |
| | Crin |
| | Echin |
| | Fish |
| | Foram |
| | Fossil |
| | Gastro |
| | Oolite |
| | Ostra |

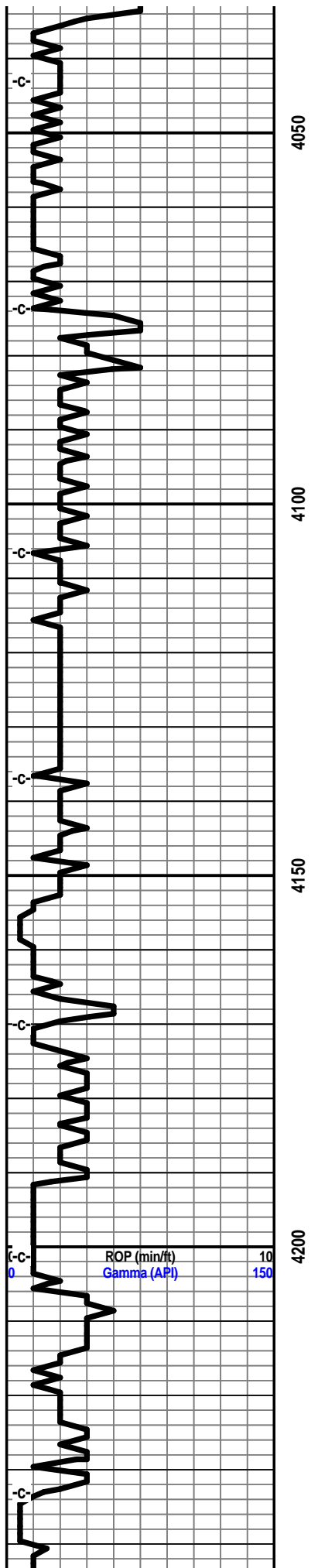
STRINGER

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

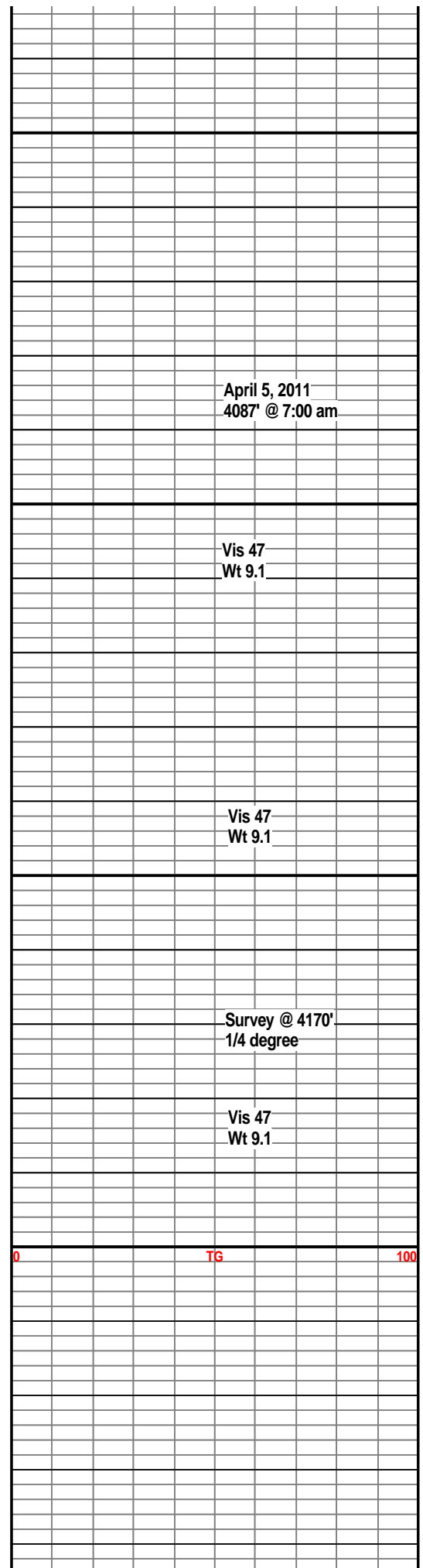
TEXTURE

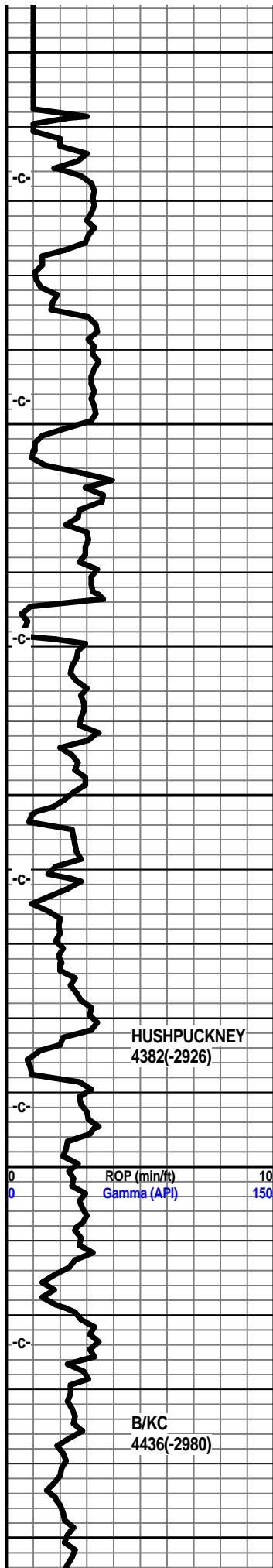
| | |
|--|----------|
| | Boundst |
| | Chalky |
| | Cryxln |
| | Earthy |
| | Finexln |
| | Grainst |
| | Lithogr |
| | Microxln |
| | Mudst |
| | Packst |
| | Wackest |





April 7, 2011 4665' @ 7:00 am
April 8, 2011 5008' @ 7:00 am
April 9, 2011 5150' @ 7:00 am
Preparing to run surface casing.





Shale, Grey-black, carb.

Limestone, tan-white, fxln, slightly foss., subchalky in part, trace of crystalline porosity, no visible shows, no odor.

Shale, grey, dark grey.

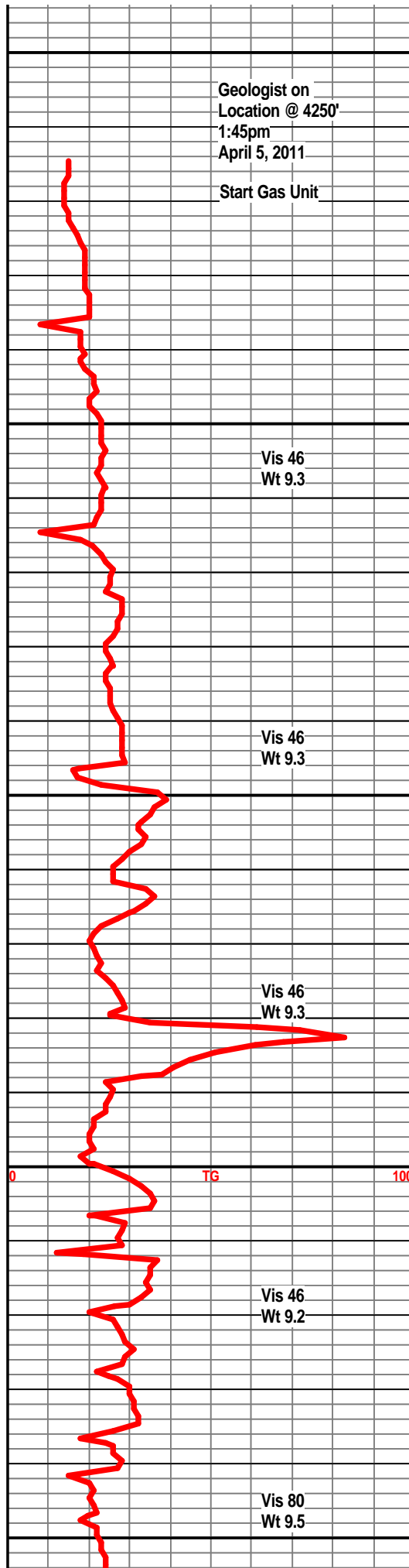
Limestone, tan, fxln, mostly dense, foss. in part.

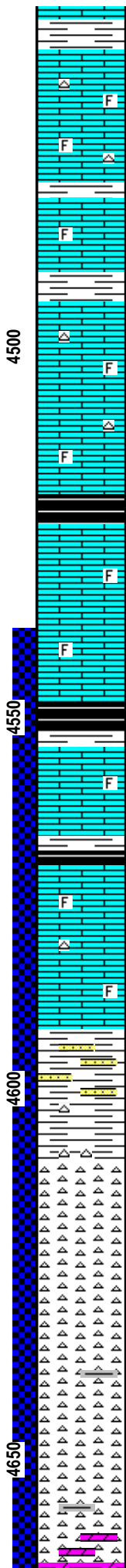
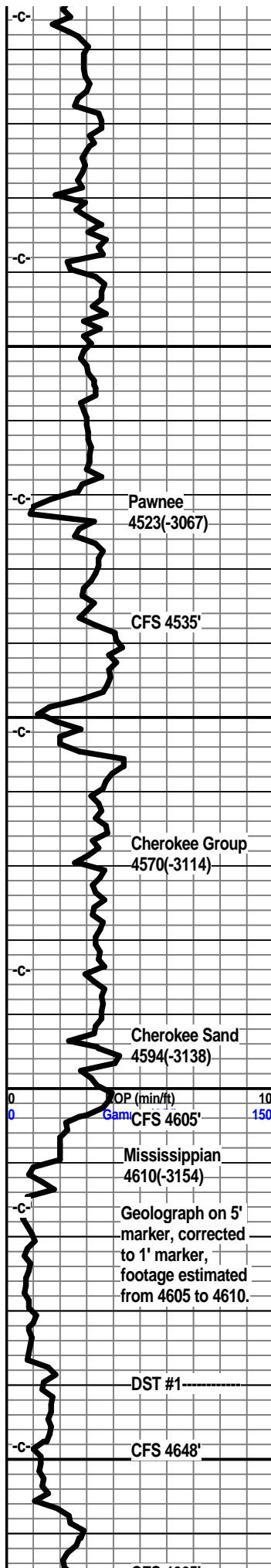
Shale, grey, dark grey.

Limestone, tan, buff-white, fxln, dense, foss, subchalky.

Shale, grey, dark grey, some green.

Limestone, tan, tan-brown, fxln, dense, slightly foss, trace of tan chert.





Shale, lt grey, green.

Limestone, tan, fxln, dense, trace of foss, some tan chert.

Shale, grey-green, some dark grey.

Limestone, tan, tan-white, fxln, slightly foss.

Shale, grey

Limestone, tan-white, fxln, dense, slightly foss, trace of tan chert.

Limestone, tan-white, fxln, slightly foss, tan cherts, some slightly chalky, trace asphaltic stain.

Shale, grey-black, slightly carb.

Limestone, tan, xln, foss. in prt, trace of xln porosity, some light brown staining, dull fluor, no odor, no visible shows of oil or gas.

Limestone, tan-white, fxln, dense, slightly foss., traces of tan chert.

Shale, grey-black, carb.

Limestone, tan, buff-white, fxln, dense, traces of foss., subchalky in part.

Shale, dark grey, grey-black.

Limestone, tan, buff-white, xln, dense, slightly chalky, trace of tan chert.

Limestone, a/a, with some trans chert.

Shale, grey, dark grey.

Shale, green, varicolored, some interbedded sand stringers, clear to a grey-white, some tan, some w/ questionable asphaltic stain, well cemented, fair sorting, trace of chert.

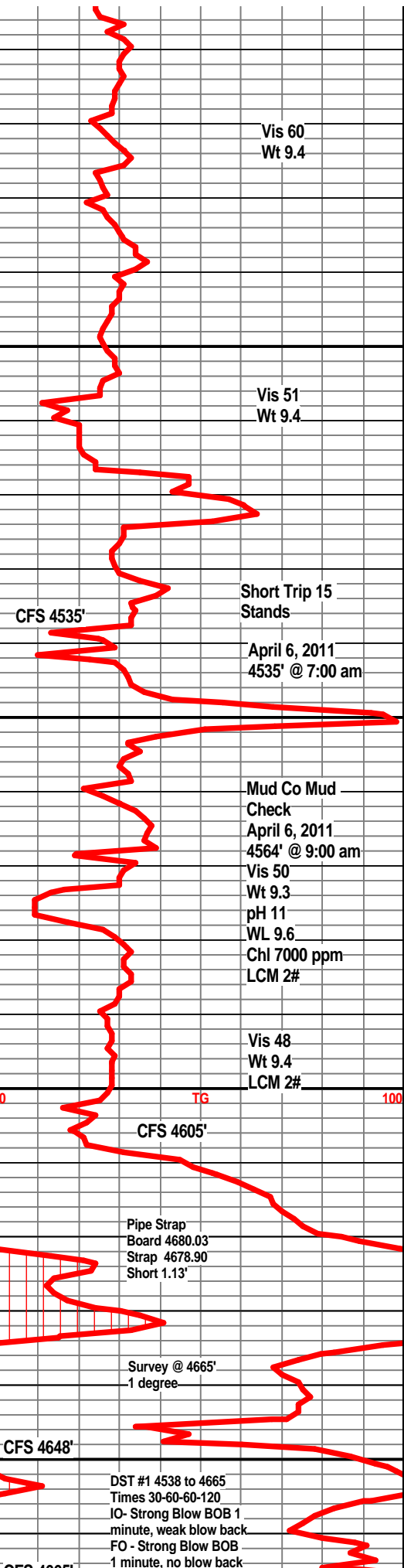
Chert, white to off-white, trip in part, some fresh, lt brown staining, few scattered small vugs, some light staining along edges, slight show of light oil, poor fluor, very faint odor.

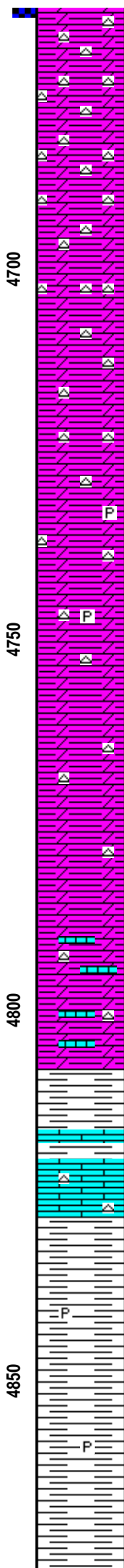
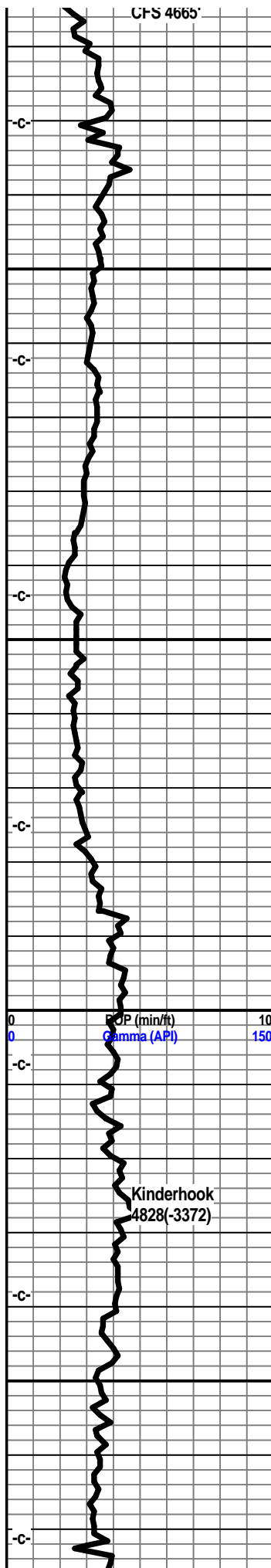
Chert, off-white to tan, weathered, traces of pin point porosity, good light brown staining, faint odor, slight show of free oil in tray, v dull fluor.

Chert a/a with more fresh, sharp with some lt brown edge staining, faint odor, slight show oil.

Chert, off-white to tan, weathered, sharp, fresh, trace pin point porosity, slight show light oil, faint odor, traces of grey-green shale.

Chert, grey-white, weathered, more grey, dark





grey shales, still slight staining on cherts with faint odor.

Dolo, grey-white, pale green-grey, very cherty, some weathered cherts with light brown staining, fresh chert with scattered edge staining, v. ft odor, grey to drk grey splintery shales.

Dolo, tan-grey, grey-white, cherty a/ increasing amounts of splintery shales.

Dolo, tan, grey-white, xln, weathered cherts with light brown staining, fresh cherts with edge staining, grey-green splintery shales, traces of pyrite.

Dolo, tan, grey, dark grey green shales, weathered light stained cherts.

Dolo, tan-grey, xln in part, trace amounts of weathered cherts, light brown scattered staining, grey dark grey shales, some pyrite inclusions.

Dolo, tan, tan-grey, very small amount of chert, dark grey-green splintery shales, pyrite, trace of foss.

Dolo, grey-white, tan, xln, grey-green shales, calcitic in part.

Dolo, tan, grey-white, xln, traces of chert, calcitic green shales.

Dolo, tan-white, xln, dark grey splintery shales.

a/a, with tan-buff limestone stringers, slightly foss.

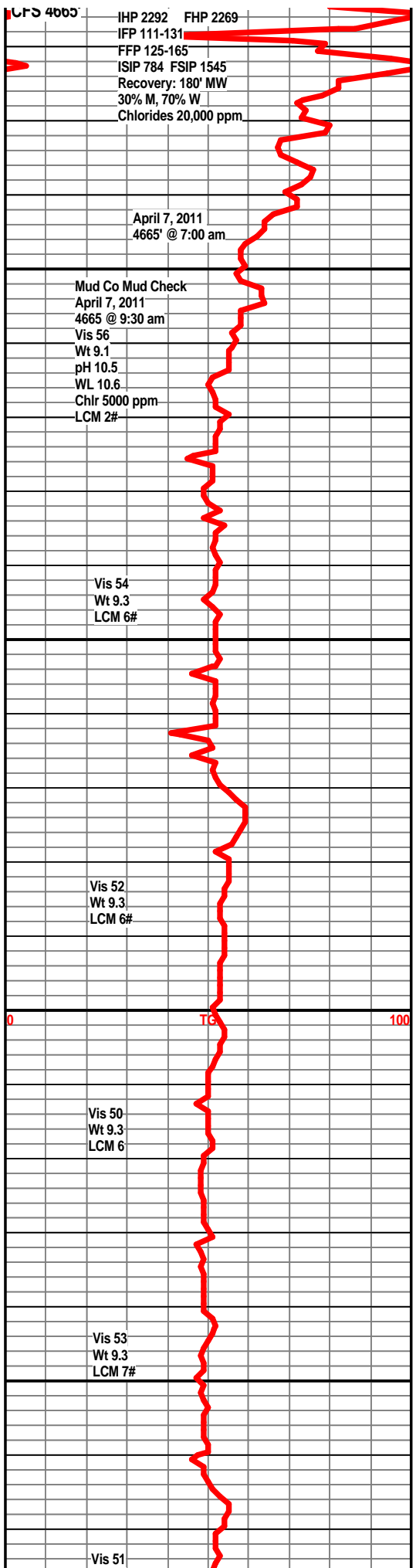
Shale, green to dark green, slightly calcitic.

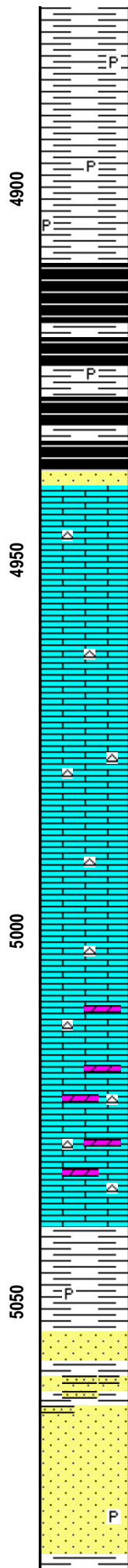
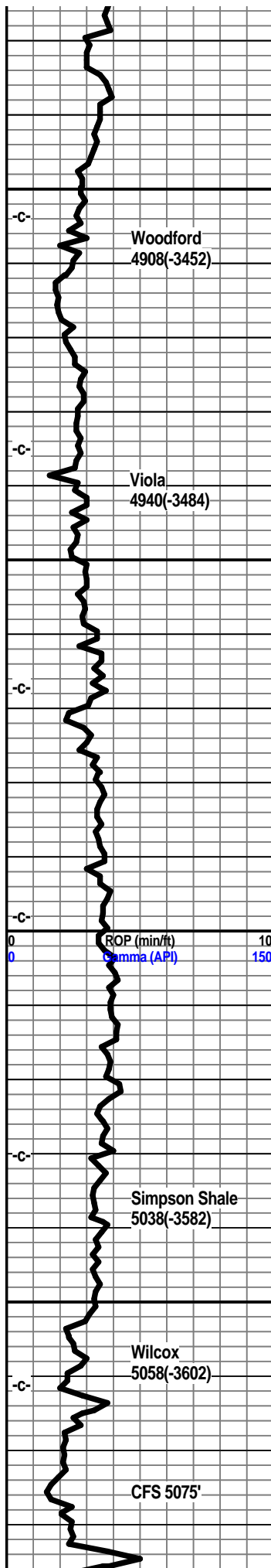
Limestone, buff-white, fxln, dense, slightly foss, sub chalky in part, trace of white cherts.

Shale, dark grey-green, silty, traces of pyrite.

Shale, dark grey, massive.

Shale, dark grey-green.





Shale, dark grey-green, trace of pyrite.

Shale, dark grey, silty.

Shale, dark grey-black, coffee brown, carb, show of gas, trace of pyrite.

Shale, coffee brown, grey-black.

Shale, grey-black.

Sandstone, grey, SA to SR, few friable, slight odor, slight show scummy oil, some with good yellow fluor., glauc.

Limestone, cream, buff-white, xln, mostly dense, traces of xln porosity, very slight staining, subchalky in part, traces of white chert.

Limestone, cream-white to tan-white, xln, trace xln porosity, tan-white cherts, subchalky.

Limestone, tan, tan-white, fxln, granular, subchalky in part, traces of tan cherts.

Limestone, tan-white, fxln, granular texture, tan-brown cherts, sharp, slightly dolo in part.

Limestone, tan, tan-white, fxln, dense, subchalky in part, traces of tan-brown sharp cherts, slightly dolo in part.

Shale, green, pale green, firm, waxey, traces of inbedded pyrite, traces of sand grains in bedded.

Sandstone, clear to grey, dolomitic, firm, well cemented, traces of shale, glauc.

Sandstone, clear to white frosted qtz grains SA to SR, friable, glauc, trace of pyrite, no vis. shows, no odor.

Sandstone, clear to white SA to SR, fair sorting, friable, glauc, trace of pyrite, no vis shows, no odor.

Sandstone, clear to grey-white, SA to SR, fair

