



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1212169
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1212169

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> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	Lake 7
Doc ID	1212169

All Electric Logs Run

Dual IND.
Dual Comp. Porosity
Micro
Sonic

Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	Lake 7
Doc ID	1212169

Tops

Name	Top	Datum
Heebner	4749	-2237
Lansing	4968	-2430
BKC	5488	-2879
Marmaton	5501	-2890
Pawnee	5597	-2973
FT. Scott	5642	-3011
Cherokee	5654	-3022
Miss	5727	-3084
Viola	6507	-3779



Mudgrove

Petroleum
Corporation

NOTES

Company: American Warrior, Inc

Lease: Lake #7

Field: Herd

Surface Location: NW-SE-SE-SW (335' FSL & 2279' FWL)

Bottom Hole Location: (459.48' North & 2584.08' East of Surface hole)

Sec: 14 Twsp: 32S Rge: 19W

County: Commanche State: Kansas

GL: 2046' KB: 2058'

Contractor: Duke Drilling Co. Rig #6

Spud: 4/16/14 Comp: 5/2/14

RTD: 6648' LTD: 6638'

Mud Up: Mud Type: Chemical/displaced

Drilling Time Kept: 4000' to RTD

Samples Saved From: 4400' to RTD

Samples Examined: 4400' to RTD

Geological Supervision: 4400' to RTD

Geologist on Well: Keith Reavis and Kurt Talbott

Surface Casing: 20" @60'; 13 3/8" @208'; 9 5/8" @995'

Production Casing: 5 1/2" @

Wireline Logs: By Weatherford: DUCP, DIL, MEL, Sonic

FORMATION	LAKE #7			RICH 23-3		LAKE #1	
	2046 GL	2058 KB		2033 GL	2045 KB	2017 GL	2030 KB
	LMD	LTVD	SS	MD	SS	MD	SS
HEEBNER	4749	4295	-2237	4287	-2242	4272	-2242
DOUGLAS	4821	4359	-2301	4348	-2303	4334	-2304
LANSING	4968	4488	-2430	4461	-2416	4459	-2429
DRUM	5195	4684	-2626	4686	-2641	4660	-2630
SWOPE	5326	4797	-2739	4798	-2753	4770	-2740
HERTHA	5388	4850	-2792	4857	-2812	4828	-2798
BASE KC	5488	4937	-2879	4942	-2897	4914	-2884
MARMATON	5501	4948	-2890	4948	-2903	4924	-2894

PAWNEE	5597	5031	-2973	5034	-2989	5012	-2982
FORT SCOTT	5642	5069	-3011	5074	-3029	5049	-3019
CHEROKEE	5654	5080	-3022				
MISSISSIPPIAN	5727	5142	-3084	5153	-3108	5130	-3100
VIOLA	6507	5837	-3779	5780	-3735	5750	-3720
TOTAL DEPTH	6638	5964	-3906	5992	-3947	5900	-3870

ROCK TYPES

Cht	Dolsec	shale, gry	Ss
Cht vari	Lmst fw<7	Carbon Sh	
Dolprim	shale, grn	shale, red	

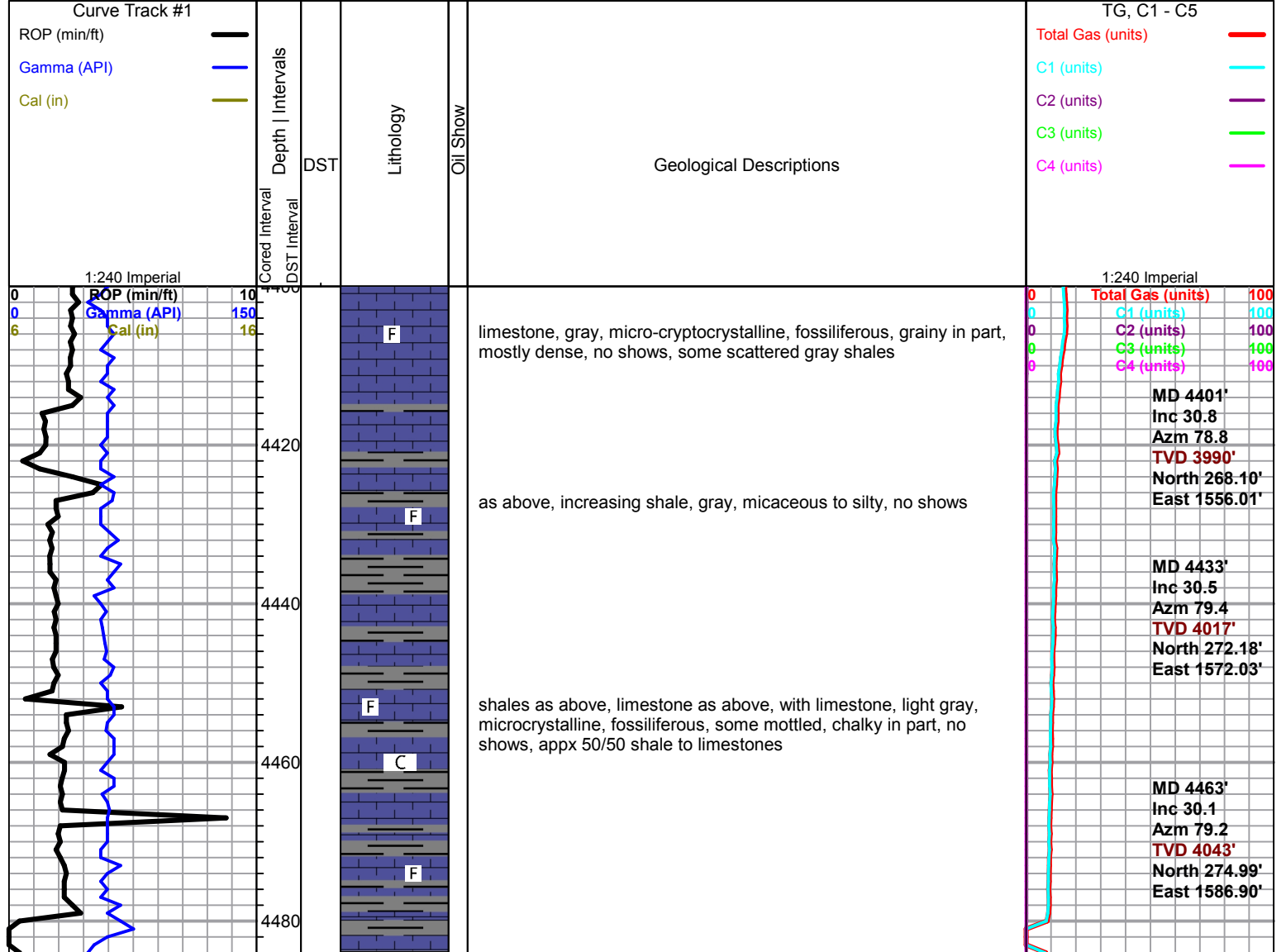
ACCESSORIES

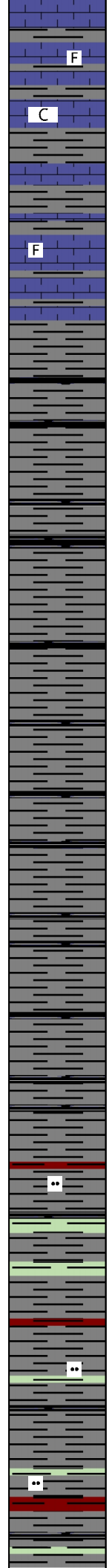
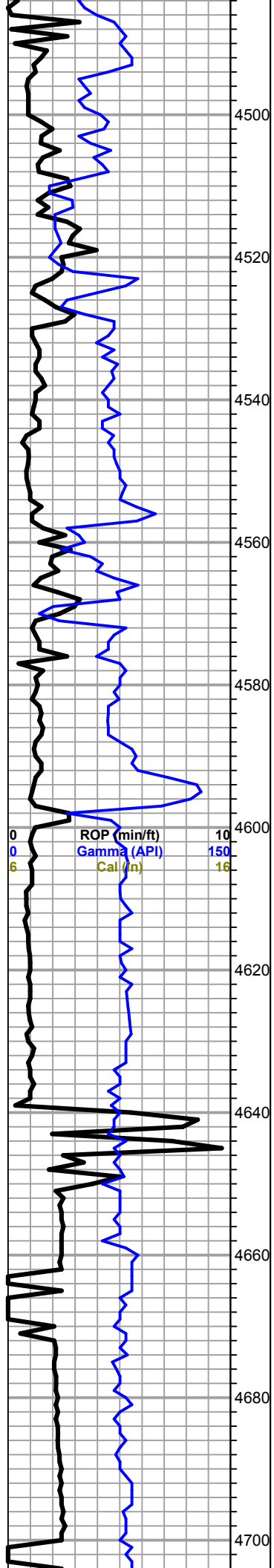
MINERAL	FOSSIL	STRINGER	TEXTURE
✕ Mineral Crystals	F Fossils < 20%	Limestone	C Chalky
• Silty		Sandstone	
		Siltstone	

OTHER SYMBOLS

Oil Show	DST
● Good Show	DST Int
● Fair Show	DST alt
● Poor Show	Core
○ Spotted or Trace	tail pipe
○ Questionable Stn	
D Dead Oil Stn	
■ Fluorescence	
* Gas	

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)





as above

starting 4580, mostly shales, gray and black

as above

shale, mixed, gray, green, some brick red and black, silty

MD 4494'
Inc 29.7
Azm 79.2
TVD 4070'
North 277.89'
East 1602.08'

MD 4525'
Inc 29.4
Azm 79.6
TVD 4097'
North 280.70'
East 1617.11'

MD 4556'
Inc 28.9
Azm 79.1
TVD 4124'
North 283.49'
East 1631.95'

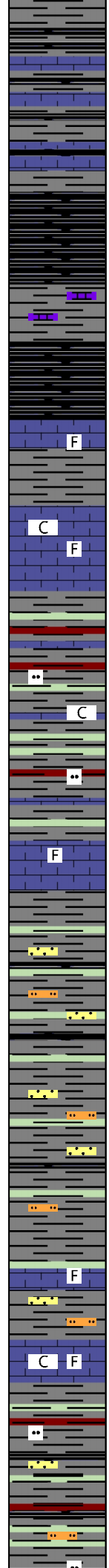
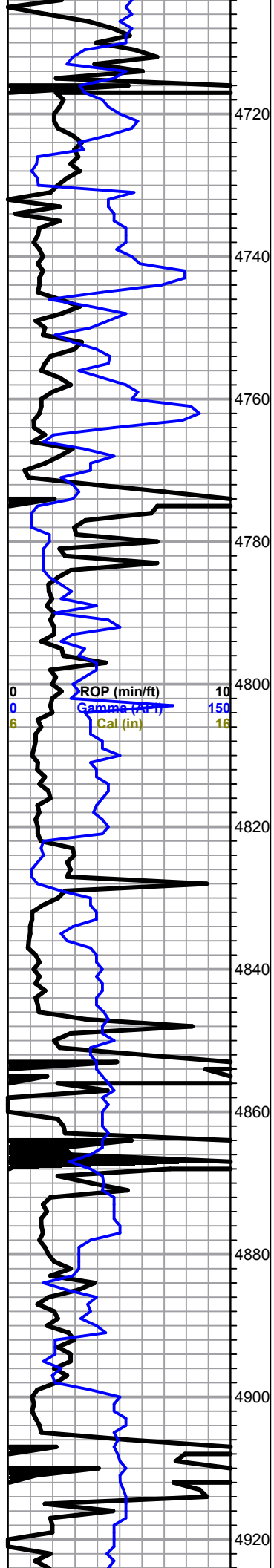
MD 4588'
Inc 28.4
Azm 78.9
TVD 4152'
North 286.42'
East 1647.01'

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

MD 4619'
Inc 27.6
Azm 79.1
TVD 4180'
North 289.19'
East 1661.30'

MD 4650'
Inc 27.6
Azm 78.4
TVD 4207'
North 292.00'
East 1675.38'

MD 4682'
Inc 27.5
Azm 78.9
TVD 4236'
North 294.91'
East 1689.89'



4730 and 40 samples, shale as above, some light gray siltstones, increasing black shale with some black very dense carbonaceous shale, resembles coal, some light gray fossiliferous limestones

as above

black carbonaceous shales

Heebner

MD 4757.0 TVD 4297.0 (-2239.0)

black carbonaceous shales

limestone, white to light gray, crypto-microcrystalline, chalky, fossiliferous, poor visible porosity no shows

mixed shales

MD 4713'
Inc 27.6
Azm 78.6
TVD 4263'
North 297.71'
East 1703.96'

MD 4745'
Inc 27.6
Azm 78.8
TVD 4291'
North 300.61'
East 1718.49'

MD 4776'
Inc 27.8
Azm 79.3
TVD 4319'
North 303.35'
East 1732.64'

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
MD 4807'
C3 (units) 100
C4 (units) 100
Inc 27.7
Azm 79.2

TVD 4346'
North 306.04'
East 1746.82'

Douglas

MD 4829.0 TVD 4370.0 (-2312.0)

shale, gray to gray/green with some black, silty, with salt and pepper siltstone, sandstone stringers, quartz, gray, micaceous, very fine grain, sub-round to sub-angular, poor sorting, fair cemented to friable, no shows

as above

limestone, gray to cream, cryptocrystalline, fossiliferous, chalky in part, no visible porosity or shows

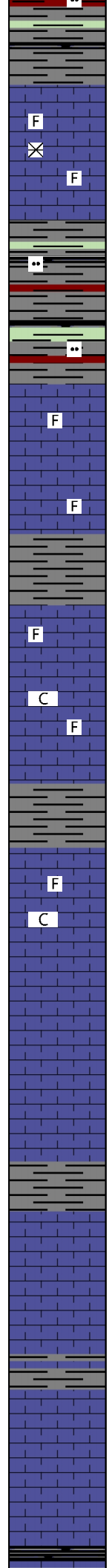
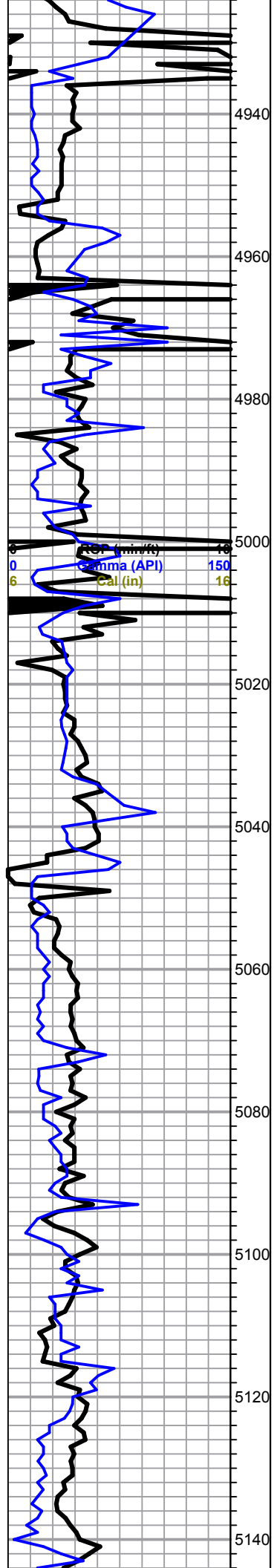
shale as above, with influx red shales, increase black shales, marked decrease in sandstone and siltstone

re-zero and gas test
 Bloodhound,
 clean out
 extractor -
 plugging?

MD 4839'
Inc deg 28.0
Azi deg 78.8
TVD 4375'
North 308.89'
East 1788.31'

MD 4871'
Inc 28.3
Azm 79.6
TVD 4403'
North 311.72'
East 1776.33'

Mud-Co Mud chk
 @ 4913 ft.
 1430 hrs. 4/27/14
 Vis. 50 Wt. 9.3
 PV 16 YP 20
 WL 10.0
 Cake 1/32,
 pH 11.0
 CHL 8000 ppm
 Ca 40 ppm
 Sol 6.7 LCM 2#
 DMC 0.7005 20



limestone, gray to light brown, microcrystalline, fossiliferous, some secondary calcite, poor visible porosity, no shows

shales as above

Lansing
MD 4978.0 TVD 4489.0 (-2431.0)

limestone, light gray to gray, some tan, microcrystalline, fossiliferous, grainy in part, some secondary calcite, no visible porosity, no shows

limestone, light gray to tan, microcrystalline, fossiliferous, chalky in part, poor visible porosity, no shows

limestone, as above, some secondary calcite crystals, no visible porosity or shows

Ls-crm/tan, fxln, sucrosic, poor vis por, no vis shows

Ls-A/A
Shale- green/grey

Ls-crm/tan, fxln, slightly sucrosic, poor vis por, slightly cherty in part, Shale- Black/grey slightly silty

A/A

Ls-gry/tan, fxln, dense, poor vis por, slightly ool

Ls-tan/gry, fxln, few fossils/ool, poor vis por, chert-honey wht/grv. Trace blak carbon shale

MD 4933'
Inc 28.8
Azm 78.8
TVD 4457'
North 317.28'
East 1805.43'

MD 4965'
Inc 29.2
Azm 78.9
TVD 4485'
North 320.28'
East 1820.53'

MD 4997'
Inc 29.3
Azm 79.8
TVD 4513'
North 323.17'
East 1835.9'

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

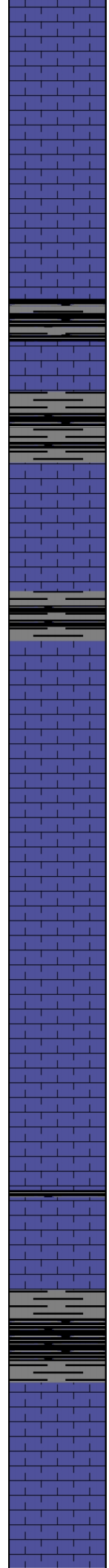
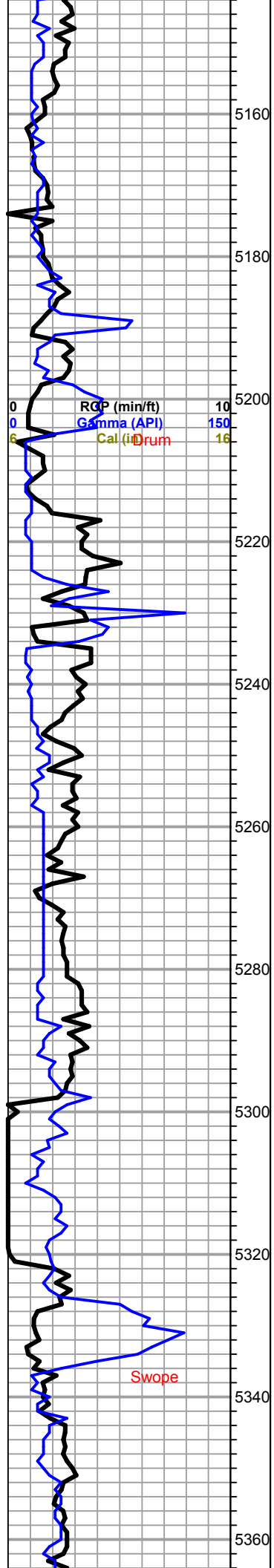
MD 5028'
Inc 30
Azm 79.7
TVD 4540'
North 325.9'
East 1850.99'

MD 5060'
Inc 30.2
Azm 79.4
TVD 4568'
North 328.81'
East 1866.77'

MD 5092'
Inc 30.3
Azm 79.2
TVD 4596'
North 331.8'
East 1882.61'

MD 5124'
Inc 30.5
Azm 79.2
TVD 4623'
North 334.83'
East 1898.52'

Mud-Co Mud chk
@ 5141 ft.
0815 hrs. 4/28/14
Vis. 48 Wt. 9.4
PV 16 YP 18
WL 8.8
Cake 1/32,
pH 10.5



bone wht/gry, trace blk carbon shale

Ls-tan/gry, fxln, few fossils, poor vis por, slightly sucrosic,

A/A chert-buff/gry

Geologist Keith Reavis relieved by Geologist Kurt Talbott

Drum
MD 5205.0 TVD 4693.0 (-2635.0)

Ls-crm/tan/gry, fxln, dense, poor scattered inner xln por, cherty in part, Shale- gry/blk carbon

A/A
Black carbon shale

Ls-crm/tan, fxln, por vis por, slightly sucrosic,

Ls-tan/buff/lt gry, fxln, slighly ool, poor vis por, mostly dense,

A/A

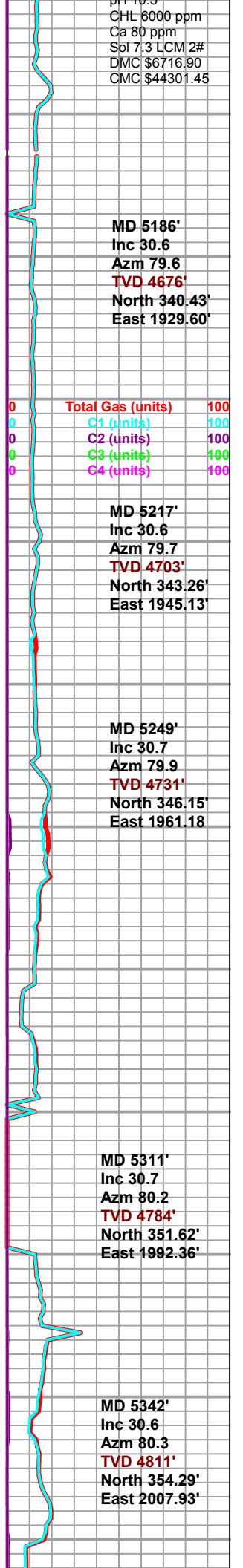
Ls-crm/lt gry, fxln, poor vis por,

Ls-wht/crm, ool, poor inner ool to scattered sub oom por, slightly chalky

Ls-crm/wht fxln, ool, sucrosic, poor inner xln por, Shale- black carbon/gry/green

Swope
MD 5336.0 TVD 4806.0 (-2748.0)

Ls-wht/lt gry/crm, fxln, ool, poor scattered inner xln to inner ool por, barren, slightly chalky, chert-boney wht/gry



pH 10.5
 CHL 6000 ppm
 Ca 80 ppm
 Sol 7.3 LCM 2#
 DMC \$6716.90
 CMC \$44301.45

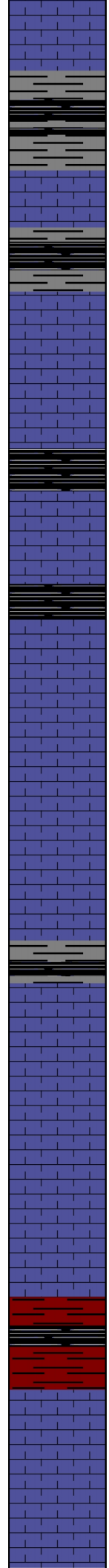
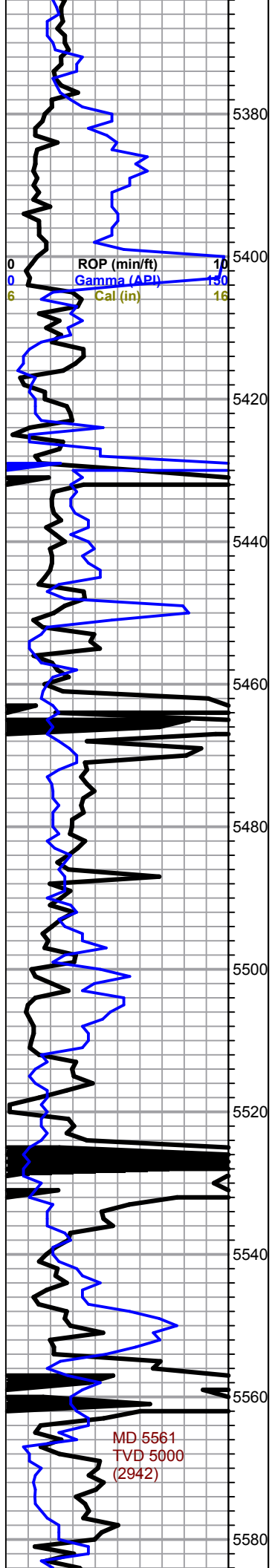
MD 5186'
 Inc 30.6
 Azm 79.6
TVD 4676'
 North 340.43'
 East 1929.60'

MD 5217'
 Inc 30.6
 Azm 79.7
TVD 4703'
 North 343.26'
 East 1945.13'

MD 5249'
 Inc 30.7
 Azm 79.9
TVD 4731'
 North 346.15'
 East 1961.18'

MD 5311'
 Inc 30.7
 Azm 80.2
TVD 4784'
 North 351.62'
 East 1992.36'

MD 5342'
 Inc 30.6
 Azm 80.3
TVD 4811'
 North 354.29'
 East 2007.93'



A/A

Ls-wht/lt gry, fxln, ool, poor scattered por, chalky,
chert-boney wht/lt gry
Shale-blk carbon, gry

Hertha
MD 5400.0 TVD 4861.0 (-2803.0)

Shale- black carbon/grey/brown

Ls-wht/lt gry,fxln, sucrosic, slightly ool, poor vis por,
chert-boney wht/gry
Shale-gry/blk/brwn abundant

A/A Black carbon shale abundant

Ls- gry, fxln, dense, poor vis por, cherty in part, shale-
gry, slightly silty,

Black carbon shale

Ls-gry/wht/tan, fxln, ool, dense, poor vis por, chert-
wht/crm- ool

Ls-crm/lt gry, fxln, sucrosic, dense, slightly ool, poor
vis por, chert-boney wht

Base KC
MD 5500.0 TVD 4947.0 (-2889.0)

Ls-gry, fxln, dense, slightly ool, poor vis por, chert-
wht-ool
Black carbon shale abundant gry/green

Marmaton
MD 5511.0 TVD 4957.0 (-2899.0)

Ls-wht/crm, fxln, ool, poor scattered iner xln to iner
ool por, no vis shows, chert-crm/boney wht

Ls-tan/buff, xln, dense, poor vis por, dense, cherty
in part,

A/A

Shale-black carbon, brown/red soft

MD 5561
TVD 5000
(2942)

Ls-wht/crm, fxln, dense, poor vis por, slightly ool,
chert-boney wht/grey

MD 5373'
Inc 30.5
Azm 80.3
TVD 4837'
North 356.88'
East 2023-48'

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

MD 5436'
Inc 30.0
Azm 80.4
TVD 4892'
North 362.24'
East 2054.88'

MD 5467'
Inc 30.1
Azm 79.7
TVD 4919'
North 364.92'
East 2070.17'

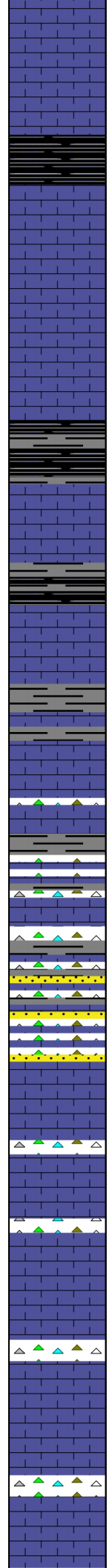
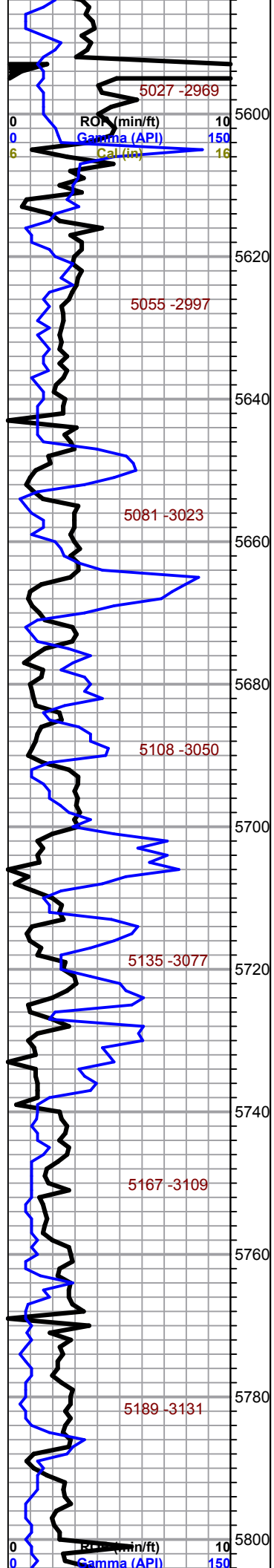
MD 5498'
Inc 29.9
Azm 79.4
TVD 4945'
North 367.73'
East 2085.42'

MD 5529'
Inc 30.3
Azm 79.8
TVD 4972'
North 370.54'
East 2100.71'

Mud Co Mud Check
@5532 4/28/14 0800hr
Vis. 54 Wt. 9.2 PV 20
YP 15 WL 8.0 pH 10.5
CHL 4500ppm Sol 6.2
Ca 60 ppm LCM 3#
DMC \$7567.4
CMC \$58585.75

MD 5561'
Inc 30.6
Azm 79.8
TVD 5000'
North
373.41'
East
2116.67'

SC
Total Gas (units) 1000
C1 (units) 1000
C2 (units) 1000
C3 (units) 1000
C4 (units) 1000



Pawnee
MD 5606.0 TVD 5038.0 (-2980.0)

Black carbon shale

Ls-tan/crm, fxln, few fossils, poor vis por, cherty in part Shale-brown/red soft abundant

A/A Black carbon shale influx

Fort Scott
MD 5633.0 TVD 5062.0 (-3004.0)

Black carbon shale

Ls-gry/tan, fxln, dense, few fossils, chert-tan/gry

A/A Black carbon shale

Ls-crm/tan/gry, fxln scattered por, mostly dense, chert-gry,
Shale- gry/brwn/grn abundant

Ls-crm/wht/tan, fxln, scattered por, few ool/fossils, cherty-crm/boney wht-fossils,

Black carbon shale- Shale gry/green, slightly silty,

Ls-lt gry/crm/wht, few fossils/ool, poor por, Shale-
A/A soft

Mississippian
MD 5738.0 TVD 5151.0 (-3093.0)

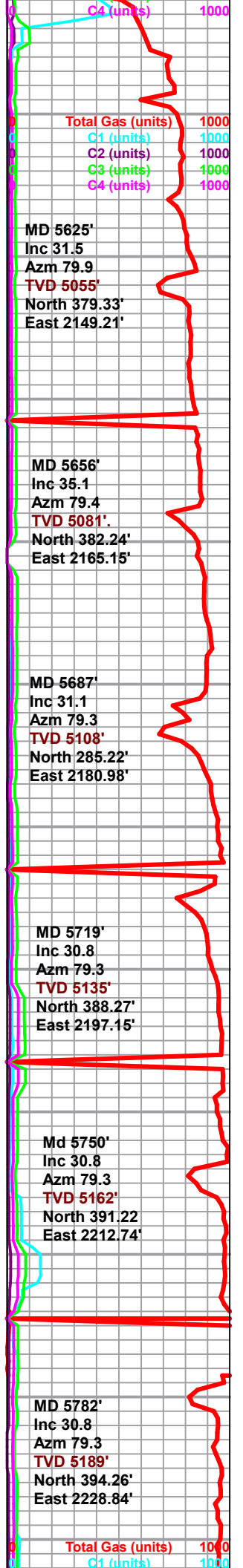
Ls-wht/crm/lt gry, fxln, slightly sucrosic, poor vis por,

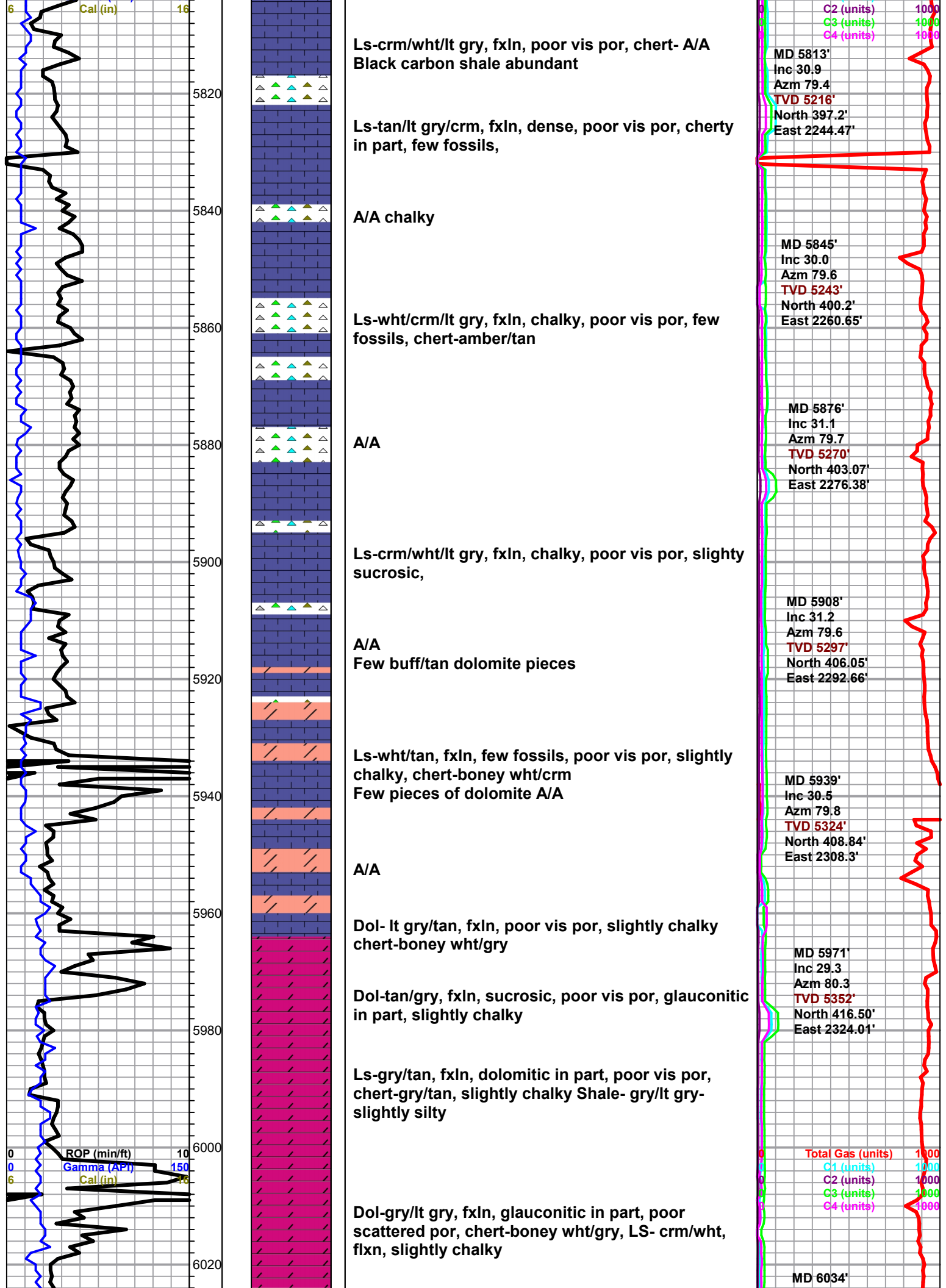
Ls-wht/crm, fxln, poor vis por, slightly sucrosic, chert-boney wht/crm,-fossils

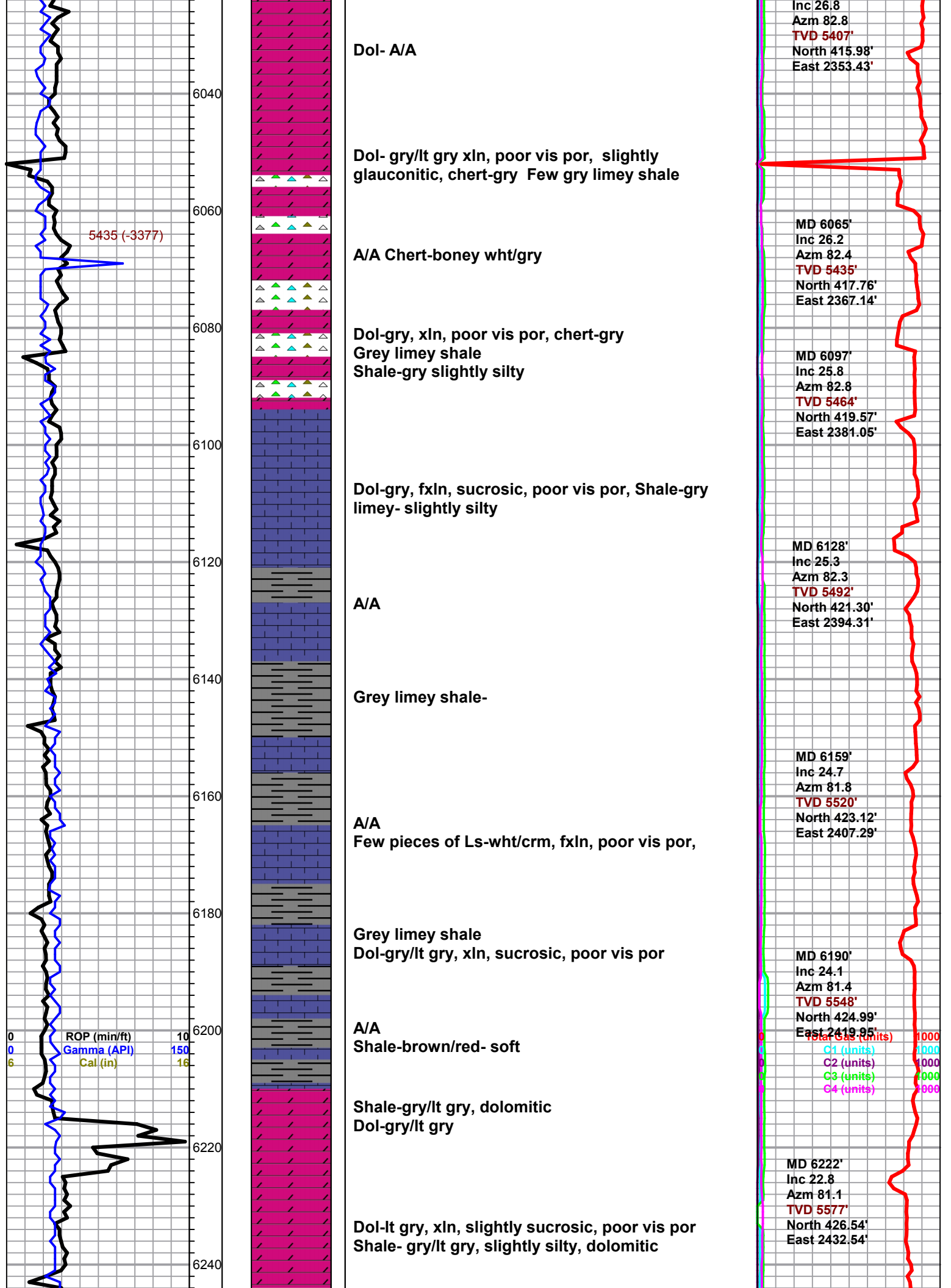
Limestone As Above

Ls-crm/tan, fxln, sucrosic, slightly dolomitic, poor vis por, chert-amber/boney wht

A/A







5435 (-3377)

Inc 26.8
Azm 82.8
TVD 5407'
North 415.98'
East 2353.43'

MD 6065'
Inc 26.2
Azm 82.4
TVD 5435'
North 417.76'
East 2367.14'

MD 6097'
Inc 25.8
Azm 82.8
TVD 5464'
North 419.57'
East 2381.05'

MD 6128'
Inc 25.3
Azm 82.3
TVD 5492'
North 421.30'
East 2394.31'

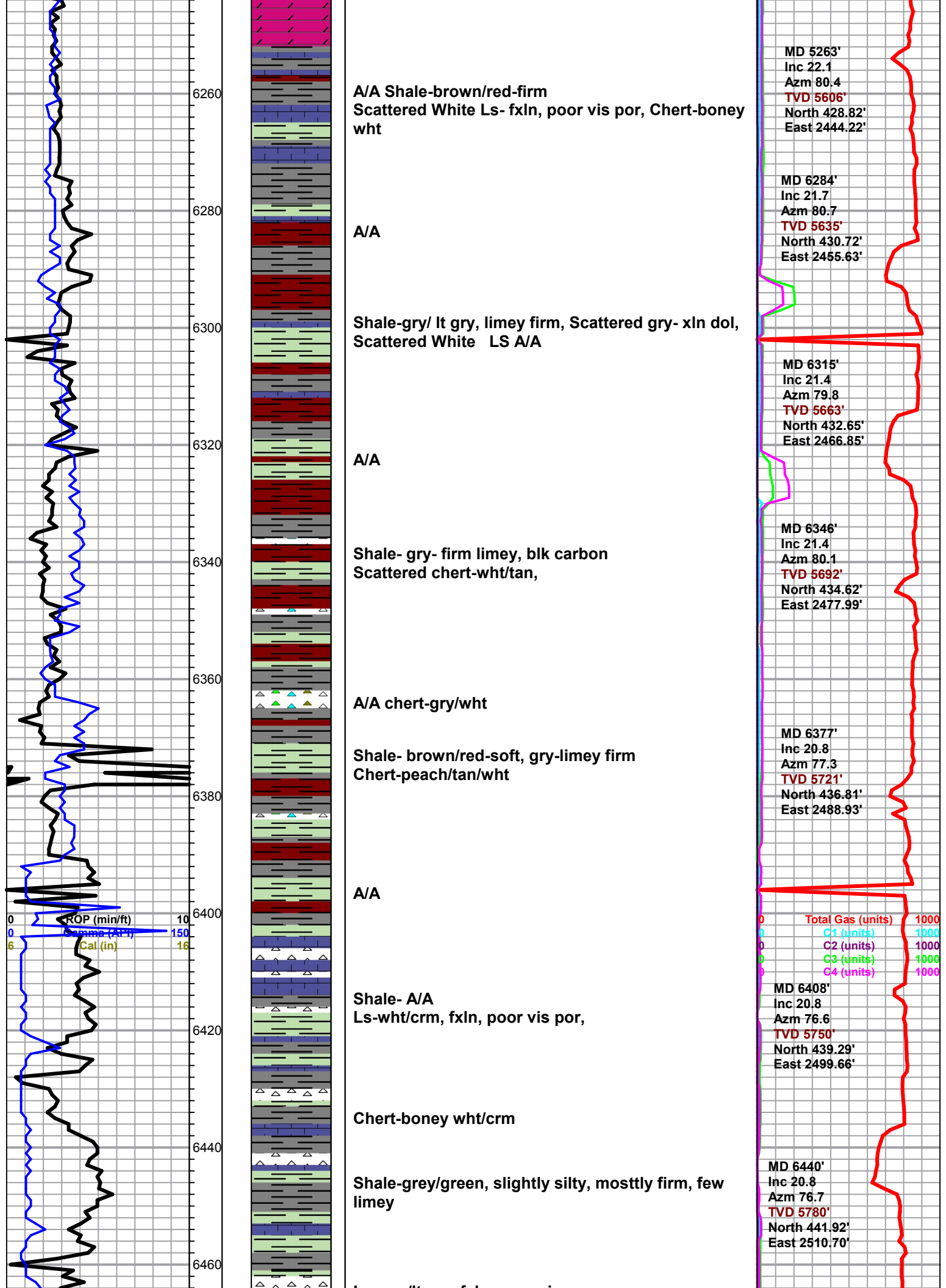
MD 6159'
Inc 24.7
Azm 81.8
TVD 5520'
North 423.12'
East 2407.29'

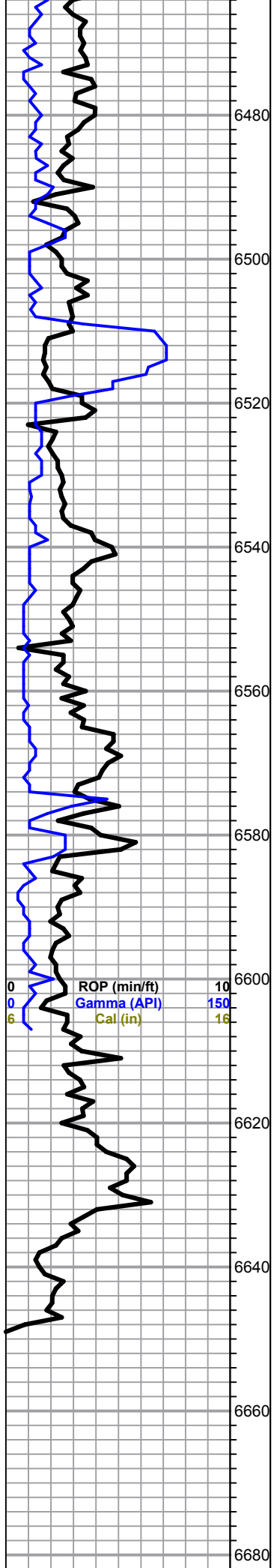
MD 6190'
Inc 24.1
Azm 81.4
TVD 5548'
North 424.99'
East 2419.95'

MD 6222'
Inc 22.8
Azm 81.1
TVD 5577'
North 426.54'
East 2432.54'

Total Gas (units) 1000
C1 (units) 1000
C2 (units) 1000
C3 (units) 1000
C4 (units) 1000

ROP (min/ft) 10
Gamma (API) 150
Cal (in) 16





Ls-crm/lt gry, fxln, poor vis por,
 Shale and chert A/A

 Shale-grey/aqua green, slightly silty, slightly
 glauconitic, Ls-crm/wht, fxln, cherty in part,

 A/A Trace gry fxln dolomite, poor vis por, slightly
 glauconitic,

Viola
MD 6520.0 TVD 5855.0 (-3797.0)

 Dol-tan/buff, fxln, poor iner xln por, sucrosic, trace
 flu,
 Chert-fresh-boney wht/opaque

 Dol-tan/buff/lt gry, xln, sucrosic, poor vis por, Trace
 flu, Shale-grey/green
 Chert-A/A

 Samples becoming poor
 A/A

 Dol-gry/lt gry/crm, xln, slightly sucrosic, poor
 scattered iner xln por, Chert-opaque/boney wht

 Dol-tan/buff/lt gry, xln, poor scattered iner xln por,
 slighty sucrosic, no vis shows,
 Chert-wht/crm

 A/A

 Dol- A/A
 Shale-gry/green, slightly silty, limey in part

Total Depth
MD 6648.0 TVD 5974.0 (-3916.0)

MD 6471'
 Inc 20.9
 Azm 76.3
 TVD 5809'
 North 444.49'
 East 2521.43'

 MD 6503'
 Inc 21.0
 Azm 76.6
 TVD 5839'
 North 447.17'
 East 2532.56'

 MD 6534'
 Inc 21.3
 Azm 76.3
 TVD 5668'
 North 449.79'
 East 2543.43'

 MD 6565'
 Inc 21.4
 Azm 76.3
 TVD 5897'
 North 452.47'
 East 2554.39'

 MD 6597'
 Inc 21.6
 Azm 76.8
 TVD 5926'
 North 455.19'
 East 2565.80'

 MD 6648
 Inc 21.6
 Azm 76.8
 TVD 5974'
 North 459.48'
 East 2584.08'

Total Gas (units) 1000
 C1 (units) 1000
 C2 (units) 1000
 C3 (units) 1000
 C4 (units) 1000

JOB LOG

SWIFT Services, Inc.

DATE 4 MAY 12 PAGE NO. 7

CUSTOMER African Warrior WELL NO. 7 LEASE Lake JOB TYPE cement long string TICKET NO. 26202

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								275 sk SMD cement w/ gasstop & Flocide 154 joints 5 1/2" x 17" casing 66 49' 8 3/4" hole shoejt 43.65' Centralizer 2, 6, 8, 11, 14, 16, 19, 21, 24, 26, 28 30, 32, 36, 38 Baska 4, 27
	0700							on loc. TRK 114
	0945							start 5 1/2" x 17" casing in well
	1130							circ well - 70 joints in
	1245							circ well - 110 joints in
	1445							Drop ball - circulate
	1555	4	12				200	Pump 50 gal mud flush
		4	20				200	Pump 20 bbl KCL flush
			7					Plug RH - MH 20sk - 20sk
	1613	4	77				200	MIX SMD cement 20sk @ 12.5 ppg
		4	8				200	mix SMD cement 20sk @ 13.5 ppg
								Drop latch down plug wash out pump & line
	1647	6					0	Displace plug
		6	100				300	
		5 1/2	145				750	
	1730	5	154				1450	Land plug
								Release pressure to tanks - dried up
	1735							wash truck
	1810							Rack up job complete Tanks Bain Flint & gravel

ALLIED OIL & GAS SERVICES, LLC 052551

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Liberal (21)

DATE <u>4-18-14</u>	SEC. <u>17</u>	TWP. <u>32S</u>	RANGE <u>19W</u>	CALLED OUT	ON LOCATION	JOB START <u>7:00am</u>	JOB FINISH <u>9:00am</u>
LEASE <u>lake</u>		WELL # <u>7</u>	LOCATION <u>Cold water-KS, 1 mile west,</u>		COUNTY <u>Comanche</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)			<u>1 mile south, west into</u>				

CONTRACTOR Duke Drilling # 6
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D.
 CASING SIZE 9 5/8 DEPTH 1010.55
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT 42.11
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT 74.86 OOL

OWNER _____
 CEMENT
 AMOUNT ORDERED 200sk Class A, 65/35, 61gal
3ccc, 1/4 floccal
200sk Class A, 3ccc, 1/4 floccal
 COMMON Class A 200sk @ 17.90 3,580.00
 POZMIX @ _____
 GEL @ _____
 CHLORIDE 22-515 @ 64.00 1,408.00
 ASC @ _____
floccal 100 lb @ 2.97 297.00
ALWC Type 1 Class A 200sk @ 16.50 3,300.00
 @ _____
Materials \$8585.00
\$1717.00 / 20%
 @ _____
 @ _____
 @ _____
 HANDLING 436.1 cu FT @ 2.48 1,081.52
 MILEAGE 960.50 Ten mile 2.60 2,497.30

EQUIPMENT
 PUMP TRUCK CEMENTER Aldo Espinoza
 # 530-484 HELPER Cesar Pavia
 BULK TRUCK
 # 705-640 DRIVER Alex Corona
 BULK TRUCK
 # DRIVER

REMARKS:

SERVICE

DEPTH OF JOB 1010.55
 PUMP TRUCK CHARGE 2,406.25
 EXTRA FOOTAGE @ _____
 MILEAGE Light 50mi @ 4.40 200.00
 MANIFOLD 1 @ 275.00 275.00
Heavy Vehicle 50mi @ 7.70 385.00
Additional hrs in base set 2 @ 440.00 880.00
\$1549.01 20% TOTAL 7745.07

PLUG & FLOAT EQUIPMENT

Centralizers 3 @ 87.75 263.25
Cement Basket 1 @ 594.36 594.36
APU Insert Float 1 @ 534.69 534.69
Regular Guide shoe 1 @ 553.41 553.41
Top Rubber Plug 1 @ 184.86 184.86
\$426.11 20% TOTAL 2,130.57

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.

PRINTED NAME Alan Cain

SIGNATURE _____

SALES TAX (If Any) _____
 TOTAL CHARGES 18,460.64
 DISCOUNT 3692.13 20% IF PAID IN 30 DAYS
 NET = 14,768.52



CHARGE TO: American Warrior
 ADDRESS:
 CITY, STATE, ZIP CODE:

TICKET 26202

PAGE 1 OF 2

1. SERVICE LOCATIONS <u>Law City KS</u>	WELL/PROJECT NO. <u>#7</u>	LEASE <u>Lake</u>	COUNTY/PARISH <u>Cornwache</u>	STATE <u>KS</u>	CITY <u>Coldwater</u>	DATE <u>4 MAY 14</u>	OWNER
2. TICKET TYPE <input type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR	RIG NAME/NO. <u>PC48</u>	SHIPPED <u>WCT</u>	DELIVERED TO <u>location</u>	ORDER NO.		
3. WELL TYPE <u>oil</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>cement log string</u>	WELL PERMIT NO.	WELL LOCATION <u>14-32-19</u>			
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		UNIT PRICE		AMOUNT	
		LOC	ACCT	DF		UM	UM	PRICE			
575		1			MILEAGE <u>TRR 114</u>	90	mi		6.00	540.00	
578		1			Pump Charge	1	ea		1500.00	1500.00	
402		1			Centralizer	5 1/2	in	15	ea	70.00	1050.00
403		1			Cement Basket	5 1/2	in	2	ea	300.00	600.00
406		1			Latch down plus 7 bottle	5 1/2	in	1	ea	275.00	275.00
407		1			Insert float side w/ AUTO FILL	5 1/2	in			375.00	375.00
580		1			Additional hours			1	hr	200.00	200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

[Signature]
 DATE SIGNED: _____ TIME SIGNED: _____
 A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL 1	4540.00
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				2	11837.94
WE UNDERSTOOD AND MET YOUR NEEDS?				sub total	6377.94
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				Cornwache TAX 6.15%	758.54
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				TOTAL	17,136.48
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND				

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: [Signature]

APPROVAL: _____

Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

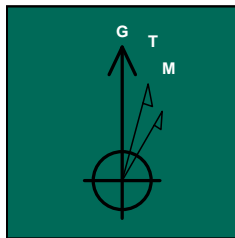
TICKET CONTINUATION

TICKET No. 26202

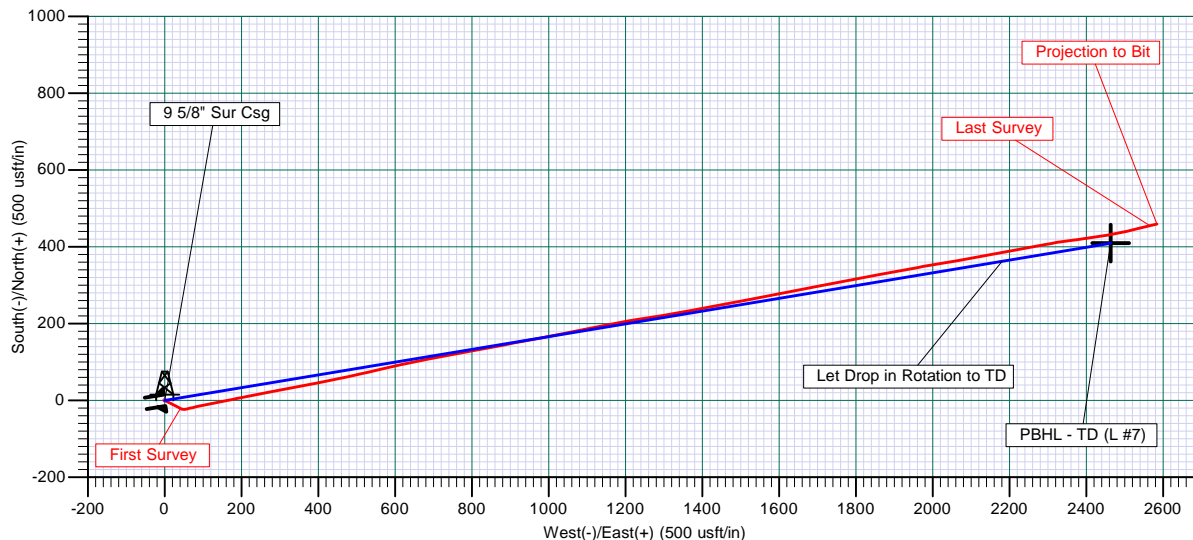
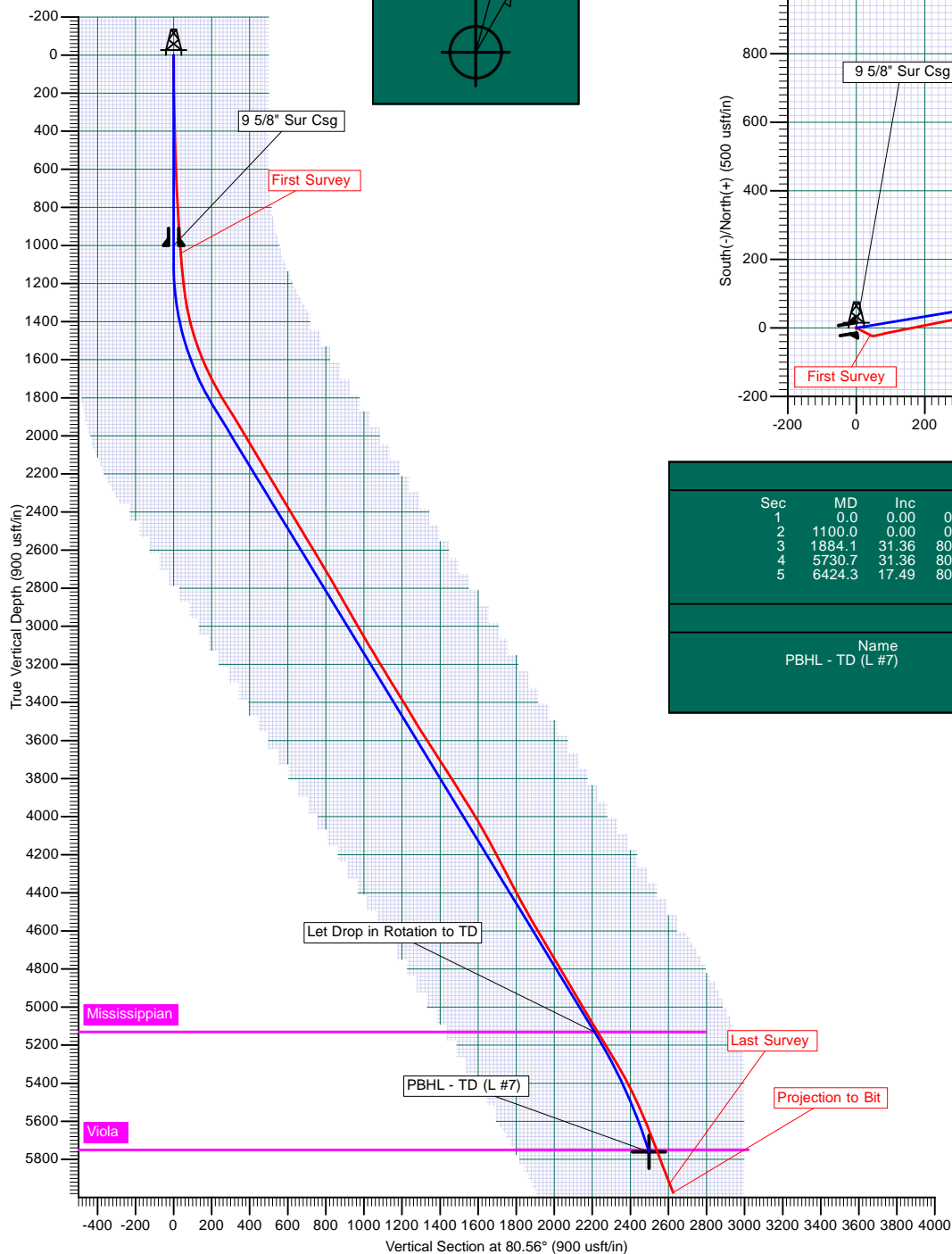
CUSTOMER American Warrior WELL Lake #7 DATE 4/11/14 PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE / PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY		SUM		UNIT PRICE	AMOUNT
		LOG	ACCT	DF			QTY	SUM	QTY	SUM		
330		1				SMD cement	275	52			18.50	5087.50
287		1				gas stop	500	16			8.00	4000.00
276		1				Flocele	75	16			2.50	187.50
281		1				hydr flush	20	gal			1.25	625.00
221		1				KCl flush	2	gal			25.00	50.00
290		1				D-Air	2	gal			42.00	84.00
581		1				SERVICE CHARGE	275				2.00	550.00
583		1				MILEAGE CHARGE	27865				1.00	1253.94
						TOTAL WEIGHT	90					
						LOADED MILES	90					
						TON MILES	1253.94					

CONTINUATION TOTAL 11837.94



Operator: American Warrior, Inc.
Location: Comanche Co, Kansas (NAD-27)
Well Name: Lake #7
Calmena Job# 14044



PLAN SECTION DETAILS												
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	Annotation	
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0			
2	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0		KOP: Build 4"/100'	
3	1884.1	31.36	80.56	1845.5	34.3	206.5	4.00	80.56	209.3		Hold 31.36° Tangent	
4	5730.7	31.36	80.56	5130.0	362.6	2181.4	0.00	0.00	2211.3		Let Drop in Rotation to TD	
5	6424.3	17.49	80.56	5760.0	409.5	2463.7	2.00	180.00		PBHL - TD (L #7)		

TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point	
PBHL - TD (L #7)	5760.0	409.5	2463.7	214752.32	1753263.58	37° 15' 12.153 N	99° 20' 51.733 W		

WELLBORE: Wellbore #1
PLAN: Design #2
GEODETIC SYSTEM: US State Plane 1927 (Exact solution) DATUM: NAD 1927 (NADCON CONUS) ELLIPSOID: Clarke 1866 ZONE: Kansas South 1502 SYSTEM DATUM: Mean Sea Level
SURFACE HOLE COORDINATES LATITUDE: 37° 15' 7.881 N LONGITUDE: 99° 21' 22.157 W NORTHING (Y): 214342.80 EASTING (X): 1750799.90
GROUND LEVEL: 2046.6 RIG FLOOR(KB): WELL @ 2066.6usft (Original Well Elev)
MAGNETIC FIELD: STRENGTH: 51688 DIP ANGLE: 65.16° MODEL: IGRF2010 DATE: 08-Nov-13 AZIMUTHS CORRECTED TO: Grid
MWD - USE IF ABOVE IS GRID Magnetic North is 5.77° East of Grid North (Magnetic Convergence)
MWD - USE IF ABOVE IS TRUE Magnetic North is 5.25° East of True North (Magnetic Declination)

Company:	American Warrior, Inc.	Local Co-ordinate Reference:	Site Lake #7
Project:	Comanche Co, Kansas (NAD-27)	TVD Reference:	WELL @ 2066.6usft (Original Well Elev)
Site:	Lake #7	MD Reference:	WELL @ 2066.6usft (Original Well Elev)
Well:	Lake #7	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Comanche Co, Kansas (NAD-27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Kansas South 1502		

Site	Lake #7				
Site Position:		Northing:	214,342.80 usft	Latitude:	37° 15' 7.881 N
From:	Map	Easting:	1,750,799.90 usft	Longitude:	99° 21' 22.157 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.53 °

Well	Lake #7					
Well Position	+N/-S	0.0 usft	Northing:	214,342.80 usft	Latitude:	37° 15' 7.881 N
	+E/-W	0.0 usft	Easting:	1,750,799.90 usft	Longitude:	99° 21' 22.157 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	2,066.6 usft	Ground Level:	2,046.6 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/8/2013	5.25	65.16	51,688

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	80.56	

Survey Program	Date	5/2/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
1,042.0	6,648.0	Survey #1 (Wellbore #1)	MWD	MWD - Calmena	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,042.0	5.10	116.90	1,040.6	-21.0	41.3	37.3	0.49	0.49	0.00	
First Survey										
1,072.0	5.30	111.90	1,070.5	-22.1	43.8	39.6	1.65	0.67	-16.67	
1,103.0	5.60	100.30	1,101.4	-22.9	46.6	42.2	3.68	0.97	-37.42	
1,134.0	5.90	90.70	1,132.2	-23.2	49.7	45.2	3.25	0.97	-30.97	
1,165.0	6.00	84.10	1,163.0	-23.0	52.9	48.4	2.23	0.32	-21.29	
1,196.0	6.30	79.90	1,193.9	-22.6	56.2	51.7	1.74	0.97	-13.55	
1,227.0	6.70	77.60	1,224.7	-21.9	59.6	55.2	1.54	1.29	-7.42	
1,258.0	7.70	76.10	1,255.4	-21.0	63.4	59.1	3.28	3.23	-4.84	
1,289.0	8.90	76.30	1,286.1	-19.9	67.8	63.6	3.87	3.87	0.65	

Company:	American Warrior, Inc.	Local Co-ordinate Reference:	Site Lake #7
Project:	Comanche Co, Kansas (NAD-27)	TVD Reference:	WELL @ 2066.6usft (Original Well Elev)
Site:	Lake #7	MD Reference:	WELL @ 2066.6usft (Original Well Elev)
Well:	Lake #7	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,321.0	10.10	75.30	1,317.7	-18.6	72.9	68.8	3.79	3.75	-3.13	
1,351.0	11.80	77.10	1,347.1	-17.3	78.4	74.5	5.78	5.67	6.00	
1,382.0	13.30	78.30	1,377.4	-15.8	85.0	81.2	4.91	4.84	3.87	
1,414.0	14.60	78.20	1,408.4	-14.3	92.6	89.0	4.06	4.06	-0.31	
1,445.0	15.70	77.90	1,438.3	-12.6	100.5	97.0	3.56	3.55	-0.97	
1,477.0	17.00	78.60	1,469.0	-10.8	109.3	106.1	4.11	4.06	2.19	
1,508.0	18.40	78.80	1,498.6	-8.9	118.5	115.5	4.52	4.52	0.65	
1,540.0	19.70	78.40	1,528.8	-6.9	128.8	125.9	4.08	4.06	-1.25	
1,571.0	21.00	78.60	1,557.9	-4.7	139.3	136.7	4.20	4.19	0.65	
1,603.0	22.00	78.80	1,587.7	-2.4	150.8	148.4	3.13	3.13	0.63	
1,634.0	23.00	78.80	1,616.3	-0.1	162.5	160.3	3.23	3.23	0.00	
1,666.0	24.30	78.60	1,645.6	2.4	175.1	173.1	4.07	4.06	-0.63	
1,697.0	25.70	78.10	1,673.7	5.1	187.9	186.2	4.57	4.52	-1.61	
1,728.0	27.10	78.20	1,701.5	7.9	201.4	200.0	4.52	4.52	0.32	
1,760.0	28.60	78.70	1,729.8	10.9	216.0	214.9	4.74	4.69	1.56	
1,791.0	30.10	79.10	1,756.8	13.8	230.9	230.1	4.88	4.84	1.29	
1,822.0	30.70	79.20	1,783.5	16.8	246.3	245.8	1.94	1.94	0.32	
1,854.0	30.70	79.10	1,811.0	19.8	262.4	262.1	0.16	0.00	-0.31	
1,885.0	31.30	79.40	1,837.6	22.8	278.1	278.1	2.00	1.94	0.97	
1,916.0	31.50	79.10	1,864.1	25.8	293.9	294.2	0.82	0.65	-0.97	
1,948.0	31.80	79.10	1,891.3	29.0	310.4	311.0	0.94	0.94	0.00	
1,978.0	32.10	79.40	1,916.8	32.0	326.0	326.9	1.13	1.00	1.00	
2,010.0	31.60	79.30	1,944.0	35.1	342.6	343.7	1.57	-1.56	-0.31	
2,042.0	30.50	79.40	1,971.4	38.1	358.8	360.2	3.44	-3.44	0.31	
2,073.0	30.40	78.80	1,998.1	41.1	374.3	375.9	1.03	-0.32	-1.94	
2,104.0	30.40	79.20	2,024.8	44.1	389.7	391.6	0.65	0.00	1.29	
2,136.0	30.60	78.90	2,052.4	47.2	405.6	407.9	0.79	0.63	-0.94	
2,168.0	30.80	78.80	2,079.9	50.3	421.6	424.2	0.65	0.63	-0.31	
2,199.0	31.10	78.80	2,106.5	53.4	437.3	440.1	0.97	0.97	0.00	
2,231.0	31.20	78.70	2,133.9	56.7	453.5	456.7	0.35	0.31	-0.31	
2,261.0	30.20	77.90	2,159.7	59.8	468.5	472.0	3.60	-3.33	-2.67	
2,293.0	30.20	77.40	2,187.3	63.2	484.2	488.1	0.79	0.00	-1.56	
2,323.0	30.30	77.40	2,213.3	66.5	499.0	503.1	0.33	0.33	0.00	
2,355.0	30.90	77.30	2,240.8	70.1	514.9	519.4	1.88	1.88	-0.31	
2,386.0	31.00	76.90	2,267.4	73.6	530.4	535.3	0.74	0.32	-1.29	
2,417.0	31.10	76.70	2,293.9	77.3	546.0	551.3	0.46	0.32	-0.65	
2,449.0	31.20	76.80	2,321.3	81.1	562.1	567.8	0.35	0.31	0.31	
2,480.0	31.20	76.30	2,347.8	84.8	577.7	583.8	0.84	0.00	-1.61	
2,512.0	31.30	76.10	2,375.2	88.8	593.8	600.4	0.45	0.31	-0.63	
2,543.0	31.00	77.80	2,401.7	92.4	609.5	616.4	3.00	-0.97	5.48	
2,575.0	30.70	78.80	2,429.2	95.7	625.5	632.8	1.86	-0.94	3.13	
2,606.0	30.60	78.80	2,455.9	98.8	641.0	648.6	0.32	-0.32	0.00	
2,637.0	30.70	78.80	2,482.5	101.9	656.5	664.4	0.32	0.32	0.00	

Company:	American Warrior, Inc.	Local Co-ordinate Reference:	Site Lake #7
Project:	Comanche Co, Kansas (NAD-27)	TVD Reference:	WELL @ 2066.6usft (Original Well Elev)
Site:	Lake #7	MD Reference:	WELL @ 2066.6usft (Original Well Elev)
Well:	Lake #7	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
2,668.0	30.80	79.30	2,509.2	104.9	672.1	680.2	0.89	0.32	1.61	
2,700.0	31.00	79.10	2,536.6	108.0	688.2	696.6	0.70	0.63	-0.63	
2,731.0	31.10	78.90	2,563.2	111.0	703.9	712.6	0.46	0.32	-0.65	
2,763.0	31.30	78.40	2,590.6	114.3	720.2	729.2	1.02	0.63	-1.56	
2,794.0	31.50	78.90	2,617.0	117.4	736.0	745.3	1.06	0.65	1.61	
2,826.0	30.60	79.80	2,644.4	120.5	752.2	761.8	3.16	-2.81	2.81	
2,858.0	30.50	79.90	2,672.0	123.4	768.3	778.1	0.35	-0.31	0.31	
2,889.0	30.50	80.10	2,698.7	126.1	783.8	793.8	0.33	0.00	0.65	
2,920.0	30.60	79.40	2,725.4	128.9	799.3	809.6	1.19	0.32	-2.26	
2,952.0	30.80	79.30	2,752.9	131.9	815.3	825.9	0.65	0.63	-0.31	
2,982.0	30.90	79.10	2,778.7	134.8	830.4	841.3	0.48	0.33	-0.67	
3,014.0	29.90	79.60	2,806.3	137.8	846.3	857.5	3.22	-3.13	1.56	
3,045.0	29.70	79.80	2,833.2	140.6	861.5	872.9	0.72	-0.65	0.65	
3,077.0	29.40	79.30	2,861.0	143.4	877.0	888.7	1.21	-0.94	-1.56	
3,108.0	29.10	78.80	2,888.1	146.3	891.9	903.8	1.25	-0.97	-1.61	
3,140.0	29.40	78.60	2,916.0	149.4	907.2	919.4	0.99	0.94	-0.63	
3,170.0	29.50	78.40	2,942.1	152.3	921.7	934.2	0.47	0.33	-0.67	
3,202.0	30.20	79.20	2,969.9	155.4	937.3	950.1	2.52	2.19	2.50	
3,233.0	30.40	79.70	2,996.6	158.2	952.7	965.7	1.04	0.65	1.61	
3,264.0	30.50	80.20	3,023.4	161.0	968.1	981.4	0.88	0.32	1.61	
3,296.0	30.70	79.70	3,050.9	163.8	984.2	997.7	1.01	0.63	-1.56	
3,328.0	30.70	79.80	3,078.4	166.7	1,000.3	1,014.1	0.16	0.00	0.31	
3,359.0	30.60	79.40	3,105.1	169.6	1,015.8	1,029.9	0.73	-0.32	-1.29	
3,390.0	30.80	79.30	3,131.7	172.5	1,031.4	1,045.7	0.67	0.65	-0.32	
3,422.0	30.90	78.90	3,159.2	175.6	1,047.5	1,062.1	0.71	0.31	-1.25	
3,454.0	31.20	78.80	3,186.6	178.8	1,063.7	1,078.6	0.95	0.94	-0.31	
3,486.0	31.30	78.70	3,214.0	182.1	1,079.9	1,095.2	0.35	0.31	-0.31	
3,517.0	31.40	78.60	3,240.5	185.2	1,095.8	1,111.3	0.36	0.32	-0.32	
3,548.0	31.40	78.30	3,266.9	188.5	1,111.6	1,127.4	0.50	0.00	-0.97	
3,580.0	31.30	78.40	3,294.2	191.8	1,127.9	1,144.1	0.35	-0.31	0.31	
3,611.0	31.30	78.30	3,320.7	195.1	1,143.7	1,160.2	0.17	0.00	-0.32	
3,642.0	31.50	78.30	3,347.2	198.3	1,159.5	1,176.3	0.65	0.65	0.00	
3,674.0	31.60	78.40	3,374.5	201.7	1,175.9	1,193.0	0.35	0.31	0.31	
3,706.0	31.10	80.20	3,401.8	204.8	1,192.2	1,209.7	3.32	-1.56	5.63	
3,737.0	31.20	81.30	3,428.3	207.4	1,208.1	1,225.7	1.86	0.32	3.55	
3,768.0	31.20	81.80	3,454.8	209.8	1,223.9	1,241.8	0.84	0.00	1.61	
3,799.0	31.40	81.40	3,481.3	212.1	1,239.9	1,257.9	0.93	0.65	-1.29	
3,831.0	31.50	81.30	3,508.6	214.6	1,256.4	1,274.6	0.35	0.31	-0.31	
3,862.0	31.90	80.80	3,535.0	217.2	1,272.5	1,290.9	1.54	1.29	-1.61	
3,893.0	32.20	80.40	3,561.3	219.8	1,288.7	1,307.3	1.19	0.97	-1.29	
3,925.0	32.40	80.60	3,588.3	222.7	1,305.6	1,324.4	0.71	0.63	0.63	
3,956.0	32.50	80.30	3,614.5	225.4	1,322.0	1,341.0	0.61	0.32	-0.97	
3,988.0	32.70	80.10	3,641.4	228.4	1,339.0	1,358.3	0.71	0.63	-0.63	

Company:	American Warrior, Inc.	Local Co-ordinate Reference:	Site Lake #7
Project:	Comanche Co, Kansas (NAD-27)	TVD Reference:	WELL @ 2066.6usft (Original Well Elev)
Site:	Lake #7	MD Reference:	WELL @ 2066.6usft (Original Well Elev)
Well:	Lake #7	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,025.0	32.90	79.40	3,672.5	231.9	1,358.7	1,378.3	1.16	0.54	-1.89	
4,056.0	33.10	78.80	3,698.5	235.1	1,375.3	1,395.2	1.24	0.65	-1.94	
4,088.0	32.70	79.30	3,725.4	238.4	1,392.3	1,412.6	1.51	-1.25	1.56	
4,119.0	32.60	79.40	3,751.5	241.5	1,408.8	1,429.3	0.37	-0.32	0.32	
4,150.0	32.50	79.80	3,777.6	244.5	1,425.2	1,446.0	0.77	-0.32	1.29	
4,182.0	32.30	79.40	3,804.7	247.6	1,442.0	1,463.1	0.92	-0.63	-1.25	
4,214.0	32.30	79.40	3,831.7	250.8	1,458.8	1,480.2	0.00	0.00	0.00	
4,245.0	32.20	79.30	3,857.9	253.8	1,475.1	1,496.8	0.37	-0.32	-0.32	
4,276.0	32.10	79.20	3,884.2	256.9	1,491.3	1,513.2	0.37	-0.32	-0.32	
4,308.0	32.20	79.30	3,911.3	260.1	1,508.0	1,530.3	0.35	0.31	0.31	
4,339.0	32.20	79.70	3,937.5	263.1	1,524.3	1,546.8	0.69	0.00	1.29	
4,370.0	31.30	78.70	3,963.9	266.1	1,540.3	1,563.1	3.36	-2.90	-3.23	
4,401.0	30.80	78.80	3,990.4	269.3	1,556.0	1,579.1	1.62	-1.61	0.32	
4,433.0	30.50	79.40	4,018.0	272.3	1,572.0	1,595.4	1.34	-0.94	1.88	
4,463.0	30.10	79.20	4,043.9	275.2	1,586.9	1,610.5	1.38	-1.33	-0.67	
4,494.0	29.70	79.20	4,070.7	278.1	1,602.1	1,626.0	1.29	-1.29	0.00	
4,525.0	29.40	79.60	4,097.7	280.9	1,617.1	1,641.2	1.16	-0.97	1.29	
4,556.0	28.90	79.10	4,124.8	283.7	1,631.9	1,656.3	1.79	-1.61	-1.61	
4,588.0	28.40	78.90	4,152.9	286.6	1,647.0	1,671.7	1.59	-1.56	-0.63	
4,619.0	27.60	79.10	4,180.2	289.4	1,661.3	1,686.2	2.60	-2.58	0.65	
4,650.0	27.60	78.40	4,207.7	292.2	1,675.4	1,700.6	1.05	0.00	-2.26	
4,682.0	27.50	78.90	4,236.1	295.1	1,689.9	1,715.4	0.79	-0.31	1.56	
4,713.0	27.60	78.60	4,263.6	297.9	1,703.9	1,729.7	0.55	0.32	-0.97	
4,745.0	27.60	78.80	4,291.9	300.8	1,718.5	1,744.5	0.29	0.00	0.63	
4,776.0	27.80	79.30	4,319.4	303.5	1,732.6	1,758.9	0.99	0.65	1.61	
4,807.0	27.70	79.20	4,346.8	306.2	1,746.8	1,773.4	0.36	-0.32	-0.32	
4,839.0	28.00	78.80	4,375.1	309.1	1,761.5	1,788.3	1.10	0.94	-1.25	
4,871.0	28.30	79.60	4,403.3	311.9	1,776.3	1,803.4	1.51	0.94	2.50	
4,902.0	28.30	79.10	4,430.6	314.6	1,790.7	1,818.1	0.76	0.00	-1.61	
4,933.0	28.80	78.80	4,457.8	317.4	1,805.3	1,832.9	1.68	1.61	-0.97	
4,965.0	29.20	78.90	4,485.8	320.4	1,820.5	1,848.4	1.26	1.25	0.31	
4,997.0	29.30	79.80	4,513.7	323.3	1,835.9	1,864.0	1.41	0.31	2.81	
5,028.0	30.00	79.70	4,540.7	326.1	1,851.0	1,879.4	2.26	2.26	-0.32	
5,060.0	30.20	79.40	4,568.4	329.0	1,866.7	1,895.4	0.78	0.63	-0.94	
5,092.0	30.30	79.20	4,596.0	332.0	1,882.6	1,911.5	0.44	0.31	-0.63	
5,124.0	30.50	79.20	4,623.6	335.0	1,898.5	1,927.7	0.63	0.63	0.00	
5,154.0	30.70	80.20	4,649.4	337.7	1,913.5	1,943.0	1.82	0.67	3.33	
5,186.0	30.60	79.60	4,677.0	340.6	1,929.6	1,959.3	1.01	-0.31	-1.88	
5,217.0	30.60	79.70	4,703.6	343.4	1,945.1	1,975.1	0.16	0.00	0.32	
5,249.0	30.70	79.90	4,731.2	346.3	1,961.2	1,991.4	0.45	0.31	0.63	
5,280.0	30.70	80.30	4,757.8	349.0	1,976.7	2,007.2	0.66	0.00	1.29	
5,311.0	30.70	80.20	4,784.5	351.7	1,992.3	2,023.0	0.16	0.00	-0.32	
5,342.0	30.60	80.30	4,811.1	354.4	2,007.9	2,038.8	0.36	-0.32	0.32	
5,373.0	30.50	80.30	4,837.8	357.0	2,023.4	2,054.6	0.32	-0.32	0.00	

Company:	American Warrior, Inc.	Local Co-ordinate Reference:	Site Lake #7
Project:	Comanche Co, Kansas (NAD-27)	TVD Reference:	WELL @ 2066.6usft (Original Well Elev)
Site:	Lake #7	MD Reference:	WELL @ 2066.6usft (Original Well Elev)
Well:	Lake #7	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,405.0	30.50	80.30	4,865.4	359.8	2,039.5	2,070.8	0.00	0.00	0.00	
5,436.0	30.00	80.40	4,892.2	362.4	2,054.9	2,086.5	1.62	-1.61	0.32	
5,467.0	30.10	79.70	4,919.0	365.1	2,070.1	2,102.0	1.18	0.32	-2.26	
5,498.0	29.90	79.40	4,945.9	367.9	2,085.4	2,117.5	0.81	-0.65	-0.97	
5,529.0	30.30	79.80	4,972.7	370.7	2,100.7	2,133.0	1.44	1.29	1.29	
5,561.0	30.60	79.80	5,000.3	373.6	2,116.6	2,149.2	0.94	0.94	0.00	
5,593.0	31.20	80.10	5,027.7	376.4	2,132.8	2,165.7	1.94	1.88	0.94	
5,625.0	31.50	79.90	5,055.1	379.3	2,149.2	2,182.3	0.99	0.94	-0.63	
5,656.0	31.50	79.40	5,081.5	382.2	2,165.1	2,198.5	0.84	0.00	-1.61	
5,687.0	31.10	79.30	5,108.0	385.2	2,181.0	2,214.6	1.30	-1.29	-0.32	
5,719.0	30.80	79.30	5,135.4	388.3	2,197.1	2,231.1	0.94	-0.94	0.00	
5,750.0	30.80	79.30	5,162.1	391.2	2,212.7	2,246.9	0.00	0.00	0.00	
5,782.0	30.80	79.30	5,189.5	394.3	2,228.8	2,263.3	0.00	0.00	0.00	
5,813.0	30.90	79.40	5,216.2	397.2	2,244.5	2,279.2	0.36	0.32	0.32	
5,845.0	31.00	79.60	5,243.6	400.2	2,260.6	2,295.7	0.45	0.31	0.63	
5,876.0	31.10	79.70	5,270.2	403.1	2,276.4	2,311.7	0.36	0.32	0.32	
5,908.0	31.20	79.60	5,297.5	406.0	2,292.7	2,328.2	0.35	0.31	-0.31	
5,939.0	30.50	79.80	5,324.2	408.9	2,308.3	2,344.1	2.28	-2.26	0.65	
5,971.0	29.30	80.30	5,351.9	411.6	2,324.0	2,360.1	3.83	-3.75	1.56	
6,002.0	28.30	81.70	5,379.1	414.0	2,338.8	2,375.0	3.89	-3.23	4.52	
6,034.0	26.80	82.80	5,407.4	416.0	2,353.4	2,389.8	4.95	-4.69	3.44	
6,065.0	26.20	82.40	5,435.2	417.8	2,367.1	2,403.6	2.02	-1.94	-1.29	
6,097.0	25.80	82.80	5,463.9	419.6	2,381.1	2,417.6	1.36	-1.25	1.25	
6,128.0	25.30	82.30	5,491.9	421.3	2,394.3	2,431.0	1.76	-1.61	-1.61	
6,159.0	24.70	81.80	5,520.0	423.1	2,407.3	2,444.1	2.05	-1.94	-1.61	
6,190.0	24.10	81.40	5,548.2	425.0	2,420.0	2,456.9	2.01	-1.94	-1.29	
6,222.0	22.80	81.10	5,577.6	426.9	2,432.5	2,469.6	4.08	-4.06	-0.94	
6,253.0	22.10	80.40	5,606.2	428.8	2,444.2	2,481.5	2.42	-2.26	-2.26	
6,284.0	21.70	80.70	5,635.0	430.7	2,455.6	2,493.0	1.34	-1.29	0.97	
6,315.0	21.40	79.80	5,663.8	432.7	2,466.9	2,504.4	1.44	-0.97	-2.90	
6,346.0	21.40	80.10	5,692.7	434.6	2,478.0	2,515.7	0.35	0.00	0.97	
6,377.0	20.80	77.30	5,721.6	436.8	2,488.9	2,526.9	3.78	-1.94	-9.03	
6,408.0	20.80	76.60	5,750.6	439.3	2,499.7	2,537.9	0.80	0.00	-2.26	
6,440.0	20.80	76.70	5,780.5	441.9	2,510.7	2,549.2	0.11	0.00	0.31	
6,471.0	20.90	76.30	5,809.5	444.5	2,521.4	2,560.2	0.56	0.32	-1.29	
6,503.0	21.00	76.60	5,839.4	447.2	2,532.6	2,571.6	0.46	0.31	0.94	
6,534.0	21.30	76.30	5,868.3	449.8	2,543.4	2,582.8	1.03	0.97	-0.97	
6,565.0	21.40	76.30	5,897.2	452.5	2,554.4	2,594.0	0.32	0.32	0.00	
6,597.0	21.60	76.80	5,926.9	455.2	2,565.8	2,605.7	0.85	0.63	1.56	
Last Survey										
6,648.0	21.60	76.80	5,974.3	459.5	2,584.1	2,624.5	0.00	0.00	0.00	
Projection to Bit										

Company:	American Warrior, Inc.	Local Co-ordinate Reference:	Site Lake #7
Project:	Comanche Co, Kansas (NAD-27)	TVD Reference:	WELL @ 2066.6usft (Original Well Elev)
Site:	Lake #7	MD Reference:	WELL @ 2066.6usft (Original Well Elev)
Well:	Lake #7	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,042.0	1,040.6	-21.0	41.3	First Survey
6,597.0	5,926.9	455.2	2,565.8	Last Survey
6,648.0	5,974.3	459.5	2,584.1	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____

Day 14 - 2014/05/01

FILE #: 000014044

WELL NAME: Lake #7

SERVICE CO.: Calmena Energy Services

JOB TYPE: Build & Hold

COMPANY: American Warrior

SURVEY TYPE: Positive Pulse MWD

RIG & NO: Duke 9

SURFACE LOCATION: Comanche County

FIELD / LOCATION: / OK / USA

DIR Supervisor: Josh Corbit
MWD Supervisor: Derek Harris, Daniel Doyal
Company Man: Luther Welch

GROUND ELEV: 2046.6 START DEPTH: 6210.0 PROGRESS: 362.0 DAILY COST: USD\$7300.00
KB ELEV: 2066.6 END DEPTH: 6572.0 AVG. ROP.: 17.0 PREVIOUS COST: USD\$102736.00
TOTAL COST: USD\$110036.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Rotating With Motor	0.25	6215	2	11:30-12:30	Rotating With Motor	1.00	6397	2
00:15-01:00	Orienting With Motor	0.75	6223	2	12:30-12:45	Circ & Accumulate Surveys	0.25	6397	2
01:00-02:15	Rotating With Motor	1.25	6241	2	12:45-14:45	Rotating With Motor	2.00	6428	2
02:15-02:30	Circ & Accumulate Surveys	0.25	6241	2	14:45-15:00	Circ & Accumulate Surveys	0.25	6428	2
02:30-04:00	Rotating With Motor	1.50	6273	2	15:00-17:15	Rotating With Motor	2.25	6459	2
04:00-04:15	Circ & Accumulate Surveys	0.25	6273	2	17:15-17:30	Circ & Accumulate Surveys	0.25	6459	2
04:15-06:00	Rotating With Motor	1.75	6304	2	17:30-19:15	Rotating With Motor	1.75	6491	2
06:00-06:15	Circ & Accumulate Surveys	0.25	6304	2	19:15-19:30	Circ & Accumulate Surveys	0.25	6491	2
06:15-08:00	Rotating With Motor	1.75	6335	2	19:30-20:45	Rotating With Motor	1.25	6522	2
08:00-08:15	Circ & Accumulate Surveys	0.25	6335	2	20:45-21:00	Circ & Accumulate Surveys	0.25	6522	2
08:15-10:00	Rotating With Motor	1.75	6366	2	21:00-22:45	Rotating With Motor	1.75	6554	2
10:00-10:15	Circ & Accumulate Surveys	0.25	6366	2	22:45-23:00	Circ & Accumulate Surveys	0.25	6554	2
10:15-10:30	Rotating With Motor	0.25	6371	2	23:00-24:00	Rotating With Motor	1.00	6572	2
10:30-11:30	Orienting With Motor	1.00	6379	2			0.00		

TIME SUMMARY (hrs):			DRILLING PARAMETERS:		
MOTOR DRILL: 21.25	ORIENTING HRS: 1.75	ROTARY DRILL: 0.00	ROTARY TORQUE:	STRING WEIGHT	140000
TIME DRILL: 0.00	ROTATING HRS: 19.50	MOTOR HRS: 24.00	WOB SLIDING (HI): 35000	WOB ROTATE (HI):	20000
MOTOR REAM: 0.00		TRIP: 0.00	WOB SLIDING (LO): 25000	WOB ROTATE (LO):	15000
CIRC: 2.75	ROTARY DRILL: 0.00	OTHER: 0.00	RPM (ROTARY): 60	DRAG UP:	185000
MOTOR HRS: 24.00	DRILL HRS: 21.25	TOTAL HRS: 24.00	RPM (MOTOR): 110	DRAG DN:	110000

BHA / MOTOR / BIT INFORMATION:

BHA: 2 HOLE SIZE: 8.75 SECTION TYPE: Build & Hold SURVEY TYPE: Positive Pulse MWD
 MANFCT.: CALMENA STABILIZER: No SERIAL#: 650-020 MODEL: 6750 LOBE CFG.:6/7
 SETTING: 1.72 KICKPAD: No SIZE: 6 1/2" (165mm) MTR HRS THIS DAY: 24 MTR HRS TO DATE: 153.5
 MANFCT: n/a BIT TYPE: PDC Bit TYPE: DPO506X NOZZLES: n/a, n/a, n/a, n/a: 0 TFA
 IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ?

PUMP PARAMETERS

PRESSURE ON BTM: 1550 PRESSURE OFF BTM: 1280 TOTAL FLOW RATE: 377.00
 PUMP 1: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 STROKE VOL.: 0.0000
 PUMP 2: TYPE: EFF.: 90.0% SPM: 62.00 LINER: 6.00 STROKE VOL.: 4.9657
 PUMP 3: TYPE: EFF.: 100.0% SPM: 0.00 LINER: 0.00 STROKE VOL.: 0.0000

MUD RECORD

MUD TYPE: Flozan VISC: 58 WTR LOSS: 0 PV: 17 YP: 21 pH: 9
 DENSITY: 9.3 GEL 0/10: 0.00 SAND: 0 SOLIDS: 6.3 OIL: 0 TEMP: 0
 LIQUID BASE: Water LIQUID RATE: 0 GAS TYPE: GAS RATE: 0

COMMENTS:

Drilling ahead while dropping in rotation.

CUSTOMER SIGNATURE: _____

Day 15 - 2014/05/02

FILE #: 000014044 WELL NAME: Lake #7 SERVICE CO.: Calmena Energy Services
 JOB TYPE: Build & Hold COMPANY: American Warrior SURVEY TYPE: Positive Pulse MWD
 RIG & NO: Duke 9 SURFACE LOCATION: Comanche County FIELD / LOCATION: / OK / USA

DIR Supervisor: Josh Corbit
 MWD Supervisor: Derek Harris, Daniel Doyal
 Company Man: Luther Welch

GROUND ELEV: 2046.6 START DEPTH: 6572.0 PROGRESS: 76.0 DAILY COST: USD\$7300.00
 KB ELEV: 2066.6 END DEPTH: 6648.0 AVG. ROP.: 21.7 PREVIOUS COST: USD\$110036.00
 TOTAL COST: USD\$117336.00

WORK STATUS: Operating (All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:45	Rotating With Motor	0.75	6585	2	02:45-04:00	Rotating With Motor	1.25	6648	2
00:45-01:00	Circ & Accumulate Surveys	0.25	6585	2	04:00-06:00	Circ & Condition Hole	2.00	6648	2
01:00-02:30	Rotating With Motor	1.50	6616	2	06:00-11:00	POOH - See Comments - TD well	5.00	6648	2
02:30-02:45	Circ & Accumulate Surveys	0.25	6616	2	11:00-12:00	Lay Down Directional Tools	1.00	6648	2

TIME SUMMARY (hrs):				DRILLING PARAMETERS:			
MOTOR DRILL:	3.50	ORIENTING HRS:	0.00	ROTARY DRILL:	0.00	ROTARY TORQUE:	
TIME DRILL:	0.00	ROTATING HRS:	3.50	MOTOR HRS:	6.00	WOB SLIDING (HI):	0
MOTOR REAM:	0.00	TRIP:	5.00	WOB SLIDING (LO):	0	WOB ROTATE (HI):	18000
CIRC:	2.50	OTHER:	1.00	RPM (ROTARY):	60	WOB ROTATE (LO):	15000
MOTOR HRS:	6.00	TOTAL HRS:	12.00	RPM (MOTOR):	110	DRAG UP:	200000
DRILL HRS:	3.50			DRAG DN:	100000		

BHA / MOTOR / BIT INFORMATION:

BHA: 2 HOLE SIZE: 8.75 SECTION TYPE: Build & Hold SURVEY TYPE: Positive Pulse MWD
 MANFCT.: CALMENA STABILIZER: No SERIAL#: 650-020 MODEL: 6750 LOBE CFG.:6/7
 SETTING: 1.72 KICKPAD:No SIZE: 6 1/2" (165mm) MTR HRS THIS DAY: 6 MTR HRS TO DATE:159.5
 MANFCT: n/a BIT TYPE:PDC Bit TYPE: DPO506X NOZZLES:n/a, n/a, n/a, n/a: 0 TFA
 IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ?

PUMP PARAMETERS

PRESSURE ON BTM: 1550 PRESSURE OFF BTM: 1180 TOTAL FLOW RATE: 377.00

PUMP	TYPE	EFF.:	SPM:	LINER:	STROKE VOL.:
PUMP 1:	TYPE:	100.0%	0.00	0.00	0.0000
PUMP 2:	TYPE:	90.0%	62.00	6.00	4.9657
PUMP 3:	TYPE:	100.0%	0.00	0.00	0.0000

MUD RECORD

MUD TYPE: Flozan VISC: 58 WTR LOSS: 0 PV: 17 YP: 21 pH: 9
 DENSITY: 9.1 GEL 0/10: 0.00 SAND: 0 SOLIDS: 6.3 OIL: 0 TEMP: 0
 LIQUID BASE: Water LIQUID RATE: 0 GAS TYPE: GAS RATE: 0

COMMENTS:

Drilling ahead to Geologist tells us to stop.
 TD well @6648'
 POOH
 L/D and load Dir tools.

CUSTOMER SIGNATURE: _____



Slide Sheet Report

BHA 2 - 2014/04/25 TO 2014/05/02

FILE #: 000014044
JOB TYPE: Build & Hold
RIG & NO: Duke 9

WELL NAME: Lake #7
COMPANY: American Warrior
SURFACE LOCATION: Comanche County

SERVICE CO.: Calmena Energy Services
SURVEY TYPE: Positive Pulse MWD
FIELD / LOCATION: / OK / USA

DIR Supervisor: Josh Corbit
MWD Supervisor: Derek Harris, Daniel Doyal
Company Man: Luther Welch

BHA NO: 2	DATES RUN: 2014/04/25 TO 2014/05/02	SECTION: Build & Ho	TOOLFACE OFFSET:	SURVEY OFFSET: 51
MOTOR SETTING: 1.72	KICKPAD: No	STABILIZER: No	MODEL: 6750	SERIAL NO: 650-020
				BHA SURVEY TYPE: Positive Pulse MWD

(Distances are shown in feet.)

BIT DEPTH DRILLED	SURVEY				----- ORIENTING -----			----- ROTATING -----			SLIDE SEEN	BUR /	BUR COMMENTS	
	DEPTH	INC	AZM	TF	FROM	TO		FROM	TO					
4039.00	37.00	3988.00	32.20	80.10	4039.00	4039.00	0.00	4039.00	4076.00	37.00	0.00	0.00	0.00	
4076.00	31.00	4025.00	32.90	79.40	4076.00	4076.00	0.00	4076.00	4107.00	31.00	0.00	0.00	1.89	
4107.00	32.00	4056.00	33.10	78.80	140R	4107.00	4117.00	10.00	4117.00	4139.00	22.00	0.00	0.00	0.65
4139.00	31.00	4088.00	32.70	79.30		4139.00	4139.00	0.00	4139.00	4170.00	31.00	0.00	0.00	-1.25
4170.00	31.00	4119.00	32.60	79.40	170R	4170.00	4176.00	6.00	4176.00	4201.00	25.00	10.00	-0.01	-0.32
4201.00	158.00	4150.00	32.50	79.80		4201.00	4201.00	0.00	4201.00	4359.00	158.00	0.00	0.00	-0.32
4359.00	31.00	4308.00	32.20	79.30	180	4359.00	4367.00	8.00	4367.00	4390.00	23.00	6.00	-0.05	-0.19
4390.00	249.00	4339.00	32.20	79.70		4390.00	4390.00	0.00	4390.00	4639.00	249.00	0.00	0.00	0.00
4639.00	31.00	4588.00	28.40	78.90	20R	4639.00	4649.00	10.00	4649.00	4670.00	21.00	8.00	-0.48	-1.53
4670.00	31.00	4619.00	27.60	79.10		4670.00	4670.00	0.00	4670.00	4701.00	31.00	0.00	0.00	-2.58
4701.00	32.00	4650.00	27.60	78.40	10R	4701.00	4710.00	9.00	4710.00	4733.00	23.00	10.00	0.00	0.00
4733.00	31.00	4682.00	27.50	78.90		4733.00	4733.00	0.00	4733.00	4764.00	31.00	0.00	0.00	-0.31
4764.00	32.00	4713.00	27.60	78.60	30R	4764.00	4776.00	12.00	4776.00	4796.00	20.00	9.00	0.01	0.32
4796.00	31.00	4745.00	27.60	78.80		4796.00	4796.00	0.00	4796.00	4827.00	31.00	0.00	0.00	0.00
4827.00	31.00	4776.00	27.80	79.30	20R	4827.00	4839.00	12.00	4839.00	4858.00	19.00	12.00	0.02	0.65
4858.00	32.00	4807.00	27.70	79.20	20R	4858.00	4865.00	7.00	4865.00	4890.00	25.00	0.00	0.00	-0.32
4890.00	32.00	4839.00	28.00	78.80	HS	4890.00	4900.00	10.00	4900.00	4922.00	22.00	12.00	0.03	0.94
4922.00	31.00	4871.00	28.30	79.60	HS	4922.00	4930.00	8.00	4930.00	4953.00	23.00	7.00	0.04	0.94
4953.00	31.00	4902.00	28.30	79.10	10R	4953.00	4965.00	12.00	4965.00	4984.00	19.00	10.00	0.00	0.00
4984.00	32.00	4933.00	28.80	78.80	10R	4984.00	4996.00	12.00	4996.00	5016.00	20.00	8.00	0.06	1.61
5016.00	440.00	4965.00	29.20	78.90		5016.00	5016.00	0.00	5016.00	5456.00	440.00	12.00	0.03	1.25
5456.00	31.00	5405.00	30.50	80.30	10R	5456.00	5464.00	8.00	5464.00	5487.00	23.00	12.00	0.11	0.30
5487.00	31.00	5436.00	30.00	80.40		5487.00	5487.00	0.00	5487.00	5518.00	31.00	0.00	0.00	-1.61
5518.00	31.00	5467.00	30.10	79.70	10R	5518.00	5528.00	10.00	5528.00	5549.00	21.00	8.00	0.01	0.32

Slide Sheet Report

BHA 2 - 2014/04/25 TO 2014/05/02

(Distances are shown in feet.)

BIT		SURVEY				----- ORIENTING -----			----- ROTATING -----			SLIDE	BUR	BUR	COMMENTS
DEPTH	DRILLED	DEPTH	INC	AZM	TF	FROM	TO		FROM	TO		SEEN	/		
5549.00	31.00	5498.00	29.90	79.40	10R	5549.00	5557.00	8.00	5557.00	5580.00	23.00	0.00	0.00	-0.65	
5580.00	32.00	5529.00	30.30	79.80	10R	5580.00	5592.00	12.00	5592.00	5612.00	20.00	10.00	0.04	1.29	
5612.00	315.00	5561.00	30.60	79.80		5612.00	5612.00	0.00	5612.00	5927.00	315.00	8.00	0.04	0.94	
5927.00	32.00	5876.00	31.10	79.70	180	5927.00	5937.00	10.00	5937.00	5959.00	22.00	12.00	0.04	0.16	
5959.00	31.00	5908.00	31.20	79.60	180	5959.00	5969.00	10.00	5969.00	5990.00	21.00	0.00	0.00	0.31	
5990.00	32.00	5939.00	30.50	79.80	180	5990.00	6000.00	10.00	6000.00	6022.00	22.00	10.00	-0.07	-2.26	
6022.00	188.00	5971.00	29.30	80.30		6022.00	6022.00	0.00	6022.00	6210.00	188.00	10.00	-0.12	-3.75	
6210.00	31.00	6159.00	24.70	81.80	180	6210.00	6218.00	8.00	6218.00	6241.00	23.00	10.00	-0.46	-2.45	
6241.00	407.00	6190.00	24.10	81.40		6241.00	6241.00	0.00	6241.00	6648.00	407.00	0.00	0.00	-1.94	

Totals:	192.00	2417.00
Percentages:	7.4%	92.6%
Time:	29.75 hrs	106.50 hrs
Percentages:	21.8%	78.2%