



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1106562
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: _____



1106562

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No 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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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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 <i>(Explain)</i> _____
---	--

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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CONSOLIDATED
Oil Well Services, LLC

ENTERED

TICKET NUMBER 35548

LOCATION Eureka

FOREMAN Steve Mead

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT

CEMENT API 15-031-23370

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10-4-12	9999	Hodges #4	12	215	13E	Coffey
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
Dennis Hodges			485	Alan M		
MAILING ADDRESS			611	Joey		
1827 RdZ						
CITY	STATE	ZIP CODE				
Reading	KS	66888				

JOB TYPE Surface 0 HOLE SIZE 12 1/4 HOLE DEPTH 158' CASING SIZE & WEIGHT 8 5/8
 CASING DEPTH 150' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 9 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety Meeting. Rig up to 8 5/8 casing. Break circulation w/ fresh water. Mix 100SKS Class A Cement w/ 3% CaCl2, 2% Gel. Displace with 9 bbls fresh water. Shut well in. Good cement returns to surface. Job complete Rig down

Thank you

*Paid Both Invoices
#35498 - #35548*

Total 5843.42 Check # 1728

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	826.00	826.00
5406	45	MILEAGE	4.00	180.00
11045	100 SKS	Class A Cement	14.95	1495.00
1102	280 #	CaCl2 3%	.74	207.20
1118B	188 #	Gel 2%	.21	39.48
5407	4.770n	Ten Mileage Bulk Trucks	m/c	350.00
		<i>Total</i>	<i>3206.41</i>	
		<i>Discount 5%</i>	<i>- 160.32</i>	
		<i>Total</i>	<i>3046.09</i>	
			<i>Sub Total</i>	<i>3096.65</i>
			<i>SALES TAX</i>	<i>109.73</i>
			<i>ESTIMATED TOTAL</i>	<i>3206.41</i>

pd check 1728

253655 6.3%

AUTHORIZATION Dennis R. Hodges TITLE Owner/Operator DATE 10-4-12

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form



CONSOLIDATED
Oil Well Services, LLC



ENTERED

TICKET NUMBER 35531

LOCATION Eureka

FOREMAN Rick Ledford

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT

CEMENT API # 15-031-23370

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
10/9/12	9999	Hodges # 4	12	215	13E	Coffey	
CUSTOMER <u>Dennis Hodges</u>		3 Rivers Exploration					
MAILING ADDRESS <u>1827 Rd 2</u>				TRUCK #	DRIVER	TRUCK #	DRIVER
CITY <u>Reading</u>		STATE <u>KS</u>	ZIP CODE <u>66889</u>	<u>520</u>	<u>John</u>		
				<u>479</u>	<u>Merle</u>		
				<u>92</u>	<u>Allen G. (McLay TEXAS)</u>		

JOB TYPE L/S 0 HOLE SIZE 7 7/8" HOLE DEPTH 1821' CASING SIZE & WEIGHT 5 1/2" 15.5"
 CASING DEPTH 1811' c.l. DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 13.6" SLURRY VOL 44 Bbl WATER gal/sk 9.0 CEMENT LEFT in CASING 0'
 DISPLACEMENT 43.5 Bbl DISPLACEMENT PSI 800 BUMP PSI 1300 Bump plug RATE _____

REMARKS: Safety meeting. Rig up to 5 1/2" casing. Break circulation w/ 5 Bbl fresh water. Pump 11 Bbl caustic soda pre-flush, 5 Bbl water spacer. Mixed 140 sacks thickset cement w/ 5 # Kolseal/sk @ 13.6"/gal. Washout pump + lines, release latch down plug. Displace w/ 43.5 Bbl fresh water. Final pump pressure 800 PSI. Bump plug to 1300 PSI. Release pressure, float + plug held. Good circulation @ all times while cementing. Job complete. Rig down.

"Thank You"

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	1030.00	1030.00
5406	45	MILEAGE	4.00	180.00
1126A	140 sacks	thickset cement	19.20	2688.00
1110A	200 #	5# Kolseal/sk	.46	322.00
1103	100 #	Caustic soda pre-flush	1.61	161.00
5407A	7.7	tan mileage bulk tax	1.34	464.31
5502C	4 hrs	80 Bbl WAC. TEX	90.00	360.00
1123	3000 gals	city water	16.50/1000	49.50
4164	1	5 1/2" cement basket	229.00	229.00
4130	5	5 1/2" x 7 7/8" centralizers	48.00	240.00
4159	1	5 1/2" AFU float shoe	344.00	344.00
4454	1	5 1/2" latch down plug	254.00	254.00
Total - 6591.92			Subtotal	6321.81
- 5% - 329.60 <u>CL # 1821</u>			SALES TAX	270.11
<u>\$ 6262.32</u>			ESTIMATED TOTAL	6591.92

Revin 3737

AUTHORIZATION Dennis D. Hodges TITLE Owner/Operator DATE 10-9-12

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

January 03, 2013

Dennis Hodges
Hodges, Dennis D. and/or Peggy D.
1827 Rd Z
Reading, KS 66868

Re: ACO1
API 15-031-23370-00-00
Hodges 4
NW/4 Sec.12-21S-13E
Coffey 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,
Dennis Hodges

Geological Wellsite Report

By David Griffin, RG
GGR, Inc.
November 27, 2012

Well Info: Hodges 4
SE NW SW NW/4
1910' fnl, 350' fwl
Section 12, T21S-R13E
Coffey County, KS
API No. 15-031-23770-00-00
GPS Coordinates
W-95.938905, N38.238073
Datum: GL, Elev. 1137'
RTD: 1820', GL
Status: 5 $\frac{1}{2}$ " Pipe Set

Operator: Dennis and Peggy Hodges
1827 Road Z
Reading, Kansas 66868
Operator License No.: 34291
Contact: Dennis Hodges

Contractor: Three Rivers Exploration, LLC
Contractor License No.: 33217
Owner: Dave Farthing

Objectives: Primary objective, evaluate the Burgess Sandstone
Secondary objective, evaluate the Squirrel Sandstones.

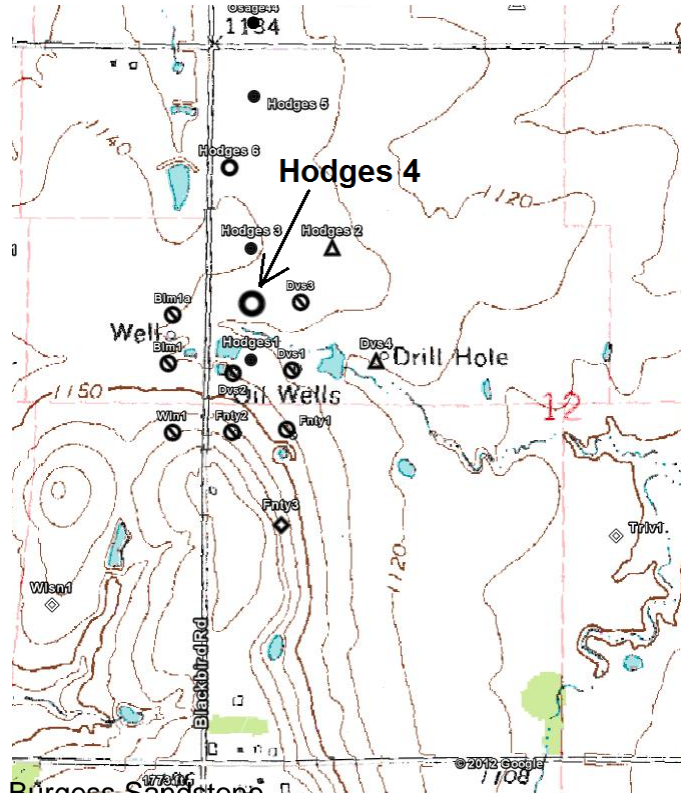
Drilling Notes:

Set 150', 8 $\frac{5}{8}$ " Surface Casing
October 7, 2012, Set up gas detector
October 9, 2012, Reached Total Depth of 1820', GL, Open-Hole Logged
Bit One, 7 $\frac{7}{8}$ " PDC Bit from 150' to 1420'
Bit Two, 7 $\frac{7}{8}$ " Button Bit from 1420' to TD
Native fresh water mud to 1420', Chemical Gel Mud 1420' to TD

Geological Supervision:

David Griffin, RG, provided wellsite supervision on October 7, 8 and 9, 2012. Drilling was witnessed from 1250' to TD, samples were microscopically examined from 1300' to TD.

Cement Co.: Consolidated Oil Well Service Co., Contractor License No.: 04996



Geological Datums:

Geologic Tops					
Dennis and Peggy Hodges Hodges 4 SE NW SW NW/4 Sec. 12-T21S-R13E				Dennis and Peggy Hodges Hodges 3 N/2 NW SW NW/4 Sec. 12-T21S-R13E	
Tops of Interest	GRN Log Tops		S C T O R M C P	OH Log Tops	
	GL Elev. 1137'			GL Elev. 1142'	
	Depth	Subsea		Depth	Subsea
Base Kansas City	1072	65	+13	1090	52
Cherokee	1368	-231	+4	1377	-235
Upper Squirrel SS	1371	-234	+4	1380	-238
Base SS	1386	-249	+7	1398	-256
Lower Squirrel SS	1417	-280	+6	1428	-286
Base SS	1436	-299	+5	1446	-304
Ardmore LS	1471	-334	+4	1480	-338
Burgess SS	1710	-573	+6	1721	-579
Top Best Pay Zone, (Porosity)	1710	-573	+6	1721	-579
Base Pay (70% SW Cutoff)	1721	-584	+7	1733	-591
Base SS	1760	-623	+8	1773	-631
Mississippian Dol	1764	-627	+6	1775	-633
Rotary Total Depth	1820	-683		1824	-682

Structural Comparisons:

Structural comparison of the top of the Burgess Sandstone Pay Zone indicates that Hodges 4 is structurally 6' high to Hodges 3, a new producer well lying 444' to the north.

Gas Detection, Logs, Cores, DST's:

Total gas detection was performed from 1262' to TD. An Open-Hole log was ran by Tucker Energy Services and a Cased Hole Log was ran by Midwest Surveys. No cores or DST's were obtained for this well.

Descriptions of Oil Show Zones:

Upper Squirrel Sandstone

1375' to 1390', GL, (-238'), 1371' to 1386', O-H log, 15' thick, Good Pay Potential

1375' to 1379', Sandstone, light brown, very fine grained, sub-angular quartz, fair porosity with patchy tite, fair odor, slight to fair show of free oil in samples and on pit, slight to fair pay zone potential. Gas readings reached a peak of 329 units or about 260 units above background levels.

1379' to 1381', Sandstone, light brown, very fine to fine grained, silty, mostly good porosity, good odor, good show of free oil in samples and on pit, good pay zone potential. Gas readings reached a peak of 345 units or about 286 units above background levels.

1381' to 1386', Sandstone, 50% light brown, very fine to fine grained, silty, mostly good porosity, fair odor, fair show of free oil in samples and on pit, fair pay zone potential, Sandstone, 50% light gray, very fine to fine grained, silty, poor porosity with abundant calcareous cement, no oil show. Gas readings fell sharply to a low of 114 units.

1386' to 1390', Sandstone, brown, very fine to fine grained, good porosity, very good odor, very good show of free oil in samples and on pit, very good pay zone potential. Gas readings reached a peak of 610 units or about 570 units above background levels.

Using Open-Hole Log data, pay zone was flagged from about 1373' to 1376' and 1381' to 1386' using an R_w of 0.15 and cutoffs for saltwater (S_w) of 70%, porosity (Φ) of 17%.

Oil In-Place for the flagged pay zone interval was estimated at 22,858 barrels using 440' well spacing. Saltwater calculations are attached.

Lower Squirrel Sandstone

1422' to 1444', GL, (-293'), 1418' to 1437', O-H Log, 19' thick, No Pay Zone Potential

1422' to 1428', Sandstone, dark gray, micaceous, very fine to fine grained sub-angular quartz, good porosity, good odor; good show of heavy sticky black oil rinsing from samples, fair show in pit, no tar present. Gas readings were climbing to peak of 170 units or about 110 units above background levels.

1428' to 1435', Sandstone, dark gray, very fine to fine grained sub-angular quartz, good porosity, micaceous, somewhat carbonaceous, good odor; fair show of heavy tarry black oil rinsing from samples, slight show in pit. Gas readings moderated from 160 to 172 units.

1435' to 1441', Sandstone, gray to dark gray, very fine to fine grained sub-angular quartz, fair to good porosity, abundantly carbonaceous, micaceous, slight odor, patchy slight show of residual oil stain with trace show of free tarry oil. Gas

readings peaked at 238 units which is thought to be from methane in solid carbon and not from solution gas.

Pay Zone was not flagged for this zone using similar cutoffs for the Upper Squirrel Sandstone. Due to the observed low percentage of heavy gravity free oil and lack of flagged pay zone, this zone has no potential for commercial pay zone. Saltwater calculations are attached.

Burgess Sandstone

1714' to 1764', GL, (-577'), 1710' to 1760', O-H Log, 50' thick, Excellent Pay Potential

1711'-1714', Sandstone, 15%, light brown, fine grained, sub-rounded to sub-angular quartz, fair to good porosity, good odor, good show of free oil, marginal pay potential; Sandstone, 15%, light gray, very fine grained, poor porosity, no show or oil stain. Gas readings rose 6 units above background levels.

1714'-1716', Sandstone, 70%, light brown, very fine to fine grained, good to very good porosity, very good odor, excellent show of free brown oil rinsing from samples and bleeding into sample bags, very good oil odor coming from pit, excellent pay zone potential. Gas readings peaked at 72 units or about 50 units above background levels.

1716'-1720', Sandstone, 70%, light brown, very fine to fine grained, fair to very good porosity, minor patchy tite, very good odor, very good to excellent show of free brown oil, very good oil odor coming from pit, very good to excellent pay zone potential. Gas readings peaked at 67 units or about 45 units above background levels.

1720'-1727', Sandstone, 40%, light brown, very fine to fine grained, fair to very good porosity, fair odor, fair show of free brown oil, sample appeared to mostly sluff off or of poor quality, minor pyrite, fair pay zone potential. Gas readings ranged from 30 units to 67 units.

1727'-1737', Sandstone, 90%, light brown, very fine to fine grained, good porosity, good odor, good show of free brown oil. Gas readings steadily fell from a peak of 56 units at the top to 38 units at the bottom, marginal pay zone potential. This interval is the water transition zone of the saltwater leg.

1737'-1742', Sandstone, 20%, light brown, fine to medium grained, fair to good porosity, good odor, slight show of free oil; Sandstone, 60%, light gray, poor porosity and tite, minor pyrite, no oil stain, not pay zone. Gas readings were at background levels.

Medium to bright fluorescence due to light oil stain was as follows:

1711'-1714', 20% Bright, Marginal Pay Potential
1714'-1720', 70% Bright, Excellent Pay Potential
1720'-1727', 40% Bright, Fair Pay Potential
1727'-1737', 90% Bright, Marginal Pay Potential,
Possibly Water Transition Zone
1737'-1742', 70%, (20% Bright, 50% Medium), No Potential
1742'-1746', 40%, (20% Bright, 20% Medium), No Potential
1746'-1752', 10% Bright, No Potential
1752'-1764', No fluorescence

Based on sample observations, excellent pay zone potential lies from 1714' to 1726', and fair to good pay zone potential lies from 1720' to 1737'. Saltwater calculations from Open-Hole Log data flags pay zone from about 1710' to 1721', using an R_w of 0.2 and cutoffs for S_w of 70%, Φ of 17% and VSH of 0.9. Below 1720', pyrite was present and may have negatively biased the resistivity resulting in high calculated SW for un-flagged pay zone. Saltwater calculations are attached.

Oil In-Place in the flagged pay zone interval was estimated at 39,446 barrels using a 440' well spacing. Mobile oil likely exists below 1720', however the oil cut (percentage) may be very low and not outweigh the accompanying abundant saltwater.

Summary:

Hodges 4 contained Upper Squirrel Sandstone from 1371' to 1386', (-238), 15' thick with fair to very good show of free brown oil. Eight feet of Pay zone was flagged from 1373' to 1376' and from 1381' to 1386' for an estimated 22,858 barrels of oil in place.

Lower Squirrel Sandstone was present from 1418' to 1437', (-293), 19' thick with good shows of heavy oil in top 6' and only fair to trace shows of sticky tarry heavy oil below 1424'. Saltwater calculations did not flag pay zone using the same parameters as for the Upper Squirrel Sandstone. The Lower Squirrel Sandstone has no pay zone potential.

Burgess Sandstone was present from 1714' to 1764' (-577)', (50' thick) with excellent shows of free brown oil from 1714' to 1720' and fair to good shows of free oil from 1720' to 1737'. Based on sample observations, the Burgess Sandstone has excellent pay zone potential from 1714' (1710', O-H Log) to 1720'. Pay zone is flagged in the saltwater calculations from 1710' to 1721' for an estimated 39,446 barrels of oil in place on a 440' well spacing. The top of the Burgess Sandstone Porosity is structurally 6' high to Hodges 3, a new Burgess Sandstone producer well lying 444' to the north. Due to the excellent potential of the Burgess Sandstones, 5 $\frac{1}{2}$ " production casing was set.

Recommendations:

At the time of writing this report, the Burgess Sandstone was perforated with one shot at 1711', GL, Cased Hole GRN Log with encouraging initial testing results. The Upper Squirrel Sandstone has pay potential from 1381' to 1386; O-H Log and should be tested as well.

Respectfully Submitted,



David Griffin, RG, Owner
GGR Inc. (Griffin Geological Resources)
1502 W. 27th terr
Lawrence, Kansas 66046
785-842-3665

Attachment: Sample Log, Saltwater Calculations

Hodges 4

Upper Squirrel Sandstone

Model = Archie

PARAMETERS	ZN	DEPTH	THICK	RT	PHI	RWA	RO	MA	SW	BVW	VSH	PAY	BOI	
X		1	1370.2	0.5	5.75	21.8%	0.37	2.33	2.39	63.7%	0.139	2.366	0	1.12
Y		2	1370.7	0.5	6.09	20.7%	0.36	2.54	2.35	64.6%	0.134	1.599	0	1.12
A	1	3	1371.2	0.5	6.59	20.0%	0.36	2.72	2.35	64.2%	0.128	1.343	0	1.12
M	1.8	4	1371.7	0.5	7.18	19.2%	0.37	2.93	2.34	63.9%	0.123	1.275	0	1.12
N	2	5	1372.2	0.5	7.78	18.0%	0.36	3.28	2.30	64.9%	0.117	1.200	0	1.12
RW	0.15	6	1372.7	0.5	8.29	17.6%	0.36	3.43	2.31	64.3%	0.113	1.049	0	1.12
CTHK	31.5	7	1373.2	0.5	8.67	18.1%	0.40	3.26	2.37	61.3%	0.111	0.920	0	1.12
AVPHI	0.18	8	1373.7	0.5	8.88	18.4%	0.42	3.16	2.41	59.7%	0.110	0.882	0.04	1.12
FTOIL	0.74	9	1374.2	0.5	9	18.9%	0.45	3.02	2.45	58.0%	0.109	0.888	0.04	1.12
PAYFEET	8	10	1374.7	0.5	9.13	19.6%	0.48	2.83	2.52	55.7%	0.109	0.882	0.04	1.12
Bris Oil In Place	22,858	11	1375.2	0.5	9.34	19.9%	0.51	2.74	2.56	54.2%	0.108	0.871	0.05	1.12
4.44 Acres		12	1375.7	0.5	9.74	19.7%	0.52	2.80	2.57	53.6%	0.105	0.877	0.05	1.12
		13	1376.2	0.5	10.3	19.3%	0.53	2.89	2.57	53.0%	0.102	0.896	0.05	1.12
P		14	1376.7	0.5	10.9	19.0%	0.55	2.98	2.58	52.2%	0.099	0.908	0	1.12
Q		15	1377.2	0.5	11.7	18.1%	0.54	3.25	2.55	52.7%	0.095	0.929	0	1.12
R		16	1377.7	0.5	12.6	15.8%	0.45	4.18	2.40	57.6%	0.091	0.934	0	1.12
DMIN		17	1378.2	0.5	13.7	13.0%	0.35	5.89	2.21	65.6%	0.085	0.867	0	1.12
DMAX		18	1378.7	0.5	14.9	12.3%	0.34	6.50	2.20	66.0%	0.081	0.762	0	1.12
GL		19	1379.2	0.5	16.1	12.9%	0.40	5.97	2.29	60.9%	0.079	0.722	0	1.12
TD		20	1379.7	0.5	16.8	13.2%	0.44	5.78	2.33	58.6%	0.077	0.765	0	1.12
BHT		21	1380.2	0.5	16.9	13.2%	0.44	5.71	2.34	58.1%	0.077	0.806	0	1.12
ST		22	1380.7	0.5	16.4	13.9%	0.47	5.25	2.38	56.6%	0.079	0.778	0	1.12
RMF		23	1381.2	0.5	15.5	15.5%	0.54	4.32	2.48	52.9%	0.082	0.709	0	1.12
RMFT		24	1381.7	0.5	14.4	18.2%	0.67	3.22	2.68	47.3%	0.086	0.670	0.05	1.12
		25	1382.2	0.5	13.2	20.9%	0.79	2.52	2.86	43.6%	0.091	0.678	0.06	1.12
CUT-OFFS		26	1382.7	0.5	12.2	21.5%	0.77	2.38	2.86	44.2%	0.095	0.707	0.06	1.12
PHICUT	0.17	27	1383.2	0.5	11.2	20.7%	0.66	2.55	2.74	47.7%	0.099	0.745	0.05	1.12
SWCUT	0.7	28	1383.7	0.5	10.3	20.4%	0.59	2.62	2.66	50.5%	0.103	0.777	0.05	1.12
VSHCUT	0.9	29	1384.2	0.5	9.55	20.9%	0.57	2.52	2.65	51.4%	0.107	0.778	0.05	1.12
BVWCUT	0.15	30	1384.7	0.5	8.98	21.0%	0.54	2.50	2.62	52.7%	0.111	0.739	0.05	1.12
ON		31	1385.2	0.5	8.54	20.5%	0.49	2.60	2.55	55.2%	0.113	0.735	0.05	1.12
Colors:		32	1385.7	0.5	8.18	19.1%	0.42	2.94	2.42	60.0%	0.115	0.805	0.04	1.12
		33	1386.2	0.5	7.9	17.5%	0.34	3.45	2.27	66.1%	0.116	0.880	0.03	1.12
		34	1386.7	0.5	7.72	16.4%	0.30	3.87	2.18	70.8%	0.116	0.926	0	1.12
		35	1387.2	0.5	7.65	15.9%	0.28	4.10	2.14	73.2%	0.117	0.969	0	1.12
		36	1387.7	0.5	7.68	15.7%	0.28	4.19	2.13	73.8%	0.116	1.014	0	1.12
		37	1388.2	0.5	7.74	15.8%	0.28	4.15	2.14	73.2%	0.116	1.014	0	1.12
		38	1388.7	0.5	7.81	15.8%	0.28	4.16	2.14	73.0%	0.115	0.980	0	1.12
		39	1389.2	0.5	7.87	15.5%	0.27	4.30	2.12	73.9%	0.115	0.995	0	1.12
		40	1389.7	0.5	7.94	15.6%	0.28	4.27	2.13	73.3%	0.114	1.060	0	1.12
		41	1390.2	0.5	8.02	16.1%	0.30	4.01	2.18	70.7%	0.114	1.145	0	1.12
		42	1390.7	0.5	8.11	16.9%	0.33	3.70	2.24	67.5%	0.114	1.257	0	1.12
		43	1391.2	0.5	8.2	17.5%	0.36	3.44	2.30	64.8%	0.114	1.390	0	1.12
		44	1391.7	0.5	8.29	17.6%	0.36	3.42	2.31	64.2%	0.113	1.475	0	1.12
		45	1392.2	0.5	8.37	17.0%	0.34	3.64	2.27	66.0%	0.112	1.469	0	1.12
		46	1392.7	0.5	8.43	16.7%	0.34	3.74	2.25	66.6%	0.112	1.438	0	1.12
		47	1393.2	0.5	8.46	17.4%	0.36	3.50	2.30	64.4%	0.112	1.372	0	1.12
		48	1393.7	0.5	8.47	18.0%	0.39	3.28	2.35	62.3%	0.112	1.282	0	1.12
		49	1394.2	0.5	8.46	17.7%	0.38	3.37	2.33	63.2%	0.112	1.274	0	1.12
		50	1394.7	0.5	8.43	17.1%	0.35	3.61	2.28	65.5%	0.112	1.329	0	1.12
		51	1395.2	0.5	8.39	16.8%	0.34	3.72	2.26	66.6%	0.112	1.328	0	1.12
		52	1395.7	0.5	8.35	16.8%	0.34	3.74	2.25	66.9%	0.112	1.282	0	1.12
		53	1396.2	0.5	8.32	17.1%	0.35	3.59	2.28	65.7%	0.113	1.302	0	1.12
		54	1396.7	0.5	8.28	17.4%	0.35	3.50	2.29	65.1%	0.113	1.382	0	1.12
		55	1397.2	0.5	8.26	17.1%	0.34	3.60	2.27	66.0%	0.113	1.441	0	1.12
		56	1397.7	0.5	8.23	17.3%	0.35	3.55	2.28	65.6%	0.113	1.425	0	1.12
		57	1398.2	0.5	8.19	17.8%	0.37	3.35	2.32	63.9%	0.114	1.370	0	1.12
		58	1398.7	0.5	8.15	18.5%	0.39	3.14	2.36	62.1%	0.115	1.380	0	1.12
		59	1399.2	0.5	8.11	18.5%	0.39	3.13	2.36	62.1%	0.115	1.431	0	1.12
		60	1399.7	0.5	8.06	17.6%	0.35	3.42	2.29	65.2%	0.115	1.404	0	1.12
		61	1400.2	1.5	8.01	16.7%	0.32	3.74	2.23	68.3%	0.114	1.363	0	1.12

Hodges 4

Lower Squirrel Sandstone

Model = Archie

PARAMETERS	ZN	DEPTH	THICK	RT	PHI	RWA	RO	MA	SW	BVW	VSH	PAY	BOI	
X		1	1415.2	0.5	6.83	14.1%	0.20	5.08	1.95	86.2%	0.122	1.218	0	1.12
Y		2	1415.7	0.5	7.14	15.2%	0.24	4.47	2.05	79.1%	0.120	1.318	0	1.12
A	1	3	1416.2	0.5	7.34	15.8%	0.27	4.14	2.11	75.1%	0.119	1.466	0	1.12
M	1.8	4	1416.7	0.5	7.36	15.3%	0.25	4.40	2.07	77.3%	0.118	1.556	0	1.12
N	2	5	1417.2	0.5	7.25	14.2%	0.22	5.01	1.99	83.1%	0.118	1.527	0	1.12
RW	0.15	6	1417.7	0.5	7.12	13.6%	0.20	5.43	1.94	87.3%	0.119	1.365	0	1.12
CTHK	31.5	7	1418.2	0.5	7.01	14.0%	0.20	5.19	1.95	86.1%	0.120	1.160	0	1.12
AVPHI	0.19	8	1418.7	0.5	6.97	15.6%	0.25	4.24	2.07	78.0%	0.122	1.118	0	1.12
FTOIL	0.00	9	1419.2	0.5	6.86	17.5%	0.30	3.47	2.19	71.1%	0.124	1.184	0	1.12
PAYFEET	0	10	1419.7	0.5	6.69	18.3%	0.32	3.18	2.24	68.9%	0.126	1.133	0	1.12
Brls Oil In Place	0	11	1420.2	0.5	6.41	18.6%	0.31	3.09	2.23	69.4%	0.129	0.979	0	1.12
4.44 Acres		12	1420.7	0.5	6.08	18.7%	0.30	3.05	2.21	70.9%	0.133	0.881	0	1.12
P		13	1421.2	0.5	5.77	18.8%	0.29	3.03	2.19	72.5%	0.136	0.908	0	1.12
Q		14	1421.7	0.5	5.54	18.7%	0.27	3.07	2.15	74.4%	0.139	1.012	0	1.12
R		15	1422.2	0.5	5.37	18.6%	0.26	3.09	2.13	75.8%	0.141	1.053	0	1.12
DMIN		16	1422.7	0.5	5.27	18.8%	0.26	3.03	2.13	75.8%	0.143	1.002	0	1.12
DMAX		17	1423.2	0.5	5.17	19.4%	0.27	2.87	2.16	74.5%	0.145	0.971	0	1.12
GL		18	1423.7	0.5	5.06	20.0%	0.28	2.72	2.19	73.3%	0.147	0.990	0	1.12
TD		19	1424.2	0.5	4.95	20.3%	0.28	2.65	2.19	73.2%	0.148	0.954	0	1.12
BHT		20	1424.7	0.5	4.86	20.5%	0.28	2.61	2.19	73.3%	0.150	0.880	0	1.12
ST		21	1425.2	0.5	4.8	20.8%	0.28	2.53	2.21	72.7%	0.151	0.849	0	1.12
RMF		22	1425.7	0.5	4.8	21.0%	0.29	2.49	2.22	72.0%	0.151	0.841	0	1.12
RMFT		23	1426.2	0.5	4.85	20.8%	0.29	2.54	2.21	72.4%	0.150	0.857	0	1.12
		24	1426.7	0.5	4.94	20.3%	0.28	2.64	2.19	73.1%	0.149	0.948	0	1.12
		25	1427.2	0.5	5.04	20.0%	0.28	2.72	2.18	73.4%	0.147	1.010	0	1.12
CUT-OFFS		26	1427.7	0.5	5.15	19.8%	0.28	2.77	2.18	73.3%	0.145	0.939	0	1.12
PHICUT	0.17	27	1428.2	0.5	5.27	19.6%	0.28	2.83	2.18	73.2%	0.143	0.871	0	1.12
SWCUT	0.7	28	1428.7	0.5	5.41	19.2%	0.28	2.93	2.17	73.5%	0.141	0.914	0	1.12
VSHCUT	0.9	29	1429.2	0.5	5.58	18.8%	0.28	3.04	2.16	73.8%	0.139	0.996	0	1.12
BVWCUT	0.15	30	1429.7	0.5	5.78	18.4%	0.27	3.17	2.15	74.1%	0.136	1.033	0	1.12
		31	1430.2	0.5	6	18.3%	0.28	3.18	2.17	72.8%	0.133	1.039	0	1.12
Colors:	<input type="checkbox"/> ON	32	1430.7	0.5	6.26	18.8%	0.31	3.05	2.23	69.8%	0.131	1.049	0	1.12
		33	1431.2	0.5	6.57	19.3%	0.34	2.89	2.30	66.3%	0.128	1.049	0	1.12
		34	1431.7	0.5	6.92	20.4%	0.40	2.62	2.41	61.6%	0.126	1.102	0	1.12
		35	1432.2	0.5	7.3	22.2%	0.49	2.24	2.58	55.4%	0.123	1.219	0	1.12
		36	1432.7	0.5	7.68	24.0%	0.59	1.95	2.76	50.4%	0.121	1.276	0	1.12
		37	1433.2	0.5	7.99	25.2%	0.67	1.79	2.88	47.4%	0.119	1.275	0	1.12
		38	1433.7	0.5	8.28	25.7%	0.72	1.73	2.95	45.7%	0.118	1.299	0	1.12
		39	1434.2	0.5	8.48	25.0%	0.70	1.82	2.91	46.3%	0.116	1.327	0	1.12
		40	1434.7	0.5	8.6	23.6%	0.64	2.02	2.80	48.5%	0.114	1.307	0	1.12
		41	1435.2	0.5	8.67	22.4%	0.58	2.22	2.71	50.7%	0.113	1.297	0	1.12
		42	1435.7	0.5	8.73	21.2%	0.54	2.44	2.62	52.9%	0.112	1.318	0	1.12
		43	1436.2	0.5	8.77	20.1%	0.49	2.69	2.54	55.4%	0.111	1.329	0	1.12
		44	1436.7	0.5	8.83	19.6%	0.47	2.81	2.50	56.4%	0.111	1.352	0	1.12
		45	1437.2	0.5	8.86	19.2%	0.45	2.93	2.47	57.5%	0.110	1.416	0	1.12
		46	1437.7	0.5	8.86	18.1%	0.41	3.26	2.39	60.6%	0.110	1.472	0	1.12
		47	1438.2	0.5	8.82	16.9%	0.36	3.69	2.29	64.7%	0.109	1.458	0	1.12
		48	1438.7	0.5	8.78	16.2%	0.33	3.99	2.23	67.4%	0.109	1.406	0	1.12
		49	1439.2	0.5	8.74	16.1%	0.33	4.01	2.23	67.7%	0.109	1.329	0	1.12
		50	1439.7	0.5	8.72	16.6%	0.34	3.80	2.26	66.0%	0.110	1.237	0	1.12
		51	1440.2	0.5	8.72	16.8%	0.35	3.72	2.28	65.3%	0.110	1.228	0	1.12
		52	1440.7	0.5	8.73	16.8%	0.35	3.73	2.28	65.4%	0.110	1.317	0	1.12
		53	1441.2	0.5	8.75	17.0%	0.36	3.65	2.29	64.6%	0.110	1.333	0	1.12
		54	1441.7	0.5	8.77	17.5%	0.38	3.45	2.34	62.7%	0.110	1.283	0	1.12
		55	1442.2	0.5	8.81	18.0%	0.40	3.28	2.38	61.0%	0.110	1.345	0	1.12
		56	1442.7	0.5	8.88	18.4%	0.42	3.15	2.41	59.6%	0.110	1.472	0	1.12
		57	1443.2	0.5	8.96	18.6%	0.44	3.09	2.43	58.7%	0.109	1.524	0	1.12
		58	1443.7	0.5	9.01	18.2%	0.42	3.24	2.40	59.9%	0.109	1.499	0	1.12
		59	1444.2	0.5	9.03	17.2%	0.38	3.57	2.33	62.9%	0.108	1.492	0	1.12
		60	1444.7	0.5	9.03	16.5%	0.35	3.86	2.27	65.4%	0.108	1.529	0	1.12
		61	1445.2	1.5	9	16.5%	0.35	3.83	2.27	65.3%	0.108	1.525	0	1.12

Hodges 4

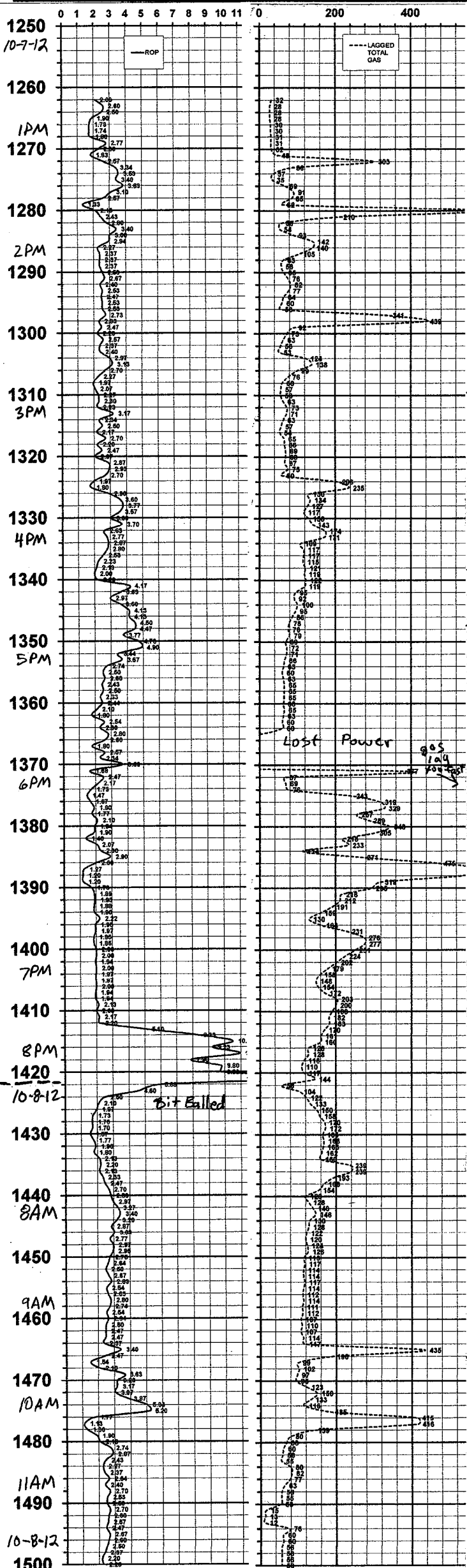
Burgess Sandstone

Model = Archie

PARAMETERS	ZN	DEPTH	THICK	RT	PHI	RWA	RO	MA	SW	BVW	VSH	PAY	BOI	
X		1	1704.7	0.5	12.9	17.8%	0.58	4.45	2.42	58.6%	0.105	1.715	0	1.14
Y		2	1705.2	0.5	11.9	17.8%	0.53	4.48	2.36	61.4%	0.109	1.732	0	1.14
A	1	3	1705.7	0.5	9.63	17.5%	0.42	4.59	2.23	69.0%	0.121	1.743	0	1.14
M	1.8	4	1706.2	0.5	7.69	17.7%	0.34	4.50	2.11	76.5%	0.136	1.740	0	1.14
N	2	5	1706.7	0.5	6.79	17.8%	0.30	4.46	2.04	81.0%	0.144	1.696	0	1.14
RW	0.2	6	1707.2	0.5	6.98	17.3%	0.30	4.72	2.02	82.3%	0.142	1.518	0	1.14
CTHK	1951.5	7	1707.7	0.5	8.36	16.1%	0.31	5.36	2.04	80.1%	0.129	1.279	0	1.14
AVPHI	0.20	8	1708.2	0.5	10.8	15.1%	0.36	6.02	2.11	74.7%	0.113	1.144	0	1.14
FTOIL	1.30	9	1708.7	0.5	13.3	14.9%	0.43	6.15	2.21	68.0%	0.101	1.125	0	1.14
PAYFEET	10.5	10	1709.2	0.5	14.5	15.8%	0.52	5.56	2.32	62.0%	0.098	1.115	0	1.14
Brls Oil In Place	39,446	11	1709.7	0.5	13.8	18.3%	0.65	4.25	2.49	55.5%	0.102	1.014	0	1.14
4.44 Acres		12	1710.2	0.5	12.7	22.1%	0.84	3.02	2.75	48.8%	0.108	0.793	0.06	1.14
P		13	1710.7	0.5	12	24.8%	0.97	2.47	2.93	45.4%	0.112	0.574	0.07	1.14
Q		14	1711.2	0.5	11.9	25.1%	0.99	2.40	2.96	44.9%	0.113	0.465	0.07	1.14
R		15	1711.7	0.5	12	24.3%	0.94	2.56	2.89	46.2%	0.112	0.488	0.07	1.14
DMIN		16	1712.2	0.5	11.8	23.6%	0.88	2.69	2.83	47.7%	0.113	0.608	0.06	1.14
DMAX		17	1712.7	0.5	11.3	24.1%	0.87	2.59	2.83	48.0%	0.116	0.716	0.06	1.14
GL		18	1713.2	0.5	10.6	25.4%	0.90	2.36	2.89	47.2%	0.120	0.709	0.07	1.14
TD		19	1713.7	0.5	9.97	25.8%	0.87	2.29	2.88	48.0%	0.124	0.613	0.07	1.14
BHT		20	1714.2	0.5	9.59	24.4%	0.76	2.53	2.74	51.4%	0.125	0.603	0.06	1.14
ST		21	1714.7	0.5	9.36	22.2%	0.62	3.00	2.56	56.6%	0.126	0.763	0.05	1.14
RMF		22	1715.2	0.5	9.23	21.3%	0.57	3.23	2.48	59.1%	0.126	0.922	0	1.14
RMFT		23	1715.7	0.5	9.06	23.6%	0.67	2.69	2.64	54.5%	0.129	0.875	0.05	1.14
		24	1716.2	0.5	8.89	27.0%	0.84	2.12	2.89	48.8%	0.132	0.654	0.07	1.14
		25	1716.7	0.5	8.87	28.5%	0.93	1.91	3.02	46.4%	0.132	0.444	0.08	1.14
CUT-OFFS		26	1717.2	0.5	8.84	28.8%	0.94	1.88	3.05	46.1%	0.133	0.345	0.08	1.14
PHICUT	0.17	27	1717.7	0.5	8.7	28.2%	0.89	1.96	2.98	47.4%	0.134	0.354	0.07	1.14
SWCUT	0.7	28	1718.2	0.5	8.26	27.1%	0.79	2.10	2.85	50.5%	0.137	0.420	0.07	1.14
VSHCUT	0.9	29	1718.7	0.5	7.44	26.5%	0.68	2.19	2.72	54.2%	0.144	0.471	0.06	1.14
BVWCUT	0.2	30	1719.2	0.5	6.43	26.5%	0.59	2.18	2.61	58.3%	0.154	0.464	0.06	1.14
ON		31	1719.7	0.5	5.45	26.8%	0.51	2.14	2.51	62.7%	0.168	0.418	0.05	1.14
Colors:		32	1720.2	0.5	4.66	27.7%	0.46	2.02	2.45	65.8%	0.182	0.386	0.05	1.14
		33	1720.7	0.5	4.04	28.6%	0.42	1.91	2.40	68.7%	0.196	0.402	0.04	1.14
		34	1721.2	0.5	3.55	28.3%	0.37	1.94	2.28	73.8%	0.209	0.423	0	1.14
		35	1721.7	0.5	3.19	27.7%	0.32	2.02	2.16	79.6%	0.220	0.420	0	1.14
		36	1722.2	0.5	2.91	27.5%	0.28	2.04	2.07	83.8%	0.230	0.438	0	1.14
		37	1722.7	0.5	2.69	27.4%	0.26	2.05	2.01	87.3%	0.240	0.464	0	1.14
		38	1723.2	0.5	2.54	27.0%	0.24	2.11	1.94	91.2%	0.246	0.453	0	1.14
		39	1723.7	0.5	2.45	26.4%	0.22	2.20	1.88	94.8%	0.250	0.419	0	1.14
		40	1724.2	0.5	2.4	26.2%	0.22	2.22	1.86	96.2%	0.253	0.388	0	1.14
		41	1724.7	0.5	2.37	27.0%	0.22	2.12	1.89	94.5%	0.255	0.360	0	1.14
		42	1725.2	0.5	2.35	27.8%	0.23	2.01	1.92	92.4%	0.257	0.336	0	1.14
		43	1725.7	0.5	2.33	27.8%	0.23	2.00	1.92	92.7%	0.258	0.332	0	1.14
		44	1726.2	0.5	2.32	27.6%	0.23	2.02	1.91	93.4%	0.258	0.354	0	1.14
		45	1726.7	0.5	2.33	27.4%	0.23	2.05	1.90	93.9%	0.257	0.375	0	1.14
		46	1727.2	0.5	2.37	27.4%	0.23	2.06	1.91	93.2%	0.255	0.389	0	1.14
		47	1727.7	0.5	2.44	27.5%	0.24	2.05	1.94	91.6%	0.252	0.406	0	1.14
		48	1728.2	0.5	2.53	27.0%	0.24	2.11	1.94	91.4%	0.247	0.425	0	1.14
		49	1728.7	0.5	2.65	25.9%	0.23	2.27	1.91	92.6%	0.240	0.441	0	1.14
		50	1729.2	0.5	2.77	25.0%	0.23	2.43	1.89	93.7%	0.234	0.452	0	1.14
		51	1729.7	0.5	2.9	24.4%	0.23	2.54	1.89	93.6%	0.228	0.486	0	1.14
		52	1730.2	0.5	3.03	23.6%	0.23	2.68	1.88	94.1%	0.222	0.620	0	1.14
		53	1730.7	0.5	3.17	22.4%	0.21	2.95	1.85	96.5%	0.216	0.810	0	1.14
		54	1731.2	0.5	3.28	22.1%	0.22	3.03	1.85	96.1%	0.212	0.857	0	1.14
		55	1731.7	0.5	3.38	23.1%	0.24	2.80	1.93	91.1%	0.210	0.697	0	1.14
		56	1732.2	0.5	3.48	23.5%	0.26	2.72	1.97	88.3%	0.207	0.507	0	1.14
		57	1732.7	0.5	3.63	22.9%	0.26	2.83	1.97	88.3%	0.203	0.411	0	1.14
		58	1733.2	0.5	3.86	22.5%	0.26	2.93	1.98	87.2%	0.196	0.386	0	1.14
		59	1733.7	0.5	4.19	22.0%	0.27	3.06	2.01	85.4%	0.188	0.404	0	1.14
		60	1734.2	0.5	4.57	20.8%	0.27	3.38	1.99	86.0%	0.179	0.416	0	1.14
		61	1734.7	1.5	4.95	18.6%	0.24	4.15	1.90	91.6%	0.170	0.388	0	1.14

Lithology
 Shows

Well: Hodges 4
 Location: SE NW SW NW/4, 1910' fml, 350' fwl, Sec. 12-T21S-R13E, Cof. Co.



Operator: Dennis and Peggy Hodges
 Drilg Contr: Three Rivers Exploration, LLC
 API No.: 15-031-23770-00-00

sh, ltgy, gy
 coal
 LS, lt ta-gy, vf xln, prφ, ns
 sh, todgy
 LS, lt bntodkbn, xln, frφ, ns
 sh, bk
 LS, lt ta, vf x, prφ
 sh, ltgy
 LS, ltgy to ltgn-gy, vtr, ming lauc, prφ
 sh, dkgy
 LS, A A
 sh, ltgy to dgy
 LS, ltgy to gy
 sh, bk
 LS, ltgy, vf-f xln, prφ, ns
 sh, bk
 1375-78' ss, lt bn, vfgnd, v, silty, frφ, patchy
 tite w/ prφ, Fr odor, sli-FrsFO
 10% siltst, vlg, ns;
 1379-81' ss, lt bn, vf-f gn, silty, mstl gdp,
 Gd odor, GSFO; 10% siltst, vlg, ns
 1381-86' ss, lt bnAA, FrsFO, 50% ltgy, tite, ns
 1386-90' ss, bn, vf-f gn, gdp, vGSFO + in pit
 shgy to dkgy; siltst, 20, vlg
 sh, dkgy, smc
 sh, gy, smc
 LS, dkgy, dns
 1422-28'
 SS, dkgy, vf-f gn, subang, gdp, gd
 odor, Gd sh hv sticky blk oil
 1428-35'
 ss, dkgy, AA, FrSh torry oil
 1436-41'
 SS, gy to dkgy, patchy mostly Residual
 oil stain, trace Fr oil, abd carb.
 material
 sh, gy to dkgy.
 sh, dkgy
 coal
 LS, ltgy to tngy, micrite
 sh, vlg-dkgy
 LS, ltgy to lt bn, micro xln, frφ, ns
 sh, bk
 sh, ltgy to gy
 siltst, vlg
 sh, ltgy + siltst ltgy
 SS, vlg, w/ lt bn siderite, frφ, ns

Sample Descriptions (Lagged)
 Tops/Remarks

7 7/8" PDC Bit
 1300' start
 10' samples
 5' samples
 3' samples at 1379'
 Cherokee
 1372' (-235)
 U. Squirrel SS
 1376' (-238)
 15' Thk
 calc. com.
 Base SS
 1390 (-253)
 0-H Log
 1371-86', 15'
 Button
 Bit Trip
 1420'
 L. Squirrel SS
 1422 (-285)
 21' Thk
 Base SS
 1441 (-307)
 0-H Log
 1418-37'
 (V-shale)
 Base Ardmore S
 1475 (-358)
 0-H Log 1471

Penetration Rate (ROP)

Lagged Total Gas

Min./Foot

Units

Lithology

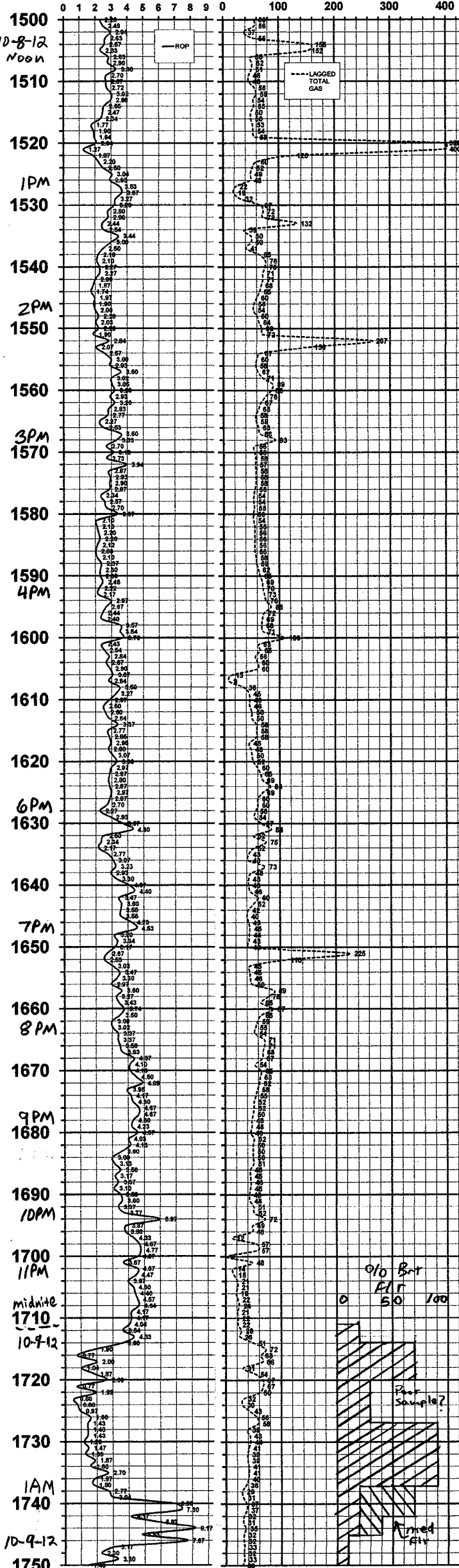
Shows

Location: SE NW SW NW/4, 1910' fml, 350' fwl, Sec. 12-T21S-R13E, Cof. Co.

Datum/Elev. GL 1137'

Sample Descriptions (Lagged)

Tops/Remarks



1500
10-8-12 Noon
coal
sh, sdy, NS

1510
sh, vlg-gy

1520
sh, bk
sh, vlg, tog

1530
sh, ltgy to dkgy, abd carb.

1540
sh, vlg to bk

1550
coal

1560
sh, ltgy to bk
sh, "Red-Bed"

1570
sh, vari-col, mar, vlg, lg, lttn, ltblu-gy
Bk, sht, 30, vlg
SS, vlg-bl, vfg, silty, pr-fr, NS

1580
sh, vltgy, lg, lttn-gy, dg, bk
vari-col
AA mostly

1590
4 PM

1600
siltst, lt bl-gy, sli carb

1610
sh, vlg, gy, bl-gy, bk

1620
AA

1630
AA

1640
AA

1650
7 PM
coal
sh, vlg, lttn-gy, bk

1660
8 PM
sh, bk mstly, min vlg, bl-gy, lttn

1670
9 PM
sh, gy, silty, mica, carb (smc)

1680
10 PM

1690
10 PM

1700
11 PM
sh, dkgy, smc

1710
midnite
1710-18'; ss, ls, ltbn, fg, gds f, ss, ls, v, ns
1714-16'; ss, 70, ltbn, vt-eg, gd-vg, EXSF
1716-20'; ss, AA, fr-vg, lsegns, mintst, vlg-EXSF
1720-27'; ss, 40, ltbn, fr-vg, less oil, fr sfo
Poor sample min pyr
1723-37'; ss, 90, ltbn, fg, m, vfg, gdp, odor, GSF, but appears wtr incr?
1737-42'; ss, 20, ltbn, gdp, frsfo, 50, Hgy-b, prshw
Saltwater leg begins, min pyr, f, gh
1742-48' SS, 20, ltbn, fr-m, gns, fr-gdp, odor, sli sfo, 60, Hgy, tite, NS; min pyr
1745-46' ss, 90, ltgy to Hgy, bnf-csq, gdp, NS
stray ltbn, vsg, f, m, pyr
1746-52' ss, 90, Hgy, mstly med gnd, mnt, es
blotch dkbn organic? stain, m, pyr
no Free Bi

5' samples

Burgess SS

1714(-577)

O-H Log 1710

Base Mobile Oil?

1737(-600)

0% Brt
EIT
50 100

Poor Sample?

Armed Bit

G5FO
EXSF
VSG
EXSF
FrSFO
Gd
SFO
Fr
SFO
VSG
SFO

Penetration Rate (ROP)

Lagged Total Gas

Location: SE NW SW NW/4, 1910' fml, 350' fwl, Sec. 12-T21S-R13E, Cof. Co.

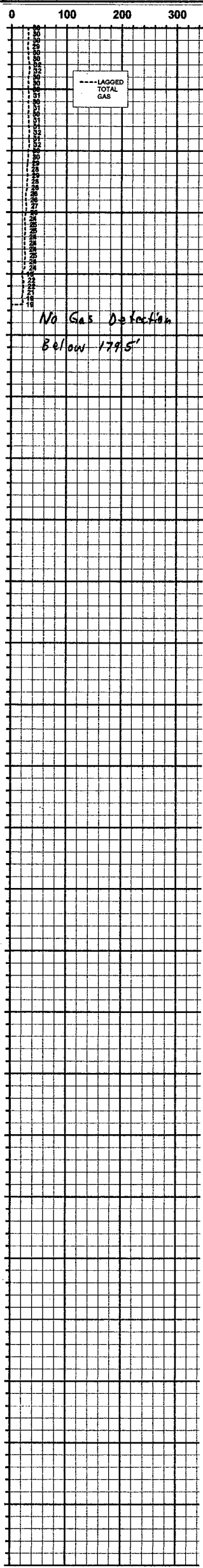
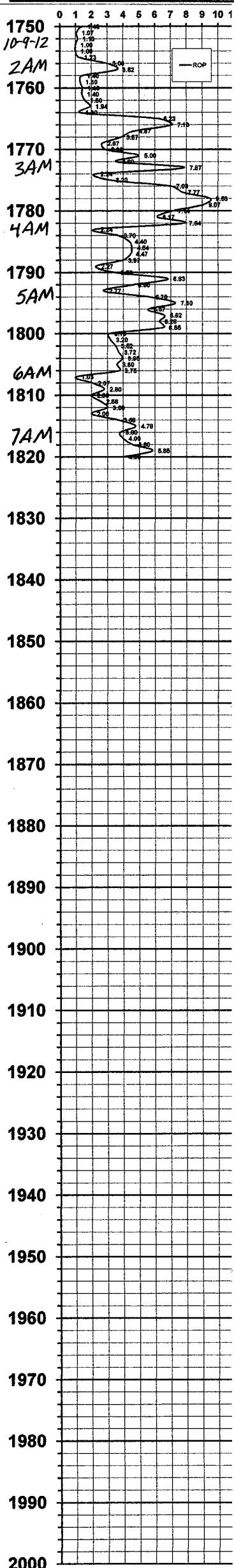
Datum/Elev. GL 1137'

Min./Foot

Units

Sample Descriptions (Lagged)

Tops/Remarks



Lithology

Shows

SS, ltgy, md gnd, mint, cs gns, min pyr
 Sh, ltgy, vgn-gy, th, dk, toudkgy, ss lam 30, NS
 SS, md ga, w rd, ptz, abd pyr pore filling
 min chnt + mi ss frags + vari-col sh
 poss. Cg 1?

Dol, tn-gg, calc, vfxln, prφ, NS, woodbr
 No Flr; chnt, 5, o-w, shp

Dol, AA, prφ, NS; chnt, 5

LS, lttn, f xln, ply dolo, frφ, NS; chnt, 20

Mstly dol, lt tn-gy, vfxln, prφ, NS;
 chnt, 20, m-w

min LS, lttn, NS

Dol, AA; chnt, 15, NS

Dol, lt tn-gy, vfxln, prφ, NS; chnt, 15
 mlk-wh, itgy, shp

Dol, AA

Poor Sample

TOP MISS

1764(-627)

O-H Log 1760

RTD

1820(-683)

Open-Hole Logged by
 Tucker Energy Services
 , 0-9-12