

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
September 1999
Form Must Be Typed

WELL COMPLETION FORM

WELL HISTORY DESCRIPTION OF WELL & LEASE

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ORIGINAL

Operator: License # 33300
Name: Evergreen Operating Corporation
Address: 1401 17th Street, Suite 1200
City/State/Zip: Denver CO 80202
Purchaser: _____
Operator Contact Person: Tom Erwin
Phone: (303) 298-8100 ext 1330
Contractor: Name: Layne Christensen Company
License: 32999
Wellsite Geologist: Richard Robba, PG

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Designate Type of Completion:
 New Well Re-Entry Workover
 Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-entry: Old Well Info as follows:
Operator: _____
Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conversion SWB
 Plug Back Plug Back Total Depth
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Enhr.?) Docket No. _____

<u>11/09/2003</u>	<u>11/17/2003</u>	<u>WOCU</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 08520062 - 00 - 00
County: Jackson
 -NW- NW- NE Sec. 5 Twp. 7 S. R. 16 East West
580 feet from S N (circle one) Line of Section
2070 feet from E W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
(circle one) NE SE NW SW
Lease Name: Kathrens Well #: 31-5
Field Name: Forest City Coal Gas Area
Producing Formation: Cherokee Group
Elevation: Ground: 981 Kelly Bushing: 986
Total Depth: 2118 Plug Back Total Depth: 1779'
Amount of Surface Pipe Set and Cemented at 218 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 *ALT I W/WH*
(Data must be collected from the Reserve Pit) *2-12-07*
Chloride content _____ ppm Fluid volume 500 bbls
Dewatering method used Vacuum pit and backfill
Location of fluid disposal if hauled offsite: _____
Operator Name: Evergreen Operating Corporation
Lease Name: Peckman Angus License No.: 33300
Quarter NE Sec. 7S Twp. 18 S. R. 24 East West
County: Miami Docket No.: D28279

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INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature: Thomas M. Quinn
Title: Sr Operations Engineer Date: 3/04/04
Subscribed and sworn to before me this 4th day of March,
20 04.
Notary Public: Kanna Brewer
Date Commission Expires: 11/24/07

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Letter of Confidentiality Attached
If Denied, Yes Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution

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Operator Name: Evergreen Operating Corporation Lease Name: Kathrens Well #: 31-5
Sec. 5 Twp. 7 S. R. 16 [x] East [] West County: Jackson

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken [] Yes [x] No
Samples Sent to Geological Survey [] Yes [x] No
Cores Taken [x] Yes [] No
Electric Log Run [x] Yes [] No

Table with 3 columns: Name, Top, Datum. Rows include HeebnerShale, Lansing, Stark Shale, B/Kansas City, Altamount, Summit, Excello, VShale.

List All E. Logs Run:

SIL, CNL, CBL
Tebo Shale 1587 -606
Mississippi 2068 -1087

CASING RECORD table with columns: Purpose of String, Size Hole Drilled, Size Casing Set, Weight Lbs./Ft., Setting Depth, Type of Cement, # Sacks Used, Type and Percent Additives.

ADDITIONAL CEMENTING / SQUEEZE RECORD table with columns: Purpose, Depth Top Bottom, Type of Cement, #Sacks Used, Type and Percent Additives.

PERFORATION RECORD table with columns: Shots Per Foot, PERFORATION RECORD - Bridge Plugs Set/Type, Acid, Fracture, Shot, Cement Squeeze Record, Depth.

TUBING RECORD table with columns: Size, Set At, Packer At, Liner Run [] Yes [x] No.

Production data table with columns: Date of First, Resumerd Production, SWD or Enhr, Producing Method, Estimated Production Per 24 Hours (Oil Bbbs., Gas Mcf, Water Bbbs., Gas-Oil Ratio, Gravity).

Disposition of Gas METHOD OF COMPLETION Production Interval
[] Vented [] Sold [] Used on Lease [] Open Hole [] Perf. [] Dually Comp. [] Commingled
[] Other (Specify)

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Customer E.O.C. CONFIDENTIAL	Date 11/18/03	F.R. #	Service Supervisor Ray Decker
Lease & Well Name – KATHERINS 31 – 5	Location 18S23ESEC20	County – Parish – Block MIAMI COUNTY	

District	Drilling Contractor Rig # LAYNE	Type of Job 5 1/2 Longstring
----------	------------------------------------	---------------------------------

Size & Types of Plugs		List – CSG - Hardware	Physical Slurry Properties					
Top	5 1/2 Top Rubber	15 CENTRALIZERS	Slurry WGT PPG	Slurry YLD Ft ³	Water GPS	Pump Time Hr:Min	Std Slurry	Std Mix Water
Btm		1 GUIDE SHOE						

Materials Furnished			KCC					
404 SKS Vermejo				13.3	1.45	9.76		
2 lbs red dye								
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Available mix fluid	Bbl.	Available Displ. Fluid	Bbl.	Total
---------------------	------	------------------------	------	-------

Hole			TBG-CSG-D.P.			TBG-CSG-D.P.			Collar Depths			
Size	% Excess	Depth	Size	WGT	Type	Depth	Size	WGT	Type	Depth	Shoe	Float
7 7/8"		2110'	5 1/2	15.5.#		2081'						

Last Casing				Pkr - Cmt Ret – Br PI - Liner			Perf Depth		Top Conn		Well Fluid	
Csg.	WGT	Type	Depth	Brand & Type		Depth	Top	Btm	Size	Thread	Type	WGT
8 5/8	24#		216'						5 1/2	8rd	H2O	8.33

Cal Displ Vol – Bbl 48.5 BBL.				Cal Psi	Cal Max Psi	OP Max 1500 PSI	Max Tbg PSI	Max Csg PSI	Displ Fluid	Water			
TBG	CSG	CSG	Total	Bump Plug	To Rev	SQ PSI	Rated	OP	Rate d	OP	Type	WGT	Source
						1500 PSI					H2o	8.33	Tank

Explanation: WELL DID CIRCULATE. DID NOT BUMP PLUG. CIRCULATED 10 BBLS CMT. TO SURFACE. TRUCK SITTING ON HILLSIDE FOR JOB. DISPLACEMENT TANKS NOT ABLE TO BE FILLED ALL THE WAY OR SUCKED TO BOTTOM., WILL HAVE TO COMPENSATE DISPLACEMENT VOLUMES IN THIS SITUATION.

Pressure/Rate Detail						Explanation	
Time HR:Min	Pressure – PSI		Rate BPM	Bbl Fluid Pumped	Fluid Type	Safety Meeting: Crew x Co. Rep x	
	Pipe	Annulus				Testing Lines Psi 2000	
1330	100		3	5	H2O	PUMP DYE WATER AHEAD	
1335	100		3	104	CMT	PUMP CMT. @ 13.3 PPG	
1420	500		3.5	48.5	H2O	PUMP DISPLACEMENT	
1435	430				H2O	DID NOT BUMP PLUG / ISIP	

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Bumped Plug	PSI to Bump Plug	Test Float Equip	Bbl CMT Returns/ Reversed	Total Bbl Pumped	PSI Left On CSG	Spot Top Cement	Serv. Supv.
N	N/A	Y	10 BBL	157.5 BBL	430	Y	

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Professional Energy Services

9402 Kessler Lane
Shawnee Mission, KS 66212
Ph.913.341.7434

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GEOLOGICAL REPORT

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Operator: **EVERGREEN OPERATING CORPORATION**

Project: Garfield Well Name: Kathrens 31-5

Location: Ap NW NE - 580' FNL and 2070' FEL

Sec. 5-T7S-R16E County: Jackson State: Kansas

All measurements GL: 981 API: 15-085-20062-00-00

Company: Sr. Operations Engineer: Mr. Tom Erwin

Company: Geologist: Mr. Paul Clarke

Professional Energy Services: Geologist: Rich Robba

Drilling Superintendent: Drew Friedrichs

Patterson Logging: Roger Taylor

Drilling Contractor: Layne Christensen Company

CBM Solutions: Desorption: Dan Tutt/Ken Glover/Dean

Geosearch Logging: Mudloggers: Pat Andrews/Nathan Barnes

Commenced: 11/10/03 Completed: 11/18/03

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This geological report is prepared for **EVERGREEN OPERATING CORPORATION**. Wellsite geological supervision was conducted from surface to Total Depth. The Kathrens 31-5 well was air drilled to core point and continuous cored from the Summit to the Mississippian and deepened by mud rotary to TD. ROP, gas curves and sample descriptions from air and mud rotary chips are recorded on the mud log and geophysical survey formation tops, visual core recovery descriptions and desorption samples are listed below.

Kathrens 31-5

Formation E-Log Tops

Heebner Shale:	614'	Excello:	1387'
Lansing:	836'	VShale:	1496'
Stark Shale:	1106'	Tebo Shale:	1587'
B/Kansas City:	1160'	Mississippi:	2068'
Altamount:	1266'	RTD:	2118'
Core Point:	1320'	LTD:	2098'
Summit:	1364'		

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Coal and Coal Shale Intersections Core or E-Log

Net Coals(ft) < 1.75 g.cc

Net Coals(ft) < 2.00 g.cc

Net Carbonaceous Shale (ft)

Name	Depth	Name	Depth	Name	Depth
Can6 Bevier	1468.1-1469.2	Can15 V Coal	1497.3-1498.4	Can4 Iron Post	1440.8-1441.9
Can23 Mineral	1537.2-1538.5	Can49 Tebo Coal	1587.9-1588.6	Iron PostB	1452-1452.7
Can143 Weir	1643.2-1644.4	Can152 Bl. JacketB	1708-1709	Can9 CShale	1491.8-1492.7
				Croweburg	1511-1511.5
				CanT8 Fleming	1530.4-1531.1
				CanR Bl.JacketA	1661.8-1662.3

Cumulative Net Thickness Core and Density E-Log

Net Coals(ft) < 1.75 g.cc

Net Coals(ft) < 2.00 g.cc

Net Carbonaceous Shale (ft)

3.6'

2.8'

4.4'

*** Note: Density E-Log Total Depth is 1728', the interpretation following is from the DIL and Core Analysis.***

Net Coals(ft)/Core

Net Coals(ft)/Core

Net Carbonaceous Shale (ft)/Core

Name	Depth	Name	Depth	Name	Depth
CanT14 Drywood	1795.9-1797.9	Can161 Rowe A	1809.9-1810.7	Can307 Neutral A	1883.4-1884.8
Neutral D	1911.6-1913.1	CanS Rowe B	1816.8-1817.8	Neutral B	1895.9-1896.7
		Can183 Rowe C	1836.3-1837.1	Neutral C	1903-1903.4
		Can248 Rowe D	1858.8-1859.9	Neutral C2	1905.6-1906.2

Estimated Cumulative Net Thickness Core and DIL

Net Coals(ft) < 1.75 g.cc

Net Coals(ft) < 2.00 g.cc

Net Carbonaceous Shale (ft)

3.5'

3.7'

3.2'

This well encountered drilling complications including junk in hole, dropped drill pipe, stuck in hole, bridges and ledges resulting in using excessive reaming procedures creating numerous deep washouts in the siltstones between the Tebo Shale and the top of the Bartlesville Sand. After reviewing core analysis, digital pictures, core recovery, telephone conferences with onsite CBM Solutions representative, Ken Glover, and the geophysical survey evaluations depth from 1602'-1610' is most likely not a coal. The core description intervals are described as; 1597'-1598' Shale, dark gray with light gray shale ¼" layers, 1598'-1600' Mudstone, gray mottled purple, coarse texture, sandy and silty, 1600'-1605' Shale, dark gray, low to organic rich with white clay sandy very thin layers, few shell beds, sandy, 1605-1614 Shale, light and dark gray becoming very dark gray shale at base, very low organics.

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Visual Core Sample Descriptions

- 1330-1341 SHALE, dkgy, lmy, in separated layers w/ dkgy sh.
1341-1348 LIMESTONE, fnxln, gy-wh, crm, v foss, vshly at top, clean towards base.
1348-1354 SHALE, ltgr bkn w/ blk sh layers, argil, vlmy, pyr, w/ ls 2"-4" layer, vfngn, gy, vshly and foss, crinoids and sh bec/ vdkgy blk.
1354-1360 Lost core.
1360-1364 SHALE, blk, fissile, low-med carb, ltgy, sh laminations.
1364-1367 SHALE, gy, hard, w/ thin layers of carb sh near top.
1367-1370 Lost core.
1370-1375 SHALE, gr, hard, fissile, bec/ cs tx at base w/ bkn pcs ls.
1375-1382 LIMESTONE, micro-vfnxln, massive in part, chky, wh-gr-gy, vshly, few ls layers.
1382-1387 SHALE, brn-blk, low carb w/ brn sh layers, sli sdy.
1387-1390 MUDSTONE, ltgy-gr, soft, calc.
1390-1403 SILTSTONE, pale gr w/ wh-gr layers, sli sdy and calc.
1403-1406 SANDSTONE, vfngn, ltgy w/ numerous thin to 1" dkgy sh bands, sli to v sdy, bec/ mostly sh at base.
1406-1429 SHALE, lt gy-gr w/ v thin ss layers, vfngn, well sorted, rnd.
1429-1436 SHALE, dkgy w/ crm sh layers, sli sdy.
1436-1438 SHALE, gy, soft, pasty.
1438-1439 COAL SHALE, w/ .4 " coal w/in, some rubble, vpshogas, irreg mineralization of cleats, med density.
1439-1440 UNDERCLAY, gy, soft, pasty.
1440-1450 SHALE, dkgy, thin varved sh w/ ss pred sh, gritty to sdy.
1450-1450.5 COAL, blk, low density, w/ brn coal layers, trc gas.
1451-1462 SANDSTONE, vfn-fngn, p-fsorted, blk sdy sh layers, pred ss, nvp, ns.
1462-1465 SHALE, dkgy w/ ltgy sh layers and 2" brn sh layers.
1465-1466 COAL, blk w/ brn coal thin layers, l lg pyr cluster, p-fshogas, p evidence cleating.
1466-1468 UNDERCLAY, army gy w/ in blk carb material near base.
1468-1474 SHALE, gr w/ bkn gr-blk-gy mottled layers, cs tx.
1474-1489 SHALE, dkgy w/ blk-gy layers bec/ sh blk w/ ltgy layers towards base w/ shells.
1489-1490 COAL SHALE, gassey w/ layers of shell fragments.
1490-1495 SHALE, blk, low carb, w/ ltgy 4"-6" bands.
1495.2-1496.3 COAL, blk w/ brn bands, bright, low density, master cleat, fshogas, pyr.
1496-1498 UNDERCLAY, army gy-gr, med hard, w/ slumping, cs tx, v pyr.
1498-1505 SILTSTONE, gritty, lt gr-gy, w/ bkn pcs carb sh, v sdy in part.
1505-1515 SHALE, gr, dkgy-gr, soft, trc organics.
1515-1527 SHALE, dkgy w/ blk bands v low organic content w/ lg brn sh incl.
1527.5-1529.5 COAL SHALE, trc gas, high density.
1530-1535 SHALE, vdkgy w/ shell and blk sh layers.
1535.2-1536.2 COAL, low ash, pyr, gd cleating surfaces, blk, bright.
1537-1539 COAL SHALE, blk w/ ltgy bands, v thin low density coal layers w/ p cleating throughout.
1539-1562 SHALE, ltgy-gr w/ large ss and sh pebbles, v cs tx & slumping, inc sh blk in thin layers near base.
1562-1569 SHALE, lt and dk gy, layering w/ x planning and occ brn thin beds, appear to be ss but smears when touched.
1569-1586 SHALE, blk, med carb content w/ 1"-2" brn sh bands and sm bkn pcs sh.
1586-1587 COAL, blk, br, pshogas, f cleats, low density.
1587-1589 UNDERCLAY, gy-gr w/ sm-med size, pyr clusters, hard.
1589-1593 SHALE, gr-gy, v pyr throughout w/ ltgy sh bands, occ v thin carb mats.
1593-1595 MUDSTONE, gy, cs tx, chnky w/ ls bkn pcs.

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Visual Core Sample Descriptions

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1595-1597 SILTSTONE, v shly, ltgy, gritty.
1597-1598 SHALE, dkgy w/ ltgy sh layers.
1598-1600 MUDSTONE, gy mottled purple, cs tx, sli silty.
1600-1605 SHALE, dkgy, low to med organics and wh clay v thin layers, few shell beds, sdy.
1605-1614 SHALE, lt and dk gy bec/ vdkgy sh at base, v low organics.
1614-1641 SHALE, blk, low carb w/ 1/2-1" bands sh gy w/ scat hard-fissile layers, noshogas, 6" shell at base.
1641.9-1643.3 COAL SHALE, cleats closely spaced, pshogas.
1644-1650 UNDERCLAY, gy w/ cs tx, soft and crumbly.
1650-1661 SHALE, pred blk w/ thin gy-gr layers.
1661.6-1662 COAL, blk, low density, gd cleats.
1662-1674 SANDSTONE, vfh-fngn, ltgy w/ dk shelly ss`thin layers, x-bedding.
1674-1676 MUDSTONE, brn-gy w/ blk carb mat at top.
1676-1689 SILTSTONE, ltgy-gr, sli gritty layers.
1689-1709 SHALE, blk, hard, sli sdy in layers, inc organics towards base.
1709.9-1710.9 COAL, blk, brittle, fshogas, f cleated, part shly.
1711-1723 SILTSTONE, v gritty, much vfngn, well sorted, sand in lt gy sh w/ dkgy sh thin layers.
1723-1742 SANDSTONE, fn-medgn, subrnd, p-fsorted, nvp, thin uniform vshly sdy layers 1'-2' siltstone v shlyly bec/ vdkgy w/ v low organics towards base.
1742-1745 SHALE, blk, soft, med carb w/ thin hard carb layers.
1745-1747 UNDERCLAY, p devel, many bkn pcs blk sh, slumping.
1747-1762 SHALE, blk, vdkgy, vpyr w/ 1/2" bands csh, v high density, nosogas.
1762-1767 SHALE, blk, brittle, v organic rich, vpshogas, ltgy sh 1" bands.
1767-1781 UNDERCLAY, hard, bkn blk sh pcs, cs tx, bec/ blk sh bands at base.
1781-1793 SHALE, blk, carb, hard, fissile.
1793-1795 COAL, blk, banded, mod ash, pyr, pshogas.
1795-1798 UNDERCLAY, gr-gy, x-bedding, cs tx.
1798-1806 SHALE, blk, pyr, med carb, no sho gas.
1806-1806.7 COAL w/ csh parting 1/4" throughout, fshogas, well developed, pyr, calc.
1807-1810 UNDERCLAY, gy-gr, hard, cs tx.
1810-1812 SHALE, blk, low carb, ltgy sh banded.
1812-1815 SILTSTONE, bec/ vshly, gy-gr in middle, v silty at base.
1815.1-1815.3 COAL, rubble, noshogas.
1817-1824 SHALE, blk w/ lg shell bed in middle, shell chambers, cephalopod.
1824-1824.3 COAL, lost core, brn-blk, low density, dull-br.
1825-1827 UNDERCLAY, p devel, blu-gy-gr.
1827-1830 SHALE, ltgy w/ v sm pcs carb mat.
1830-1833 SILTSTONE, gritty w/ multiple thin blk sh mats bec/ vshly at base.
1833.7-1834.4 Coal, high ash content, pyr bands, fshogas, dull banded.
1835-1837 UNDERCLAY, soft, rd-brn-gy, slumping.
1837-1850 SHALE, blk, v soft at top, fissile at base w/ 2 1/2' shell bed, brachs and crinoids.
1850-1851 MUDSTONE, rd-brn.
1851-1852 SILTSTONE, vshly, blk-gy.
1852-1855 SHALE, blk, hard, med organics w/ thin shell beds.
1855.8-1856.8 COAL, med ash, bright banded, p-f cleating, shly near top.

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Visual Core Sample Descriptions

1857-1859 SHALE, gy-brn-blk.
1859-1865 SILTSTONE, wh-gy, lmy and shly w/ much carb mat top and none at base.
1865-1880 SHALE, blk carb, v low-low organic content, vsilty 4' in middle.
1880-1881 COAL SHALE, high ash content, f gas.
1881-1884 SHALE, wh-gy, sli silty w/ carb mat.
1884-1893 SHALE, blk, soft at top w/ gy sh bands in middle and many shells at base.
1893-1893.3 COAL, lost core(8"), rubble, v low, bright, well cleated.
1894-1900 SHALE, ltgy, sub "chky" w/ blk sh thin layers.
1900-1900.3 COAL, lost core(1') rubble, bright, numerous cleats.
1901-1902 UNDERCLAY, maroon-brn-gy.
1902-1902.2 COAL, 2", med density, vp cleating, dull.
1903-1904 UNDERCLAY, brn-gr, soft, slumping, cs tx.
1904-1908 SHALE, blk, med organics, sli coaly in area's, ns.
1908-1909 COAL, no vis cleats, med density.
1909-1925 SHALE, blk w/ isolated, rare thin shell beds at top mostly shell beds at base.
1925-1947 SHALE, ltgy w/ dkgy bands, brn sh, bkn sh and burrow fills.
1947-1950 SANDSTONE, fngn, ltgy, friable, f intergn por.
1950-2017 SHALE, vdkgy w/ blk sh and wh clay layers, shell beds, brn sh gravel, ltgy sh bands, v low to occ med organic content.
2017-2024 SHALE, gy top grading to gy w/ seasonal varving of blk sh and ss thin beds.
2024-2050 SHALE, blk, fissile and soft when wet.
2050-2071 SANDSTONE, medgn, psorted, sub ang, w/ gr sh 2"-8" layers within steeply dipping and ls and chert gravel pcs within, chert w/ lg wea tripolitic por.
2071-2080 LIMESTONE, fnxln, lt tan, vool, nvp-vp interxln por, 2' ss within non calc.

Conventional Oil and Gas Shows

No shows recorded.

Respectfully submitted,

Richard A. Robba, PG
Director of Operations
Professional Energy Services