ORIGINAL

FORM MUST BE TYPED

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

SIDE ONE

OPERATOR: License # 5363

Name: BEREXCO Inc.

Address 100 N. Broadway
Suite 970

City/State/Zip Wichita, KS 67202

Purchaser:

Operator Contact Person: Evan Mayhew

Phone (316) 265-3311

Contractor: BEREDCO, Inc

License: 5147

Wellsite Geologist: James R. Hall

RELEASED
JAN 29 1999
FROM CONFIDENTIAL

Designate Type of Completion
X New Well ___ Re-Entry ___ Workover

___ Oil ___ SWD ___ SIOW ___ Temp. Abd.
___ Gas ___ EHHR ___ SIGW
X Dry ___ Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry; oil well info as follows:

Operator:

Well Name:

Comp. Date ___ Old Total Depth ___

___ Deepening ___ Re-Perf ___ Conv. to Inj/SWD
___ Plug Back ___ PBTD
___ Commingled Docket No.
___ Dual Completion Docket No.
___ Other (SWD or Inj?) Docket No.

10/18/97 Spud Date
10/31/97 Date Reached TD
11/02/97 Completion Date

API NO. 15- 189-22254-0000

County Stevens

- SW - NE - NW Sec 26 Twp 32 Rge 37 X E W

4290 Feet from S/N (circle one) Line of Section

3630 Feet from E/W (circle one) Line of Section

Footages Calculated from Nearest Outside section Corner:
NE, SE, NW, or SW (circle one)

Lease Name Betty L Well # 1-26

Field Name Wildcat

Producing Formation

Elevation: Ground: 3118 KB: 3130

Total Depth 6475 PBTD 0

Amount of Surface Pipe Set and Cemented at 1748 Feet

Multiple Stage Cementing Collar Used? ___ Yes X No

If yes, show depth set ___ Feet

If Alternate II completion, cement circulated from ___

Feet depth to ___ w/ ___ sx. cmt.

JAN 20
CONFIDENTIAL

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit) D+A, 8-20-98 K.C.

Chloride Content 850 ppm Fluid Volume 8700 bbls

Dewatering method used Evaporation

Location of fluid disposal if hauled offsite:

Operator Name

Lease Name

___ Quarter Sec ___ Twp ___ Rge ___ E/W

County Docket No.

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas, 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-2-130, 82-3-106 and 82-3-107 apply. Information on 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 with all plugged well. 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 Evan C Mayhew

Title ___ Date ___

Subscribed and sworn to before me this 19th day of January 19 97.

Notary Public Tiffany R. Reese

Date Commission Expires SEPTEMBER 19, 1999

TIFFANY R. REESE
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 9-19-99

K.C.C. OFFICE USE ONLY
F ✓ Letter of Confidentiality Attached
C ✓ Wireline Log Received
C ✓ Geologist Report Received

Distribution
✓ KCC ___ SWD/Rep ___ NGPA
___ KGS ___ Plug ___ Other (Specify)

Form ACO-1 (7-91)

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CONSERVATION DIVISION

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SIDE TWO

Operator Name BEREXCO Inc. Lease Name Betty L Well # 1-26

Sec 26 Twp 32 Rge 37 [ ] East [X] West

ORIGINAL

County Stevens

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressure, whether shut-in pressure reached static level, hydrostatic pressure, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.)	[X] Yes	[ ] No	[ ] Log	[ ] Sample
Samples Sent to Geological Survey	[X] Yes	[ ] No		
Cores Taken	[ ] Yes	[X] No		
Electric Log Run (Submit Copy.)	[X] Yes	[ ] No		

Formation (Top), Depth and Datum

Name Top Datum

See Attached

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List All E. Logs Run:

Spectral Density Dual Spaced Neutron II Log
Dual Induction Laterlog
Microlog

CASING RECORD

[X] New [ ] Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs/Ft	Setting Depth	Type Of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/4	8 5/8	24	1748	Lite Common	625 150	3%CC, 1/4#FS 3%CC, 2% gel

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
[ ] Perforate [ ] Protect Casing [ ] Plug Back TD [ ] Plug Off Zone [ ] Remedial				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth

TUBING RECORD	Size	Set At	Packer At	Liner Run
	8 5/8	1748		[ ] Yes [ ] No

Date of First, Resumed Production, SWD or Inj	Producing Method				
D&A	[ ] Flowing	[ ] Pumping	[ ] Gas Lift	[ ] Other (Explain)	
Estimate Production Per 24 Hours	**Oil** N-A Bbls	**Gas** MCF	**Water** Bbls	**Gas-Oil Ratio**	**Gravity**

METHOD OF COMPLETION

Disposition of Gas:

[ ] Vented [ ] Sold [ ] Used on Lease

(If vented, submit ACO-18.)

[ ] Open Hole [ ] Perf [ ] Dually Comp [ ] Commingled

[ ] Other (Specify) _____

Production Interval

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JAN 21 1998

CONSERVATION DIVISION
Wichita, Kansas

CONFIDENTIAL

1070037

To: STATE CORPORATION COMMISSION
Wichita State Office Bldg. - PLUGGING SECTION
130 S. Market, Room 2078
Wichita, KS 67202

TECHNICIAN'S PLUGGING REPORT

API NUMBER 15- 189-22,254

SW NE NW, SEC. 26, T 32 S, R 37 W/E

4290 feet from S section line

3630 feet from E section line

Operator License # 5363

RELEASED

JAN 29 1999

FROM CONFIDENTIAL

Lease Name Betty L Well # 1-26

County Stevens 210.44

Operator: BEREXCO Inc.
Name & Address 100 N. Broadway, Ste. 970
Wichita, KS 67202

Well Total Depth 6475 feet

Conductor Pipe: Size ____ feet ____

Surface Casing: Size 8 5/8 feet 1748

Abandoned Oil Well ____ Gas Well ____ Input Well ____ SWD Well ____ D&A X

Other well as hereinafter indicated ____

Plugging Contractor Sweetman Drilling, Inc. License Number 5658

Address 3017 N. Cypress Dr., Wichita, KS 67226-4003

Company to plug at: Hour: 4:45 a.m. Day: 1 Month: 11 Year: 19 97

Plugging proposal received from Eugene Saloga

(company name) Sweetman Drilling, Inc. (phone) 316-634-6151

were: to fill hole with heavy mud and spot cement through drill pipe Anhydrite 1746'
1st plug at 3200' with 100 sx cement, 2nd plug at 1770' with 50 sx cement,
3rd plug at 600' with 50 sx cement, 4th plug at 40' with 10 sx cement,
5th plug to circulate rathole with 15 sx cement,
6th plug to circulate mousehole with 10 sx cement.

Plugging Proposal Received by Scott Alberg (TECHNICIAN)

Plugging Operations attended by Agent?: All ____ Part ____ None X

Operations Completed: Hour: 12 a.m. Day: 1 Month: 11 Year: 19 97

ACTUAL PLUGGING REPORT 1st plug at 3200' with 100 sx cement,
2nd plug at 1770' with 50 sx cement,
3rd plug at 600' with 50 sx cement,
4th plug at 40' with 10 sx cement,
5th plug to circulate rathole with 15 sx cement,
6th plug to circulate mousehole with 10 sx cement.

Remarks: Used 60/40 Pozmix 6% gel by Allied.
(If additional description is necessary, use BACK of this form.)

INVOICED

I (MXX / did not) observe this plugging.

DATE 11-14-97

Signed ____ (TECHNICIAN)

INV. NO. 49492

JAN 09 1998

11-1

FORM CP-2/3
Rev. 01-84

ALLIED CEMENTING CO., INC. 3185

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

Well File ORIGINAL

SERVICE POINT: Ness City

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
10-18-97	26	32	37	10:00pm	2:00am	12:00pm	1:30pm

LEASE	WELL #	LOCATION	COUNTY	STATE
Betty L	1-26	Hugoton 2W1E 1/4N E/W	Stevens	KS

OLD OR (NEW) (Circle one)

CONTRACTOR Sweetman Drlg #1
TYPE OF JOB Surface
HOLE SIZE 12 1/4 T.D. 1750
CASING SIZE 8 5/8 DEPTH 1748
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 1000 MINIMUM
MEAS. LINE SHOE JOINT 40
CEMENT LEFT IN CSG. 40
PERFS.

RELEASED
JAN 29 1999
FROM CONFIDENTIAL

OWNER Same

CEMENT
AMOUNT ORDERED 625 sks 3%cc 1/4# Flo Seal per sk
150 Com 3%cc 2% Gel

COMMON	150	@ 7.55	1132.50
~~POZMIX~~	625	@ 7.05	4406.25
GEL	3	@ 9.50	28.50
CHLORIDE	24	@ 28.00	672.00
Flo Seal	156 #	@ 1.15	179.40
		@	
		@	
HANDLING	775	@ 1.20	930.00
MILEAGE	29		899.00
		TOTAL	$ 8247.65

EQUIPMENT

PUMP TRUCK CEMENTER J. Weyhaus
224 HELPER B. Norton
BULK TRUCK
260 DRIVER B. While
BULK TRUCK
214 DRIVER D. Wells

KCC
JAN 20
CONFIDENTIAL

REMARKS:

Circ 8 5/8 csg, mix 625 sks 3%cc 1/4# Flosel per sk 150 Com 3%cc 2% Gel, Disp 111 BBL, Plug Down 1:30pm. Release Plug, Cmt did Circ. Thanks

SERVICE

DEPTH OF JOB	1748		
PUMP TRUCK CHARGE			1185.00
EXTRA FOOTAGE		@	
MILEAGE	29	@ 2.85	82.65
PLUG	Rubber	@ 90.00	90.00
		@	
		@	
		TOTAL	$ 1357.65

CHARGE TO: Beredco Inc.
STREET Box 723
CITY Hays STATE Ks ZIP 67601

FLOAT EQUIPMENT

8 5/8 Guide shoe			
1-Weldon Bull nose	@ 238.00		238.00
1-AFU	@ 358.00		358.00
1-Basket	@ 200.00		200.00
4-Centralizers	@ 61.00		244.00
	@		
	TOTAL		$ 1040.00

2-1-98
RECEIVED
STATE CORPORATION COMMISSION
JAN 29 1999
CONFIDENTIAL

TAX -0-
TOTAL CHARGE $ 10645.30
DISCOUNT $ 1596.80 IF PAID IN 30 DAYS
Net $ 9048.50

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper 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 & understand the "TERMS AND CONDITIONS" listed on the reverse side.

SIGNATURE Eugene Saloga

BEREXCO INC.

BETTY L 1-26

FINAL GEOLOGICAL WELL REPORT

15-189-22254

PREPARED BY:

JAMES R. HALL
(BLACK GOLD)

GEOLOGIST:

JIM HALL
OCTOBER, 1997

BLACK GOLD PETROLEUM
Consulting Geologist

J. Raymond Hall
5530 N. Sedgwick
Wichita, KS 67204
316-838-2574

TABLE OF CONTENTS

1.0 GENERAL INFORMATION

1.1 SUMMARY SHEET

1.2 WELL HISTORY

1.1 SUMMARY SHEET

Well Name:	BETTY L 1-26
Classification:	Wildcat
Operator:	Berexco Inc.
State:	Kansas
County:	Stevens
Acreage:	NW/4 Section 26, T32S, R37W
Location:	990' FNL, 1,650' FWL Sec. 26-T32S-R37W Stevens Co., Kansas
Elevations:	KB: 3,130' GL: 3,118'
Spud Date:	October 18, 1997
T.D. Date:	October 30, 1997
Rig Release:	October 31, 1997
Total Depth:	Driller: 6,475' (7 7/8" hole) Logger: 6,478'
Casing Shoes:	8 5/8" at 1,748' (12 1/4" hole)
Hole Size: (driller)	12 1/4" from surface to 1,750' 7 7/8" from 1,750' to 6,475'
Status:	Plugged and Abandoned in Mississippian age rocks.

1.2 - WELL HISTORY

Mobilization of Sweetman Rig #1 began on October 17, 1997, and the Betty L 1-26 was spud on the 18th after rig up was complete. TD was reached on October 30, 1997 and the rig was released (after plugs were set).

After rigging up, drilling the Rat hole and mouse hole, the 12 1/4" hole was drilled to a depth of 1,750' prior to running surface casing. 28# 8 5/8" surface casing was run with casing shoe set at a depth of 1,748'and cemented with 625 sacks of lite and 150 sacks of common. The cement did circulate to surface and eight hours waiting on cement was observed, prior to drilling ahead with a 7 7/8" bit.

Twelve days were required to drill the 7 7/8" hole to a total depth of 6,475'. A fresh-water native mud was used to a depth of 3,500'. The drilling crew commenced mudding up to a chemical gel system at a depth of 3,500' to insure good hole conditions for drillstem testing and anticipated wireline logging below this depth. Some sloughing shales were observed throughout the geologic supervised interval, but overall the sample quality improved with depth. An average mud weight of 9.1 with viscosity of 45 to 62, water loss range was 10-6 (+-) and an average chloride count at 1,200 ppm was maintained between 3,500' and RTD for the purpose of testing and logging.

Drillstem test #1 was run in the Morrow Sandstone between 5,931' and 5,960'. 30' of mud was recovered during the test, charts indicated the interval to be very tight. After testing the 1st Lower Morrow Sand one test was conducted in the 2nd Lower Morrow and Chester Sands from 5,950' to 6,000' recovering 1,050' GIP and 80' SGCM. Charts for DST #2 also indicated a tight reservoir (see DST summary for details of the two tests taken).

Halliburton Logging Services rigged up for Logging Job #1. The following logs were run: DIL-GR-SP-CAL-FDC-CNL-PE-MICRO. The tools were run to cover the following intervals:

DIL: 2:100 from 6,467' to surface.
(SP-GR) 5:100 from 6,476' to 4,000'.

FDC-CNL: 5:100 from 6,476' to 4,000'.
(CAL-GR)

Micro: 5:100 from 6,476' to 4,000'.

After wellsite and office evaluation of the E-logs the Betty L 1-26 was determined to be non commercial and the well was subsequently abandoned.

2.0 GEOLOGIC INFORMATION

2.1 GEOLOGIC RESULTS

2.2 LITHOSTRATIGRAPHIC TABLE

2.1 GEOLOGIC RESULTS

Betty L 1-26 was drilled to a total depth of 6,475' terminating in Mississippian sediments. Oil shows were recorded in the Kansas City limestone, Marmaton and Oil and Gas shows were recorded in the Morrow Sandstone. Prospective reservoirs were also encountered in the Lansing/Kansas City oolitic & oomoldic zones and again in the St. Louis "C". However no sample shows were observed and these sections were not tested after evaluation of electric logs. Section 2.2 lists the encountered stratigraphy in tabular form. Two open-hole drillstem tests were run to evaluate the Morrow Sandstone (see DST summary for results).

2.2 LITHOSTRATIGRAPHIC TABLE

LITHOSTRATIGRAPHY (Samples)	TOP (FT) RKB	RMSL
Heebner	4130	-1000
Lansing	4212	-1082
Base Kansas City	4848	-1718
Marmaton	4926	-1796
Cherokee	5244	-2114
Atoka	5374	-2244
Morrow Shale	5646	-2516
*Morrow Sand	5929	-2798
Chester Shale	6018	-2888
St. Geneieve	6205	-3075
St. Louis	6313	-3138
*St. Louis "C"	6382	-3252

* OBJECTIVES

3.1 GEOLOGIC PERSONNEL

Wellsite Geologists

Jim Hall, Consulting Geologist, was responsible for all geological operations on the well and worked in close coordination with the drilling crew and Mr. Jim Hickman and Pete Wilson of Berexco Inc. during drilling operations.

3.2 ENGINEERING PERSONNEL

All engineering decisions were made by Mr. Jim Hickman and Pete Wilson during all drilling operations.

3.3 MUDLOGGING SERVICES

No mudlogging services were used during the drilling of the Betty L 1-26.

3.4 OPEN-HOLE WIRELINE LOGGING SERVICES

Halliburton performed all the wireline logging services on the well, using Service Unit 53906. Mr. Hall was the logging engineer during all operations while logging.

3.5 DRILLSTEM TESTING SERVICES

The open-hole drillstem tests were run by Western Testers Company of Hugoton Kansas. Test engineer Lanny Saloga was at the wellsite to monitor the tests and assist in the evaluation of the results.

4.0 DATA COLLECTION AND DISTRIBUTION

4.1 CUTTINGS SAMPLES

Cutting samples were collected at 10´ intervals from 3,500´ to 6,475´ and 5´ wet samples were collected during each drilling break.

Washed Wet Cuttings

A complete set of cuttings was washed, and placed in plastic cups, to be used by the wellsite geologist for examination while drilling. This set was essential for the description of sample color, texture and to detect the presents of any live oil.

Washed and Dried Cuttings

A set of washed and dried samples were collected for the purpose of future use if necessary and the examination of sample structure and porosity that can not be seen in the wet set of cuttings. This set of samples were deposited at the Kansas Sample Library for future reference.

4.2 CONVENTIONAL CORING SUMMARY

No conventional cores were taken.

4.3 SIDEWALL CORING SUMMARY

No sidewall cores were taken.

4.4 OPEN-HOLE WIRELINE LOGGING SUMMARY

Halliburton ran open-hole wireline logs in the 7 7/8" hole. Logs were recorded at 2:100 and 5:100 scales on magnetic diskettes.

4.5 LITHOLOGY LOG

The wellsite geologist striplog was constructed on a the same scale as the large scale E-log from 3,500´ to 6,475´.

At the end of the well, copies of the Lithology Log were distributed as per Berexco instructions.

4.6 OPEN-HOLE DRILLSTEM TEST SUMMARY

Open-hole DST'S were undertaken to estimate the productivity of the First and Second Lower Sands Of the Morrow. Potential productivity was estimated for the zones by using the type of fluid recovered and pressure data taken during each phase of the test. The following is a brief summary of each test.

DST #1 First Lower Morrow Sand. 5931'- 5960' (Conventional)

Results:

Flowed well for a total of 60 mins. with no fluid or gas to surface. Recovered 30' of mud. Charts indicated the zone tested to be very tight and not capable of commercial production.

The well was shut-in for a total of 120 mins. and the charts indicated a very slow buildup and no break over because of the times used and the tight nature of the reservoir.

PRESSURE BREAKDOWN

INITIAL HYDROSTATIC MUD:	2864#
FIRST INITIAL FLOW PRESSURE:	66#
LAST INITIAL FLOW PRESSURE:	38#
INITIAL SHUT-IN PRESSURE:	129#
FIRST FINAL FLOW PRESSURE:	38#
LAST FINAL FLOW PRESSURE:	41#
FINAL SHUT-IN PRESSURE:	126#
FINAL HYDROSTATIC MUD:	2841#

DST #2 Second Lower Morrow Sand, 5950'-6000' (Conventional)

Results:

Flowed well for a total of 150 mins. with no fluid or gas to surface. Recovered 1050' GIP and 80' SLGCM. Charts indicated the zone tested to be very tight and no capable of commercial production.

The well was shut-in for a total of 180 mins. and the charts indicated a sharp buildup and no break over, indicating a reservoir with limited productive potential.

PRESSURE BREAKDOWN

INITIAL HYDROSTATIC MUD:	2904#
FIRST INITIAL FLOW PRESSURE:	125#
LAST INITIAL FLOW PRESSURE:	140#
INITIAL SHUT-IN PRESSURE:	350#
FIRST FINAL FLOW PRESSURE:	91#
LAST FINAL FLOW PRESSURE:	71#
FINAL SHUT-IN PRESSURE:	645#
FINAL HYDROSTATIC MUD:	2833#

The drillstem test time periods were lengthened because of plugging indicated during the flow periods.

APPENDIX "A"

LITHOLOGIC DESCRIPTION

The below sample descriptions are written as they were seen by the wellsite geologist while drilling. These descriptions are lagged (see Lithology Log for interpreted lithology). The descriptions are compiled into blocks even though the sample intervals were smaller.

4000-4040
Limestone: mudstone, some wackestone, tan, grey, hard, blocky, microcrystalline, most dull, some polished, no visable porosity.

4040-4080
Limestone: mudstone, tan, light grey, some white-chalky, hard, blocky, most microcrystalline some vuggy porosity, no show.
Shale: very colored, red, brown, grey, green, soft, blocky, tabular.

4080-4150
Limestone: mudstone, grey, tan, hard, blocky, microcrystalline, dense, no visable porosity.
Shale: black, brownish-black, very hard, blocky, platy, micaceous, carbonaceous, trace visable gas bubbles.

4150-4170
Sandstone: light grey, firm to friable, very fine, sub angular, well sorted, calcite cement, no porosity, no shows.
Shale: very colored, soft to hard, platy, some arenaceous.

4170-4210
Limestone: mudstone, tan, light grey, hard, blocky, microcrystalline, dull, some polished, dense, some fossil fragments, trace free chert and pyrite.
Shale: very colored, soft, hard, platy, most red, brown and green, micaceous, trace pyrite.

4210-4230
Limestone: mudstone, some packstone, light grey, tan, some tan oolitic packstone, visible porosity, no cut no live show.

4230-4310
Limestone: mudstone, light tan, buff, some off white, hard, blocky, microcrystalline, dense, off white-chalky, trace vuggy porosity toward base of interval, no live shows.
Shale: black, soft, tabular, calcareous, some very hard, argillaceous limestone.

4310-4390
Limestone: mudstone, tan, buff to light grey at the interval base, hard, blocky, microcrystalline, some vuggy porosity toward the base, no cut, trace visable black tary residue on dry sample only.
Shale: grey, soft, to hard, calcareous, trace carbonaceous with visible gas bubbles.

4390-4450
Limestone: mudstone, tan, light grey, grey, hard, microcrystalline, some argillaceous-earthy, trace crinoid stems, trace free chert, no porosity.
Shale: light grey, soft, calcareous, dark grey, slightly carbonaceous.

4450-4480
Limestone: packstone, tan, brown, hard, blocky, crystalline to microcrystalline, visable pin point and vuggy porosity, no cut, no show, trace free crinoid stems.

4480-4510
Limestone: mudstone, tan, grey, hard, blocky, microcrystalline, dense, no porosity, no show.

4510-4540
Limestone: wackestone, tan, brown, hard, blocky, microcrystalline, visable pin point and vuggy porosity, no show, mineral flourescence only.
Shale: lt grey, soft, calcareous.

4540-4570
Limestone: mudstone, grey, dark grey, very hard, dense.

4570-4590
Limestone: wackestone, packstone, tan to buff, grey, hard, oolitic, oomoldic, bright yellow fluorescence, no cut, some visable porosity, no show, trace fossils.

4590-4700
Limestone: mudstone, tan to buff, grey, hard, blocky, microcrystalline, some soft to earthy, most dull, dense.
Shale: grey, some red, browhish-red, soft, calcareous.

4700-4730
Limestone: mudstone, tan to grey, hard, blocky, microcrystalline, dull, some polished, most dense, some scattered pin point and vuggy porosity, no show.

4730-4760
Limestone: mudstone, tan, buff, hard, blocky, microcrystalline, dense, trace vuggy porosity, no show, trace free sharp dark chert.

4760-4770
(show #1) Limestone: packstone, tan, buff, hard, oolitic and oomoldic, trace yellow fluorescence, very slight odor, spotty light brown free oil when crushed, slow streaming yellow cut.

4770-4790
Limestone: mudstone, tan, brown, very hard, microcrystalline, polished, dense, no porosity.
Shale: black, firm, blocky, carbonaceous.

4790-4830
Limestone: grainstone, tan, brown, hard, oolitic and oomoldic porosity, no live shows, fossils.

4830-4950
Limestone: mudstone, traces of wackestone, tan, light grey, hard, microcrystalline, some earthy-argillaceous.
Shale: grey, soft to hard, calcareous.
Sandstone: trace light grey, soft, very fine grained at the interval, subrounded, well sorted, argillaceous to calcite cement.

4950-4980
Limestone: grainstone, tan, hard, blocky, oolitic and oomoldic, visable porosity, looks wet, no show, no cut, dull gold mineral fluorescence only.

4080-5030
Limestone: mudstone, tan, brown, some off white, hard, blocky, microcrystalline, some soft-chalky, on visible porosity, traces of free pyrite.
Shale: green, grey-green, soft, some black-carbonaceous.

5030-5100
Limestone, mudstone, tan to buff, some brwonish-grey, hard, blocky, microcrystalline, some, crystalline, dull, dense, traces off white to brown blocky to sharp chert.

5100-5120
(show #2) Limestone: mudstone, tan, off white, hard to firm, microcrystalline, some white-chalky, dull, dense, scattered pin point and vuggy porosity, few with slight odor, visable light brown free oil, some when broken, yellow fluorescence, slow yellow streaming cut.

5120-5180
Limestone: mudstone, grey, tan to brown, hard, blocky, microcrystalline, some chalky to earthy, most dull some scattered polished, dense.
Shale: dark grey, very colored, some micaceous, brick-red-calcareous at the interval base.

5180-5210
Limestone: mudstone, tan, dark grey, brown, some polished, most dull, dense, traces of brown chert.
Shale: red, grey, green, brown, brick-red-calcareous, some mottled, blocky to fissile.

5210-5370
Limestone: mudstone, light to dark grey, hard, blocky, microcrystalline, most dull, some polished, dense.
Shale: grey, dark grey to black, hard, tabular to fissile, some very calcareous, more carbonaceous with depth.

5370-5430
Limestone: mudstone, grey, tan, off white, hard, blocky to tabular, microcrystalline to chalky, most dull some polished, dense, no porosity, no show.
Shale: dark grey, black, calcareous, carbonaceous, some very limy.

5430-5510
Limestone: mudstone, dark grey, brown, brownish-grey, hard, microcrystalline, polished, dense, no visable porosity, no shows, traces of free pyrite.

5510-5640
Limestone: mudstone, hard, some very hard, blocky to tabular, microcrystalline, dull to polished, dense, no porosity.
Shale: dark grey, black carbonaceous, blocky to fissile, some with visable gas bubbles.

5640-5810
Shale: medium to dark grey, some black, soft, some brittle, fissile to platy, some carbonaceous look, some free pyrite.
Sandstone: tan, translucent, hard, fine grained, some cemented with pyrite, no porosity, looks tite.

5810-5320
(Show #3) Sandstone: tan, fine grained, subangular, well sorted, looks tite, dull gold fluorescence, no cut, very slight fluorescent residual ring on spot dish.

5820-5900
Shale: medium to dark grey, soft to firm, fissile to platy, slightly micaceous, non calcareous, trace free pyrite, increase in black carbonaceous, shales with depth.

5900-5930
Shale: medium to dark grey, black, soft to firm, fissile, non calcareous, black shale with carbonaceous look, trace pyrite.
Sandstone: trace loose medium grained, subangular, no show.

5930-5960
(DST #1) Sandstone: clear, hard clusters, trace loose, fine grained, trace coarse grained, angular to subrounded, slight calcite cement, most hard and tite, few samples with a slight odor when broken, residual fluorescent ring on spot dish only, no visable porosity, trace glauconite.
Shale: medium to dark grey, red, brown, soft, calcareous, trace red-very calcareous-platy.

5960-6000
(DST #2) Sandstone: grey, clear, some off white, most hard tite, with calcite cement, some argillaceous, very fine grained to some medium grained, subangular to subrounded, well sorted, some loose clear-medium to coarse grained, no visable sample show, traces glauconite.
Limestone: mudstone, cream to off white, soft, chalky, some arenaceous, dull, no show.

6000-6020
Limestone: mudstone, cream, off white, soft, chalky, dull, some arenaceous, fossils, dull gold mineral fluorescence only, no porosity, no show.

6020-6040
Shale: light grey, soft, fissile to platy, non calcareous, some light grey, light brown, soft, smooth waxy look, trace free pyrite.

6040-6090
Limestone: mudstone, light grey to grey, hard, platy to blocky, microcrystalline, dull, some chalky-soft, trace free fossils and free clear to off white calcite, traces of pyrite.

6090-6160
Limestone: mudstone, brownish-grey, light grey, hard, some very hard-brittle, microcrystalline, dull, polished, dense, some jade green and ocher-green mudstone.
Shale: dark grey, black, fissile, carbonaceous look.

6160-6210
Limestone: wackestone, very colored, red-arenaceous, soft to firm, earthy, grey-green, microcrystalline, dense, no porosity.

6210-6260
Limestone: wackestone, grey, off white, some tan, hard to soft and chalky, arenaceous, some translucent free chert at the base of the interval.

6260-6300
Limestone: wackestone, packstone, off white, arenaceous, some oolitic, glauconitic, brownish-yellow blocky chert, no porosity, no shows.

6300-6320
Shale: green, purple, grey, soft, waxy, platy, limy.

6320-6370
Limestone: wackestone, packstone, cream to buff, hard to soft, blocky, crystalline, some oolitic-well cemented, no porosity, bright yellow mineral fluorescence only, no cut, traces pyrite and translucent to orange chert.

6370-6400
Limestone: packstone, wackestone, buff, light tan, hard-matrix, some soft-chalky matrix, sorting of oolitic grain sizes, medium grained to coarse grained clusters, some visable inter oolitic porosity, no stain, no cut, no show, looks wet.

6400-6440
Limestone: mudstone, cream to buff, hard, blocky, microcrystalline, dull, to polished, dense, free white chert, some scattered oolitic limestone, no porosity, no show.

6440-6475
Limestone: mudstone, cream to buff, hard, blocky, microcrystalline, dense, some soft-chalky-off white, free white chert.
Shale: most medium grey, some dark grey to black-carbonaceous look.