Vecta

Oil & Gas Ltd.

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

Well Name: Quandary 23-26
Location: NE/SW Section 26 T12S R46W Cheyenne Co., CO
License Number: API: 05-017-07711 **Region:** Wildcat
Spud Date: February 25, 2012 **Drilling Completed:** March 19, 2012
Surface Coordinates: 2014' FSL & 2490' FWL NE/SW Section 26 T12S R46W
Latitude 38.97516, Longitude -102.52924 (US NAD 83)
Bottom Hole Coordinates: Same.

Ground Elevation (ft): 4562' **K.B. Elevation (ft):** 4573'
Logged Interval (ft): 4400' **To:** 5910' **Total Depth (ft):** 5910' (5907' LTD)
Formation: Morrow, (TD in Spergen).
Type of Drilling Fluid: LSND, Hydro Resources.

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.co

OPERATOR

Company: Vecta Oil & Gas Ltd
Address: 575 Union Blvd, Suite 208
Lakewood, CO 80228
Tel. (303) 945-2860

GEOLOGIST

Name: Mike Dodge
Company: Goolsby Brothers and Associates
Address: 575 Union Blvd., Suite 208
Lakewood, CO 80228

Electric Logs

Open Hole Logs By: Schlumberger (Ft Morgan).
Program: AIT, ML, LDT/CNL, SONIC SCANNER: TD-BSC.
FMI: TD to 4400'

Casing

8 5/8" 24# J-55, LT&C set @ 438'.

Comments

1) Contractor- Integrity Drilling, Rig #69. ToolPusher: Bob Kleisen
Pumps: #1 TSM-500 6" x 16" (6.442 Gal./Stk)
#2 Oilwell, P-214 6" x 14"

2) Company Geologist: Dave Bowen
Company Man: Mat Goolsby

3) Coring Service: NOV
Technician- Brian Bentley.
Bit: 7 7/8" x 4" NOV CCPR 713S (#A2/A1 149117).
Core #1 (5601-): ' (' Logs). Cut 60' in 3.75 Hrs. Recovered- 60' (100%).
Core Handling, Pick Up & Lab Work: Core Labs.

4) Drill Stem Testing: Trilobite Testing Inc., Jace McKinney.

DST#1 (Morrow-- V3): 5578-5586' (Logs ') Traditional Bottom Hole Test.
Times: 30-30-30-60. IF: Open w/ 1/4" Blow, 1/2" in 9 min., Died to Surface Blow. FF: No Blow.
Pressures: IH 2819, FH 2648, IF 21-26, FF 27-30, ISI 31, FSI 36.
Pipe Recovery: 5' Drilling Mud
Sampler: Pressure - 0#
Total Volume Sampler- 3000cc
Sample: 500cc Drilling Mud
BHT- 145° F

5) Gas Detector from Terra Services: MSI Redbox Total Gas Detector w/ Chromatograph (#173).

6) All data (ROP, Lithology) has been adjusted up 3' to Correlate to E-Logs.

7) As of 3/20/12, Preparations were being made to Plug & Abandon this well.

ROCK TYPES

ss_fg+
Carb sh
Anhy
Bent
Cht
Clyst
Coal
Congl
Dol
Gyp
Lmst
Mrlst
Shale
Shcol
Shgy
Ss
Till
sltst
anhy1
chalk
Slty sh

ACCESSORIES

MINERAL
P Pyr
Anhy
Arggrn
Arg
B Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
K Kaol
Marl
Minxl
Nodule
Phos
P Pyr
Salt
Sandy
Silt
Sil
S Sulphur
Tuff

FOSSIL
Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram
F Fossil
Gastro
Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom

STRINGER
Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg

TEXTURE
BS Boundst
C Chalky
CX Cryxln
E Earthy
FX Finexln
GS Grainst
L Lithogr
MX Microxln
MS Mudst
PS Packst
WS Wackest

OTHER SYMBOLS

POROSITY TYPE
- E Earthy
- ▣ Fenest
- F Fracture
- ☒ Inter
- Moldic
- ○ Organic
- P Pinpoint
- V Vuggy

SORTING
- W Well

- M Moderate
- P Poor

ROUNDING
- R Rounded
- r Subrnd
- a Subang
- A Angular

OIL SHOWS
- ● Even
- ◑ Spotted

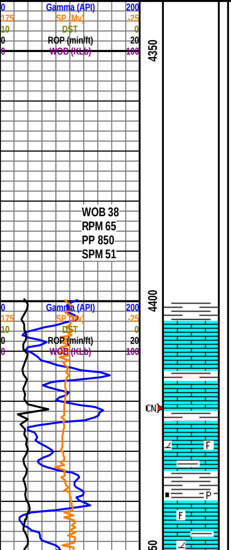
- near even
- ○ Ques
- D Dead
- vspotty

INTERVALS
- ■ Core
- Dst
- ◢ casing

EVENTS
- ▷ Rft

- ▶ Sidewall
- New bit
- ◣ casingr
- ◢ casing
- ⌖ Survey
- ▶ Off bottom
- CN▶ conn
- ● perfs
- ⌖ Survey(red)

ROP,GR	Depth	Lithology	Sample Shows	Geological Descriptions	GAS	Resistivity	Porosity
Gamma (API) SP (Mv) DST ROP (min/ft) WOB (KLb)					C1 (units) C2 (units) C3 (units) C4 (units) Total Gas (units) PE (Be) ML (flag)	AT10 (ohmm) AT30 (ohmm) AT90 (ohmm)	Dphz (dec) CALI (in) Nphi (dec) Xover (dec)



Drilling w/ Bit #3   7 7/8"   JZ QX-28 (Jets 2x14, 1x13) in @ 3032'.

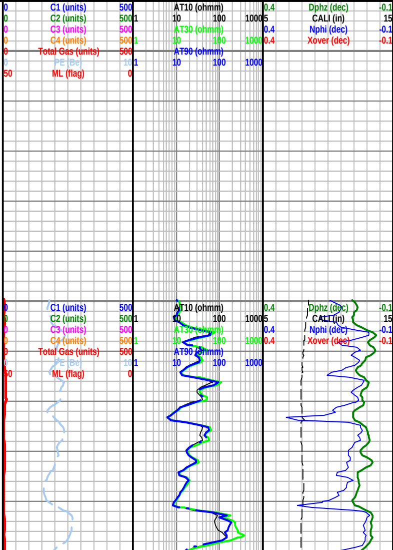
Mud @ 4315'   WT 8.9   FV 46   PV 13   YP 7   GS 6/29
Fil 9.2   pH 10.0   Cl 460   Hd 60   Sol 4.3%

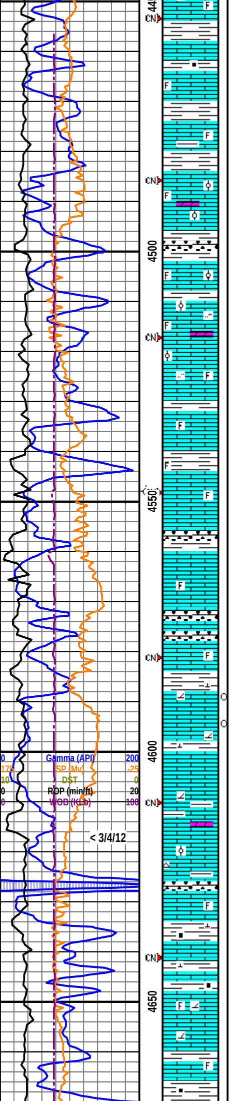
UPHOLE SURVEYS:

260'	.21°
438'	.68°
746'	.39°
1089'	.67°
1402'	.51°
1714'	1.02°
2027'	.79°
2341'	1.0°
2655'	.89°
2970'	.35°
3285'	1.47°
3599'	.59°
3914'	.37°
4231'	.37°

Start Gas Evaluation @ 4400'   09:30   3/3/12.
Start Sample Evaluation @ 4430'. Drillers Catching 10' Lagged Samples from 4430-TD.

LS (60%) tan, lt-mgy, crm, mar-rdbrn, frm, pred dns mic xln, grny-mic sucr ip, sbchky ip, occ foss, sl dolic ip, pred no vis-vp por, NSOC, fnt-mod yel mnrl flor.
SH (40%) dk-v dkgy, (rdbrn gn Cvgs), frm-sft, blky-sbplty, slty ip, sl carb ip, tr mic Pyr
SS (Tr) ltgn trnsl, fri-sft, pred vf gr, vf-m gr ip, silic, cly fld, vp-no vis por/perm, NSOFC.





LS (65%) lt-mgy, crm tan, frm, mic-crp xln, sbchky ip, sl grny ip, occ sl-mod foss, no vis-vp vis por, NSOC, occ fnt yel mnrl flor.

LS (50%).
SH (50%) m-dk-v dkgy, (rdbrn Cvgs com), frm, blky-sbplty-splty, rthy, non calc, sl slty ip, sl carb ip.

LS (75%) ltgy tan crm wh, pred dns mic xln, sl grny ip, foss ip, occ .2-.5mm ool (dist ip) w/ tt spar mtx, vp-no vis por, NSOC, mod yel mnrl flor.

LS (80%) tan ltgy offwh, tr purp, frm-v frm, mic-crp-vf xln, mic sucr ip, incr foss, .2-1mm ool ip, rr blk pelt, pred tt w/ no vis-vp por, tr est 8% in sucr, NSOC, mod-fnt yel mnrl flor.
SH (20%) pred rdbrn gn mar, occ m-dkgy.

LS (75%) ltgy tan crm, frm-v frm, mic xln, grny, foss ip, occ slty / scat f ool, no vis-vp por, NSOC, mod-fnt yel mnrl flor.
SH (25%) m-dkgy, occ rdbrn gn purp, frm, blky, bcmg calc ip.

LS (60%) as above, crp xln ip, foss vf xln ip, tr slty-sdy. SH (40%) dk-m gy, rdbrn gn, frm, sbblky-sbplty, rthy-sbwxy, non-sl calc, scat carb matr, slty ip.

SHAWNEE - 4534' (+39)

SH (65%) rdbrn, m-dkgy, occ v dkgy, frm, sbplty-sbblky, rthy-slty txt, non calc, sl carb ip, tr foss.
LS (35%) ltgy tan wh, frm, mic-vf xln, chky ip, foss ip, sdy ip, NSOC, mod yel mnrl flor.
SS (Tr) wh, fri, L f-L m gr, sbrnd, mod srt, non calc, wh cly fld, <10% por, no vis perm, NSOFC.

Survey @ 4548'- Inc 1.27°

SH (50%) as above.
LS (50%) tan, crm, frm, mic-vf xln, chky ip, grny ip, tr mic sucr, tr gran, foss ip, vp-no vis por (<8%), NSOC, mod yel mnrl flor.

LS (70%) tan crm brn wh, as above, crp xln ip.
SH (30%) dk-m-v dkgy, tr blk, frm, sbplty, sl calc, sl slty ip.

LS (60%). SH (40%).

LS (90%) crm offwh, frm-v frm, mic xln, grny-mic sucr, sucr dolic ip, vp-p-no vis por (<10%), pred NSOC w/ mod-fnt-brt yel mnrl flor, occ wk mlky-resd yel cut in sucr dolic Ls.

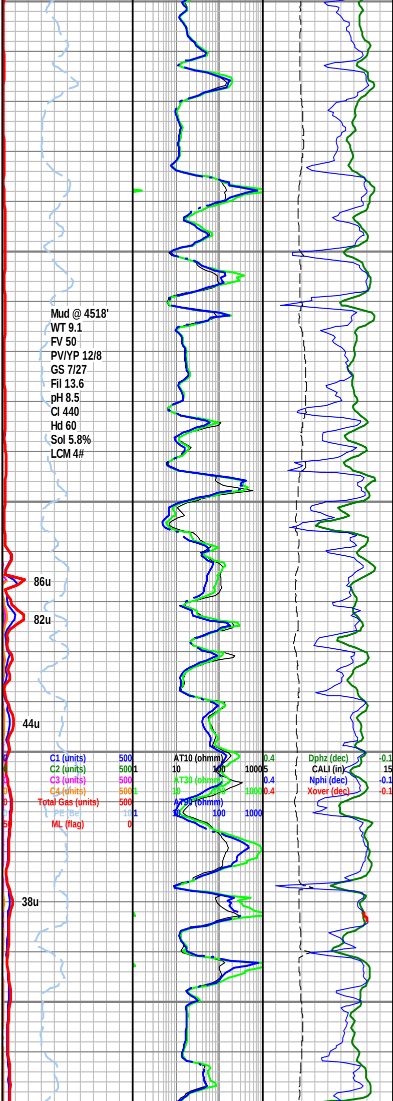
LS (100%) crm offwh, frm, mic xln, sbchky, grny, occ mic sucr, sl dolic ip, rr glau, vp-no vis por (<8%), NSOC, mod-brt yel mnrl flor.

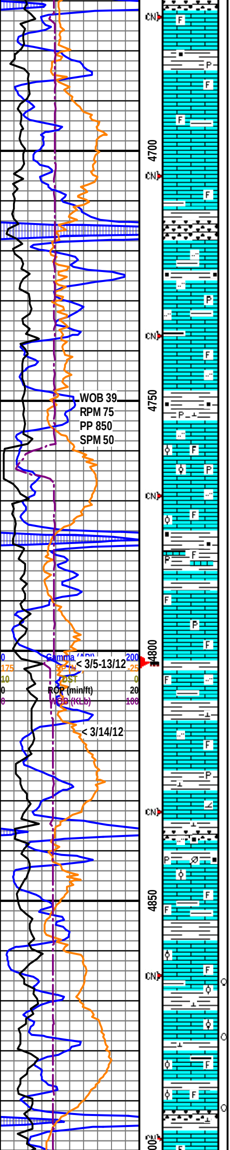
LS (95%) crm tan gybrn, bcmg foss ip, tr f ool (sl moldic ip), tr wh Cht incl, vp-no vis por, NSOC, mod-fnt yel mnrl flor.
SH (5%) dkgy, sl-mod calc, scat carb matr.

LS (90%) tan crm gybrn-brn, frm-hd, mic-vf xln, pred dns, grny-gran ip, foss ip, occ sl arg, no vis-vp por, NSOC w/ mod-fnt yel mnrl flor.
SH (10%) dk-mgy, occ rdbrn purp brn, calc ip, carb ip.

LS (80%) as above.
SH (20%) dk-m gy, rdbrn gn, frm, blky-sbplty, sl calc ip, rthy-slty (v slty ip), sl carb ip.

SH (40%) rdbrn, mgy, occ dk-v dkgy, blk, frm, blky-sbplty, sl-non calc, slty ip, sl-non-v carb.
LS (60%) crm tan gy, frm-v frm, mic-vf xln, chky ip, grny-gran ip, sl-mod foss, vp-no vis por, NSOC w/ fnt-mod yel mnrl flor.





WOB 39
RPM 75
PP 850
SPM 50

< 3/5-13/12

< 3/14/12

SH (40%) rdbrn, m-dk gy, gn, tr blk, frm, blky-sbplty-splty, sl-non calc, occ scat carb matr.
LS (60%) crm tan offwh brn, tr purp, frm-v frm, frag, mic-vf xln, sbchky ip, foss ip, vp-no vis por (<8%), NSOC w/ mod-fnt yel mnrl flor.

SH (50%) m-dkgy, occ rdbrn, frm, sbplty-splty-plty, rthy-slty, sl calc, carb ip, tr foss, tr Pyr. LS (50%).

LS (90%) crm ltbrn, frm-brit, mic xln, grny, mic sucr ip, sbchky, sl foss ip, no vis por, NSOC w/ mod yel mnrl flor.

HEEBNER - 4714' (-141)

LS (60%) lt-mgy crm gybrn, frm, mic-vf-crp xln, slty ip, foss ip, no vis por, NSOC w/mod-fnt yel mnrl flor. SH (30%) dkgy blk, frm-brit, sbplty-flky, calc, carb.

LS (70%) ltgy crm, tan-gybrn, frm, mic xln, grny-slty-mic sucr, grdg-calc Sltst ip, tr foss, tr mic Pyr, NSOC w/ fnt-mod yel mnrl flor.

LS (50%). SH (50%) brn rdbrn, m-dkgy, sft-frm, blky, calc, slty.

SH (65%) mgy rdbrn dkgy, frm, sbplty-plty-splty, rthy-slty-sbwxy txt, calc ip, carb ip, occ dism/mic Pyr.
LS (35%) ltgy tan offwh, frm, mic xln, chky, grny-slty ip / tr Slt ptgs, foss ip, tr f ool & mic Pyr, no vis-vp por (<8% intxln), tr moldic w/ chky micsucr mtx (<12% vis mold por), NSOC w/ mod-fnt yel mnrl flor.

LS (70%) crm offwh, frm-v frm, mic-vf xln, chky, grny-mic sucr ip, slty ip, occ foss, tr scat f ool, no vis-vp por (<10%intxln), p vis perm, NSOC w/ fnt-mod yel mnrl flor.

LS (65%) as above, frag ip. SH (35%) rdbrn, dk-m gy, blk, carb ip, foss ip, tr Pyr.

SH (50%) dk-v dk-m gy, rdbrn, frm, blky-sbplty, non-sl calc, carb ip, slty ip, tr foss. LS (50%) offwh crm ltgy, frm-fri, mic-vf xln, chky ip, foss ip, tr mic Pyr, no vis-vp por (<8%), NSOC w/ fnt-mod yel mnrl flor.

LANSING/K.C. - 4790' (-214)

Circ., Drop Survey & TOH @ 4805' for Rig Repair (Rotary Drive Shaft), Down While WO Parts. Replace Shaft & TIH 3/13/12. RR Bit #3 7 7/8" JZ QX-28 (Jets 2x14, 1x13), Wash & Ream, Start New Drilling @ 23:00 3/13/12.

SH (40%) m-dkgy, occ rdbrn brn, frm, blky-sbplty-splty, rthy-sl slty txt, non-sl calc, occ slty calc, carb ip. SLTST (30%) brn rdbrn gy, frm, v calc. LS (30%) crm ltgy gybrn, frm-fri, mic-crp xln, dns, sl chky ip, slty ip, tr foss, no vis por, NSOC w/ fnt yel mnrl flor.

LS (70%) crm ltgy, frm-fri, mic-crp xln, sl grny ip, sl-mod chky, tr mic Pyr, no vis-vp por, NSOC w/ fnt-mod yel mnrl flor. SH (30%).

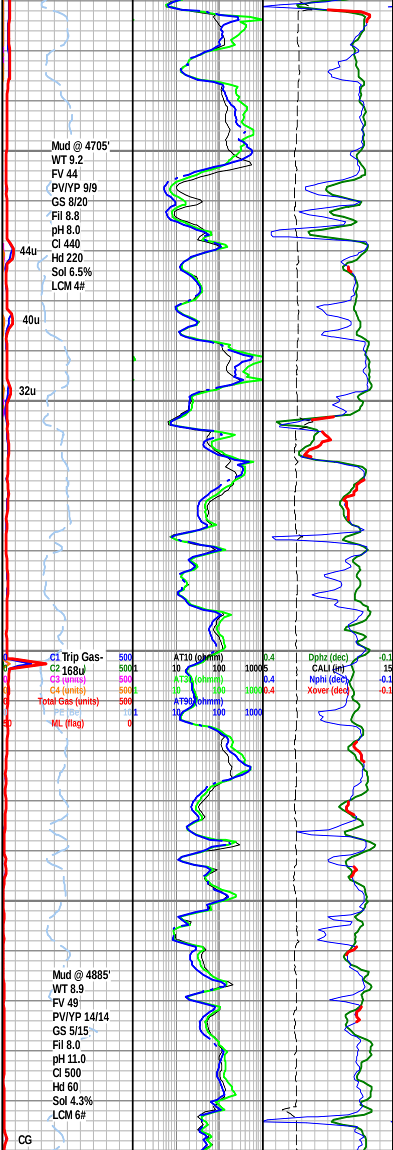
LS (50%) lt-mgy tan gybrn crm, frm-v frm, mic-vf xln, sl arg, grny ip, tr mic sucr, sl dolic ip, sl foss, no vis por, NSOC w/ fnt yel mnrl flor. DOL (10%) brn, frm, dns, crp xln, sl arg, no vis por. SH (40%) m-dkgy, frm, blky-sbplty, rthy-grny txt, carb ip w/ occ plnt remn, tr mic Pyr.

LS (80%) tan crm lt-mgy, frm, mic xln, grny-mic sucr, sbchky, occ sl foss, tr scat dist f ool, no vis-vp por (<8%), NSOC w/ fnt yel mnrl flor.

LS (60%) bcmg sl arg ip, f xln ip, occ .5-1 mm ool / micritic mtx, tr Pyr, pred vp vis por, tr 10-12% intool, pred NSOC, tr wk mlky cut, mod-fnt yel mnrl flor. SH (40%) m-dkgy, occ ltgy mar brn.

LS (80%) ltbrn crm lt-mgy, frm-fri-v frm, mic-vf xln, sbchky, grny-mic sucr, slty ip, sl foss, occ scat f ool (mold ip), vp vis intxln/intool por, tr p mold por, pred NSOC w/ fnt-mod yel mnrl flor, tr wk mlky cut in moldic LS. SH (20%) m-dkgy, frm, blky-sbplty, rthy-sl slty txt, calc, sl carb ip, sl foss ip.

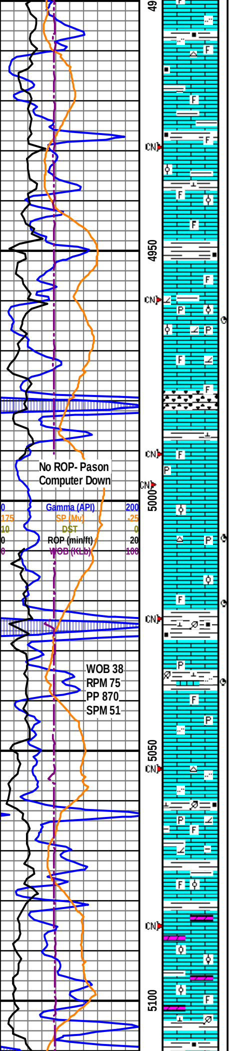
LS (75%) lt-mgy tan crm offwh, frm-v frm, mic-vf-crp xln, pred grny-mic sucr, dns ip, frag ip, sl arg, foss ip, occ scat f ooids, occ xln Calc, no vis-vp por, NSOC w/ fnt yel mnrl flor. SH (25%) dkgy-blk-mgy, frm, blky-sbplty, sl calc, carb ip, tr foss.



Mud @ 4705'
WT 9.2
FV 44
PV/YP 9/9
GS 8/20
Fil 8.8
pH 8.0
Cl 440
Hd 220
Sol 6.5%
LCM 4#

Trip Gas-
168u

Mud @ 4885'
WT 8.9
FV 49
PV/YP 14/14
GS 5/15
Fil 8.0
pH 11.0
Cl 500
Hd 60
Sol 4.3%
LCM 6#



LS (80%) as above, pred foss, occ dns mgy slty-v slty. SH (20%) m-dkgy, frm, blky, calc, foss ip / tr Inoc.

LS (90%) ltbrn crm tan gybrn, frm-vfrm, mic-crp-vf xln, sbchky-chky, grny ip, tr gran, foss, tr mlky Cht incl, no vis-vp por (<8%), NSOC w/ fnt-mod yel mnrl flor.

LS (80%) crm gybrn lt-mgy, mott ip, frm, mic xln, chky ip, tr gran, foss, arg ip, tr Pyr & xln Calc, tr f ool / spar mtx, no vis intxln por, p intool por, NSOC w/ v fnt yelgld mnrl flor. SH (20%) dk-v dkgy, frm, sbplty, calc ip, carb ip, foss ip, tr Pyr.

LS (75%) crm tan lt-mgy, frm, mic xln, grny-slty ip, dns sbchky sl foss ip, sl arg, no vis-vp por, NSOC w/ fnt-mod yelgld mnrl flor. SH (25%) m-dkgy blk, frm, sbplty-blky, calc, carb, slty ip, tr Pyr.

LS (90%) lgy tan crm gybrn, frm, mic-vf xln, sbchky, foss, f ool/mold ip w/ vf xln pyric mtx, pred vp-no vis intxln por, tr p intool/mold por, p vis perm, NSOC w/ v fnt gld-mod yel mnrl flor.

LS (90%) ltbrn ltgy offwh, frm-hd, mic-vf xln, grny-gran ip, chky ip, scat .2-.5 mm ool (mold ip) / f xln mtx, abnt mic Pyr & occ xln Dol ip, vp vis intxln por, p tr fr intool/mold por (<12%)No vis stn/cut, mod-fnt-brt yel flor (mnrl), 20% w/ p-fr mlky cut, wk resd ring.

LS (90%) aa, pred grny,. gran ip, sl foss, rr ool/mold w/ xln Calc & Dol/Pyr, no vis-vp por, NSOC w/ fnt-mod yel mnrl flor. SH (10%) m-dkgy, blk, frm, sbplty, sl calc, carb ip, tr Pyr.

LS (70%) lt-mgy ltbrn, frm, mic-vf xln, grny, sl-mod chky ip, foss ip, tr p dev oomoldic, no vis-vp por (<8%), NSOC w/ fnt-mod yel mnrl flor. SH (30%) v dkgy-blk, mgy, frm, sbplty-blky-ireg, sl calc, carb, occ mic Pyr.

***4996-5013': Gas Lag estimated- Pason Down.**

LS (80%) ltgy ltbrn crm, frm, vf-mic xln, frag, occ xln Calc/trnsl Cht, p dev vf ool/oomold w/ mic sucr-micritic mtx, tr Pyr, vp-p tr fr intxln por (8-12%, tr 15%), no vis stn, fnt-mod yel mnrl flor, wk hzy-mlky cuts, wk resd ring.

LS (90%) crm ltgy, frm, mic-vf-crp xln, sbchky, dns ip, grny-gran ip, sl foss, occ vf ool / micritic-vf xln sucr mtx, tr Sh ptgs, vp-no vis por, NSOC w/ mod-fnt yel mnrl flor.

LS (80%) lt-mbrn, gybrn, aa, pred dns sbchky sl grny, foss ip, sl arg, occ mold/vf-f xln mtx, pred vp-no vis por, tr p-fr (<12%) mold por, occ spty-splotchy brn o stn, w/ fnt-mod yel mnrl flor, 10% w/ fnt spty gld flor, fr mlky cuts, fnt resd ring.

SH (60%) v dkgy, sft-frm, sbplty-splty, calc, carb ip / occ plnt remn, occ mic Pyr, occ mgy slty calc. LS (50%) incr dns crp-mic xln, grny ip, occ Pyr, tr-occ splotchy brn stn / fr mlky cuts.

LS (50%) crm tan brn, mic xln, dns, sbchky, foss ip, tr mlky tan Cht, occ dns slty sl arg, no vis por, NSOC w/ occ fnt gld mnrl flor. SH (50%) m-dkgy.

LS (80%) crm gybrn, frm-v frm, mic-crp xln, chky, grny ip, tr xln Calc incl & mic Pyr, no vis por, NSOC w/ occ fnt gld mnrl flor. SH (20%).

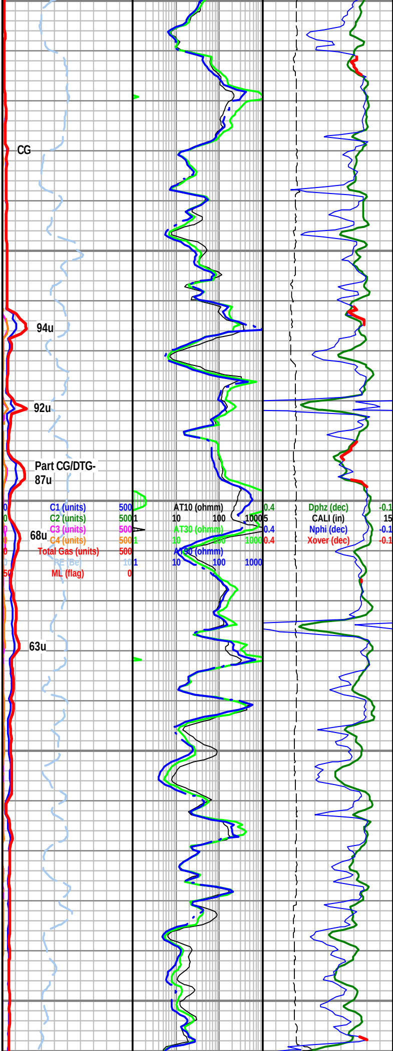
LS (90%) gybrn crm, aa, grny indist foss ip, sl arg ip, dolic ip, occ grdg-grny/mic sucr Dol, occ xln Calc/Dol incl & mic Pyr, no vis-vp por, NSOC w/ fnt-mod yelgld mnrl flor. SH (10%).

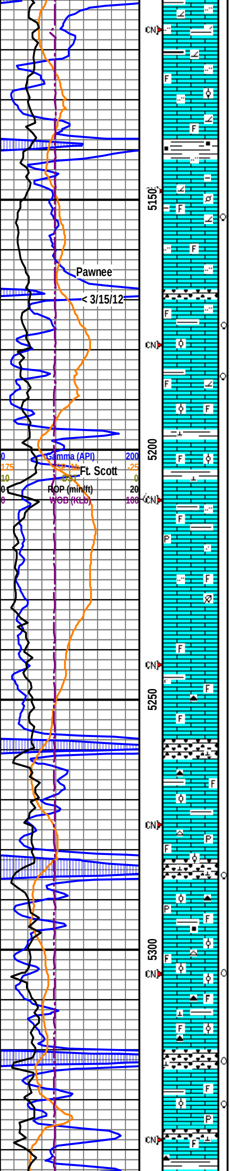
LS (80%) ltbrn gy gybrn, frm-v frm, mic xln, tt vf ool ip / micritic mtx, tr mic sucr, sl slty, arg ip, no vis-vp por (<8%), NSOC w/ fnt-mod yel mnrl flor. SH (20%) dk-mgy, silv, frm, sbplty-blky, rthy-slty txt, calc, carb ip, foss ip.

LS/DOL (95%) ltbrn tan ltgy, frm-v frm, mic-vf xln, grny, dolic ip grdg-mic-f sucr Dol, .5-1 mm ool ip/mic sucr mtx (mold ip, pred n vis-vp intxln por, occ <10% tr to 12% intool/mold por, NSOC w/ fnt-mod yel mnrl flor. SH (5%).

LS (85%) aa, bcmg arg ip, dolic grdg-grny/mic sucr Dol com, sl foss ip, tr f ool/mold. SH (15%) m-dkgy, frm, sbblky-ireg, slty txt, calc, carb ip / occ scat plnt remn.

MARMATON - 5111' (-538)





LS (70%). SH (30%) mgy, frm, blky-sbplty, grny, dolic-sl calc, occ scat carb matr.

LS (60%) ltbrn lt-mgy crm wh, frm, mic-vf xln, dolic ip, grny-mic sucr, sl foss, slty ip, tr v chky, no vis-vp por (<8%), NSOC w/ fnt-mod yel mnrl flor.
SH (40%).

LS (85%) crm ltbrn wh, frm, mic-vf xln, chky, tt f ool ip / micrtic mtx, scat indist Fos frags, occ sl dolic, no vis intxln por, p vis intool por (<8%), NSOC w/ mod-fnt yelgld mnrl flor. SH (15%).

SH (40%) dk-v dkgy, mgy, frm-v frm-sft, plty-sbblky- splty, rthy-sl slty txt, sl calc, carb i, slty ip. LS (60%).

LS (70%) lt-mbrn crm ltgy wh, frm, mic-vf xln, dns-mic sucr, dolic ip w/ occ xln Calc/Dol, indist foss ip, tr .5mm pelt/ooids, tr mold, tr Sh ptgs/incl, no vis-vp-p intxln por (<10%), fnt-mod yelgld mnrl flor, <10% / NSO, p-fr mlky cuts.

LS (80%) aa, bcmg ltgy offwh, frm, dns sl-v slty, sbchky, v chky ip, NSOC w/ fnt-mod yelgld mnrl flor. SH (20%) m-dkgy.

LS (90%). SH (10%) occ blk carb.

LS (90%) ltbrn crm lt-mgy, frm, mic xln, pred dns chky, sl grny, foss ip (Crin, indist)sl dolic ip, tr oomold, no vis-vp intxln por, tr p (<10%) mold por, pred NSOC w/ fnt-mod yelgld mnrl flor, <10% w/ wk mlky cuts.

LS (80%) gybrn crm, frm, micxln, sbchky / tr wh Chk, indist foss ip, tt vf-f ool ip, sl arg / occ Sh ptgs, no vis por, NSOC w/ fnt yelgld-tr mod yel mnrl flor. SH (20%) v dkgy, frm, blky-ireg, rthy, calc, carb, tr xln Calc fld mic fracs.

Survey @ 5213'- Inc 0.93°

LS (90%) crm tan, frm-v frm, mic xln, chky, sl grny ip, slty ip, tr sdy, occ indist foss, tr mic Pyr & xln Calc, no vis por, NSOC w/ fnt-mod yel mnrl flor. SH (10%) dk-mgy, frm, sbblky, carb ip, slty ip, tr mic Pyr.

LS (90%) crm, occ ltgy gybrn, frm, mic xln, sbchky, slty, sl foss, tr plnt remn, no vis por, NSOC w/ fnt yelgld mnrl flor. SH (10%) m-dkgy.

CHEROKEE - 5258' (-685)

LS (80%) gybrn tan crm lt-mgy, mott ip, frm-v frm, sbchky, foss, arg ip, sl slty ip, occ dkbrn dkgy tan Cht, no vis por, NSOC w/ occ fnt yelgld mnrl flor. SH (20%) vdk-mgy, frm-brit-v frm, plty-sbblky-splty, calc, carb ip, sl slty ip, occ mic Pyr.

LS (70%). SH (30%) dk-v dkgy, frm-v frm, splty-sbplty-ireg, rthy txt, sl calc, carb ip, tr mic Pyr & xln Calc fld mic fracs.

LS (80%) tan crm gybrn m-ltgy, frm, mic-vf xln, frag ip, foss, occ trnsl brn gy Cht & wh clr xln Calc, tr scat f ool, no vis por, mott fnt-mod yelgld mnrl flor.

LS (60%) aa, grny-gran ip, occ scat f ool / spar-micritic mtx, tr xln Calc & mic Pyr, no vis-vp intool/ intxln por (<8%), SH (40%) v dkgy, v frm, sbblky-sbplty-splty, sl calc, carb ip, sl slty ip, tr mic Pyr, NSOF w/ fr mlky cuts.

LS (50%) aa, occ vf-f xln, occ vf-f ool / crp-vf xln mtx, slty ip, sl dolic ip, NSOC w/ mod-fnt yelgld flor. SH (50%) as above.

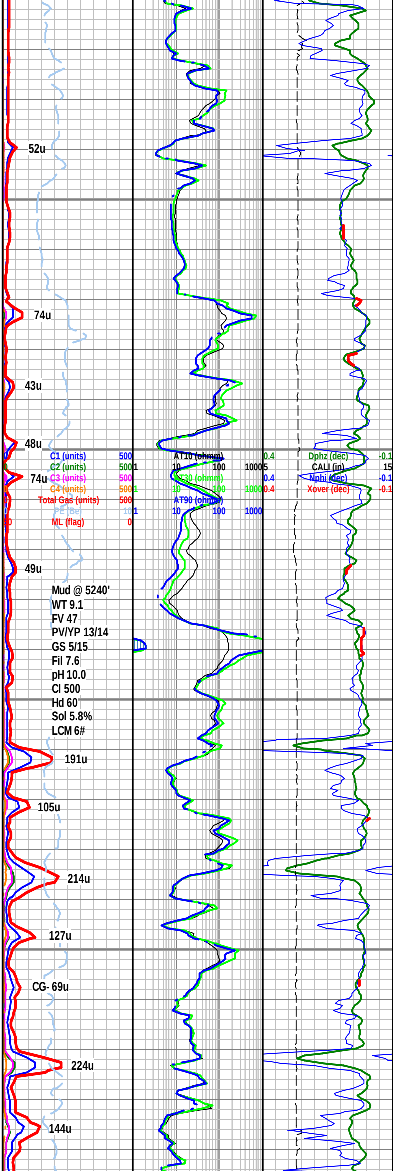
LS (80%) crm tan ltbrn lt-mgy, frm, mic-vf xln, sl-mod chky ip, grny ip, sl foss, tt .3-1 mm ool ip / crp-vf xln mtx, sl arg ip, tr xln Calc, no vis intxln por, vp vis int ool por / tr-10%, pred NSOC w/ mott fnt-mod yelgld mnrl flor, occ v wk mlky cuts. SH (20%).

LS (70%) aa, bcmg dns crp-mic xln ip, dkgy dkbrn Cht com. SH (30%) m-dkgy, frm, blky-sbplty-splty.

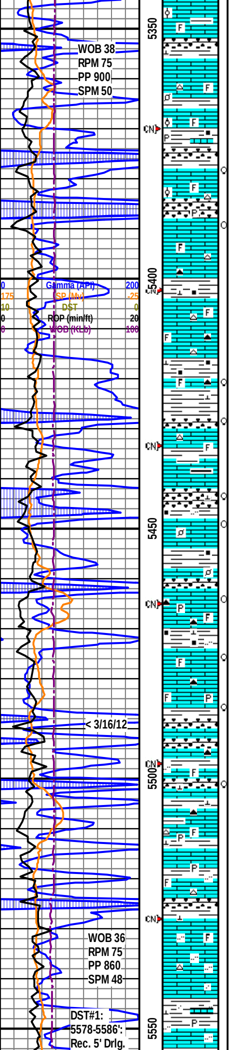
SH (60%) dk-v dk-mgy, frm-brit, ireg-sbplty-splty, calc, carb, NSOF w/ gd strmg wh cut. LS (40%).

LS (90%) ltgy crm tan brn, frm-vf frm, crp-mic xln, chky, foss ip, occ scat vf ool, tr mic Pyr, no vis por, pred NSOC w/ mod-fnt yelgld mnrl flor, occ v wk mlky cuts. SH (10%).

LS (70%) aa, grny ip, tr brn Cht. SH (30%) dk-v dkgy, frm-v frm, splty-sbplty-ireg, rthy-sm txt, calc, carb ip, NSOF / wk mlky cuts.



Mud @ 5240'
WT 9.1
FV 47
PV/YP 13/14
GS 5/15
Fil 7.6
pH 10.0
Cl 500
Hd 60
Sol 5.8%
LCM 6#



LS (75%) crm tan gybrn brn, frm-hd, mic-vf xln, chky ip, grny ip, foss, scat f ooids/pelts, tr Cht & mic Pyr, no vis por, NSOC w/ fnt tr mod yelgld mnrl flor.
SH (25%) dk-m-vdkgy, frm-sft-brit, ireg-sbplty-splty, calc, carb ip, NSOF w/ occ wk-fr mlky cuts.

SH (40%) vdk-dk-mgy, frm-brit-v frm, sbplty-ireg-flky, calc-sl calc, carb / occ plnt remn, tr-occ mic/dism Pyr, NSOF w/ fr-gd strmg cuts. LS (60%) ltgy tan crm brn mgy, mott ip, frm, mic-vf xln, chky ip, grny ip, foss, scat f ool, tr Cht & mic Pyr, no vis por, NSOC w/ fnt tr mod yelgld mnrl flor.

LS (65%) lt-mgy gybrn tan, mott ip, frm, mic-crp xln, dns, pred arg, sl foss, sl chky ip, occ dkgy tan brn trnsl Cht, no vis por, NSOC w/ occ mod-fnt yelgld mnrl flor. SH (35%) dk-m-v dkgy, frm-brit, sbplty-ireg-splty-plty, calc, carb ip, NSOF / p hzy wh cuts.

LS (65%) aa, bcmg frag vf xln ip. SH (35%).

ATOKA - 5416' (-843)

SH (65%) dk-v dkgy, frm-brit, sbplty-sbblky-splty-plty, v calc, rthy-slty txt, carb ip, NSOF / p-fr strmg bluwh cut. LS (35%).

LS (50%) ltbrn tan crm lt-mgy, frm, mic-vf-crp xln, chky ip, grny ip, sl foss, tr Cht, no vis por, NSOC / fnt yelgld mnrl flor. SH (50%) as above, tr gn slty-sbwxy.

LS 60%) lt-mgy gybrn crm dkgy dkbrn, frm, mic-crp xln, sl-mod chky, dns, sl foss, occ mgy pelt, tr mic Pyr, no vis por, NSOC w/ occ fnt yelgld mnrl flor. SH (40%) dkgy, frm, blky-ireg-sbplty, calc, carb ip, sl slty ip, NSOF w/ fr-gd strmg cuts / occ m-ltgy v slty,

LS (80%) lt-m-dk gy, ltbrn crm tan, mott, frm, mic-vf-crp xln, sbchky, arg ip, foss, tr-occ dkgy Cht, tr mic Pyr, no vis por, pred NSOC w/ tr-occ fnt-mod yelgld flor, occ v wk mlky cut. SH dk-vdk-m gy, blk, frm-sft-brit, ireg-splty, calc, carb ip, slty ip, tr mic Pyr, NSOF / p-fr strmg & fr mlky cuts.

LS (70%) lt-mgy crm ltbrn, frm, mic xln, sbchky, slty, foss ip, occ sl arg, tr-occ dk Cht, tr mic Pyr, NSOC w/ occ fnt yelgld mnrl flor.
SH (30%) dkgy, frm, sbplty-ireg-splty, calc, carb ip, slty ip, occ mic Pyr, NSOC w/ vp-fr strmg bluwh cuts. BENT (Tr) blugy, frm, sbwxy.

LS (80%) crm tan ltbrn wh, frm-hd, mic-vf xln, occ plty, sl chky ip, slty ip, foss ip, occ m-dkgy brn Cht, no vis-vp intxln por, NSOC / occ fnt yelgld mnrl flor. SH (20%) as above.

LS (80%) as above / mott m-dkgy wh, abnt Cht, slty ip, occ mic Pyr. SH (20%) dk-m gy, tr silv.

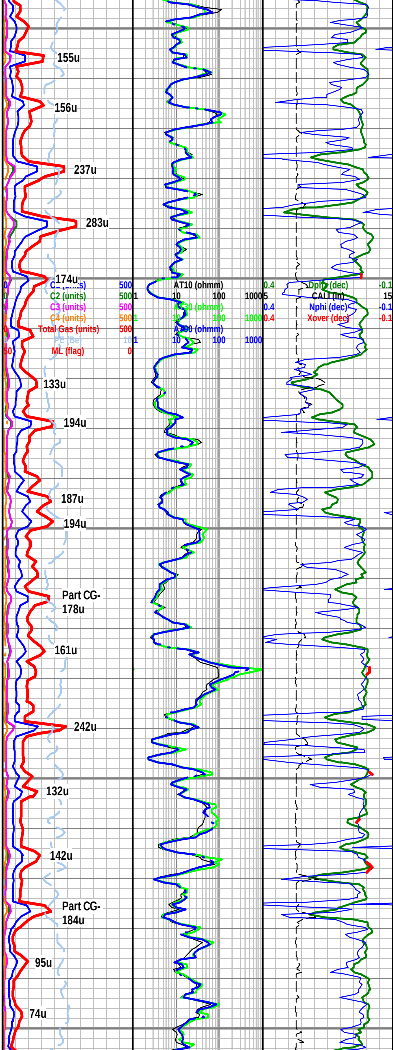
LS (85%) crm ltbrn tan, frm, mic xln, sbchky, indist foss ip, occ trnsl Cht, tr mic Pyr, no vis por, NSOC w/ occ fnt yelgld mnrl flor.
SH (15%) aa w/ m-ltgy gybrn, frm-sft, sbblky, rthy-slty txt, calc, NSOFC.

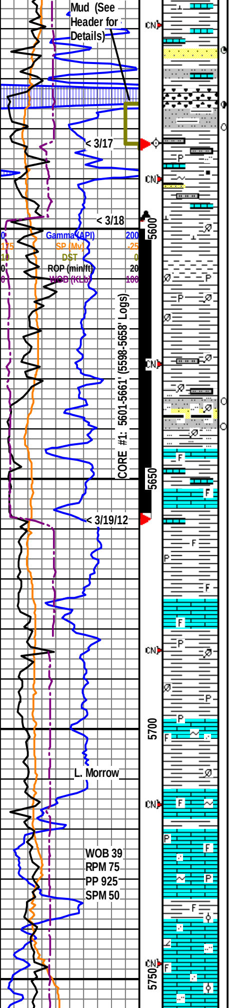
LS (70%). SH (30%) m-dkgy, occ gybrn, mott mgy/gn, frm-brit-sft, sbplty-splty, rthy-sl slty-sbchky, txt, sl-mod-non calc, slty ip, mic mica ip.

LS (65%) mott m-dk-ltgy, crm wh tan, frm, mic xln, chky, arg ip / occ Sh ptgs, slty ip, tr sdy, tr-occ Cht, tr Pyr, no vis por, NSOC / tr fnt gld mnrl flor.
SH (35%) dk-m gy, tr brn ltgy, aa, slty-sdy ip, tr-occ mic Pyr.

Mud @ 5555' WT 9.2 FV 48 PV/YP 15/13 GS 6/18
Fil 7.6 pH 10.0 Cl 550 Hd 80 Sol 6.5% LCM 4#

SH (40%) dk-mgy, occ ltgy, tr gn, frm-fri-vfrm, sbplty-sbblky, clc, slty, sdy ip, tr Slt & slty vf gr SS strgs, carb ip.





Very Little From Show Interval Seen in Samples:

MORROW - 5572' (-999)

SS (RR) trnsl ltgy brn, lse-v fri, Uvf-Lf gr, sbang- sbrnd, arg ip, rr hvy brn stn, fst strmg-wk mlky cuts.

SS (Tr) ltbrn, trnsl. m-ltgy, lse grs-v fri, Uvf-Lm gr, ang-sb ang , mod srt, p Sil cmt / tr ovgth, slty ip, sme cly fill ip, pred Qtz grs/occ carb Sh grs, fr vis por (10-15%), v wk yel flor, p mlky cut. LS Frags (<20%) brn, mic-crp xln, hvy brn stn, dull yel flor, imed yelwh cut.

Survey @ 5586'- Inc 0.58°

SH (80%) m-dk-ltgy gn gybrn, sft-frm, plty-splty, sbchky-sbwxy, non-sl calc, occ ltgy gn Slt strgs & ptgs, tr carb ptgs micPyr glau. LS (20%). SS (Tr) ltgy ltgn, fri, slty vf, tr vf-f gr, sbang, mod srt, Sil, cly fld, occ dk Sh grs, no vis por/perm, NSOFC.

TOH for Core #1 at 5601'. Bit #4: 7 7/8" x 4" NOV CCPR 713S. Cut 60', Rec. 100%. See Bottom of Log for Detailed Description.

SH dkgy, frm, fiss, rthy, sl calc, scat mic mica, sl slty ip, tr plnt remn.

CLYSTN mgy, frm-brit, ireg-splty, sbwxy, non calc, sl slty ip, tr slksds.

SH dkgy, brit-hd, flky-sbfiss, non calc, scat mic mica, occ plnt remn & mic Pyr.

SH m dkgy, vfrm-brit, sbfiss, sm, non calc, clayey grdg-Clystn, rr plnt remn.

SH bcmg v slty (grdg-vf Sltst), non calc, tr plnt remn (pyr ip), NSOF, p-fr mlky cuts, wk resd.

SS/SLTST dk-m gy, v frm-brit, vf Slt-L vf gr Ss, occ scat u vf-tr f grs, non calc, tt, scat plnt remn, no vis por/perm, NSOF, fr mlky-vp strmg yel cuts, wk resd ring. Coal (5641') blk, brit, sbvit, fast strmg cuts.

SH m dkgy, brit, fiss-sbfiss, non calc, scat vf mic mica, sl slty ip.

SH/LS dkgy, v frm, ireg, slty-rthy txt, calc grdg-arg Ls, scat Fos frags, tr carb matr, rr gn mnrls.

SH m-mdkgy, frm, sbwxy, non calc, cly grdg-Clyst.

SH/CLYST mgy, brit-v frm, mass, sbwxy, occ slksds.

LS dk-m gy, hd, mic xln, dns, foss ip, NSOFC.

RR Bit #3.

SH (80%) dkgy, occ mgy gngy brngy, frm, plty-sbplty, rthy-sm-sbwxy, calc ip, scat mic mica, slty ip / tr Slt strgs, tr sdy, tr lnoc. LS (20%) ltbrn crm, frm, mic-vf xln, sbchky, foss ip, NSOFC.

SH (75%) as above, occ plnt remn, tr Pyr. LS (25%) crm ltbrn offwh, frm, mic-vf xln, pred dns sbchky, grny-gran ip, foss ip, pred NSOFC / tr yel mnrl flor.

SH (75%) dk-mgy, frm, plty-splty, sm-rthy txt, sl-non calc, scat mic mica, tr-occ plnt remn/carb matr.
LS (25%) ltbrn crm, mic-vf-f xln, chky ip, foss ip, sdy ip, tr glau & Pyr, no vis-vp intxln por, NSOC / tr yel mnrl flor.
SS (Tr) ltgy brn, frm-fri, Lf-Um gr, ang-sbang, p srt, sl calc, occ glau, occ Ls ptgs, NSOFC.

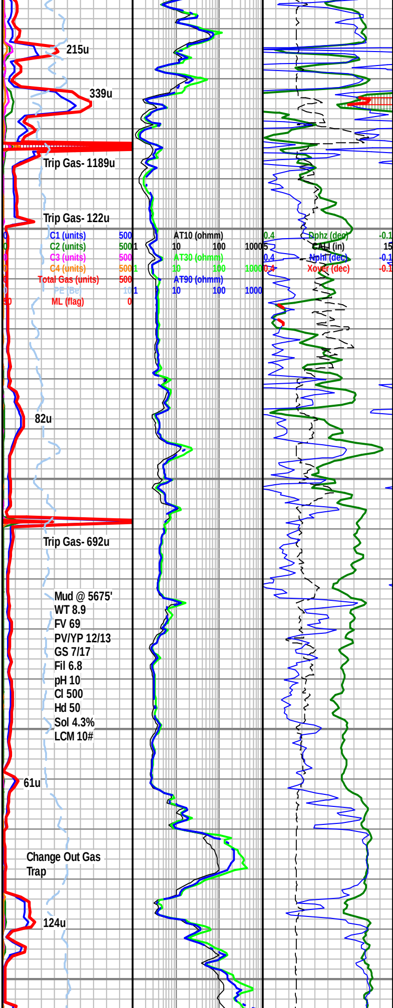
ST. LOUIS - 5720' (-1147)

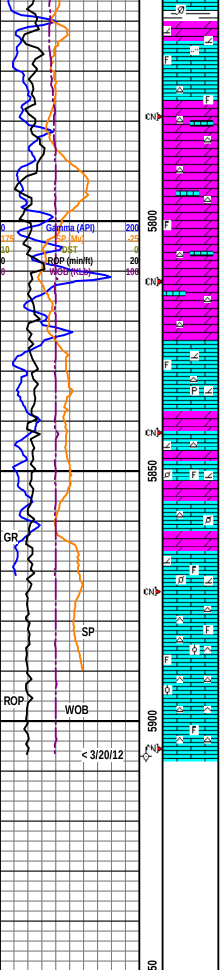
LS (60%) crm ltbrn offwh gy, frm, vf-f-mic xln, chky ip, grny-gran-sucr ip, indist foss, sdy ip, occ dk Sh ptgs, occ mic/dism Pyr, no vis-vp intxln por, NSOC / occ fnt-mod yel mnrl flor. SH (40%) as above.

LS (70%) crm offwh tan, frm, vf-f xln, chky ip, grny-gran ip, indist foss, tr dist f ool, occ xln Calc, tr f gr Ss strgs & glau, NSOC / occ fnt yelgld mnrl flor. SH (30%).

LS (65%) as above, sl dolic ip, occ fnt-mod yel mnrl flor.

LS (60%) crm offwh ltgy, frm, mic-vf xln, chky, grny ip, indist foss, slty-sdy ip, occ xln Calc, occ f dist ool, no vis-vp intxln por, NSOC / occ fnt-mod yel mnrl flor. SH (40%) dkgy, occ mgy gngy, frm, plty-splty, rthy-sm, non-sl calc, mic mica ip, occ carb matr/plnt remn.





LS (80%) as above, pred dns, crp xln ip.
SH (20%) as above, tr gn lt-mgy sbwxy Clyst.

SPERGEN - 5758' (-1185)

LS (70%) crm offwh, occ ltgy ltbrn, frm, mic-vf xln, chky ip, grny-vf sucr ip, dolic ip, sl foss, occ slty tr xln Calc & mlky trnsl Cht, vp-no vis por (<8%), NSOC / mod-fnt yel mnrl flor. SH (20%). DOL (10%) brn ltgy, vfrm, dns crpxln ip, grny-mic sucr ip, no vis por, NSOC / mod yel mnrl flor.

As above, trnsl mlky orng Cht com.

DOL (20%) brn ltgy, frm-vfrm, vf-f-mic sucr, tr xln Calc fld frac, vp-fr vis por (6-12%), NSOC w/ occ fnt-mod yel mnrl flor. LS (60%). SH (20%).

DOL 60%) brn, occ m-ltgy, as above, pred vf-f-mic sucr, dns grny mic xln ip, NSOC w/ pred no vis-fnt yelgld mnrl flor, por est 8-10%, occ mod-brt yel mnrl flor. LS (20%) crm tan wh, crp-mic xln, occ mlky trnsl Cht & xln Calc. SH (20%).

DOL (50%) as above, occ lt-mgy tan, dns sbchky mic xln, arg ip. LS (30%) crm tan lt-mgy, frm, mic xln, sbchky, dolic ip, sl foss, occ mlky Cht, NSOC w/ occ fnt-mod yel mnrl flor. SH (20%) dkgy blk, frm, sbplty-plty-splty, sl calc, carb ip, tr dism/mic Pyr w/ mgy plty micmica.

LS (50%) lt-mgy wh crm gybrn, mott ip, frm, mic-vf-crp xln, sl-v chky ip, occ dolic, sl foss ip, occ Cht, tr mic Pyr, no vis por, NSOC w/ occ mod-fnt yelgld mnrl flor. DOL (40%) lt-mgy brn wh, frm-v frm, grny-mic/vf sucr, arg ip, no vis-vp por, NSOC/no vis-fnt-mod yel mnrl flor. SH (10%).

LS (40%). DOL (40%). SH (20%).

LS (65%) wh m-ltgy crm tan ltbrn, mott ip, frm-v frm, mic-f xln, gran ip, dolic ip, chky-sbchky / occ wh Chk stks & incl, foss / occ mgy pelt & arg stks, tr sdy, tr mlky Cht, no vis-vp intxln por (<8%) NSOC / occ fnt-mod yel mnrl flor. DOL (25%) brn ltgy, frm, pred grny-mic sucr, tr sucr, no vis -vp por, occ fnt yelgld mnrl flor. SH (10%) dk-mgy, frm, splty-plty, sm-rthy txt, sl calc, occ scat carb matr & mic plnt remn.

LS (60%) crm tan gy brn offwh, mott ip, frm-fri-v frm, vf-f-mic xln, chky ip, Sil ip, scat f-c Qtz sd grs, indist foss, tr Cht, no vis-vp intxln por, NSOC / occ fnt-mod yel mnrl flor. DOL (30%). SH (10%).

LS (60%) as above, occ xln Calc & trnsl tan mlky Cht, occ dist ool, <8% vis por. DOL (20%) brn ltgy, frm, grny-mic sucr, tr vf sucr. SH (20%) dkgy, plty-splty, mic mica.

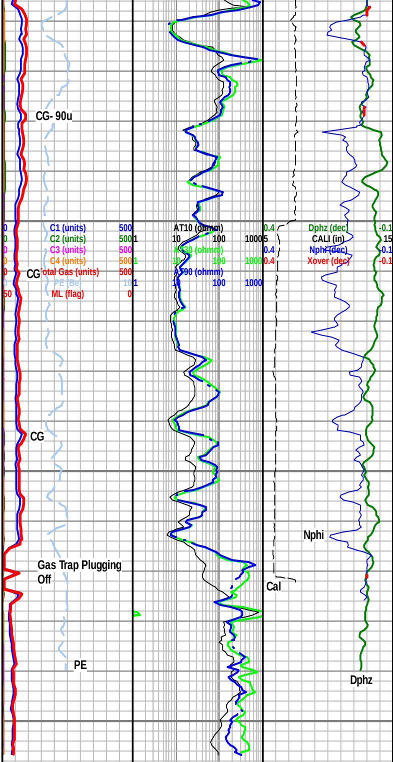
LS (75%) crm offwh tan, frm-fri-v frm, mic-vf-f xln, sl chky ip, grny-gran ip, Sil ip, mlky trnsl ltgy Cht com, indist foss, no vis-vp intxln por, NSOC / tr fnt yel mnrl flor. DOL (15%) brn, vfrm-frm, pred dns sl grny, mic sucr ip, sl arg ip, no vis por, NSOC / occ fnt gld mnrl flor. SH (10%) dk-v dkgy, tr gn, plty-splty-sbplty, sm-rthy, non-sl calc, vf mic mica ip.

Survey @ 5910'- Inc 0.63°

Reach TD at 23:00 3/19/12. Circ. BU, 6 Std. Short Trip, Circ. 90 min., TOH for Logs.

Drillers TD: 5910'
Loggers TD: 5907'

Formation Log Tops:
Shawnee- 4534' (+39)



Mud @ 5910'
WT 9.2
FV 69
PV/YP 20/14
GS 7/23
Fil 7.2
pH 10
Cl 500
Ca 60
Sol 6.5%
LCM 10#

0	Gamma (API)	200
175	SP (Mv)	-25
10	DST	0
0	ROP (min/ft)	20
0	WOB (KLb)	100

59

6000

6050

6100

50

Lansing Kansas City- 4790' (-217)
Marmaton- 5111' (-538)
Pawnee- 5170' (-597)
Ft. Scott- 5205' (-632)
Cherokee- 5258' (-685)
Atoka- 5416' (-843)
Morrow- 5572' (-999)
Lower Morrow- 5712' (-1139)
St. Louis- 5720' (-1147)
Spergen- 5758' (-1185)

Core #1 5601-5661'- Core Chip Descriptions:

5601', 5604' SH dkgy, frm, fiss, rthy, sl calc, scat mic mica, sl slty ip, tr plnt remn.

5607' CLYST mgy, frm, ireg-splty, sbwxy, non calc.

5610' CLYST m dkgy, brit, sl slty ip, tr slksds.

5613' SH dkgy, brit, flky, non calc, scat mic mica, occ plnt remn & mic Pyr.

5616' SH dkgy, hd, sbfiss-fiss, sm, non calc, scat mic mica, tr plnt remn & mic Pyr.

5622' SH m dkgy, vfrm-brit, sbfiss, sm, non calc, clayey grdg-Clystn, rr plnt remn.

5625' SH as above, frm-brit, fiss-flky.

5628', 5631' SH m dkgy, v frm-hd, fiss, sm, non calc, rr plnt remn.

5634' SH dkgy, brit-v frm, splty-ireg, sbwxy, non calc, mass, scat vf mic mica.

5637' SH bcmg v slty (grdg-vf Sltst), non calc, tr plnt remn (pyr ip), NSOF, p-fr mlky cuts, wk resd.

5640' SS/SLTST dk-m gy, v frm-brit, vf Slt-L vf gr Ss, occ scat u vf-tr f grs, non ca;lc, tt, scat plnt remn, no vis por/perm, NSOF, fr mlky-vp strmg yel cuts, wk resd ring.

5641' COAL blk, brit, sbvit, fast strmg yelwh cuts.

5643' SLTST/SLTY SH dkgy, v frm-brit, v slty-sbwxy txt, non calc, occ scat vf gr Sd grs, occ plnt remn & mic Pyr, tr mic fracs, NSOF, vp mlky cuts, wk resd ring.

5646' SH m dkgy, brit, fiss-sbfiss, non calc, scat vf mic mica, sl slty ip.

5649' SH/LS dkgy, v frm, ireg, slty-rthy txt, calc grdg-arg Ls, scat Fos frags, tr carb matr, rr gn mnrls.

5652' SH mgy, frm, sbwxy, non calc, cly grdg-Clyst.

5655' m dkgy, hd, sbfis, rthy, sl slty, scat mic mica.

5658' SH/CLYST mgy, brit-v frm, mass, sbwxy, occ slksds.

5660', 5661' LS dk-m gy, hd, mic xln, dns, foss ip, NSOFC.

Thank You!

Mike Dodge

**Goolsby Brothers &
Associates, Inc.**

0	C1 (units)	500
0	C2 (units)	500
0	C3 (units)	500
0	C4 (units)	500
0	Total Gas (units)	500
0	PE (Be)	10
50	ML (flag)	0

AT10 (ohmm)				
1	10	100	1000	
AT30 (ohmm)				
1	10	100	1000	
AT90 (ohmm)				
1	10	100	1000	

0.4	Dphz (dec)	-0.1
5	CALI (in)	15
0.4	Nphi (dec)	-0.1
0.4	Xover (dec)	-0.1