

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: VINCENT OIL CORP. MARFAM #3-32
Location: W/2 SE NE NW SEC. 32, T 29S, R 24W, FORD CO. KANSAS
License Number: 15-057-20935-00-00
Spud Date: JULY 7th, 2014
Surface Coordinates: 990' FNL, 2,080' FWL
Region: FAGER EAST
Drilling Completed: JULY 18th, 2014

Bottom Hole Coordinates:

Ground Elevation (ft): 2,573' K.B. Elevation (ft): 2,585'
Logged Interval (ft): 4,250' To: 5,467' Total Depth (ft): 5,467'
Formation: MISSISSIPPI
Type of Drilling Fluid: NATIVE MUD TO 3,798'. CHEMICAL GEL TO RTD

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: VINCENT OIL CORP.
Address: 155 N. MARKET STE 700
WICHITA, KANSAS 67202-1821
OFFICE; 316-262-3573

GEOLOGIST

Name: Jame R. Hall Well Site Supervision
Company: Black Gold Petroleum
Address: 5530 N. Sedgwick
Wichita, Kansas 67204-1828
316-838-2574

Comments

Drilling contractor: Duke Drilling, Rig #1, Tool Pusher Mike Godfrey.

Surface Casing: 8 5/8" set at 648' w/250sx, cement, did circulate.

Daily Activity:

7/08/14; 456' drilling 12 1/4" hole.

7/09/14; 1,280' drilling 7 7/8" hole.

7/10/14; 2,675' drilling ahead.

7/11/14; 3,483' drilling ahead.

7/12/14; 4,203' drilling ahead.

7/13/14; 4,806' drilling ahead, bit trip @ 4,918' and strap pipe (3.05' short to the board).

7/14/14; 5,073' drilling ahead.

7/15/14; 5,294' drilling ahead. ran DST #1.

7/16/14; 5,353' circulating samples. ran DST #2.

7/17/14; 5,372' running DST #3.

7/18/14; 5,467' RTD, run open hole logs and commence DST #4 .

7/19/14; well was P&A, with cement plugs.

Deviation Surveys: 1 deg. @ 649', 1 deg. @ 1,214', 1 deg. @ 1,750', 3/4 deg. @ 2,411', 1 deg. @ 2,914', 0.75 deg @ 4,918', 1 deg. @ 5,332', 1 deg. @ 5,467'.

Bit Record:

#1 12 1/4" out @ 649'.

#2 7 7/8" Veral HE 21 in @ 649', out @ 4,918', made 4,269' in 85.5 hrs.

#3 7 7/8" RR Veral HE 31 in @ 4,918', out @ 5,332', made 414' in 31.5 hrs.

#4 7 7/8" RR Veral HE 29 in @ 5,332', out @ 5,467', made 135' in 8.25hrs.

Drilling time commenced: @ 4,250'. Maximum 10' wet and dry samples commenced: @ 4,300' to RTD. Samples delivered to Kansas Geological Sample Library at Wichita, Kansas.

Gas Detector: Blue Stem unit #0779. Digital Unit, commenced @ 4,200', (gas readings not until 4,353').

Mud System: Mud-Co/Service Mud. Chemical Gel system @ 3,798', Mud Engineer: Justin Whiting (Dodge City Office).

Testing: Trilobite Testing Inc. Hays, Kansas. Tester: Mattheu Smith (Pratt Office).

Open Hole Logs: Nabors Completion & Production Services, Hays, Kansas,

Logging Engineer: Jeff Groneweg.

DIL, CDL/CNL/PE (detail 4,250' - 5,465'), MICRO/SON. MICRO (detail 4,250' - 5,465'), SONIC (detail 646' - 5,465').

Sample tops are placed on this strip log, with the reference wells "A" Vincent Marfam #1-32 NE NW 32-T29S-R24W, and "B" Vincent Dufford #2-32 NW NE 32-T29S-R24W. E-log tops datum differences shown. See attached E-log Tops Sheet, for final Top Picks and datum differences.

The (3' downward shifted) E-Log gamma ray and caliper were placed on this Sample Strip Log for better correlation. The E-log TD and Sample Strip log RTD were the same, however the E-log correlation points were 3' shallow to the drilling time correlation points.

DSTs

DST #1 (Morrow), 5,270' - 5,332' (62'); 19-45-45-60, IH 2754, IF 81-378 (weak 1/4" blow dead in 13min), ISI 645 (no blow), FF 56-193 (3" blow in 2min, 1 3/4" blow in 18min, 1/2" blow in 45min). FSI 224 (no blow), FH 2646, Rec; 15' drilling mud, Chl 7,400ppm, BHT 116 deg. F.

DST #2 (Miss.), 5,268' - 5,372' (104'); 45-90-90-120, IH 2778, IF 848-286 (BOB 1min, GTS 15min, 20" 730mcf, 30" 609mcf, 40" 474mcf, 45" 459mcf), ISI 1266 (no blow), FF 394-189 (BOB imd, GTS imd. 10" 740mcf, 20" 552mcf, 30" 474mcf, 40" 313mcf, 50min 459mcf, 60" 349mcf, 70" 245mcf, 80" 252mcf, 90" 238mcf). FSI 1054 (weak surface blow in 53"), FH 2640, Rec; 4,954' GIP, 62' gcm (2%gas,98%mud,trace oil), 62' gocm (65%gas,1%oil,34%mud), 62' gocm 15%gas,4%oil,81%mud), 62' gocm (20%gas,5%oil,75%mud), 62' gocm (28%gas,12%oil,60%mud), BHT 113 deg. F

DST #3 (Miss.) 5,333' - 5,372' (39') 70-90-100-150, IH 2630, IF 437-118 (BOB 20sec., GTS 16min, 20" 1,021mcf, 30" 552mcf, 40" 349mcf, 50" 232mcf, 60" 225mcf, 70" 211mcf), ISI (bleed off in 23min, weak surface blow), FF 134-53 (BOB & GTS immd., 10" 326mcf, 20" 286mcf, 30" 232mcf, 40' 198mcf, 50" 178mcf, 60" 171mcf, 70" 164mcf, 80" 157mcf, 90" 151mcf, 100' 144mcf), FSI 862 (bleed off in 15min, weak surface blow), FH 2554, Rec; 5,207' GIP, 118 total fluid; 56' gowcm (2% gas, 35% oil, 3% water, 60% mud), 31' gowcm (25% gas, 67% oil, 3% water, 5% mud), 31' gowcm (28% gas, 62% oil, 5% water, 5% mud), BHT 114 deg. F.

DST #4 (Miss) 5,380' - 5467' (87'), 15-30-11-15, IH 2752, IF 20-22 (weak surface blow, dead in 3.5"), ISI 855 (no blow), FF 23-26 (no blow, flush tool, weak surface blow, dead in 3.5"), FSI 127 (no blow), FH 2744. Rec; 20' mud with trace of oil (100% mud), BHT 118 deg. F.

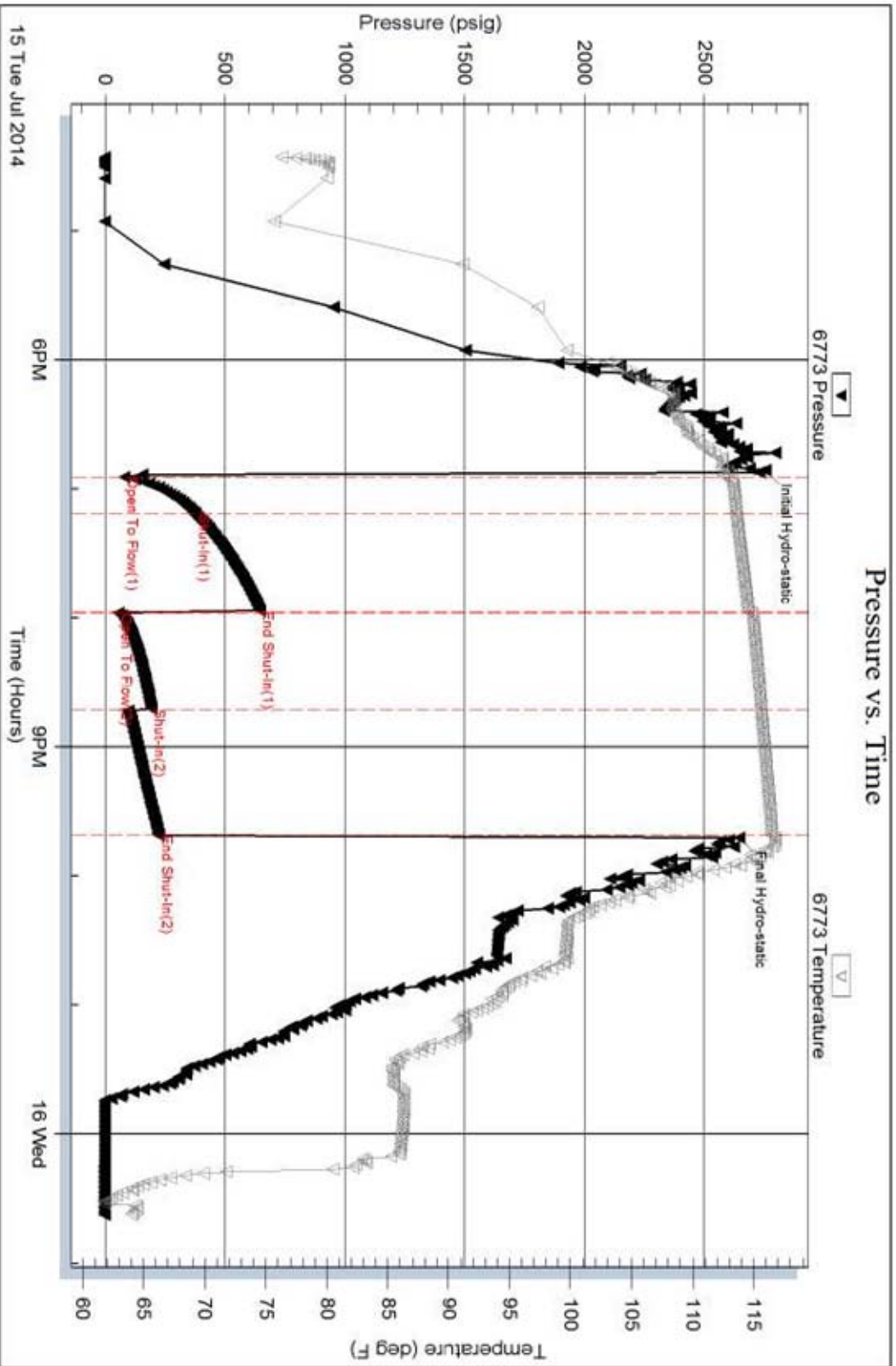
Serial #: 6773

Outside Vincent Oil Corporation

Marfan #3-32

DST Test Number: 1

Pressure vs. Time



Trioble Testing, Inc

Ref. No: 54199

Printed: 2014.07.16 @ 08:06:46

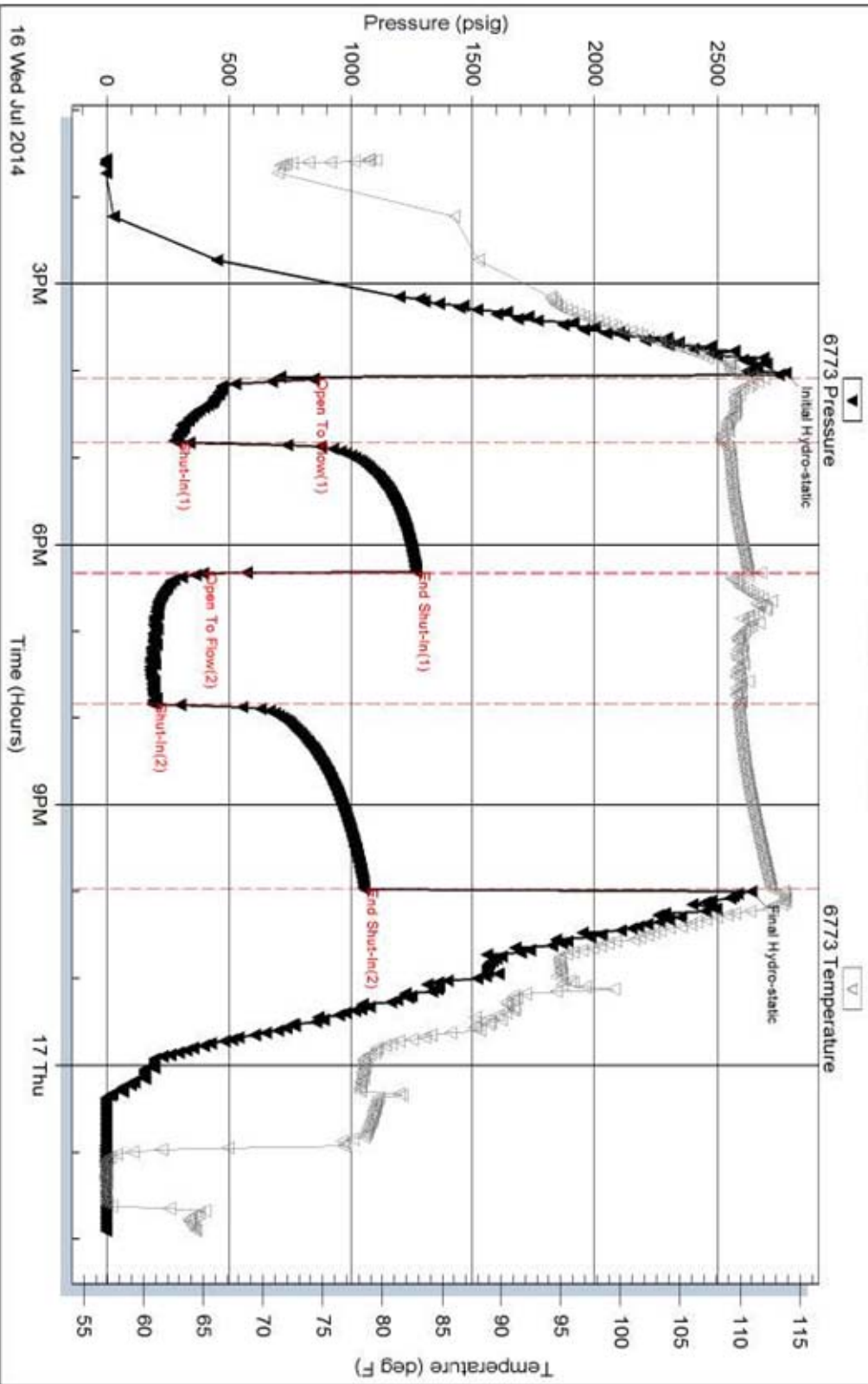
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Outside Vincent Oil Corporation

Marfan #3-32

DST Test Number: 2

Pressure vs. Time

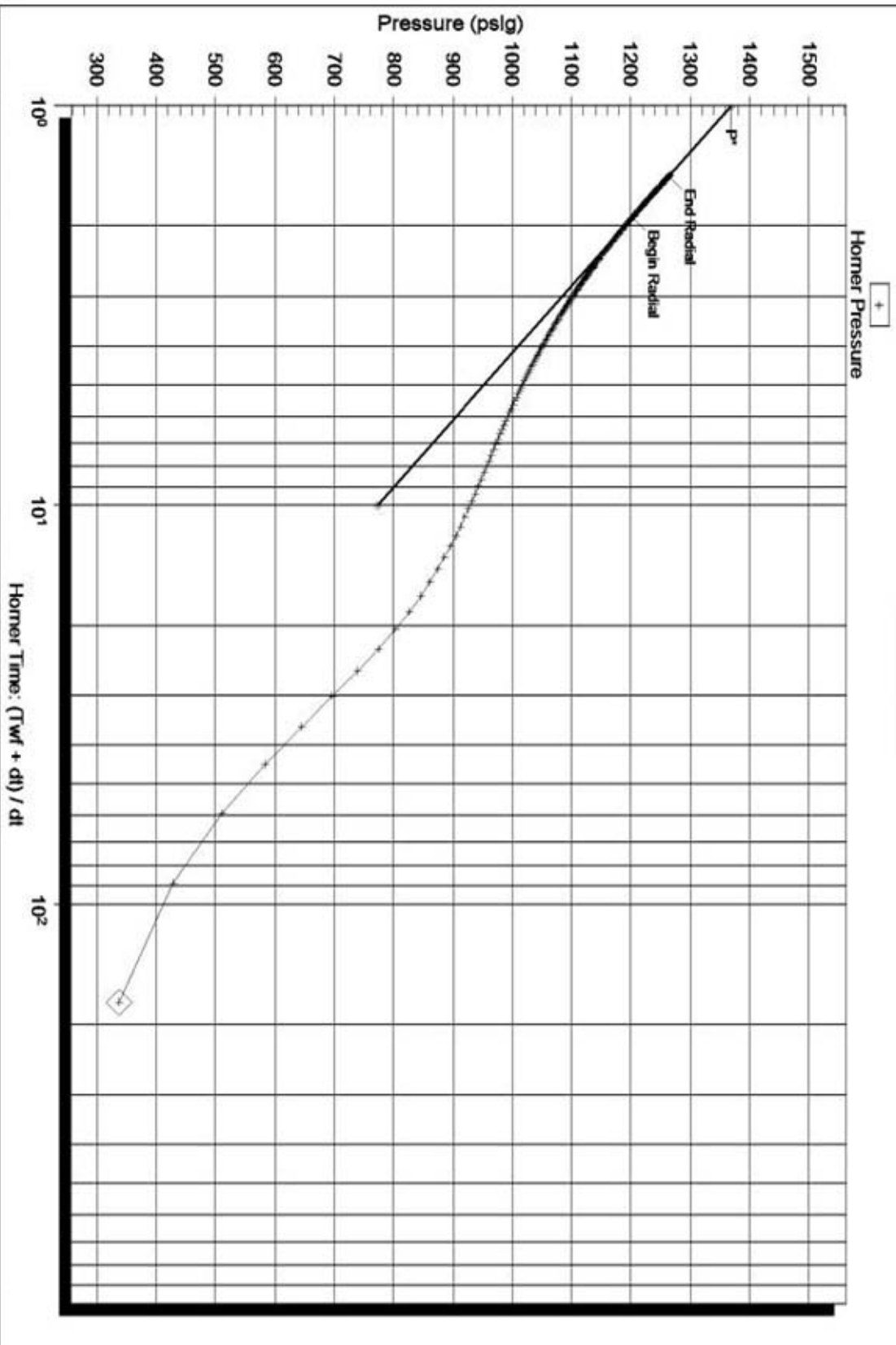


Triobite Testing, Inc

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Horner Plot



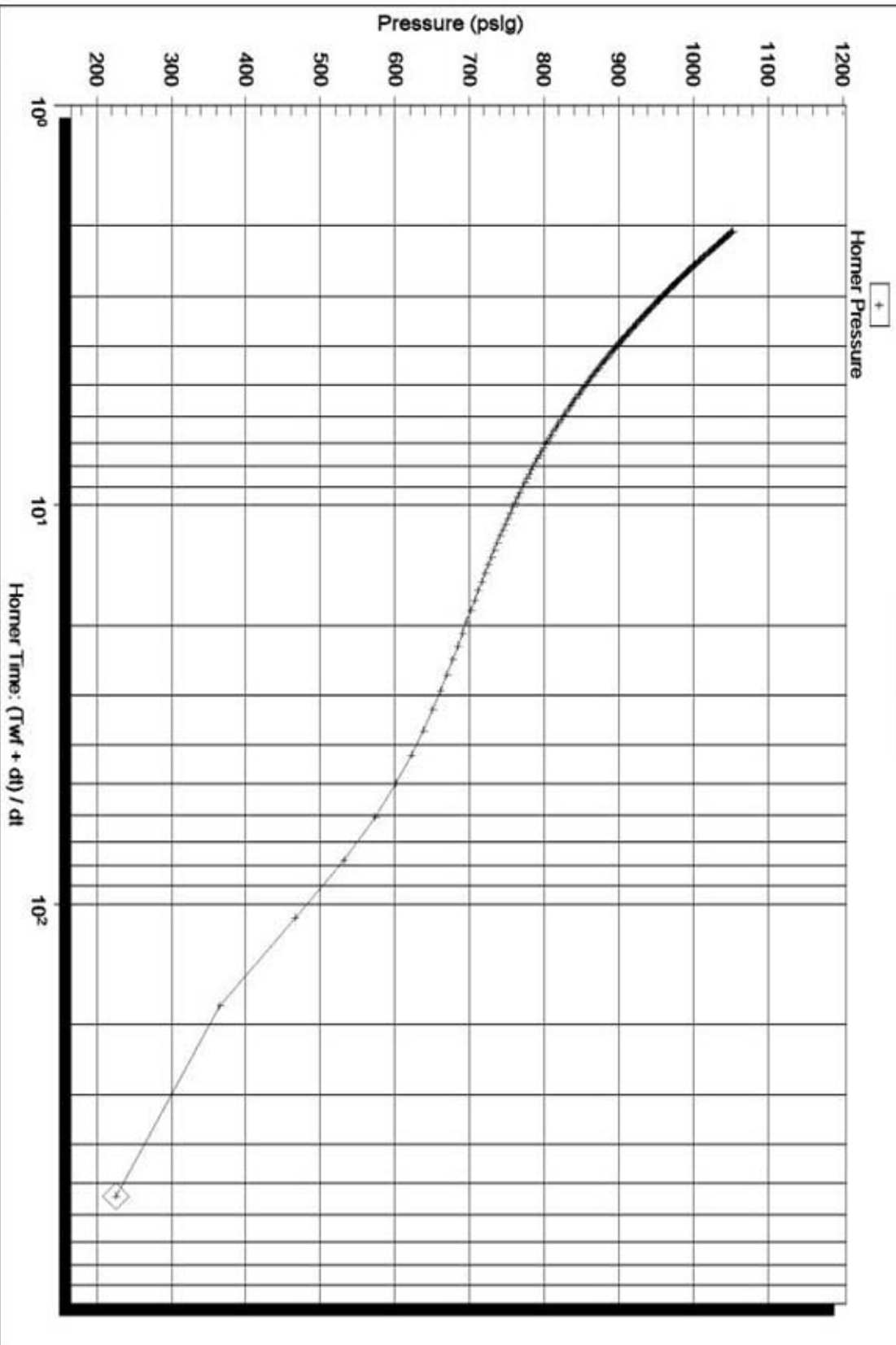
Serial Number: 6773 (Outside)

p* : 1368.96

Slope (m) : 596.29 kpa/log cycle

Flow Cycle: 1

Horner Plot



Serial Number: 6773 (Outside)

P* :

Slope (m) : kpa/log cycle

Flow Cycle: 2

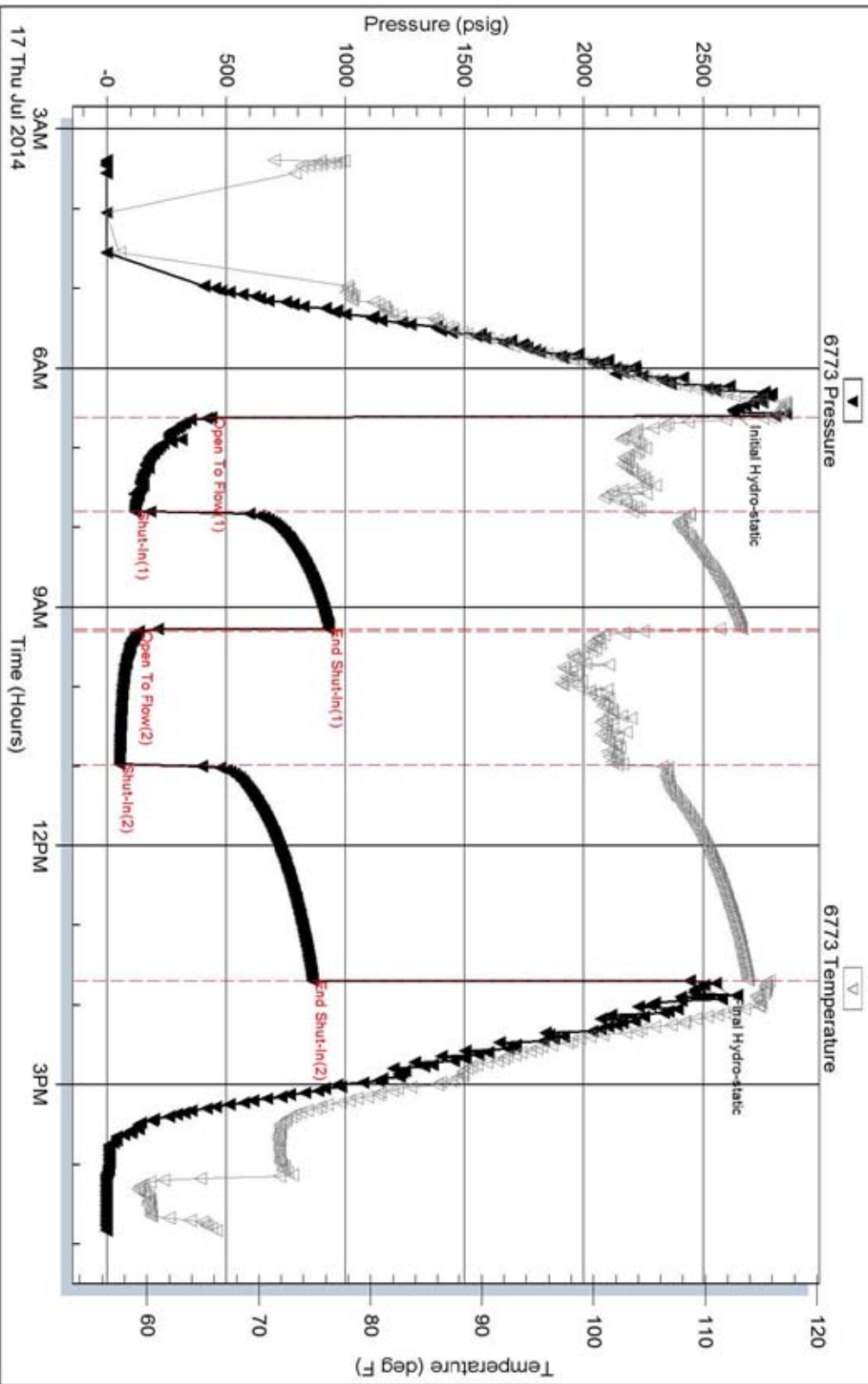
Serial #: 6773

Outside Vincent Oil Corporation

Marfan#3-32

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

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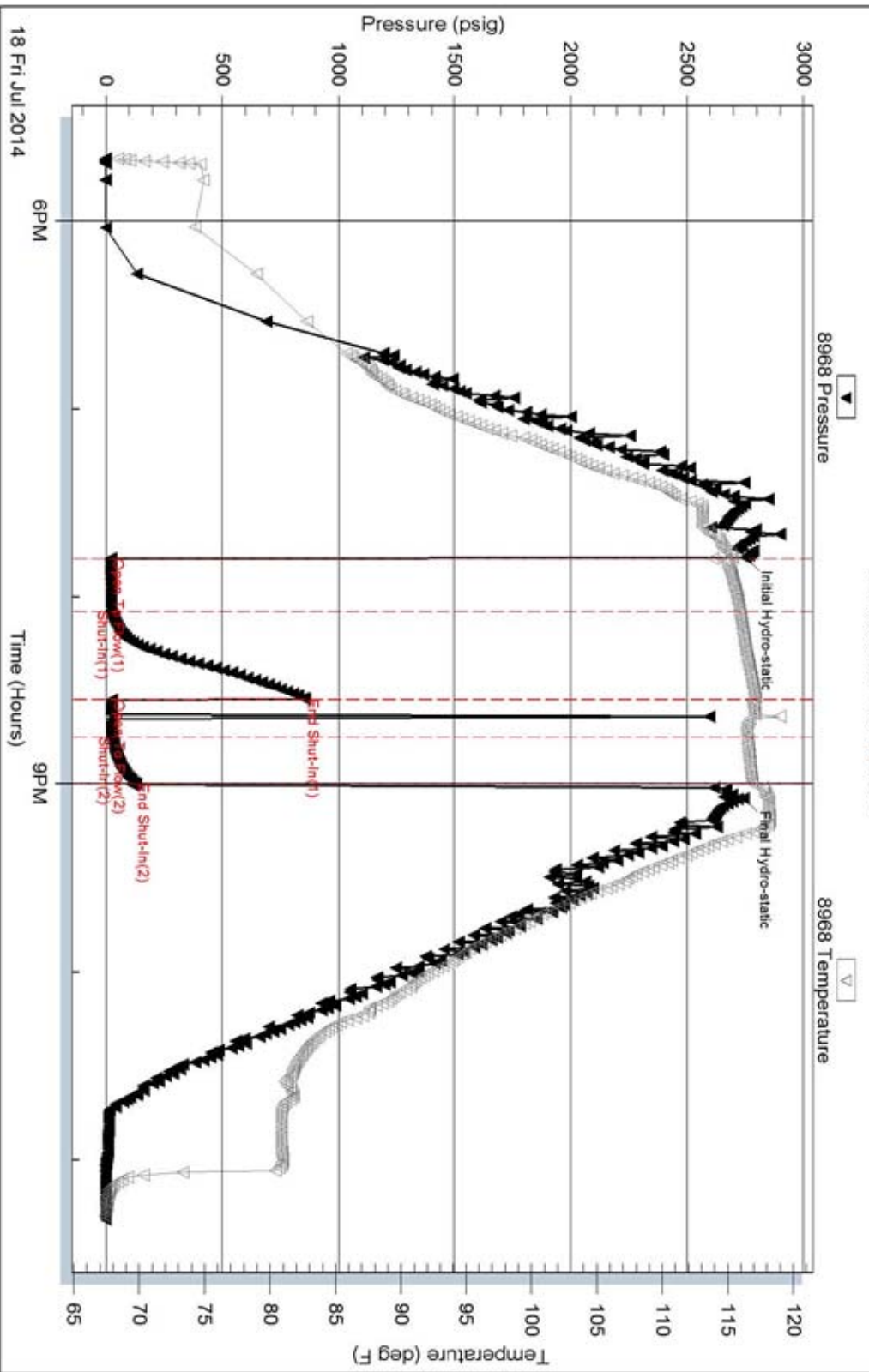
Serial #: 8968

Outside Vincent Oil Corporation

Marfan#3-32

DST Test Number: 4

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 56552

Printed: 2014.07.19 @ 00:18:43

WELL SITE OPERATIONS / JIM HALL SUPERVISOR

OPERATOR:

Vincent Oil Corp.

WELL REFERENCE SHEET

SUBJECT WELL:

Marfam #3-32

SUBJECT WELL LOCATION:

W/2 SE NE NW 32-T29S-24W

SUBJECT WELL DATUM:

2,585

REF. WELL 'A' Vincent Marfam 1-32 NE NW 32-29-24 **DATUM:** **2,581**

REF. WELL 'B' Vincent Dufford 2-32 NW NE 32-29-24 **DATUM:** **2,583**

E-LOG TOPS

**SUBJECT WELL:
ZONE**

WELL 'A'

WELL 'B'

	DEPTH	DATUM	DEPTH	DATUM	REF.	DEPTH	DATUM	REF.
HEEB.	4,392	-1,807	4,396	-1,815	8	4,398	-1,815	8
Brown Ls.	4,528	-1,943	4,528	-1,947	4	4,535	-1,952	9
Lansing	4,538	-1,953	4,539	-1,958	5	4,546	-1,963	10
Stark Sh	4,888	-2,303	4,894	-2,313	10	4,900	-2,317	14
Hushp. Sh	4,932	-2,347	4,939	-2,358	11	4,946	-2,363	14
Marmaton	5,042	-2,457	5,043	-2,462	5	5,051	-2,468	11
PAWNEE	5,116	-2,531	5,126	-2,545	14	5,128	-2,545	14
Labette Sh	5,144	-2,559	5,152	-2,571	12	5,155	-2,572	13
CKE Sh	5,165	-2,580	5,175	-2,594	14	5,176	-2,593	13
2nd CKE	5,197	-2,612	5,209	-2,628	16	5,208	-2,625	13
B/Penn.	5,275	-2,690	5,288	-2,707	17	5,288	-2,705	15
SAND #1	5,288	-2,703	5,300	-2,719	16	5,300	-2,717	14
SAND #2						5,324	-2,741	
MISS.	5,308	-2,723	5,329	-2,748	25	5,346	-2,763	40
1st Por.	5,356	-2,771	5,352	-2,771 even		5,352	-2,769	-2

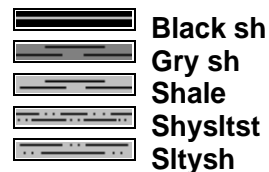
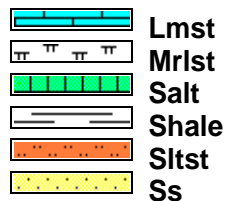
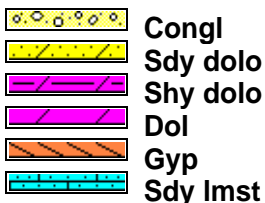
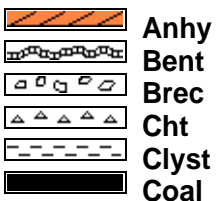
Qualifiers

CARBONATE CLASSIFICATION:

AFTER DUNHAM: GRAIN; any fossil, fossil fragment, sand grain, or other rock fragment within the rock. **MUDSTONE;** muddy carbonate rocks containing less than 10% grains. **WACKESTONE;** mud supported carbonate rocks with more than 10% grains. **PACKSTONE;** grain supported muddy carbonate rocks. **GRAINSTONE;** mud free carbonate rock, grain supported. **BOUNDSTONE;** carbonate rock bound together at deposition (coral, etc.). **CRYSTALLINE CARBONATE;** carbonate rock retaining to little of their depositional texture to be classified.

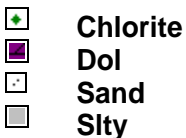
Qualifiers; (Fossils, Minerals, Shows, Porosity, etc.) rare = less than 1% of sample total, trace = less than 5% of sample total, greater than 5% an estimate of total percentage.

ROCK TYPES

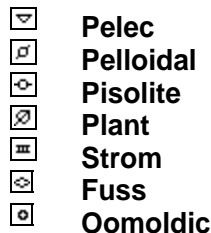
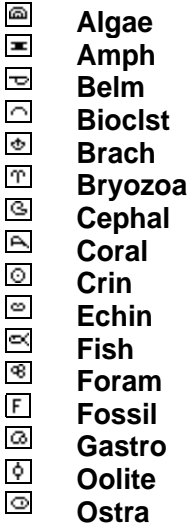


ACCESSORIES

MINERAL



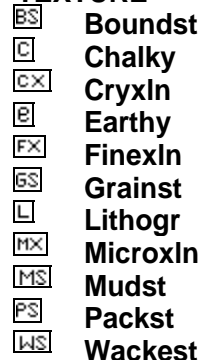
FOSSIL



STRINGER



TEXTURE



Curve Track 1

ROP (min/ft) ———
 Gamma (API) - - - -
 Caliper (API) ·····

TG (units) ———
 C1 (units) - - - -
 C2 (units) - - - -
 C3 (units) ·····
 C4 (units) ·····
 C5 (units) ·····

Depth

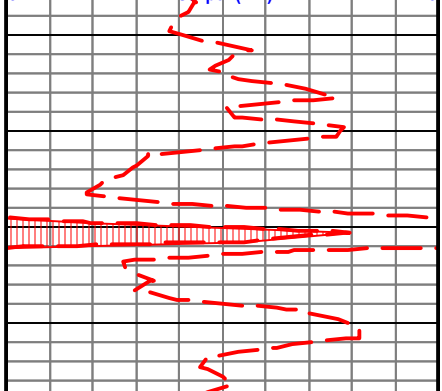
Porosity Type

Lithology

Oil Shows

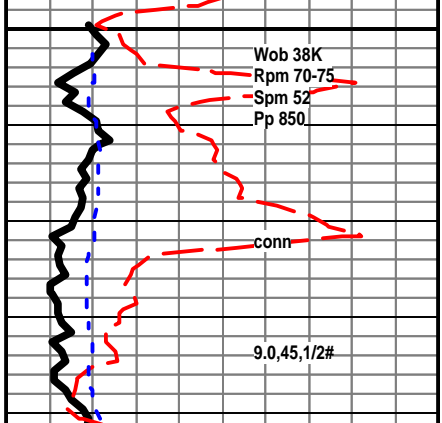
Geological Descriptions

ROP (min/ft) 10
 Gamma (API) 150
 Caliper (API) 16



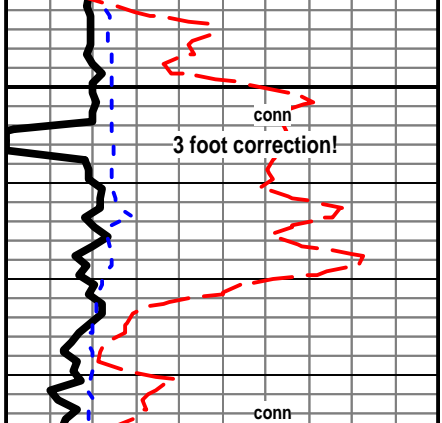
4250

Wob 38K
 Rpm 70-75
 Spm 52
 Pp 850



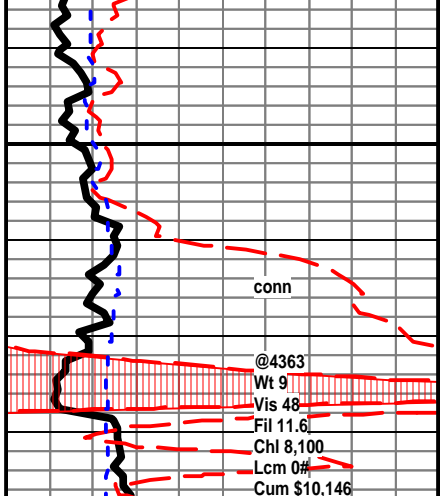
4300

3 foot correction!

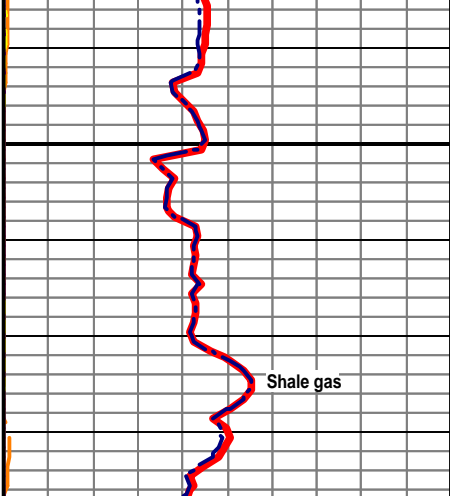
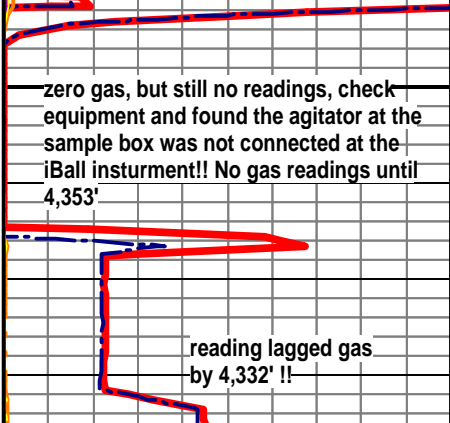
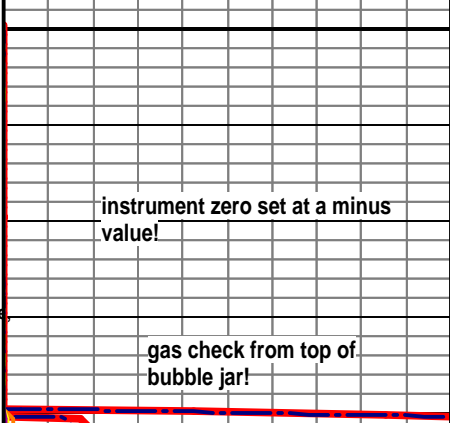
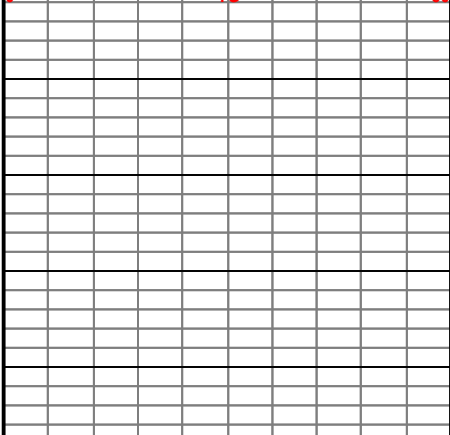


4350

@4363
 Wt 9
 Vis 48
 Fil 11.6
 Chl 8,100
 Lcm 0#
 Cum \$10,146



TG 50



JIM HALL ON LOCATION @ 10:30 HRS. 7/12/14

instrument zero set at a minus value!

gas check from top of bubble jar!

zero gas, but still no readings, check equipment and found the agitator at the sample box was not connected at the iBall instrument!! No gas readings until 4,353'

reading lagged gas by 4,332' !!

Shale gas

Wackestone to Packstone; cream to off white, hard to brittle, most chalky texture, micro-oolitic, tight look in the wet sample, no show, sample quality fair 20-30% shales, rare barren porosity in the dry.

Mudstone; slight increase gray and brown, hard to brittle, mc chalky, some silky-crystalline, dense.

Mudstone to Wackestone; cream to off white, hard to soft, some micro-oolitic, trace free light gray blocky chert.

Mudstone; tan to brown, hard, tabular to blocky, chalky texture, tight look in wet sample

Wackestone to Packstone; off white to cream, hard to brittle, some soft, micro-oolitic to micro-fossiliferous, no show in wet, no visible porosity in the wet sample, rare barren porosity in the dry sample, no show.

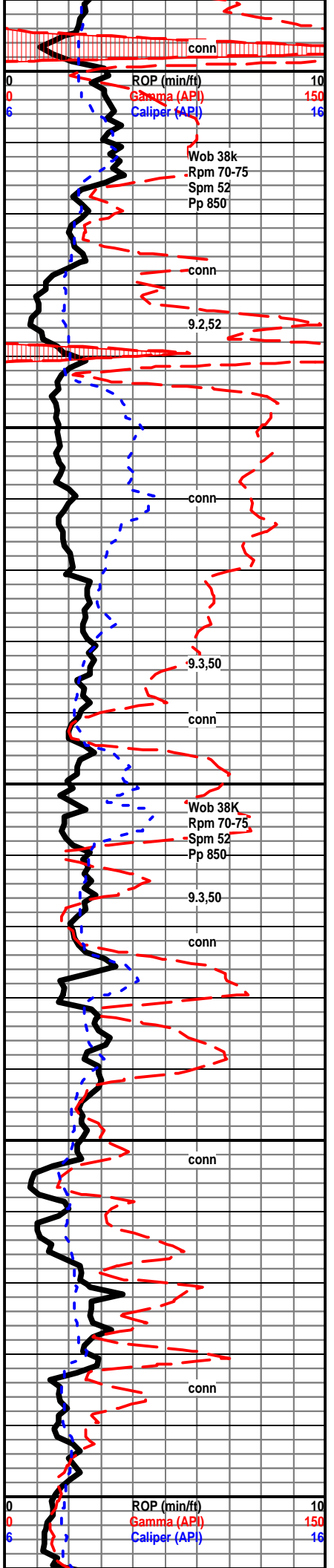
Mudstone; off white to cream, hard to brittle, some soft, most with chalky texture, tight look in wet sample, no show wet, trace off white to opaque free chert, sample improving with depth.

AA; rare dark free chert.

Shale; slight increase in gray soft to hard shales, 5-10% soft black carbonaceous shales, no visible gas bubbles.

Mudstone; off white to cream, chalky, some micro-oolitic, no show, rare free chert and crinoid stem.

Heebner 4394 (-1809) A +6 B +1



Shale; black-carbonaceous, rare visible gas bubbles when broken on the hard shale.

Shale; slight increase in % gray, dark gray and black-carbonaceous.

Mudstone; cream to gray, hard to brittle, chalky texture, tight look in wet, some micro-fossils, no show, rare free chert.

Wackestone to Packstone; cream to tan, hard to brittle, micro-oolitic to micro-fossiliferous, in tight looking chalky matrix-wet sample, rare barren porosity in the dry sample, no cut on selected samples.

Mudstone; rare free chert and crinoid stem, no show.

Shale; slight increase approx. 15%, gray, dark gray and black-carbonaceous.

Mudstone; most cream, hard-chalky, rare free chert.

Mudstone to Wackestone; cream to off white, hard to soft, most chalky texture, micro-oolitic, tight look in wet, rare barren porosity in dry, no cut on selected samples.

Shale; gray, dark gray to black, soft to firm, rare free pyrite.

Mudstone; cream to off white, most hard, some soft, most chalky, dense, some with dark inclusions, no show, rare free crinoid stem.

Brown Lime 4531 (-1946) A +1 B +6

Mudstone; brown, hard, silky-crystalline.

Shale; gray to gray-green.

Lansing 4544 (-1959) A -1 B +4

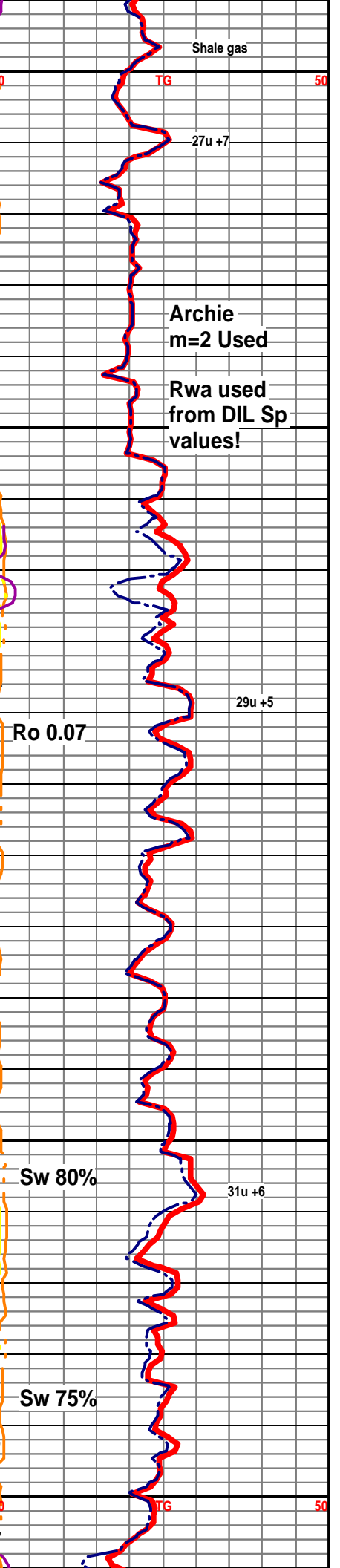
Packstone to Wackestone; cream to off white, occasionally light gray, hard to brittle, micro-oolitic, to micro-fossiliferous, in a chalky matrix, no cut on selected samples, rare free chert no porosity wet, rare barren porosity in the dry.

Mudstone; cream to off white, some light gray, hard to soft, most chalky texture, some micro-oolites and micro-fossils, rare free light sharp chert.

Mudstone; gray to off white, hard to brittle, chalky, dense.

Mudstone; slight increase in tan, hard, silky-crystalline, dense rare light gray chert and crinoid stem.

Wackestone; cream to off white, hard to brittle, micro-oolitic in a chalky matrix, rare very fine crystalline look-friable, no show, rare barren porosity in dry sample.



Shale gas

27u +7

Archie
m=2 Used

Rwa used
from DIL Sp
values!

Ro 0.07

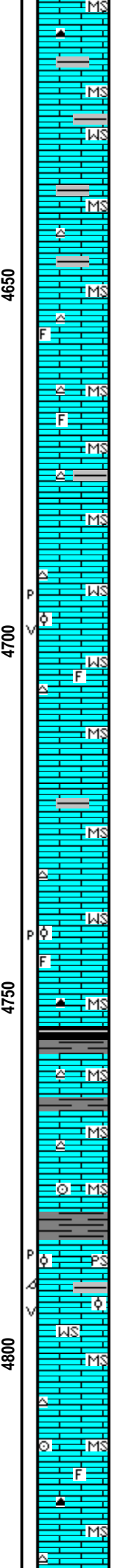
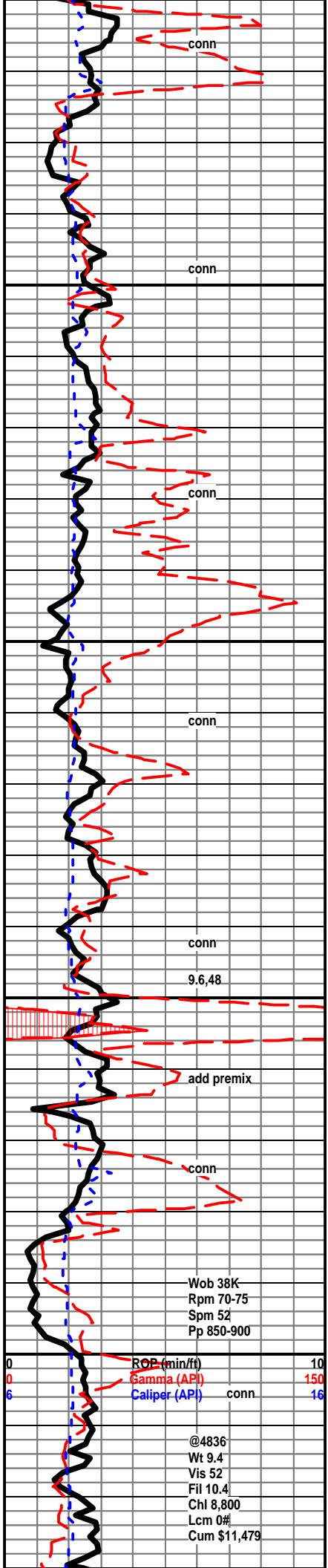
Sw 80%

Sw 75%

29u +5

31u +6

TG



Mudstone; gray to cream, hard, chalky, rare free dark blocky chert here, slight increase in % of gray Shale, some silty - gritty look.

Wackestone; cream to tan, micro-oolitic to micro-fossiliferous chalky to crystalline matrix, looks tight in wet, rare barren porosity in the dry, no visible show

Mudstone; cream to light gray, hard to brittle, most with chalk texture, free light gray chert, slight increase in shale here.

Mudstone; cream to light gray, hard to brittle, most chalky, some micro-fossiliferous, rare free light gray chert.

Mudstone; as above, no real change in sample here.

Mudstone; slight increase in tan, to light brown, dense, and Shale.

Mudstone; light gray, hard, chalky to crystalline, dense.

Wackestone; light gray, cream, hard, chalky-crystalline, micro-oolitic, to micro-fossiliferous, no show or visible porosity in the wet, rare barren porosity in the dry.

Wackestone; to Mudstone; as above, no show, no visible porosity in the wet.

Mudstone; light gray, cream, hard to brittle, chalky to silky and some crystalline, increase in gray to gray-green and black shales here.

Mudstone; cream to light gray, as above, less shale here, rare free light chert.

Wackestone; cream to light gray, most hard, chalky to crystalline texture, micro-oolitic to micro-fossiliferous, tight look wet, no show wet, rare barren porosity in the dry.

Mudstone; cream to off white, most chalky, dense, rare free black chert.

Shale; slight increase in black-carbonaceous, soft to firm, no visible gas bubbles.

Mudstone; most as above, increase in gray-green waxy shales here, free light gray chert.

Mudstone; cream to off white, most chalky, tight looking wet, rare free crinoid stem.

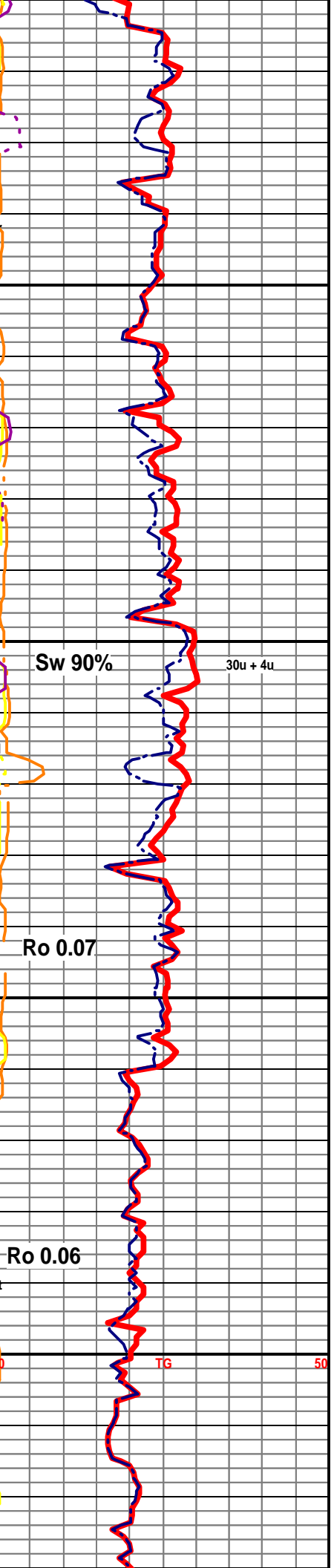
Shale; increase in gray and black.

Packstone to Wackestone; cream to off white, hard to brittle, chalky matrix, micro-oolitic, rare fine to medium oolites in tight looking matrix-wet, rare barren porosity in the dry sample.

Mudstone; slight increase in tan to light brown here, hard, dense looking, silky-crystalline texture, rare gray chert.

Mudstone; cream to off white, hard to soft, most chalky, some crystalline-silky luster, dense, some micro-fossils, rare free dark brown fossiliferous chert.

Mudstone; tan to buff, hard to brittle, crystalline to chalky, dense, trace light gray free chert.

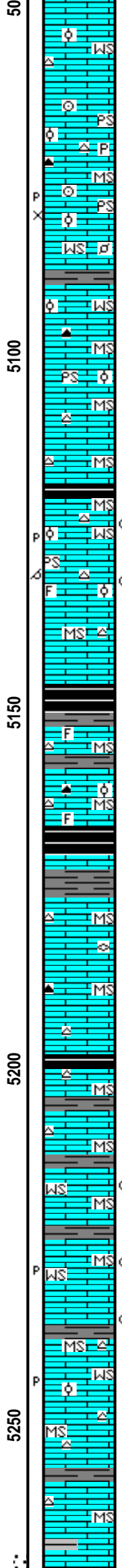
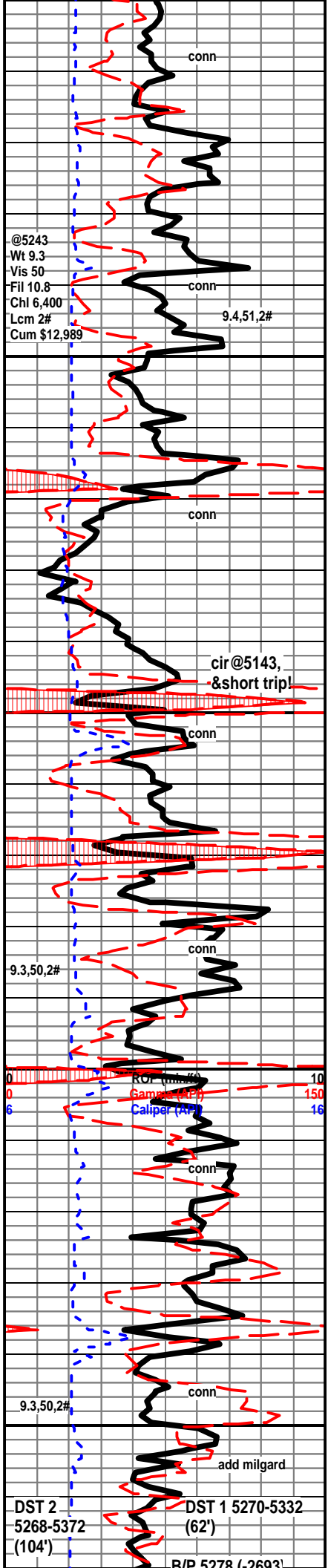


Sw 90% 30u + 4u

Ro 0.07

Ro 0.06

TG 50



Wackestone to Packstone; trace in sample, cream to off white brittle to friable, chalky to crystalline matrix, looks tight wet, micro-oolitic to rare small to medium oolites, rare free chert, no show.

Packstone; increase in % as above, trace medium to coarse size oolites in tight looking matrix, no cut on selected sample rare pyrite and chert.

Packstone to Wackestone; as above, oolitic to pelletal, rare crinoid stem, no show, rare barren porosity in the dry sample only.

Shale; slight increase dark gry, gry and pale green.

Most as above; slight increase in Mudstone; chalky, dense, rare black chert here.

Packstone to Wackestone; as above, smaller oolites with depth, no show.

Mudstone; increase in cream to tan, hard to brittle, chalky to crystalline, dense, rare light chert.

Pawnee 5121 (-2536) A +9 B +9

Shale; black-carb, dark gray, no visible gas.

Wackestone to Packstone; off white to cream, most chalky, rare crystalline matrix, micro-oolitic, to micro-fossiliferous, rare fine to medium oolites in the matrix, looks tight wet, no odor, no visible gas, no visible oil, 6 samples with spotty fluo instant cut, rare spotty porosity with no visible stain, trace blue-gray free fossiliferous chert, 20% sample green waxy the dark gray shales-cave?

Labette Shale 5147 (-2562) A +9 B +10

Shale; gray, black, green-waxy

Mudstone; cream to off white, hard, most chalky, dense, micro-oolitic to fossiliferous in part, no show.

CKE Shale 5168 (-2583) A +11 B +10

Shale; dark gray, pale green, some with carbonaceous laminations.

Mudstone; cream to off white, hard, firm, most chalky, some tan-silky crystalline, rare free chert, some fossiliferous, and rare free fusulinid, no show.

Mudstone; cream to gray, hard to brittle, most with chalky matrix, dense, rare tan to white free fossiliferous chert, no show, no cut on selected samples.

Mudstone; cream to tan, and light brown, hard to brittle, most chalky, some crystalline-silky, rare tan and white free fossiliferous chert.

Mudstone; cream to off white, chalky, trace micor-oolitic

Wackestone; chalky matrix, 1 sample with spotty fluor., residual cut, no other show.

Mudstone and Wackestone; aa, 1 sample with show as above, rare porosity when dry, no stain, no other show, increase in gray and gray-green and pale green shale.

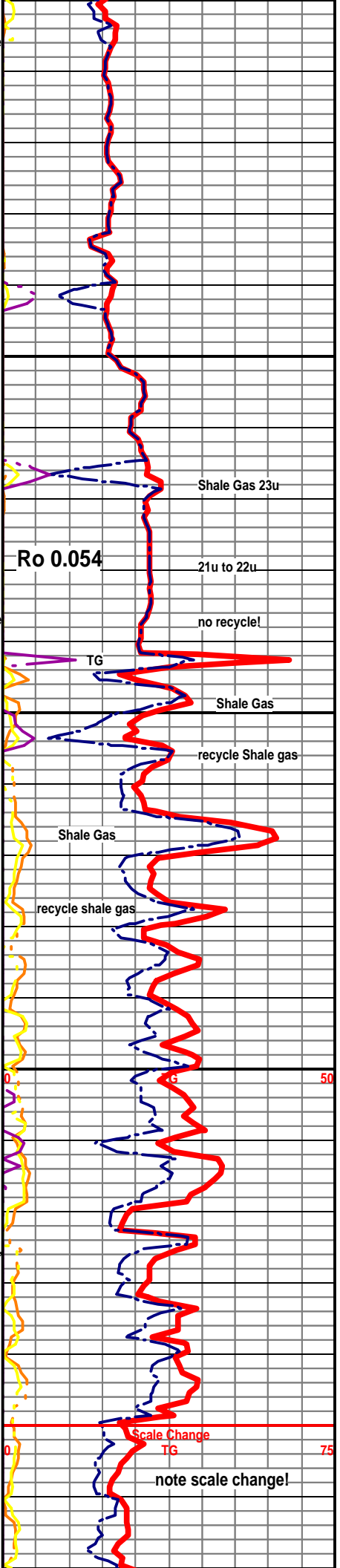
Mudstone; increase in tan-crystalline, 1 sample very fine crystalline Wackestone with spotty fluor., instant cut, no oil, i odor, no visable por.

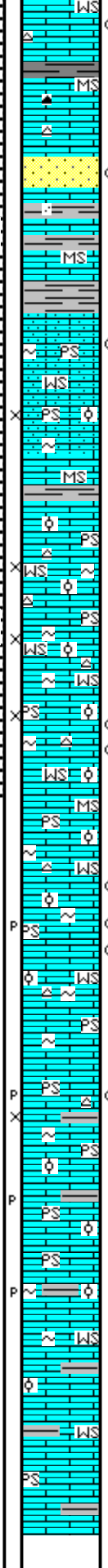
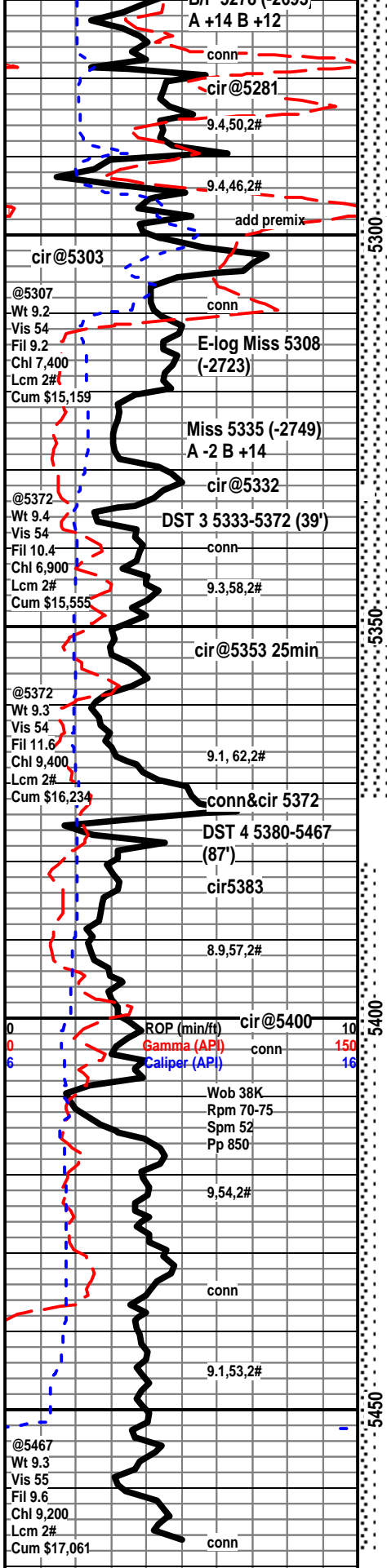
Mudstone; aa, approx. 5% Wackestone to Packstone; micro-oolitic to rare medium oolitic, chalky to crystalline matrix, tight look wet, no show here.

Shale; increase in black and green.

Mudstone; cream to off white, some tan, chalky to crystalline, some micro-oolitic, tight look in wet and dry.

Wackestone; cream to off white, chalky, crystalline





Micro-oolitic in tight looking matrix, 1 sample with fluorescence, instant cut, no odor, no visible porosity, no stain, no visible oil, 1 cluster, light gray quartz sand, ufg, wlstrd, cons, micaceous, no show.

Mudstone; cream, brown, chalky to crystalline dense.

Morrow Sand 5290 (-2705) A +14 B +12?

Sandstone; quartz, ufg, vwlstrd, rnd, cons, sli-dolo cmt, 5 clusters, only one with light tan stain, only one has pre-fluorescence, however 4 have slow milky cut, no visible oil, no visible gas bubbles, 30min sample with very faint odor, looks tight, no visible porosity in wet or dry.

Shale; gray, black, green, purple, some waxy.

Packstone to Wackestone;; off white to white, sandy lime, firm to friable, chalky matrix, some with dull fluorescence, 2 samples with slow milky cut, no visible oil or gas, very faint odor.

Packstone to Wackestone; most as above, slight increase in micro-oolitic to oolitic, chalky to very fine crystalline matrix, rare samples with medium oolites, faint odor under mic, no visible show, no cut on selected samples, some heavy sand residue, some clean carbonaceous sand, one sample with barren inter-oolitic porosity. rare Morrow sand show from above, some with bleeding gas bubbles.

Packstone to Wackestone; off white, chalky to crystalline, fine to medium oolites, hard to brittle, cream, fine to micro-oolitic, hard, firm, chalky to crystalline matrix, light gray, most micro-oolitic, hard most crystalline, rare galuconite, rare orange fossiliferous chert, mineral fluor., no cut, no odor, rare visible inter oolitic porosity-no stain.

Packstone to wackestone; as above; (3) sample with fluorescent cut; (2) off white to light gray, medium to fine oolites in chalky matrix, instant cut, no visible oil, rare spotty inter oolitic porosity, most look barren, rare very faint tan stain, some crystal over growth, (1) bone white; highly chalky amorphous matrix with micro-oolites, no porosity no stain, however residual ring cut, 30min no odor, 60min very faint odor, rare free foss. orang chert, rare galuconite.

Wackestone to Packstone; 5372-5380 off white to buff, chalky to crystalline matrix, micro-oolitic to fine oolitic, rare medium oolites, no show, poor sample quality, after trip.

Wackestone 5380-5385; cream off white, micro-oolitic, rare crystalline matrix, brittle, no show, (1) Tan Mudstone with rare micro-oolites in matrix, residual ring cut, no other show.

Packstone; 5385-5395; off whtie, to cream, some gray, micro-oolitic to medium oolites and trace crs-oolites, firm to hard, most chalky, rare crystalline matrix, (3) samples med-oolites with slow milky cut, no visible porosity in wet, no stain, no odor, no visible oil, (1) dry sample with spotty stain and rare porosity, (2) dry samples with rare barren porosity with no stain, sample quality improving.

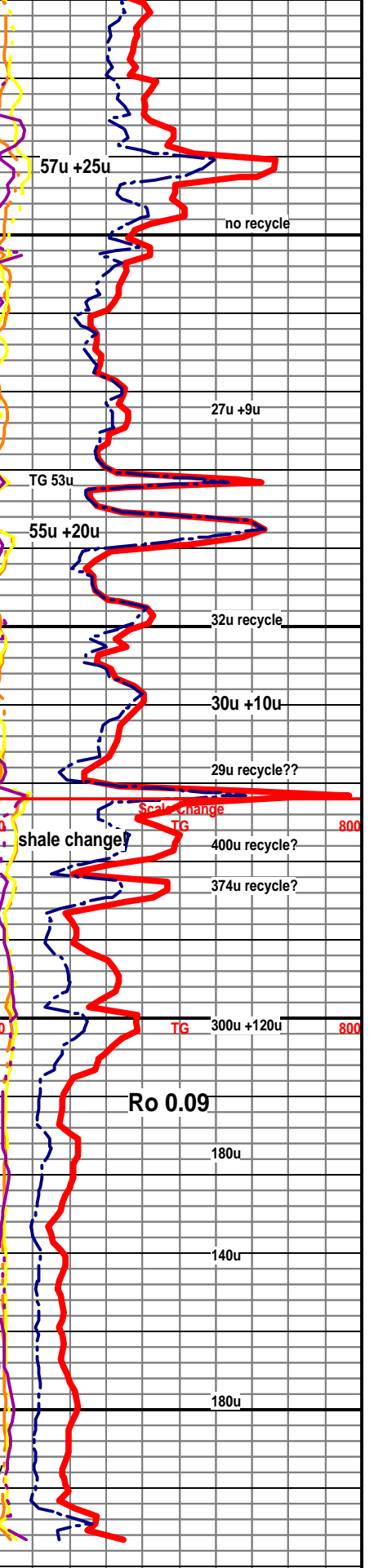
Packstone; 5408-5416; cream to buf, most chalky, brittle to firm, micro-oolitic to fine oolites, (1) sample, medium oolitic, bright fluor., instant cut, visible porosity with brown stain, no visible gas, no odor, could be caving? 60% shale, black, gray green, brick red.

Packstone; 5416-5430; off white, brittle to hard, fine to medium oolites here, most chalky matrix, no cut on selected samples, 40% shale as above, rare barren porosity in the dry, 40% shale as above.

Packstone; 5430-5440, most as above, fine to medium oolites in chalky matrix, rare galuconite, no show, rare barren porosity in the dry, no stain, no show.

Wackestone; 5440-5450; cream to gray, fine oolites to micro-oolitic, hard to firm, scattered light gray, some with da inclusions, brittle. no show, light gray free oolitic chert here, 50% shale here.

Wackestone to Packstone; 5450-5467; cream to off white, micro-oolitic to medium oolitic, chalky to trace crystalline matrix, rare galuconite inclusions, rare free orange chert, 70% shale, black, gray, pale green to sea gray, silky to waxy, some mottled and laminated, some slightly dolomitic. All this shale must be cave?



RTD 5,467' 7/18/14

E-LOG TD 5,467'

