

OPERATOR

Company: WERTH EXPLORATION TRUST
 Address: 1308 SCHWALLER AVE
 HAYS, KANSAS 67601

Contact Geologist: ANDY WERTH
 Contact Phone Nbr: (785) 625-4968
 Well Name: WERTH-WORCESTER NW #7
 Location: SW SE SW NW Sec. 16-7S-22W
 Pool: API: 15-065-23,967-00-00
 State: KANSAS Field: ALDA
 Country: USA

Scale 1:240 Imperial

Well Name: WERTH-WORCESTER NW #7
 Surface Location: SW SE SW NW Sec. 16-7S-22W
 Bottom Location:
 API: 15-065-23,967-00-00
 License Number: 30259
 Spud Date: 10/3/2013 Time: 10:00 AM
 Region: GRAHAM COUNTY
 Drilling Completed: 10/10/2013 Time: 6:00 AM
 Surface Coordinates: 2851' FSL & 4418' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2325.00ft
 K.B. Elevation: 2330.00ft
 Logged Interval: 3200.00ft To: 3930.00ft
 Total Depth: 3930.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.7857145 Latitude: 39.4451189
 N/S Co-ord: 2851' FSL
 E/W Co-ord: 4418' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC
 Address: 108 W 35TH
 HAYS, KS 67601
 Phone Nbr: (785) 639-1337
 Logged By: Geologist Name: CHRIS NEELEY

CONTRACTOR

Contractor: LANDMARK DRILLING
 Rig #: 5
 Rig Type: MUD ROTARY
 Spud Date: 10/3/2013 Time: 10:00 AM
 TD Date: 10/10/2013 Time: 6:00 AM
 Rig Release: 10/10/2013 Time: 10:00 PM

ELEVATIONS

K.B. Elevation: 2330.00ft Ground Elevation: 2325.00ft
 K.B. to Ground: 5.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDONED WELL BASED ON LOW STRUCTURE TO OFFSET PRODUCERS AND LOG ANALYSIS

OPEN HOLE LOGGING BY NABORS COMPLETION AND PRODUCTION SERVICES COMPANY: COMPENSATED DENSITY/NEUTRON LOG, DUAL INDUCTION LOG

NO DRILL STEM TESTS PERFORMED

SUMMARY OF FORMATION TOPS

FORMATION	WERTH-WORCESTER NW #7				GATEWAY RESOURCES, LLC WORCESTER #1-17			MURFIN DRILLING CO. WORCESTER #1			YOST OIL OPERATIONS WORCESTER G #16		
	LOG TOPS		SAMPLE TOPS		DENS/NEU LOGS		LOG	COMP. REPORT		LOG	RAD GUARD LOG		LOG
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	DEPTH	DATUM	CORR.	DEPTH	DATUM	CORR.
ANHYDRITE	1963	+370	1959	+374	1951	+382	-12	1944	+377	-7	1949	+382	-12
ANHYDRITE BASE	1994	+339	1989	+344	1984	+349	-10				1980	+351	-12
TOPEKA	3321	-988	3307	-974	3310	-977	-11	3303	-982	-6	3314	-983	-5
HEEBNER	3523	-1190	3518	-1185	3507	-1174	-16	3502	-1181	-9	3515	-1184	-6
TORONTO	3545	-1212	3539	-1206	3533	-1200	-12	3526	-1205	-7	3539	-1208	-4
LANSING K.C.	3563	-1230	3557	-1224	3550	-1217	-13	3542	-1221	-9	3556	-1225	-5
STARK SHALE	3729	-1396	3723	-1390	3720	-1387	-9				3726	-1395	-1
K.C. BASE	3755	-1422	3750	-1417	3746	-1413	-9	3742	-1421	-1	3751	-1420	-2
MARMATON	3801	-1468	3796	-1463	3792	-1459	-9				3795	-1464	-4
ARBUCKLE			3862	-1529	3857	-1524	-12	3842	-1521	-15			
RTD	3930	-1597			3918	-1585		3851	-1530		3900	-1569	
LTD	3936	-1603											

Daily Activity Report

for











Werth-Worcester NW #7

SW, SE, SW, NW Section 16, Township 7 South, Range 22 West

10/02/13

Rig #

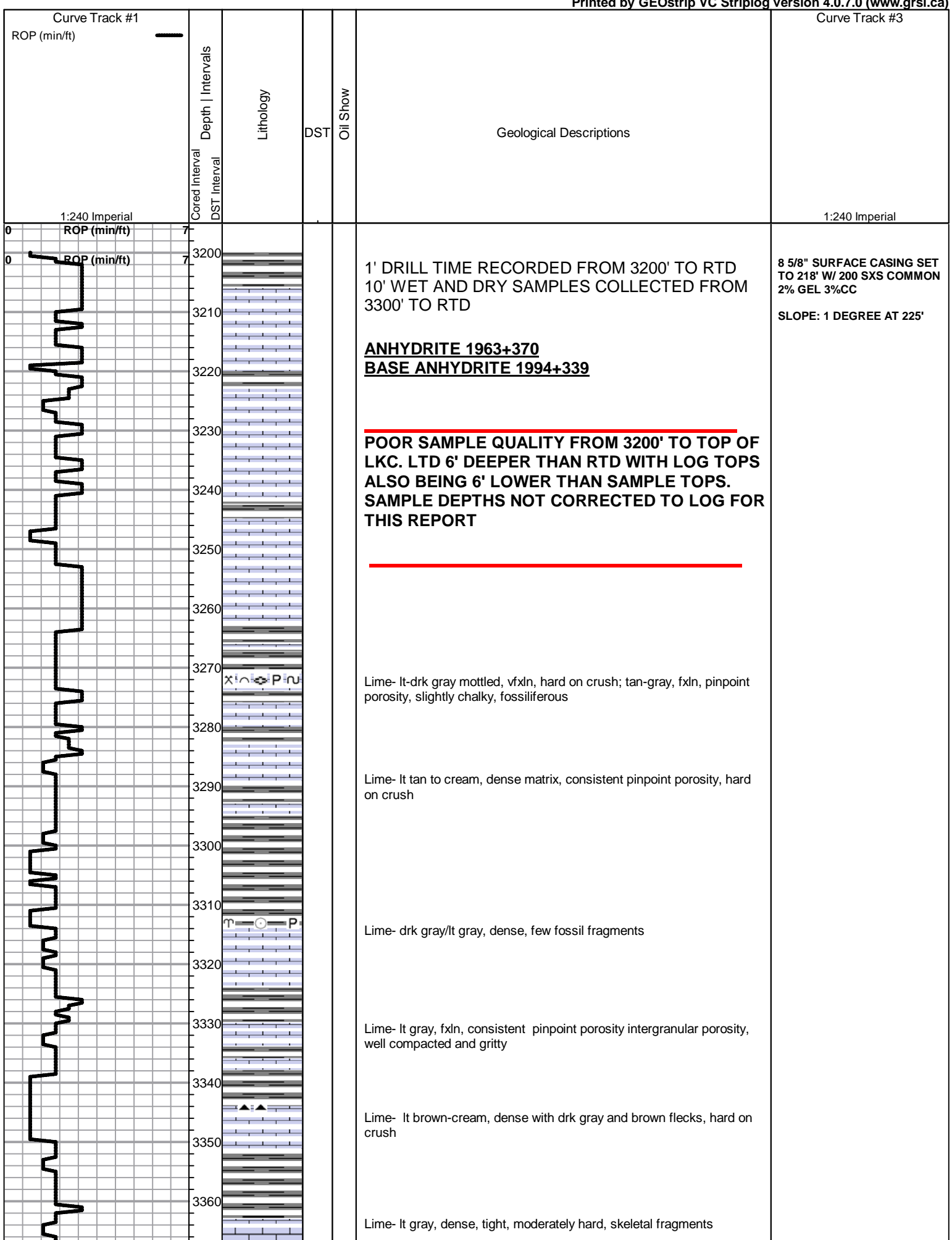
10/03/13	Rig-up
10/04/13	Spud: 10:00 am, Slope: 1° @ 225', Wait on welder: 40 min, 8 5/8" set: 218' w/200 sxs common 2% gel/2% cc, Plug down: 7:00 pm
10/05/13	800' drilling
10/06/13	1800' drilling
10/07/13	2550' drilling
10/08/13	2966' drilling, CFS: 3496', Short trip: 20 stands/look for hole in pipe, Condition mud, CCH: 2hrs
10/09/13	3555' drilling, CFS: 1 hr. at 3570', drilling, CCH: 30 min, Mini trip: 10 stands, RTD: 6:00 am
10/10/13	3930' CCH, Slope: 5°, Trip out for logs, Logging: Dual Induction, Neutron/Density

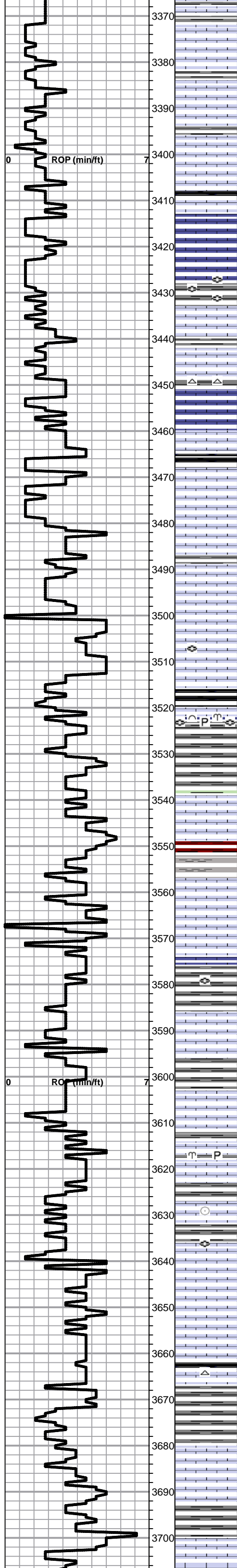
ROCK TYPES			
	Clystgy		Lmst fw7>
	Dolprim		Lscongl
	Lmst fw<7		shale, grn
			shale, gry
			Carbon Sh
			shale, red
			Shcol

ACCESSORIES	
MINERAL	FOSSIL
▲ Chert, dark	∩ Bioclastic or Fragmental
∩ Glauconite	∩ Bryozoa
P Pyrite	○ Crinoids
△ Chert White	X Sponge Spicules
	⊕ Fossiliferous

OTHER SYMBOLS
DST
■ DST Int
■ DST alt

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Lime- white, vfxln, slightly sucrosic, chalky soft on crush

Lime, med gray, vfxln, scattered fossil fragments

Lime- cream, vfxkn, chalky, moderate pinpoint porosity, soft on crush

Lime- dark gray to faintly brown in part, dense, flaky texture, brittle and hard

Shale- black carbonaceous shale, hard

Lime- cream, fxln, good pinpoint porosity, scattered dissolution porosity, slightly chalky matrix, brittle

Chert- white, smoky

Shale, black, hard, carbonaceous

Lime- cream, vfxln, sparry calcite backfill of pores, chalky in part, scattered vsmall ooids, brittle

GEOLOGRAPH DISENGAGED AFTER CONNECTION

Lime- blue-gray to cream, vfxln, brittle, scattered fossil fragments

HEEBNER SHALE 3518 (-1185)

Shale- increased amount of black shale A/A

Lime- drk to lt gray to lt brown, dense, fossiliferous, significant pyrite inclusions

Shale- drk gray, hard, slick

TORONTO 3539 (-1206)

Lime- lt tan, mud-supported, oolitic to slightly moldic, fair intergranular porosity, some surface stain, minimal show on crush

CFS: increases in oomoldic porosity, and then grades into dense with slightly chalky margins

LANSING-KC 3557 (-1224)

Lime- lt gray, vfxln, to drk gray and dense

Lime- tan-gray, dense, no visible porosity

Lime- med gray, vfxln, dense, fossiliferous, dark flecks, hard and brittle

Lime, tan, oolitic to oomoldic, intergranular to vuggy porosity, medfxln to dense, fair wet streaming cut, pale white fluorescence, no show of free oil, some sasaturated stain, good odor

Shale- drk gray, red-brown, black

Chert- clear to smoky blue-gray, spiculitic

Lime- cream, chalky on crush, mealy in part, very faint stn on a few chips

Shale- sea green and red, sticky; drk gray and brown, platy, hard

Lime- drk gray, gritty, fxln to dense, hard and brittle, no development, minor fossil inclusions

Lime- cream w/ drk spots, vfxln, mealy to pinpoint porosity, sparry replacement of fusilinids, soft chalky oolitic packstone in part, intergranular porosity with lt stain

Lime- white, chalky vfxln to sucrosic, consistent pinpoint porosity in some chips

Lime- tan-cream, vfxln, bedded w/ white chert, chaotic bedding, fossiliferous in part

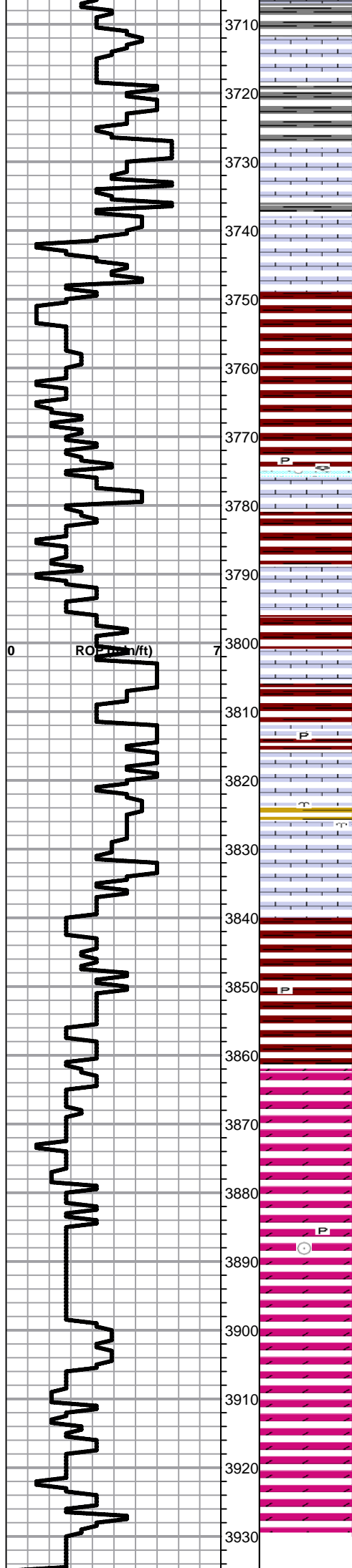
Shale- black, carbonaceous, hard; variagated

Lime- lt gray-tan, sucrosic, many dark inclusions

Lime- cream, fxln, some scattered vuggy/intergranular porosity grading into skeletal packstone, stain in porosity, very lt oil on crush, few small drops in tray, no odor

Lime- white, fxln, chalky, soft on crush, minimal visible porosity; cream, packstone, vfxln matrix, some development with minor stain

Lime- cream to faintly green near shale boundary, vfxln, brittle, sucrosic in part, few chips of packstone with drusy calcite filled vugs



Lime- cream, fxlN to medxlN, some subhedral, hard, scattered pinpoint to vuggy porosity with fair staining

Lime- cream, lt tan, slight blue tint, dense, slightly cherty in part

Lime- tan, dense, few fractures filled with calcite

Lime- cream to white, chalky, vfxln, consistent shallow pinpoint porosity

Lime- lt tan, vfxln, hard on crush, fossiliferous in part

BASE KC 3750 (-1417)

Shale- mint and sea green, brick red, and gray

Lime- cream to light gray to lightly tinted at shale boundary, dense, brittle, conchoidal fracture

○ Lime- very small chips, tan/cream, slight surface stain in vuggy pores

Lime- tan to cream, vfxln to fxlN, brittle; white, chalky/white chalk

Lime- cream, slight red tint in part, cherty, oolitic/pisolitic packstone, weathered, friable, slightly chaotic and trashy

Chert- orange translucent to clear to pinkish opaque,
Shale- variagated; turquoise

Lime- cream, vfxln, consistent microporosity, slightly chalky in part

Lime- lt tan, vfxln, calcite secondary mineralization, pinpoint porosity in part, dense and compact in part

Shale- deep red with clear quartz grains

ARBUCKLE 3862 (-1529)

● Dol- lt brown, f-medxlN, sucrosic, very brittle, clean

Dol- cream medxlN, subhedral, good intergranular porosity, saturated with very dark brown to black, heavy, tarry oil, no odor, some drops lighter and more lively

Dol, crm, med xlN, subhedral, granular

Dol- decrease in ratio of chips with oil show to those without

Dol- lt tan to cream, medxlN, subhedral to vfxln and tight

Dol- as above

Dol, as above

RTD 3930-1597 LTD 3936-1603

SLOPE: 5 DEGREES AT RTD