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GEOLOGICAL REPORT

API: 15-057-20960

COMPANY VINCENT OIL CORP (5004)
LEASE MALONE 5-21
FIELD GREAT MONGUL CANYON
LOCATION 1030 FSL & 2570 FWL
SECTION 21 TOWNSHIP 28S RANGE 23W
COUNTY FORD STATE KANSAS

ELEVATIONS
KB 2444 FEET
DF 2442 FEET
GL 2432 FEET
MEASUREMENTS ARE ALL FROM: KB

CASING
8 5/8" AT 612'
4 1/2" AT 5249'

CONTRACTOR DUKE DRLG RIG 1 (5929)
COMMENCED DRILLING FRIDAY, FEB 6, 2015
COMPLETED DRILLING TUESDAY, FEB 17, 2015
RTD 5250 FEET LTD 5249 FEET
MUD UP AT 3300± FEET MUD TYPE CHEMICAL/

ELOG SUITES
COMP NEUTRON/PE
COMP DENSITY
MICROLOG
DUAL INDUCTION
SONIC

SAMPLES SAVED FROM 4160 FEET TO 5250 FEET
DRILLING TIME KEPT FROM 4100 FEET TO 5250 FEET
SAMPLES EXAMINED FROM 4160 FEET TO 5250 FEET
GEOLOGICAL SUPERVISION FROM 4500 FEET TO 5250 FEET

NOTES: MUD SYSTEM-MUD-CO, SURFACE CSG CMT-ALLIED CMTG, GAS DETECTOR-MBC LOGGING & LEASING, WATER-WELL, FUEL-BESTHORN O&G, DSTS - TRILOBITE TSTG, LOGGING - NABORS WL SUC., PROD CMT - ALLIED CMTG
CORES-NONE

Remarks: THE VOC MALONE 5-21 WAS DRILLED AS AN INFILL DEVELOPMENT WELL ON THE MALONE 3D PROSPECT. AN RTD OF 5250 WAS REACHED SOME 100 FT PLUS WITHIN THE MISS. FOUR (4) DST WERE TAKEN COVERING SIGNIFICANT SAMPLE SHOWS AND GAS INCREASES. TWO (2) OF THE TESTS MAY BE EVALUATED FOR COMMERCIAL FEASIBILITY, THRU 4 1/2" CASING

Ken LeBlanc

Daily Penetration
7AM

Date	Depth
2-6-15	MIRT, RIG UP
	SPUD 6:15PM
	2-6-15
2-7-15	613 - SET 8 5/8"
	AT 612'
2-8-15	DRLG 1425'
2-9-15	DRLG 2580
2-10-15	AT 3250 -
	PUMP REPAIR
2-11-15	DRLG 3665'
2-12-15	DRLG 4370
2-13-15	DRLG 4850,
	DST 1
2-14-15	4950 - TOOH
	W/DST
2-15-15	5085 - TAKING
	DST 2
2-16-15	5115 - DST 3
2-17-15	5130 - TOOH
	W/DST 4, RTD
	5250 AT 331pm
	TUES 2-17-15, CFS
	90, DROP SURVEY
	TOOH F/LOGS
	NABORS Logging
	230AM - 715AM
2-18-15	5250 FINISH

Logging Prep to Run 4 1/2" CSG

Bit Record

Number	Size	Make	Type	Depth Out	Feet	Hours
1	12 1/4	VAREL	RR	613	613	5 3/4
2	7 7/8	VAREL	HE21	4950	4337	103.0
3	7 7/8	VAREL	HE29	5085	135	10 1/4
4	7 7/8	VAREL	HE29	5250	165	18 1/4
	TOTAL BIT HOURS →				5250	142 1/4

AVG PENETRATION RATE: 0-RTD 36.90 FPH

GENERAL INFORMATION

RAN 14 JTS NEW 8 5/8" SURF CSG 23#, SET AT 612', CMTD W/125 SXS (65/35 POZ 6% gel + 3% cc) + 125 SXS (3% cc), CMT DID CIRC, PD AT 9AM 2-7-15, BY ALLIED

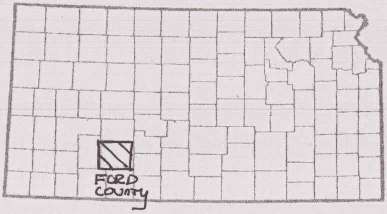
RIG MAKE: IDECO H35, DBL, STEEL PITS
POWER: CAT 3406
DP: 4 1/2 XH, WT 16.6#/FT, OD: 6 1/4", ID: 2 1/4"
DC: 16 - LENGTH 480.41', OD: 6 1/4, ID: 2 1/4"
PUMP: IDECO 700, STROKE: 14", LINERS 6"
POWER: CAT 2859075
RIG POWER: DETROIT DIESEL SERIES 60
POWER - CAT

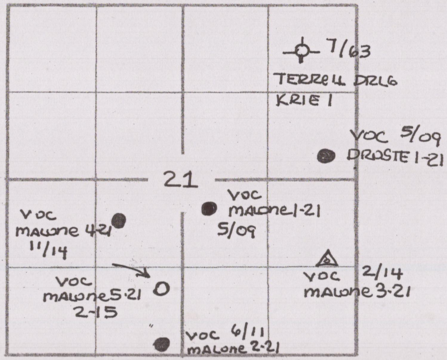
TOOL PUSHER: MIKE GODFREY

Formation Tops	Sample Tops	Corrected Sample Tops	Electric Log Tops	Subsea Datums
BASE SURF. CSG	612		608	
HEEBNER SHALE	4237		4237	-1793
BRN LS	4370		4368	-1924
LANSING	4380		4378	-1934
STARK SHALE	4709		4704	-2260
HUSH SHALE	4748		4747	-2303
BKC	4826		4824	-2380
PAWNEE	4920		4919	-2476
CHEROKEE SHALE	4973		4969	-2525
B/PENN LS	5064		5063	-2619
MISS. UNC.	5082		5084	-2640
RTD, LTD	5250		5249	-2805

Reference Well: VOC MALONE 2-21 115 FSL ; 2650 FWL 21-28S-23W

Kansas



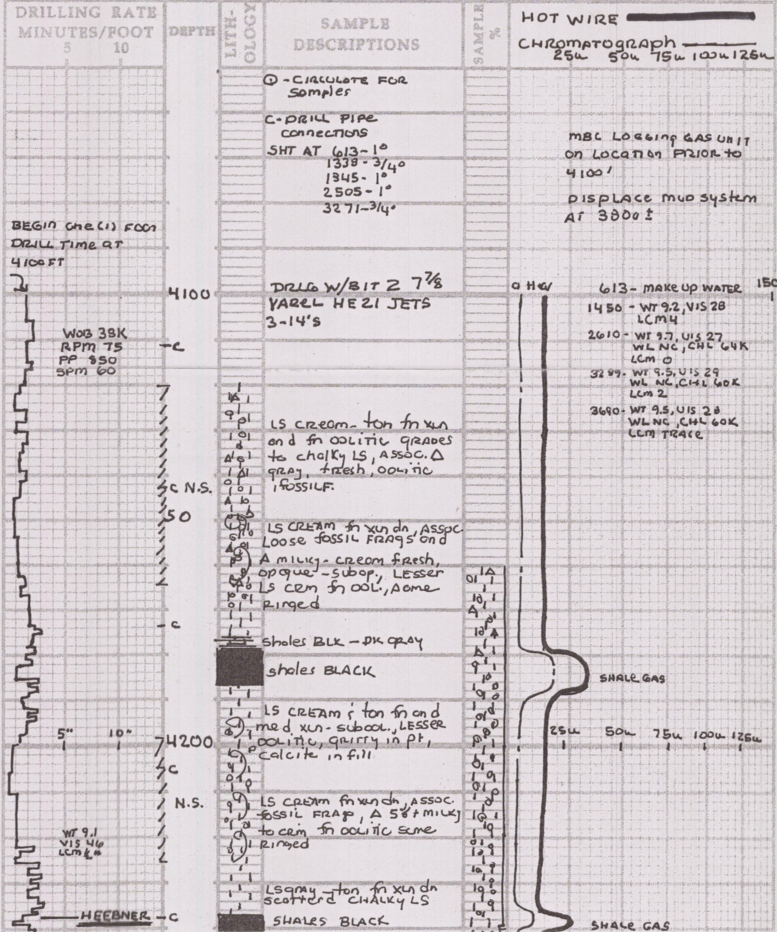


SEC. 21-T28S-R23W

FORD COUNTY, KANSAS

LEGEND

SANDSTONE	LIMESTONE	CHERT	CARB. SH./ COAL
SILTSTONE	DOLOMITE	GRANITE WASH	CONGLOMERATE
SHALE	ANHYDRITE/ GYPSUM	GRANITE	OOLITIC/ OOMOLDIC



①-CIRCULOTE FOR Somples

C-DRILL PIPE CONNECTIONS

SHT AT 613-1°
1338-3/4°
1345-1°
2505-1°
3271-3/4°

MBC LOGGING GAS UNIT ON LOCATION PRIOR TO 4100'

DISPLACE MUD SYSTEM AT 3800±

BEGIN ONE (1) FOOT DRILL TIME AT 4100 FT

DRLG W/BIT Z 7 7/8 YAREL HE21 JETS 3-14'S

613 - MAKE UP WATER
1450 - WT 9.2, VIS 28
LCM 4
2610 - WT 9.7, VIS 27
WL NC, CHL 64K
LCM 0
3289 - WT 9.5, VIS 29
WL NC, CHL 60K
LCM 2
3690 - WT 9.5, VIS 28
WL NC, CHL 60K
LCM TRACE

WOB 38K
RPM 75
PP 850
SPM 60

LS cream - tan fn xln and fn oolitic grades to chalky LS, assoc. Δ gray, fresh, oolitic, fossilf.

LS CREAM fn xln dn, ASSOC. Loose fossil FRAGS and Δ milky - cream fresh, opaque - subop., LESSER LS crm fn OOL., some ringed

shales BLK - DK GRAY

shales BLACK

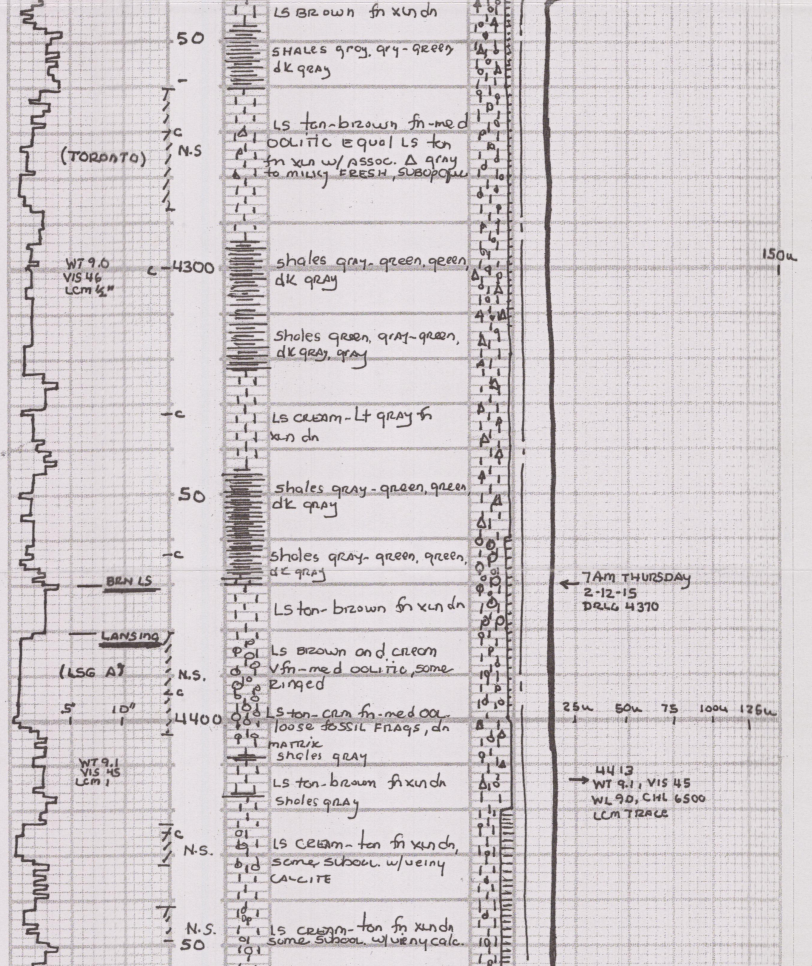
LS CREAM & tan fn and med xln - subool., LESSER oolitic, gritty in pt, calcite infill

LS CREAM fn xln dn, ASSOC. fossil FRAGS, Δ 5% + milky to crm fn oolitic some ringed

WT 9.1
VIS 46
LCM 1/4#

LS gray - tan fn xln dn scattered CHALKY LS

SHALES BLACK



LS BROWN fn xln dn

SHALES gray. gry-green dk gray

LS tan-brown fn-med OOLITIC equal LS tan fn xln w/ ASSOC. Δ gray to milky FRESH, SUBOPAQUE

shales gray-green, green, dk gray

Shales green, gray-green, dk gray, gray

LS CREAM-Lt gray fn xln dn

shales gray-green, green, dk gray

shales gray-green, green, dk gray

LS tan-brown fn xln dn

LS BROWN and cream vfn-med OOLITIC, some Ringed

LS tan-crm fn-med OOL. loose fossil FRAGS, dn MATRIX

shales gray

LS tan-brown fn xln dn

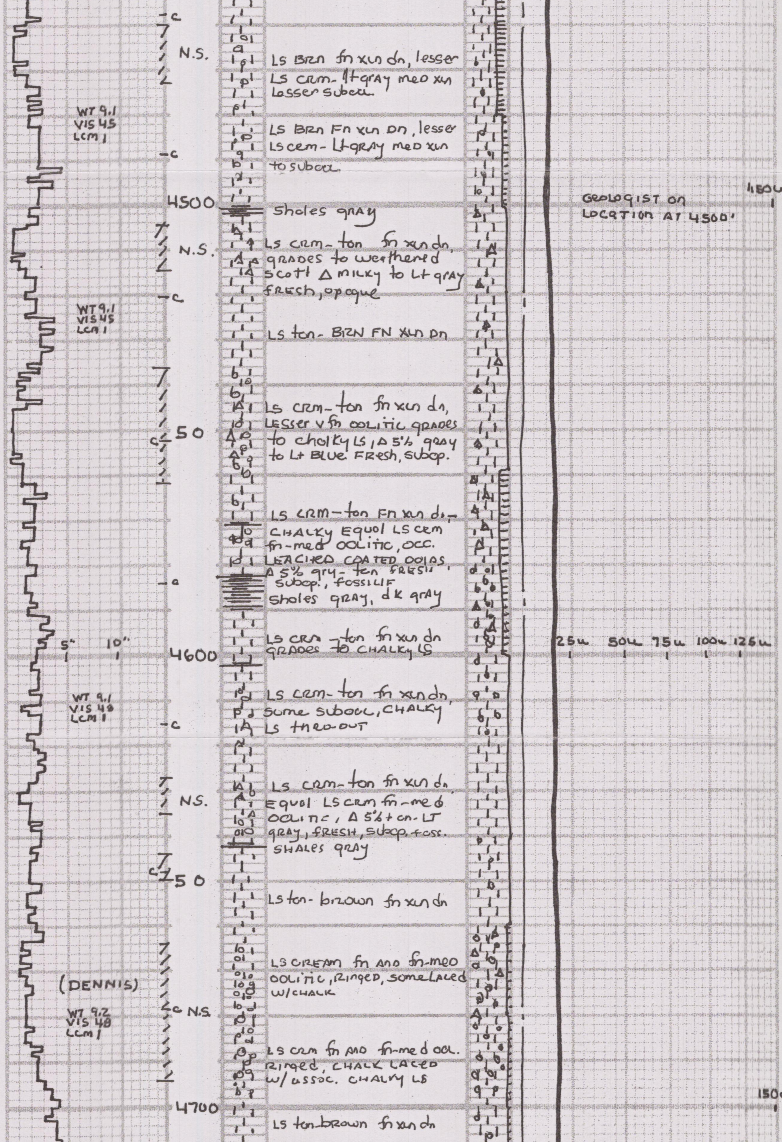
Shales gray

LS CREAM-tan fn xln dn, some SUBOOL. w/ veiny CALCITE

LS CREAM-tan fn xln dn some SUBOOL. w/ veiny calc.

7AM THURSDAY
2-12-15
DRLG 4370

4413
WT 9.1, VIS 45
WL 9.0, CHL 6500
LCM TRACE



LS Brn fn xln dn, lesser LS crm- lt gray med xln lesser subool.

LS Brn Fn xln Dn, lesser LS cem- Lt gray meD xln to subool.

shales gray

LS crm- tan fn xln dn, grades to weathered scott Δ milky to Lt gray fresh, opaque

LS tan- BRN FN xln Dn

LS crm- tan fn xln dn, lesser v fn oolitic grades to chalky LS, Δ 5% gray to Lt Blue. Fresh, subop.

LS crm- tan Fn xln dn, CHALKY Equal LS crm fn-med OOLITIC, OCC. LEACHED COATED OOIDS, Δ 5% gry- tan FRESH, subop., fossilif

shales gray, dk gray

LS crm- tan fn xln dn grades to CHALKY LS

LS crm- tan fn xln dn, some subool, CHALKY LS thro-out

LS crm- tan fn xln dn. Equal LS crm fn-med OOLITIC, Δ 5% + cn- LT gray, FRESH, subop, foss.

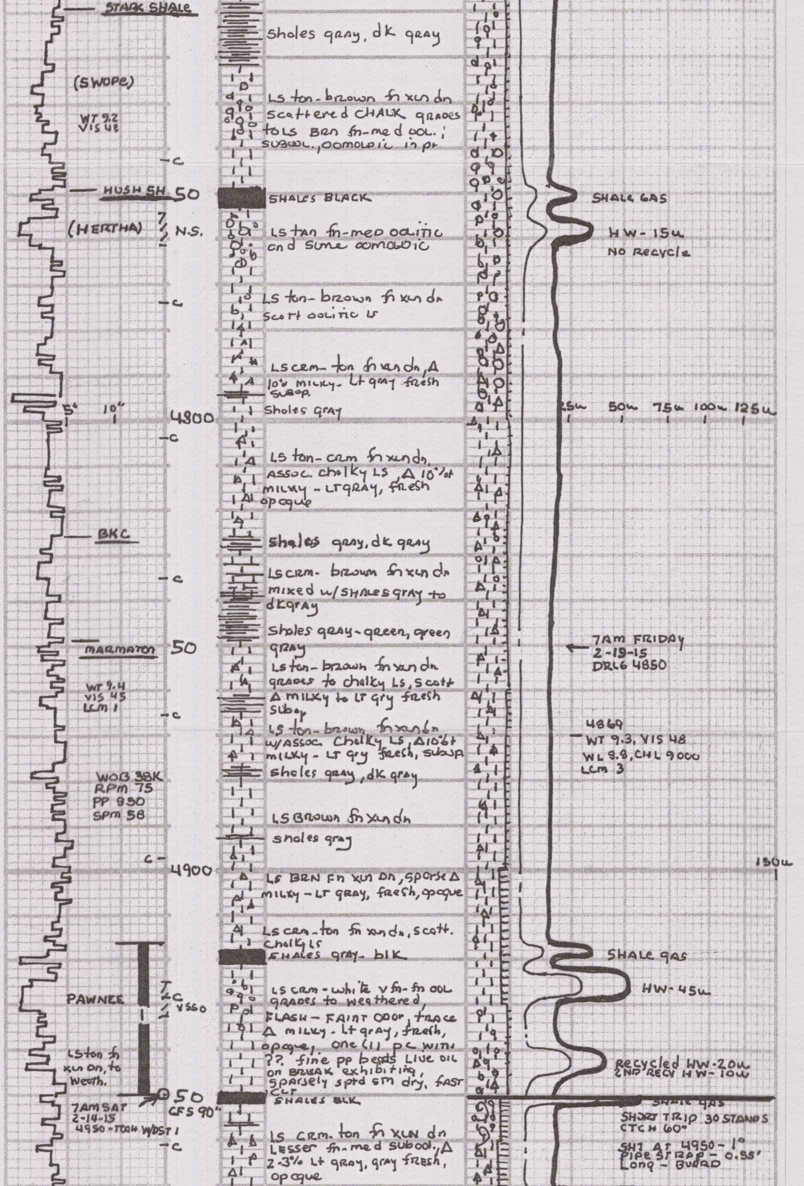
SHALES gray

LS tan- brown fn xln dn

LS CREAM fn and fn-med OOLITIC, Ringed, some Laced w/CHALK

LS crm fn and fn-med ool. Ringed, CHALK LACED w/ assoc. CHALKY LS

LS tan-brown fn xln dn



Sholes gray, dk gray

LS ton-brown fn xln dn scattered CHALK grades to LS BRN fn-med ool.; subool., oomoldic in pt

WT 9.2
VIS 48

SHALES BLACK

LS tan fn-med oolitic and some oomoldic

HW-15u
No Recycle

LS ton-brown fn xln dn scott oolitic LS

LS crm-ton fn xln dn, Δ 10% milky-lt gray fresh subop.

Sholes gray

LS ton-crm fn xln dn, assoc. chalky LS, Δ 10% of milky-LT gray, fresh opaque

shales gray, dk gray

LS crm-brown fn xln dn mixed w/SHALES gray to dk gray

Sholes gray-green, green gray

LS ton-brown fn xln dn grades to chalky LS, scott Δ milky to LT gry fresh subop

WT 9.4
VIS 45
LCM 1

7AM FRIDAY
2-13-15
DRLG 4850

LS ton-brown fn xln dn w/assoc. chalky LS, Δ 10% of milky-LT gry fresh, subop.

4869
WT 9.3, VIS 48
WL 8.8, CHL 9000
LCM 3

shales gray, dk gray

WOB 38K
RPM 75
PP 850
SPM 58

LS Brown fn xln dn

sholes gray

LS BRN fn xln dn, sparse Δ milky-LT gray, fresh, opaque

LS crm-ton fn xln dn, scott. chalky LS

SHALES gray-blk

HW-45u

LS crm-white v fn-fn OOL grades to weathered, FLASH-FAINT odor, trace Δ milky-lt gray, fresh, opaque, one (1) pc with ??. fine pp beads live oil on break exhibiting, sparsely sptd stn dry. fast cut

LS ton fn xln dn, to weath.

Recycled HW-20u
2ND RECY HW-10u

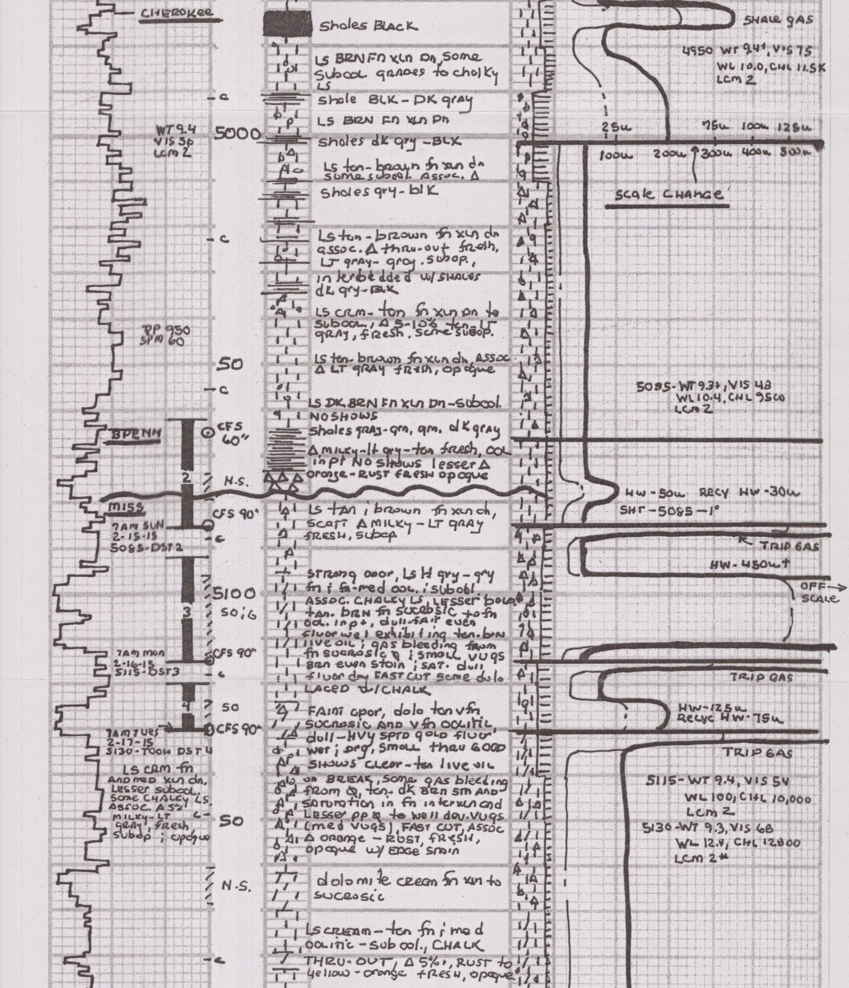
SHALES BLK

7AM SAT
2-14-15
4950-TOOH W/DST 1

SHORT TRIP 30 STANDS
CTCH 60"

SHT AT 4950-1°
PIPE STRAP - 0.55'
Long - BURD

LS crm-ton fn xln dn lesser fn-med subool., Δ 2-3% Lt gray, gray fresh, opaque



Shales BLACK

LS BRN Fn xln Dn, some subool. grades to chalky LS

4950 WT 9.4+, VIS 75
WL 10.0, CHL 11.5K
LCM 2

shale BLK - DK gray

LS BRN Fn xln Pn

WT 9.4
VIS 56
LCM 2

shales dk gry - BLK

LS tan - brown fn xln dn some subool. Assoc. Δ

shales gry - blK

LS tan - brown fn xln dn assoc. Δ thru-out fresh, LT gray - gray. subop., interbedded w/ SHALES dk gry - BLK

LS crm - tan fn xln dn to subool., Δ 5-10% tan - LT gray, fresh, some subop.

PP 950
SPM 60

LS tan - brown fn xln dn, ASSOC Δ LT gray fresh, opaque

5085 - WT 9.3+, VIS 48
WL 10.4, CHL 9500
LCM 2

LS DK BRN Fn xln Dn - subool. NO SHOWS

CFS 60"

Shales gray - grn, grn, dK gray

Δ milky - lt gry - tan fresh, ool inpt NO SHOWS lesser Δ orange - RUST FRESH opaque

HW - 50u RECY HW - 30u
SHT - 5085 - 1°

LS tan; brown fn xln dn, scatt Δ MILKY - LT gray fresh, subop.

7AM SUN
2-15-15
5085 - DST 2

HW - 450u+

strong odor, LS lt gry - gry fn; fn-med ool.; subool. ASSOC. CHALKY LS, LESSER dolo. tan. brn fn sucrosic to fn ool. inpt, dull-fair even fluor wet exhibiting tan. brn live oil; gas bleeding from fn sucrosic ϕ; small vugs brn even stain; SAT. dull fluor dry FAST CUT some dolo LACED w/ CHALK

7AM mon
2-16-15
5115 - DST 3

FAINT odor, dolo tan vfn sucrosic AND vfn oolitic, dull - HVY SPTD gold fluor wet; dry, small thru GOOD shows clear - tan live oil on BREAK, some gas bleeding from ϕ, tan - dk BRN stn AND saturation in fn interxln and lesser pp ϕ to well dev. vugs (med vugs), FAST CUT, ASSOC Δ orange - RUST, FRESH, opaque w/ EDGE stain

HW - 125u
Recyc HW - 75u

7AM TUES
2-17-15
5130 - TOOH DST 4

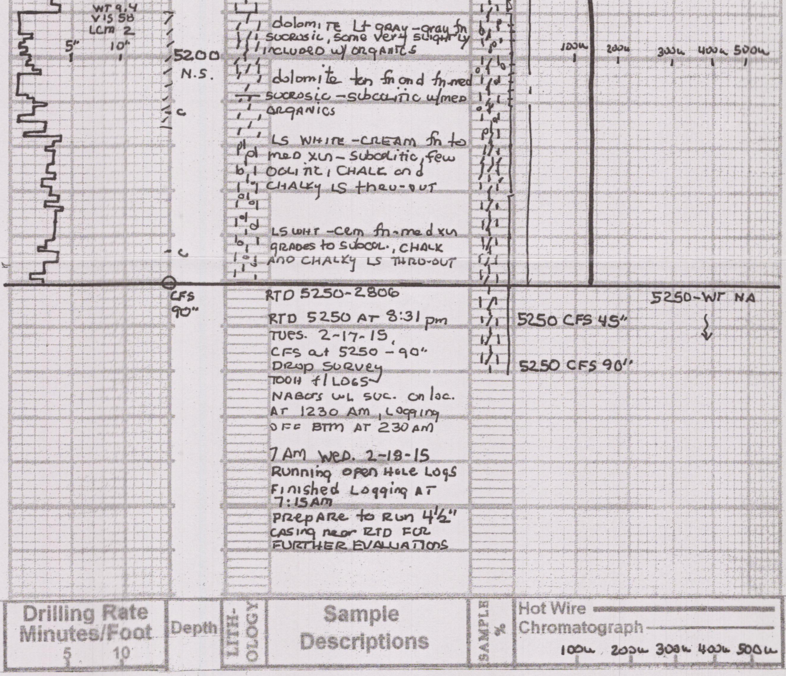
5115 - WT 9.4, VIS 54
WL 10.0, CHL 10,000
LCM 2

5130 - WT 9.3, VIS 68
WL 12.4, CHL 12800
LCM 2#

LS CRM fn AND med xln dn. LESSER subool. Some CHALKY LS. ASSOC. Δ 5% MILKY - LT GRAY, fresh subop; opaque

dolomite cream fn xln to sucrosic

LS cream - tan fn; med oolitic - sub ool., CHALK THRU-OUT, Δ 5%+, RUST to yellow - orange fresh, opaque



dolomite Lt gray-gray fn sucrosic, some very slightly included w/ organics

dolomite tan fn and fn-med sucrosic-suboolitic w/med organics

LS white-cream fn to med xln-suboolitic, few oolitic, chalk and chalky LS thru-out

LS wht-cem fn-med xln grades to subool., chalk and chalky LS thru-out

RTD 5250-2806

RTD 5250 at 8:31 pm
Tues. 2-17-15,
CFS at 5250 - 90"
Drop survey
TOOH f/LOGS
Nabors wl svc. on loc.
at 1230 AM, logging
off btm at 230 AM

7 AM Wed. 2-18-15
Running open hole logs
Finished logging at
7:15 AM
Prepare to run 4½"
casing near RTD for
further evaluations

DST 1) 4916 - 4950

(Marmaton Pawnee)

Times: 30-60-45-90

1st open: weak blow built to 4 inches - NO GAS TO SURFACE
(NO Blowback)

2nd open: weak blow built to 3 inches - NO GAS TO SURFACE
(NO Blowback)

Rec: NO Gas in Pipe

90' Slightly Oil & Gas Cut Mud
(2% gas, 2% oil, 95% mud)

90' Total Fluid - ALL IN Drill Pipe

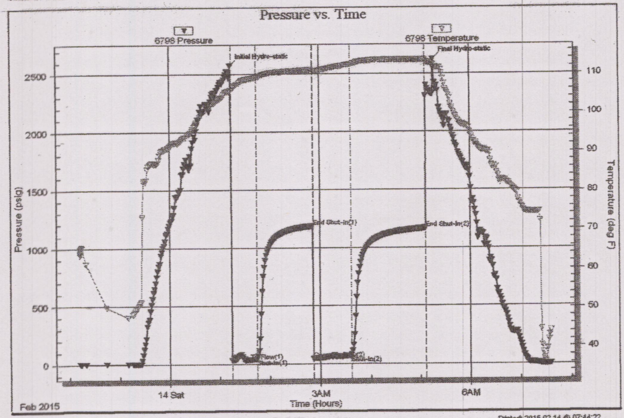
(electronic recorders)

IHYD: 2573 psig
IFP: 32-42 psig
IBHP: 1182 psig
FFP: 45-70 psig
FBHP: 1163 psig
FHYD: 2624 psig

TEMP: 114 degrees F

Tester: Leal Cason: Trilobite Testing LLC, Pratt Kansas District
NOTE: Conventional DST (dual packers, safety joint, electronic recorders)
NO jars
NO bottom sampler

Serial #: 6798 Inside Vincent Oil Corporation Malone 5-21 DST Test Number: 1



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DST 1 - Chart

DST 2) 5062 - 5085

(Penn Cherty Conglomerate)

Times: 30-60-60-90

1st open: strong blow OBOB in ONE (1) minute - NO GAS TO SURFACE
(5 inch blowback)

2nd open: strong blow OBOB immediately - GTS/20"

time	orfice	PSIG	volume
++ 20"			Gas to Surface
20"	1/4 inch	12.0	41.38 MCFGPD
30"	1/4 inch	14.0	45.05 MCFGPD
40"	1/4 inch	16.0	48.00 MCFGPD
50"	1/4 inch	17.0	49.81 MCFGPD
** 60"	1/4 inch	18.0	51.39 MCFGPD

(NO Blowback)

++ - ignited gas at bucket - burned light orange
** - took gas sample - sent to Caraway Labs in Liberal, KS for analysis

Rec: 5026' Gas in Pipe

45' Slightlu Gas Cut Mud
(2% gas, 98% mud)

45' Total Fluid - ALL IN Drill Pipe

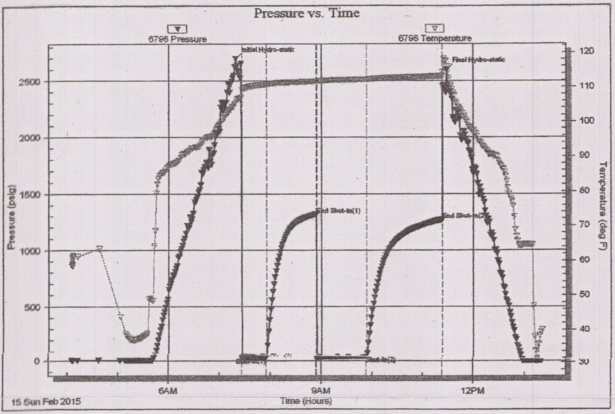
(electronic recorders)

IHYD: 2654 psig
IFP: 27-26 psig
IBHP: 1317 psig
FFP: 23-42 psig
FBHP: 1269 psig
FHYD: 2597 psig

TEMP: 117 degrees

Tester: Leal Cason: Trilobite Testing, LLC, Pratt Kansas District
NOTE: Conventional DST (dual packers, safety joint, electronic recorders)
NO jars
NO bottom sampler

Serial #: 6798 Inside Vincent Oil Corporation



Trilobite Testing, Inc Ref. No: 59751 **DST 2 - Chart** Printed: 2015.02.15 @ 13:29:55

DST 3) 5092 - 5115

(Missisippian Dolomite)

Times: 30-60-45-120

1st open: strong blow OBOB in Ten (10) seconds - GTS/5"

	time	orfice	PSIG	volume
++	05"			Gas to Surface
	10"	1/2 inch	170.0	1.277 MMCFGPD
	20"	3/4 inch	100.0	1.786 MMCFGPD
	30"	3/4 inch	100.0	1.786 MMCFGPD
	(1/4 inch blowback)			

2nd open: strong blow OBOB immediately - gauging gas

time	orfice	PSIG	volume
10"	3/4 inch	50.0	1.005 MMCFGPD
20"	3/4 inch	50.0	1.005 MMCFGPD
30"	3/4 inch	60.0	1.162 MMCFGPD
40"	3/4 inch	60.0	1.162 MMCFGPD
** 45"	3/4 inch	60.0	1.162 MMCFGPD

(NO Blowback)

++ - ignited gas at bucket - burned orange with deep blue undertone

** - took gas sample - sent to Caraway Labs in Liberal, KS for analysis

Rec: 5052' Gas in Pipe

50' Gas Cut Mud
(5% gas, 95% mud)

50' Total Fluid - ALL IN Drill Pipe

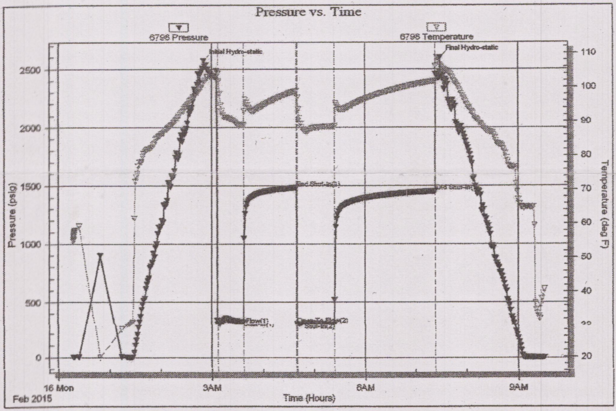
(electronic recorders)

IHYD:	2568	psig
IFP:	306-321	psig
IBHP:	1483	psig
FFP:	310-300	psig
FBHP:	1452	psig
FHYD:	2596	psig

TEMP: 101 degrees

Tester: Leal Cason: Trilobite Testing, LLC, Pratt Kansas District
NOTE: Conventional DST (dual packers, safety joint, electronic recorders)
NO jars
NO bottom sampler

Serial #: 6798 Inside Vincent Oil Corporation Malone 5-21 DST Test Number: 3



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DST 3 - Chart

DST 4) 5120-5130

(Mississippian Dolomite)

TIMES: 60-90-60-120

1st open: weak blow OBOB in 28 minutes - NO GAS TO SURFACE
(NO blowback)

2nd open: strong blow OBOB in ONE (1) minute - NO GAS TO SURFACE
(three (3) inch blowback)

REC: 4556' Gas in Pipe

174' Gassy Muddy Water Cut Oil
(24% gas, 32% oil, 30% water, 14% mud)

62' Gassy Oily Mud Cut Water
(20% gas, 2% oil, 54% water, 24% mud)

236' TOTAL FLUID - ALL IN Drill Pipe

chlorides of mud system: 10,000 ppm
chlorides of formation water: 60,000 ppm
resistivity of formation water: 0.25 at 25 deg F

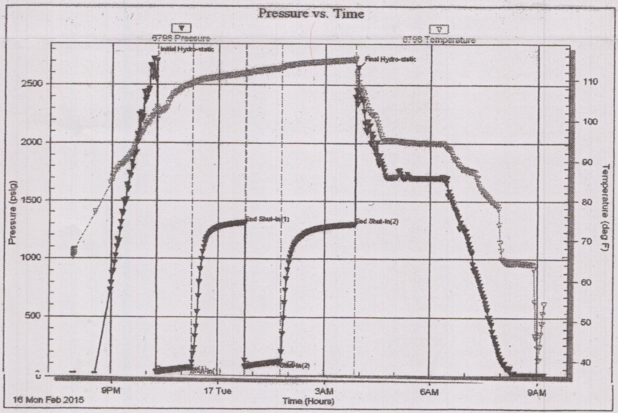
(electronic recorders)

IHYD: 2716 psi
IFP: 23-64 psi
IBHP: 1311 psi
FFP: 70-118 psi
FBHP: 1297 psi
FHYD: 2640 psi

TEMP: 115 degrees F

Tester: Leal Cason: Trilobite Testing, LLC, Pratt Kansas District
NOTE: Conventional DST (dual packers, safety joint, electronic recorders)
NO jars
NO bottom sampler

Serial #: 6798 Inside Vincent Oil Corporation Malone 5-21 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 59753 **DST 4 - Chart** Printed: 2015.02.17 @ 09:20:03