

Confidentiality Requested:

☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1180678

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- ☐ New Well ☐ Re-Entry ☐ Workover
- ☐ Oil ☐ WSW ☐ SWD ☐ SIOW
- ☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
- ☐ OG ☐ GSW ☐ Temp. Abd.
- ☐ CM (Coal Bed Methane)
- ☐ Cathodic ☐ Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- ☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
- ☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer
- ☐ Commingled Permit #: _____
- ☐ Dual Completion Permit #: _____
- ☐ SWD Permit #: _____
- ☐ ENHR Permit #: _____
- ☐ GSW Permit #: _____

Spud Date or
Recompletion Date

Date Reached TD

Completion Date or
Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West

_____ Feet from ☐ North / ☐ South Line of Section

_____ Feet from ☐ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☐ NE ☐ NW ☐ SE ☐ SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? ☐ Yes ☐ No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that 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.

Submitted Electronically

KCC Office Use ONLY

☐ Confidentiality Requested

Date: _____

☐ Confidential Release Date: _____

☐ Wireline Log Received

☐ Geologist Report Received

☐ UIC Distribution

ALT ☐ I ☐ II ☐ III Approved by: _____ Date: _____

Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West County: _____

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	☐ Yes	☐ No	☐ Log	Formation (Top), Depth and Datum	☐ Sample
Samples Sent to Geological Survey	☐ Yes	☐ No	Name	Top	Datum
Cores Taken	☐ Yes	☐ No			
Electric Log Run	☐ Yes	☐ No			
List All E. Logs Run:					

CASING RECORD ☐ 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate				
☐ Protect Casing				
☐ Plug Back TD				
☐ Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No (If No, skip questions 2 and 3)

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No (If No, skip question 3)

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No (If No, fill out Page Three of the ACO-1)

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: ☐ Yes ☐ No		
Date of First, Resumed Production, SWD or ENHR.		Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled <i>(Submit ACO-5)</i> ☐ Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	D & J Oil Company, Inc.
Well Name	Wicked Witch 1
Doc ID	1180678

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	211	Class 'A'	160	2% gel; 3%cc



FIELD TICKET & TREATMENT REPORT CEMENT

FOREMAN Damon M.

[illegible]

Rayin 3737

AUTHORIZTION

TITLE

DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



The Well Watchers

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

Well Name: WICKED WITCH #1
Location: Section 6 - Township 20 South - Range 23 West
Licence Number: 15 - 135 - 25,693 - 00.00 Region: Ness County, Kansas
Spud Date: 12 November 2013 Drilling Completed: 20 November 2013
Surface Coordinates: 2,310' FSL & 1,650' FWL
(NW NE SW)

Bottom Hole
Coordinates:
Ground Elevation (ft): 2,309' K.B. Elevation (ft): 2,314'
Logged Interval (ft): 3,600' To: 4,535' Total Depth (ft): 4,535'
Formation: Oread -----> Mississippi (Osage)
Type of Drilling Fluid: Chemical; Low Solids (dispersed) --> Polymer Compliment

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

OPERATOR

Company: D & J Oil Company, Inc.
Address: 4720 West Garriott
Enid, Oklahoma 73703
(580) 242-3636

POC Geologist:
Craig Roberts

GEOLOGIST

Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776 - 0367 Cell: (316) 217-4679

KB: 2,314'

FORMATION TOPS

GL: 2,309'

Formation	Rotary Sample Depth (Datum)	E-log Depth (Datum)
AnHydrite	1,578' (+736')	1,575' (+739')
B / AnHydrite	1,626' (+688')	1,615' (+699')
Heebner Shale	3,752' (-1,438')	3,752' (-1,438')
Lanisng	3,798' (-1,484')	3,800' (-1,486')
B / KC	4,148' (-1,834')	4,151' (-1,837')
Pawnee Ls	4,236' (-1,922')	4,238' (-1,924')
Ft. Scott Ls	4,315' (-2,001')	4,316' (-2,002')
Cherokee Shale	4,342' (-2,028')	4,340' (-2,026')
Conglomerate	4,381' (-2,067')	4,386' (-2,072')
Erosional Mississippi	4,410' (-2,096')	4,420' (-2,106')
Lithologic Mississippi	4,435' (-2,124')	4,432' (-2,118')

RTD: 4,535' LTD: 4,547' ATD: 4,547' E-log is 1' high - 2' low to rotary sample depth.

E - Loggers:
Nabors (Superior) - Hays, Kansas

2013

DAILY DRILLING STATUS --- NOVEMBER

2013

12-1/4" Hole

7-7/8" Hole

12 Nov --- Spud @ 4pm. Drill to 218'.
 Ran 8.5/8" (24#) casing.
 Set @ 217'. 160sx Class A.
 [Consolidated]
 Cement did circulate.
 Plug Down @ 10pm.
 WOC.

13 Nov --- Under surface casing @ 6am.
 7am @ 275'.
 14 --- 7am @ 1,970'.
 15 --- 7am @ 2,770'.
 16 --- Displace Mud @ 3,433'.
 7am @ 3,580'.
 17 --- 7am @ 3,935'.
 18 --- 7am @ 4,235'.
 Start and

19 Nov --- Finish DST #1: Ft. Scott
 (4,300' - 4,338').
 Resumed Drilling @ 6:30am.
 7am @ 4,345'.
 Start and
 20 --- Finish DST #2: Miss
 (4,360' - 4,453').
 Resumed Drilling @ 6:50am.
 7am @ 4,455'.
 RTD (4,535') @ 10:45am.
 E-LOG. [Nabors].

DST #1 - FT. SCOTT LIMESTONE

Rotary Depth: 4,300' - 4,338'
 Logger' Depth: 4,302' - 4,340'

Recovery: 90' Mud

Total Fluid: 90'

Recovery Water: (5,000 ppm)
 System Water: NA

Recovery Water (Engineer): NA

Reported Rw = NA

Tool Sample: NA

SuperiorTesting - Great Bend, KS.

IFP: 48# - 68# / 30"

ISIP: 1,0237# / 45"

FFP: 70# - 89# / 60"

FSIP: 980# / 60"

117 deg F

MH: 2,167# - 2,118#

IF: Weak Surface Blow built to 2.5 inches.

ISI: No Blow Back.

FFI: Weak Surface Blow built to 3 inches

FSI: No Blow Back.

DST #2 MISS

Rotary Depth: 4,360' - 4,453'
 Logger' Depth: 4,362' - 4,455'

Recovery: 203' Very Slightly OIL Spotted Mud

Total Fluid: 203'

Recovery Water: (5,000 ppm)
 System Water: NA

Recovery Water (Engineer): NA

Reported Rw = NA

Tool Sample: NA

SuperiorTesting - Great Bend, KS.

IFP: 82# - 150# / 30"

ISIP: 1,055# / 45"

FFP: 130# - 175# / 60"

FSIP: 907# / 60"

118 deg F

MH: 2,258# - 2,142#

IF: Weak Surface Blow built to 7.5 inches.

ISI: No Blow Back.

FFI: Weak Surface Blow built to 7 inches

FSI: No Blow Back.

HOLE DEVIATION (218' - 4,535")

DEPTH / TVD	---	INCLINATION	AZIMUTH	NORTH	SOUTH	EAST	WEST	DOGLEG deg/100'
218' /	---	0.25 (Surface)						
1,970' /	---	0.75						
4,338' /	---	0.25 (DST #1)						
4,535' /	---	0.25 (RTD)						

STRAP @ 4,338' (DST #1)
 Strap: 4,314.04'
 Board: 4,313.52'
 Diff: 0.52'

CONTRACTOR

Murfin Drilling --- Rig #16

250 North Water, Suite 300
Wichita, Kansas 67202
Office: (316) 267-3241

Rig 16 - (785) 443-1677

Toolpusher: Andy Dinkel (785) 443-2377

Pump: EMSCO D-375
6" x 14" @ 60 SPM.
800 psi @ Standpipe.

After Mudup / Main Hole:
WOB 32M @ 80 RPM.

Drill Collars: 6" x 2-3/8" --- 502' (81#/ft)
Collar Weight in Air: 40,662#
Collar Weight in MUD: 35,335#
(@ 8.6 ppg / Buoyancy Factor 0.869)
Design Factor: 15%, therefore:
available WOB is 30,035#
Drill Pipe: 4-1/2"XH. (16#/ft - used)

BIT RECORD

DATE	SIZE	TYPE	JET SIZE	DEPTH IN / OUT	CUM. FT.	HOURS	Ft/Hr ROP
12 Nov 2013	12-1/4"	VAREL L-117	16 - 18 - 16	0' / 302'	302'	29.75	10.2
13 Nov 2013	7-7/8"	HUGHES GX-20C	16 - 18 - 16	218' / 1,970'	1,723'	69.00	25.0
14 Nov 2013	7-7/8"	HUGHES GX-20C	16 - 18 - 16	1,970' / 3,743'	1,773'	45.00	39.4
16 Nov 2013	7-7/8"	HUGHES GX-20C	16 - 18 - 16	3,743' / 4,535'	792'	40.75	19.4

ROCK TYPES

POROSITY

	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic
	Pinpoint
	Vuggy

LITHOLOGY

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Granite wash
	Congl
	Dol lmst
	Silty dol
	Calc dol

	Dol 2
	Dol
	Gyp
	Igne
	Argil lmst
	Lmst 2
	Lmst
	Meta
	Mrlst
	Salt
	Shale 3
	Shale 3
	Shcol
	Shgy
	Sltst
	Ss
	Till
	Ss 2

MINERAL

	Mica
--	------



Anhy

Arggrn

Arg

Bent

Bit

Brecfrag

Calc

Carb

Chtdk

Chtlt

Dol

Feldspar

Ferrpel

Ferr

Glau

Gyp

Hvymin

Kaol

Marl

Minxl

Nodule

Phos



Pyr

Salt

Sandy

Silt

Sil

Sulphur

Tuff

Copper

Ooliticastic

Ooloid

Oolite

Sucrosic

Dark specks

Calc dol

Silty dol

Anhy

Arg

Bent

Coal

Dol



Gyp

Dol ls

Ls

Mrst

Calc dol

Sltstrg

Ssstrg

Chalk

New symbol

SHOW

Oil

Spotted

Ques

Dead

Gas

Oil/gas

Bed contact

STRINGER



Calc dol

Silty dol

Anhy

Arg

Bent

Coal

Dol

ACCESSORIES

FOSSIL

Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Spore
Crin
Echin
Fish
Foram
Fossil
Gastro

Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom

MINERAL

Mica
Anhy
Arggrn
Arg
Bent
Bit
Brecfrag

Calc
Carb
Chtdk
Chtlit
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
Kaol
Marl
Minxl
Nodule
Phos

Pyr
Salt
Sandy
Silt
Sil
Sulphur
Tuff
Copper
Ooliticastic
Ooloid
Oolite
Sucrosic
Dark specks

STRINGER

Calc dol

Silty dol
Anhy
Arg
Bent
Coal
Dol
Gyp
Dol ls
Ls
Mrst
Calc dol
Sltstrg
Ssstrg
Chalk
New symbol

OTHER SYMBOLS

ACTIVITY

Lost circluation
Circulate for sam

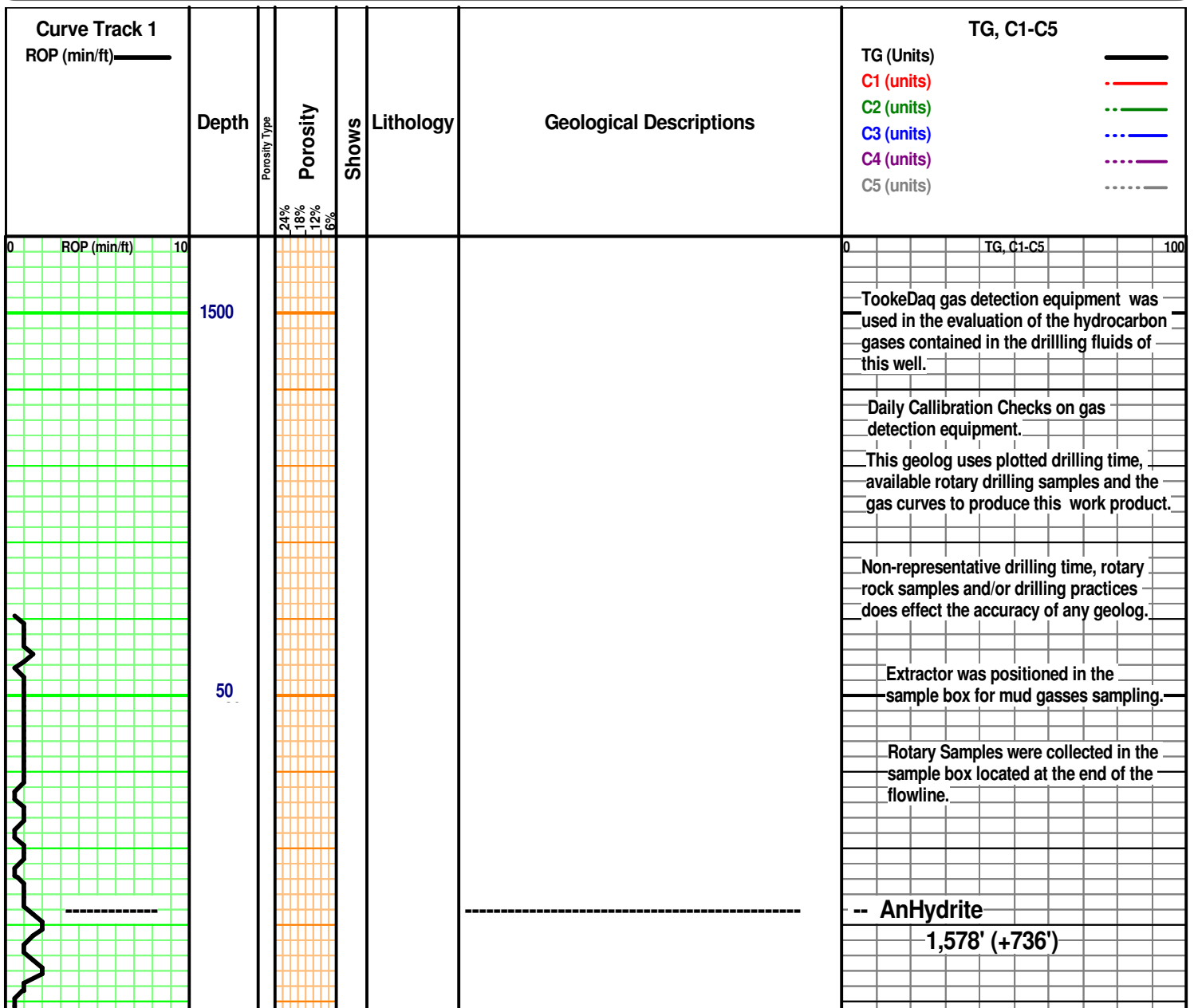


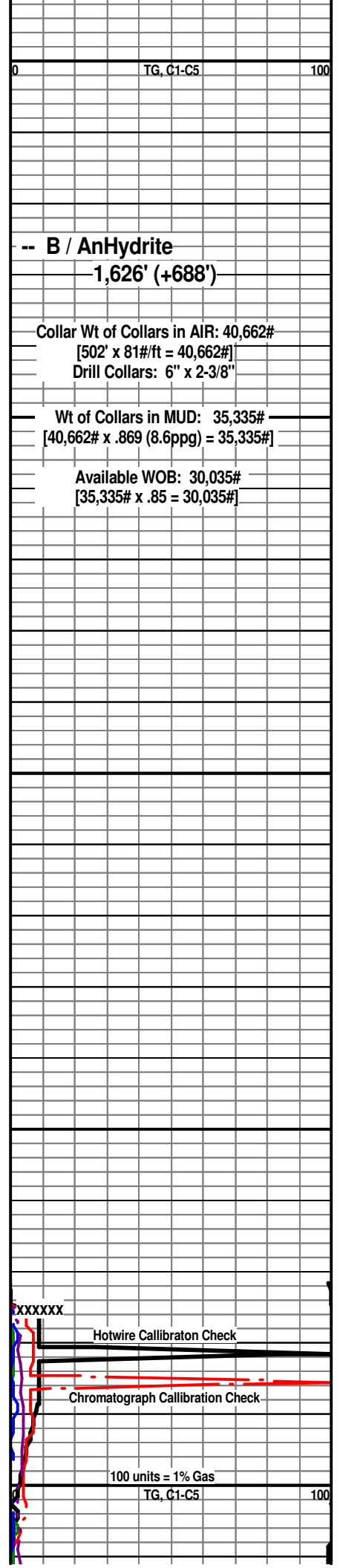
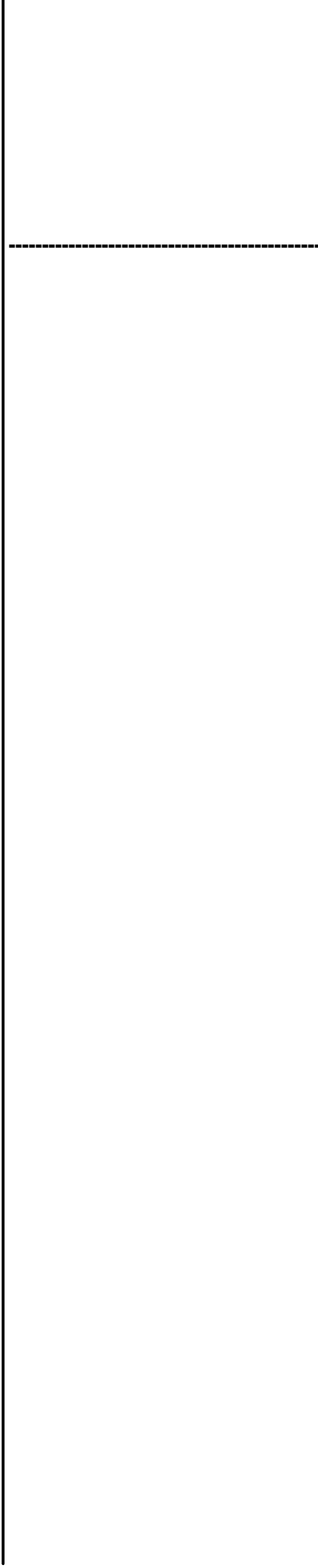
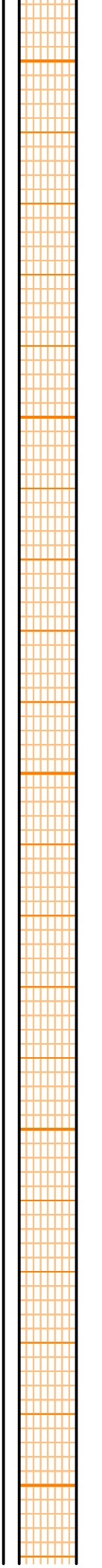
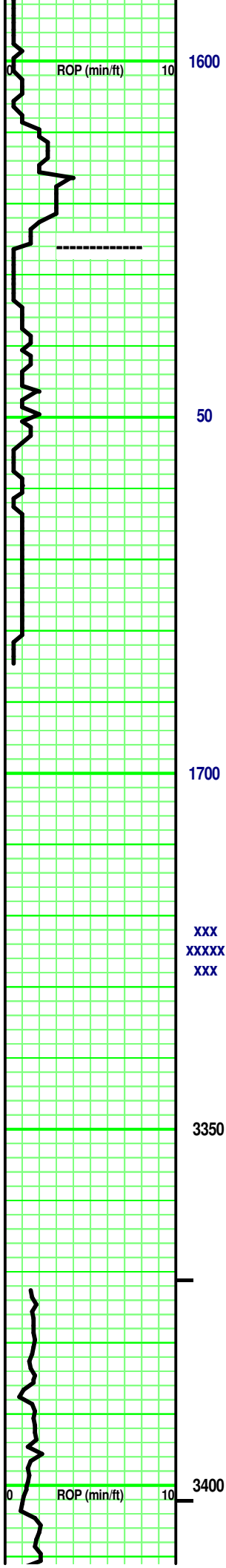
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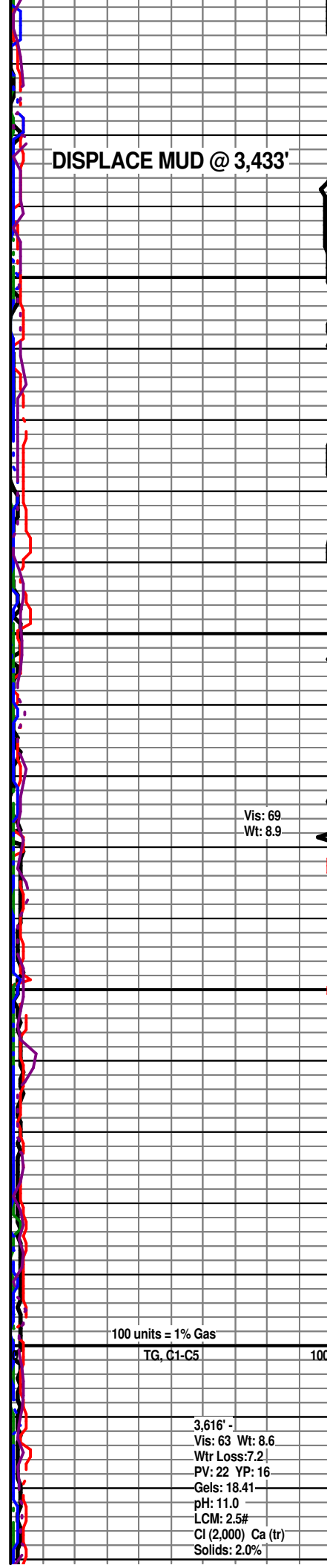
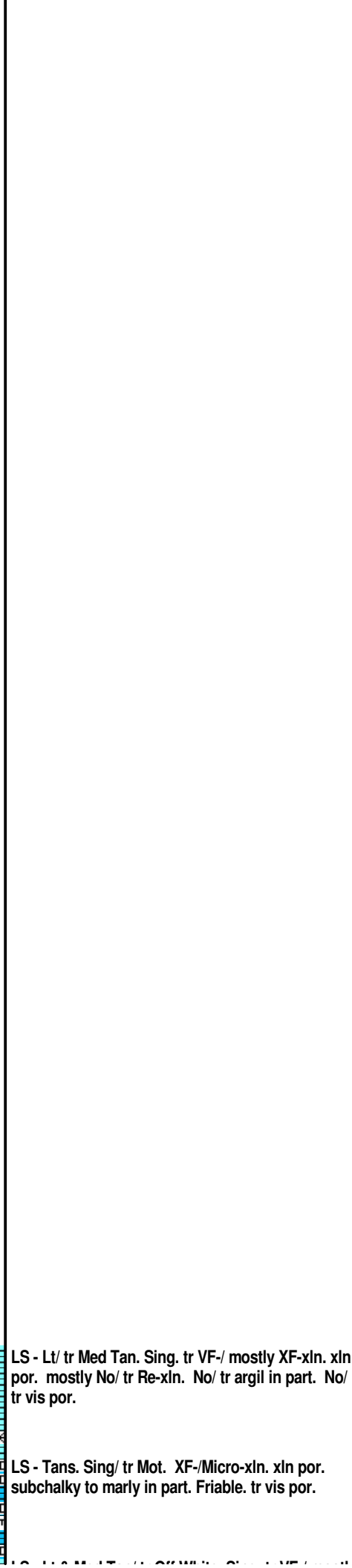
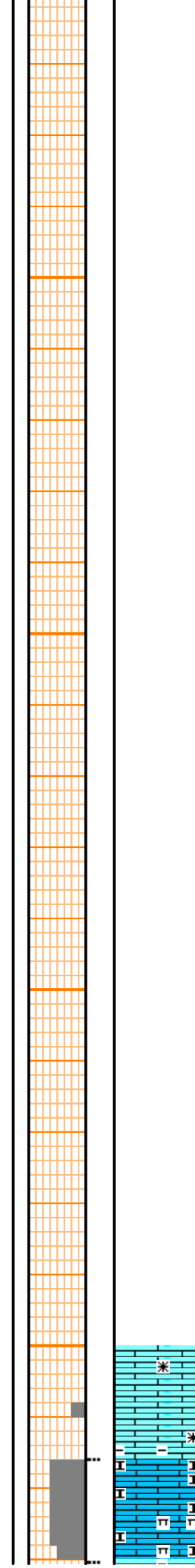
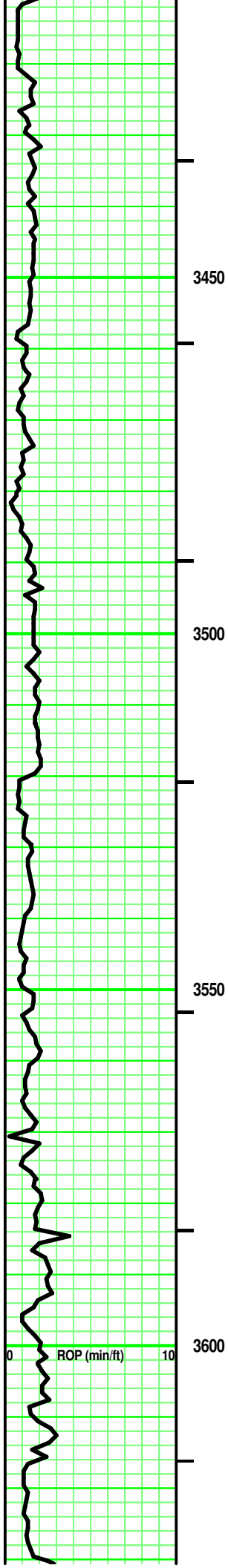
Connection
Rft

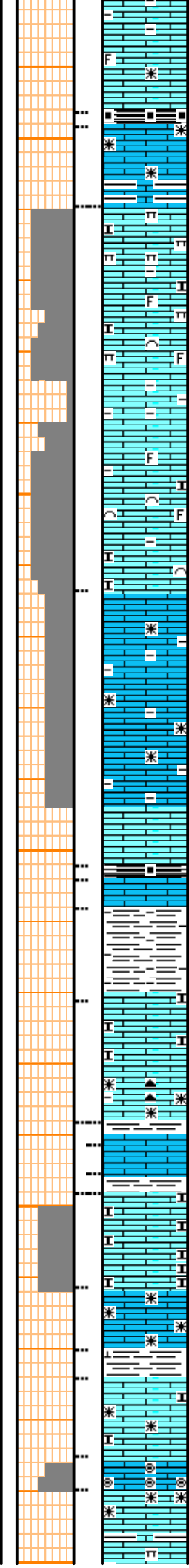
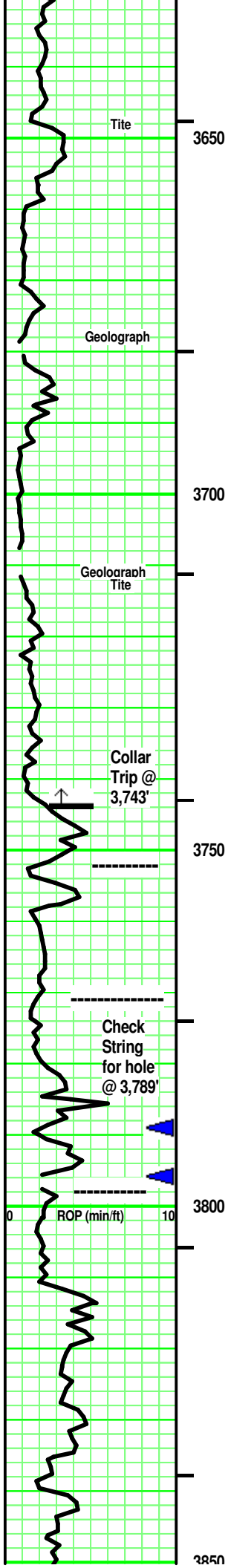


Sidewall









LS - Lt & Med Tan/ tr Off White. Sing. tr VF-/ mostly XF-xln. xln por. mostly No/ tr Re-xln. No/ tr argil in part. tr fossil frag. No/ tr vis por.

SH - Black. Sing. carb. soft.

LS - Pale Lt Gray/ mostly Med Tan to Grayish Tan. tr XF-/ mostly Micro-xln. xln por. tr Re-xln. some argil in part.

Interbedded LS

LS - Tans. Mot/ Mixed. XF-/ tr XF-xln. xln por. No/ rare fossil frag. subchalky to marly. Thin, flatten brown organics. Friable. tr vis por.

LS - Lt Grayish Tan/ Med Tan. Sing/ some Mot. Xf-/ Micro-xln. xln por. No/ tr argil. partly Firm. No/ tr vis por.

LS - Tans/ Grayish Off White. Sing/ Mixed. XF-/ tr Micro-xln. xln por. No/ rare Re-xln. No/ rare argil in part. partly Firm. No/ tr vis por.

LS - Lt Grayish Tan. Sing. XF-/Micro-xln. xln por. mostly No/ tr Re-xln.

----- **HEEBNER SH 3,752' (-1,438')**

SH - Black. Sing. carb. tr plattv.

LS - Pale Grayish Tan. Sing. Micro-xln. Firm. No/ tr vis por.

SH - Med Gray/ tr Greenish Gray. Sing. partly Firm.

----- **TORONTO LS 3,771' (-1,457')**

LS - Tans/ some Off White. Mot/ Mixed. XF-/ some Micro-xln at depth. No/ rare Re-xln at depth. [few pcs: CHERT - White/Gray/ tr Tan. Opaque. hi fossil frags. No tripolitic.] subchalky in part. tr/ some fair vis por.

Interbedded SH & LS

SH - Lt/ Med Gray, Lt Olive Gray. Sing. tr blocky.

LS - Lt Tan. Sing. XF-xln. xln por. partly Firm. No/ tr vis por.

----- **LANSING 3,798' (-1,484')**

LS - Lt Tan, Tannish Off White. Sing. Xr-xln. xln por. subchalky. partly Friable. No. tr vis por.

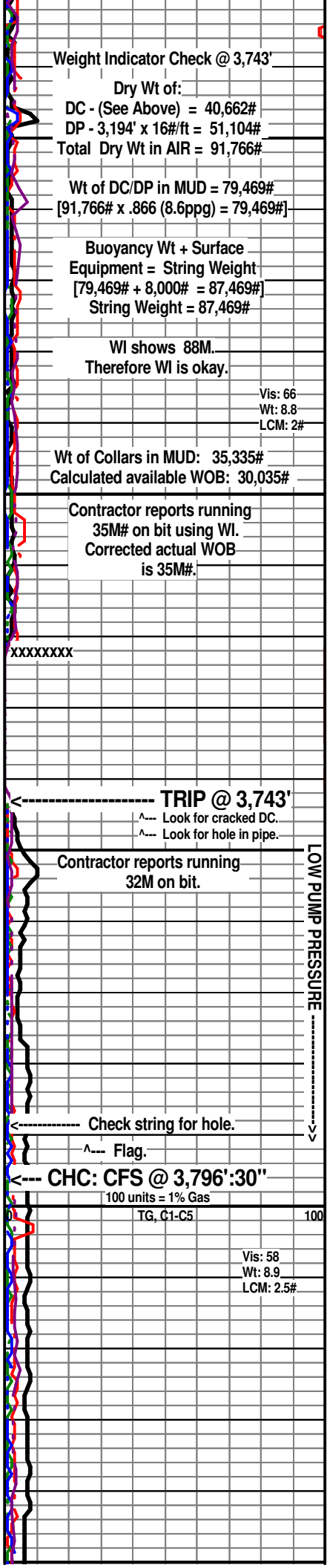
LS (1) - Lt/ Med Tan. Sing. Micro-/ rare Crypto-xln. xln por. No/ tr Re-xln. Firm. No/ tr vis por.

SH - Lt/ Med Gray. Sing. rare calc.

LS - similar to (1) above. Add: tr subchalky in part.

LS - Off White/ Lt Tan. Micro-Oolites. Lt Tan, opaque matrix. Friable. Fair vis por.

LS - Tans/ Pale Lt Gray. Sing. XF-/Micro-xln. xln por. Re-xln at top. tr inmixed/interbedded argil/ shaly (Lt Gray). Marly in part. No/ tr vis por.



Weight Indicator Check @ 3,743'

Dry Wt of:
DC - (See Above) = 40,662#
DP - 3,194' x 16#/ft = 51,104#
Total Dry Wt in AIR = 91,766#

Wt of DC/DP in MUD = 79,469#
[91,766# x .866 (8.6ppg) = 79,469#]

Buoyancy Wt + Surface
Equipment = String Weight
[79,469# + 8,000# = 87,469#]
String Weight = 87,469#

WI shows 88M.
Therefore WI is okay.

Vis: 66
Wt: 8.8
LCM: 2#

Wt of Collars in MUD: 35,335#
Calculated available WOB: 30,035#

Contractor reports running
35M# on bit using WI.
Corrected actual WOB
is 35M#.

XXXXXXXXXX

TRIP @ 3,743'

^--- Look for cracked DC.
^--- Look for hole in pipe.

Contractor reports running
32M on bit.

Check string for hole.

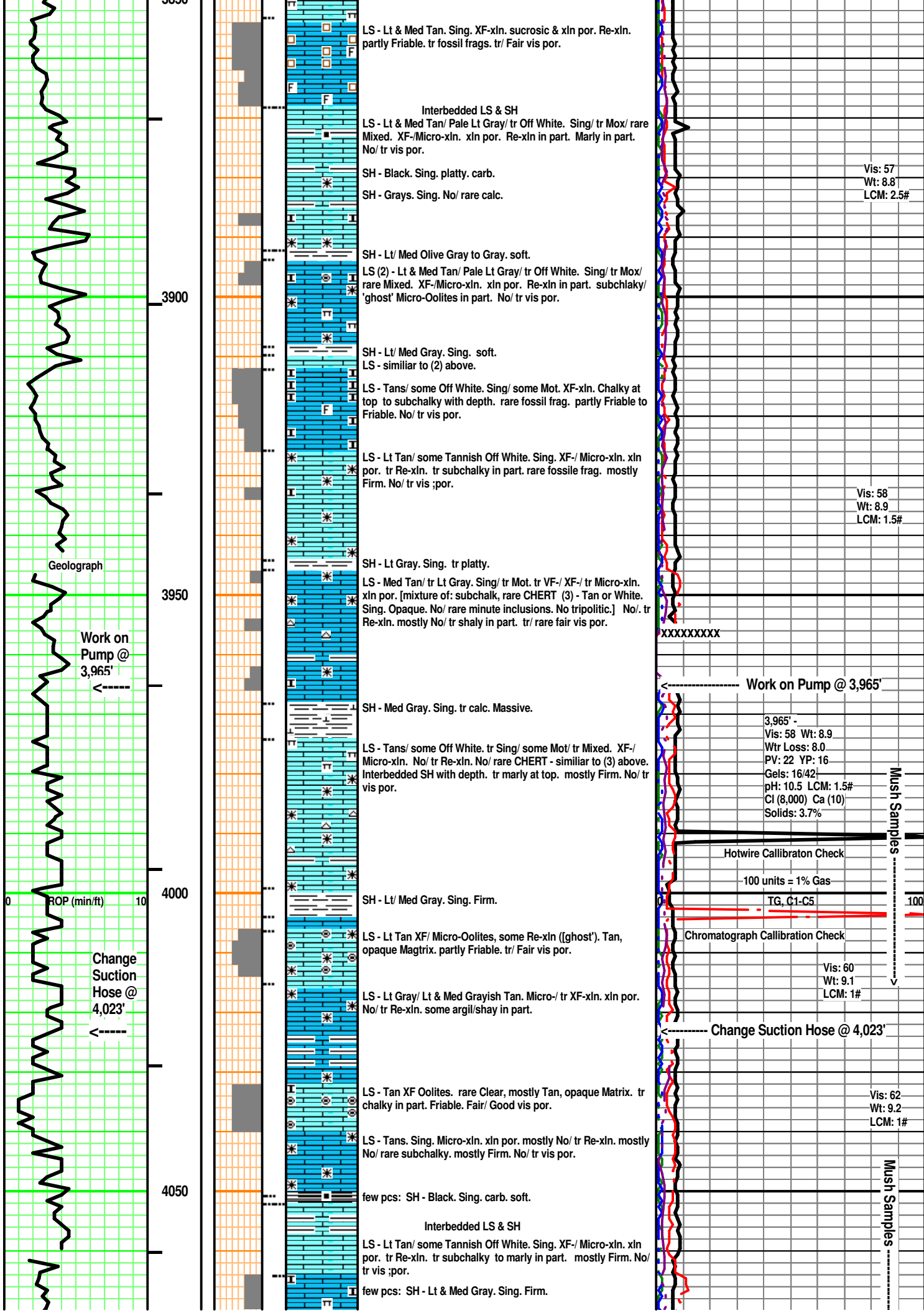
^--- Flag.

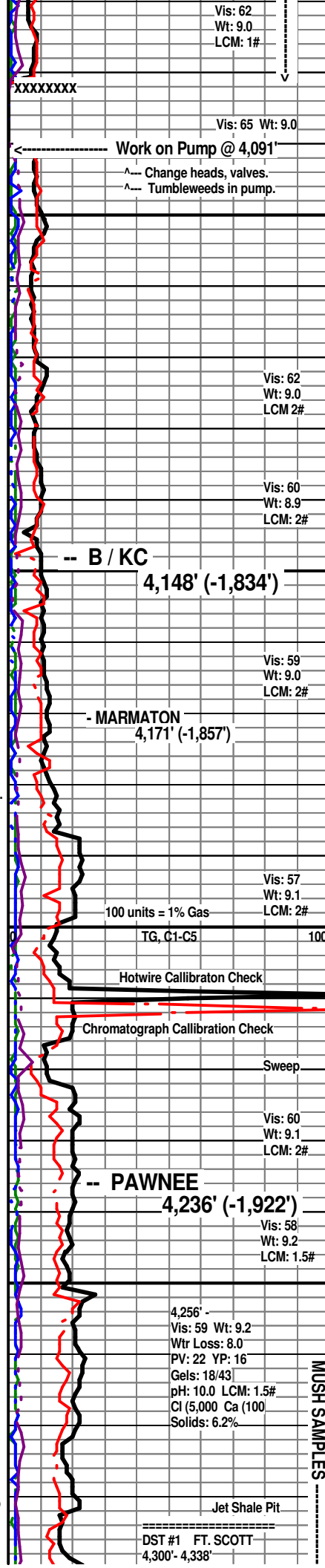
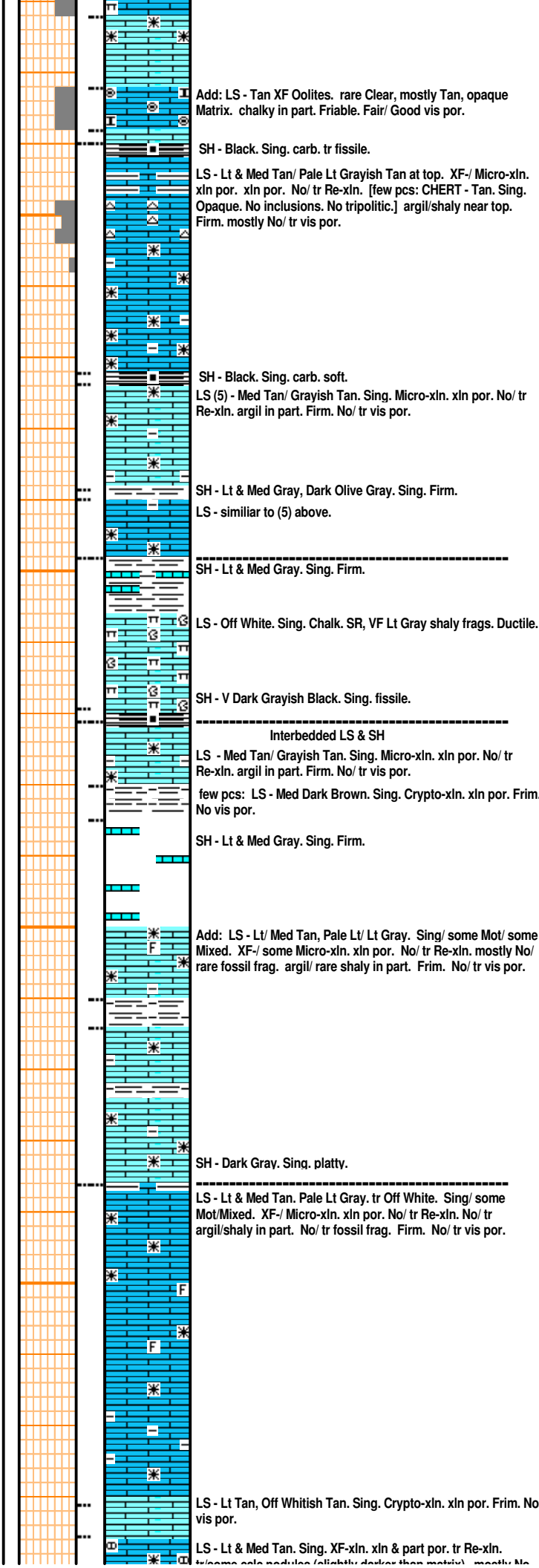
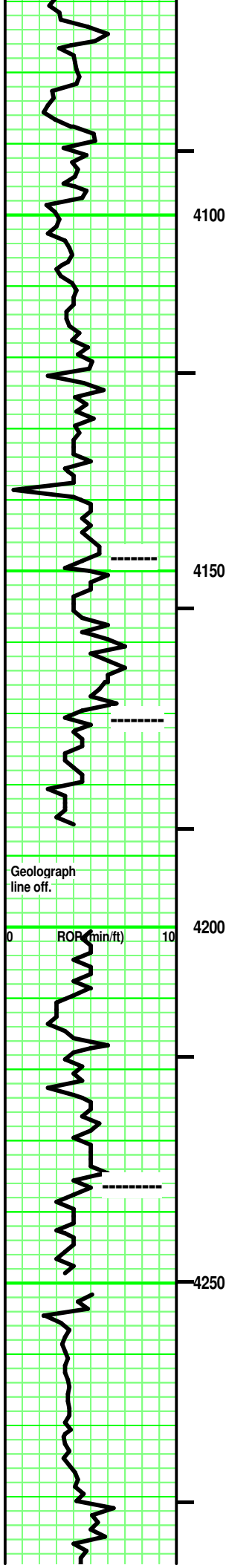
CHC: CFS @ 3,796':30"

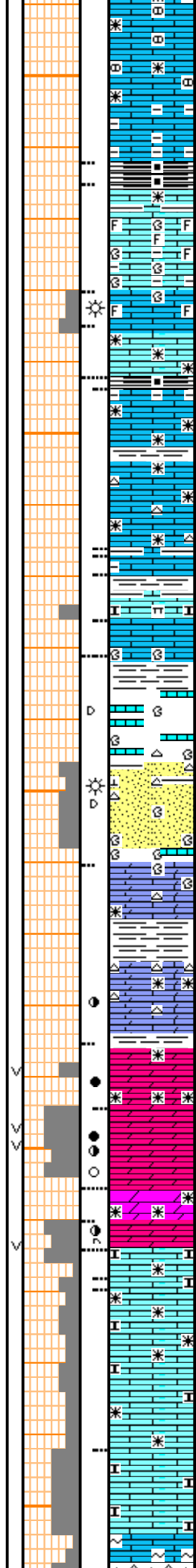
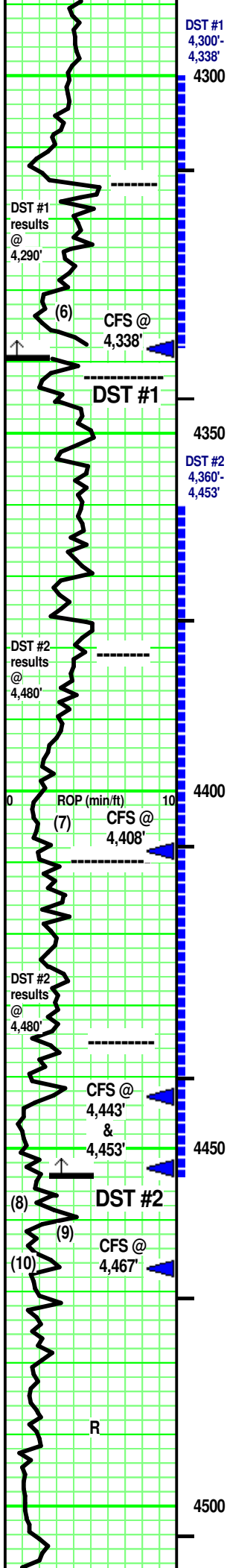
100 units = 1% Gas
TG, C1-C5

Vis: 58
Wt: 8.9
LCM: 2.5#

LOW PUMP PRESSURE







SH - Black. Sing. carb. tr fissile.

FT. SCOTT 4,315' (-2,001')

LS - Tans/Grays. Mot. Micro-xln. xln & part por. No/ tr Re-xln. fossil frags. argil/shaly frags in part. Firm. No/ tr vis por.

LS (6) - Tans/Grays. Mot. Micro-xln. xln & part por. No/ tr Re-xln. fossil frags. argil/shaly frags in part. Firm. No/ tr vis por. ? odor. Uniform Hi Yellow florescence. On own, minute gas bubbles clinging to rx chip. No free oil. Spotted, Lt Brown, irregular stain. Pos cut/ residual. Pos acid/ residual. (Photo)

CHEROKEE SH 4,342' (-2,028')

SH - Black. Sing. carb. tr soft.
LS (7) - Tans/ Lt Gray. rare Sing/ Mot. XF-/ Micro-xln. xln por. No/ tr Re-xln. argil/ shaly in part. Firm. No/ tr vis por.

SH - Med to Dark Gray. Sing. blocky.

Add: CHERT - Silvery Gray. Semi-transparent. No/ tr inclusions. No tripolitic.

SH - Lt to Med Gray. Sing.

Add: subchalk to marl.

LS - similar to (7). some brec pcs.

CONGLOMERATE 4,381' (-2,067')

Mixture of:

SH - Dark Greenish or Dark Bluish Gray. Adding Dark Brownish Gray, Grayish Dark Red, Green Blue, rare Yellow with depth.

LS - Lt Tan, Off White, Pale Gray White. Mot/ Mixed. XF-/Micro-xln. xln por. brec frags. partly Friable. tr/ rare Fair vis por.

CHERT - Yellow, Lt Gray, Off White, Tan. Mot/Mixed. Semi-transparent to Opaque. No/ tr Tripolitic (spotted or uniform). mostly No/. rare inclusion. -->

EROSIONAL MISS 4,410' (- 2,096')

LS (Dol) - Tans/ some Off White/ tr Lt Gray. Sing/ some Mot. XF-/Micro-xln. xln. No/ tr Re-xln. [some CHERT - Tans/ Clear/ Silvery Gray. Mot/Mixed. Semi-transparent to Opaque. some No/ tr inclusions. No/ some tripolitic (& rare vuggy). Show in chert: No/? odor. Spotted dull Yellow florescence. No free oil or gas. Dark Brown/ Black asphaltic infill. some pcs have 'copper' hue in vuggy por. No/ tr cut & residual. No/ tr acid & ---->

MISS 4,435' (- 2,124')

DOL - Tan/ Tannish Lt Gray. Sing. mostly subeuhedral, rare euhedral xtalx. mixture of Re-xln & vuggy por. partly Friable. mostly Tr/ some Fair to Good vis por.

Fair/Good odor. spotted/ some uniform Yellow florescence. On own, rare free V Dark Brown/Black oil blebs floating on wash water and minutes semi-transparent schreen on wash water. spotted Lt/ Med Brown stain rimming vuggy por. Pos cut & residual. Pos acid & residual.

<--- DOL (9) - tr Tannish Lt Gray/ mostly Lt Gray. Sing. mostly subeuhedral, rare euhedral xtalx. mixture of Re-xln & vuggy por. partly Friable. mostly Tr/ some Fair to Good vis por. Show similar to above, adding asphaltic flecks. and no free oil. v rare 'oil wet' fact on rx chip.

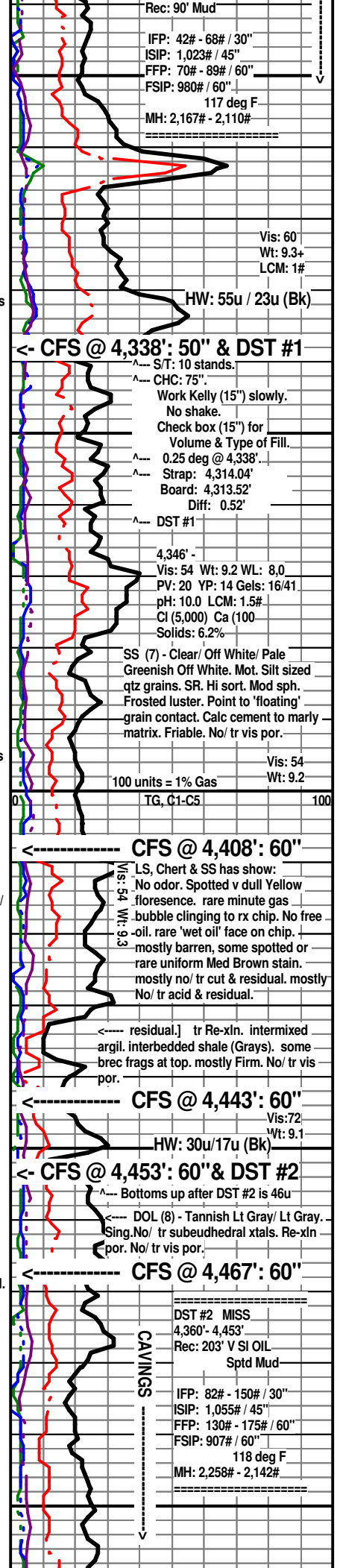
Interbedded LS

LS (10) - White. Sing. Micro-xln. xln por. chalky. No/ tr vis por.

LS - Tans/ Pale Lt Gray. Sing/ tr Mot. XR-/Micro-xln. xln por. No/ tr Re-xln. partly Firm. No/ tr/ some Fair vis por.

few pcs CHERT - similar to below.

Add: LS - Lt Tan. Sing. XF-xln. xln por. minute, irregular, VF, SA glucac grains. partly Firm. No/ tr vis por.



IFP: 42# - 68# / 30"
ISIP: 1,023# / 45"
FFP: 70# - 89# / 60"
FSIP: 980# / 60"

117 deg F
MH: 2,167# - 2,110#

Vis: 60
Wt: 9.3+
LCM: 1#

HW: 55u / 23u (Bk)

CFS @ 4,338': 50" & DST #1

S/T: 10 stands.

CHC: 75".

Work Kelly (15") slowly.

No shake.

Check box (15") for

Volume & Type of Fill.

0.25 deg @ 4,338'.

Strap: 4,314.04'

Board: 4,313.52'

Diff: 0.52'

DST #1

4,346' -

Vis: 54 Wt: 9.2 WL: 8.0

PV: 20 YP: 14 Gels: 16/41

pH: 10.0 LCM: 1.5#

Cl (5,000) Ca (100

Solids: 6.2%

SS (7) - Clear/ Off White/ Pale Greenish Off White. Mot. Silt sized qtz grains. SR. Hi sort. Mod sph. Frosted luster. Point to 'floating' grain contact. Calc cement to marly matrix. Friable. No/ tr vis por.

Vis: 54

Wt: 9.2

100 units = 1% Gas

TG, C1-C5

CFS @ 4,408': 60"

LS, Chert & SS has show:
No odor. Spotted v dull Yellow florescence. rare minute gas bubble clinging to rx chip. No free oil. rare 'wet oil' face on chip. mostly barren, some spotted or rare uniform Med Brown stain. mostly no/ tr cut & residual. mostly No/ tr acid & residual.

<--- residual.] tr Re-xln. intermixed argil. interbedded shale (Grays). some brec frags at top. mostly Firm. No/ tr vis por.

CFS @ 4,443': 60"

Vis: 72

Wt: 9.1

HW: 30u/17u (Bk)

CFS @ 4,453': 60" & DST #2

Bottoms up after DST #2 is 46u

<--- DOL (8) - Tannish Lt Gray/ Lt Gray. Sing./No/ tr subeuhedral xtalx. Re-xln por. No/ tr vis por.

CFS @ 4,467': 60"

DST #2 MISS

4,360' - 4,453'

Rec: 203' V SI OIL

Sptd Mud

IFP: 82# - 150# / 30"

ISIP: 1,055# / 45"

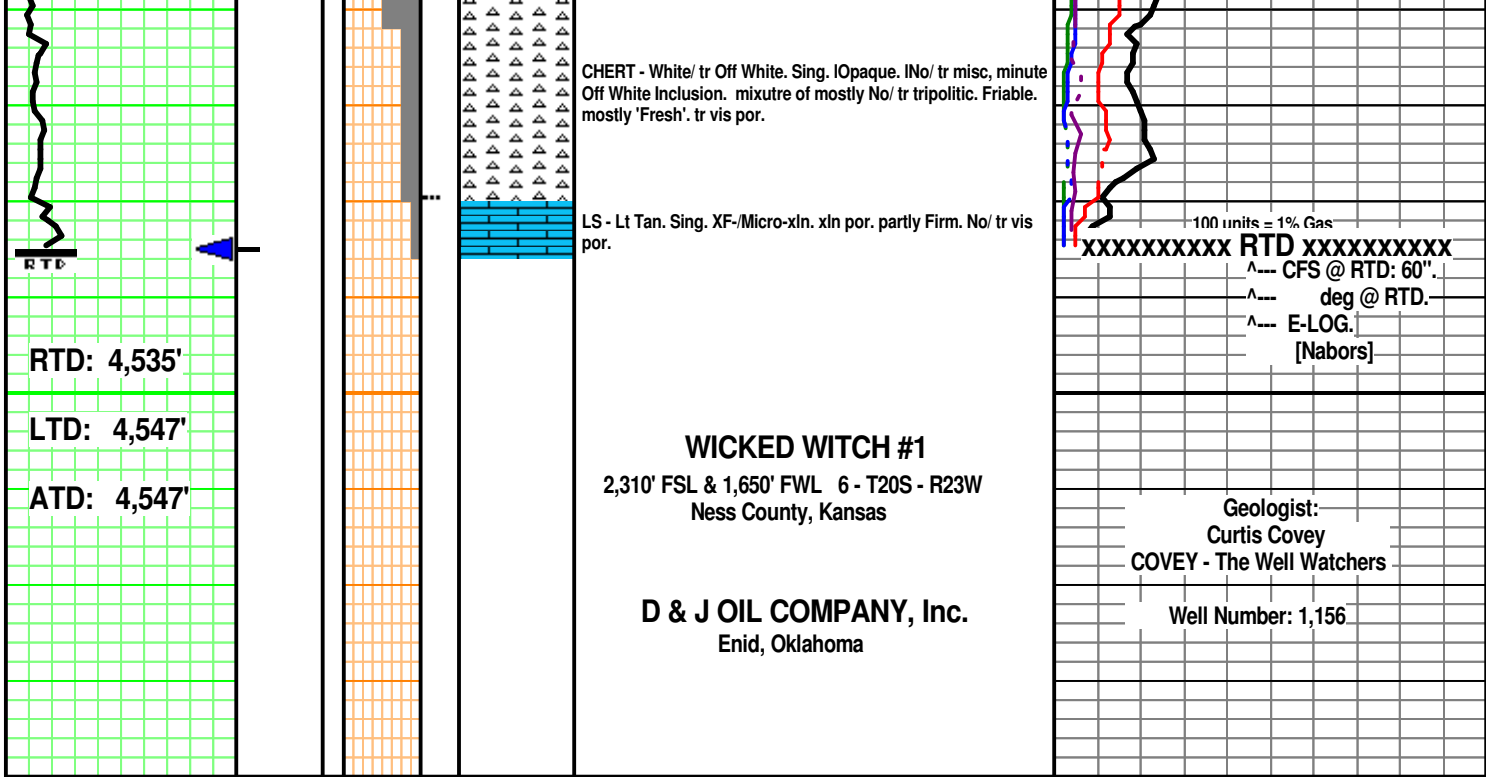
FFP: 130# - 175# / 60"

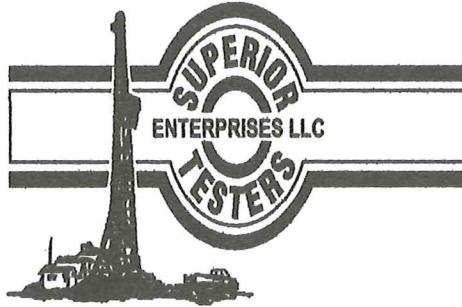
FSIP: 907# / 60"

118 deg F

MH: 2,258# - 2,142#

CAVINGS





DRILL STEM TEST REPORT

Prepared For: **D&J Oil Company**

4720 Wicariott Oklahoma
73703

ATTN: Curtis Covey

Wicked Witch #1

6-20s-23w-Ness

Start Date: 2013.11.18 @ 08:27:00

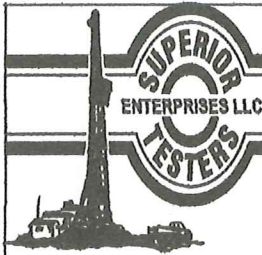
End Date: 2013.11.18 @ 15:15:30

Job Ticket #: 18460 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2013.11.19 @ 03:30:57

D&J Oil Company 6-20s-23w-Ness Wicked Witch #1 DST # 1 Ft.Scott 2013.11.18



DRILL STEM TEST REPORT

D&J Oil Company
4720 Wicarriott Oklahoma
73703
ATTN: Curtis Covey

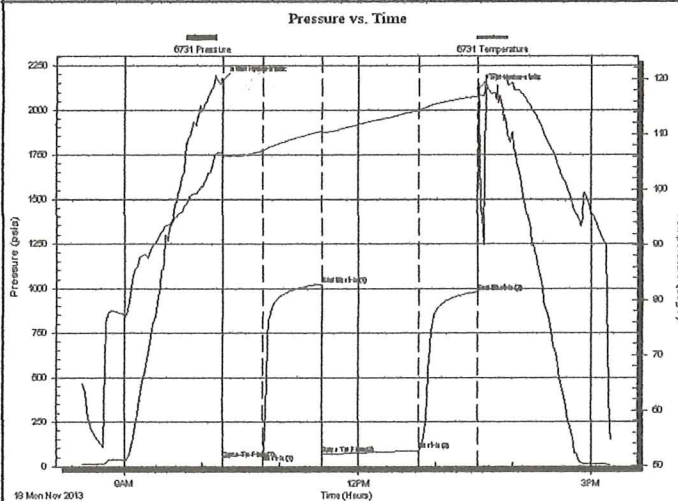
6-20s-23w-Ness
Wicked Witch #1
Job Ticket: 18460 **DST#: 1**
Test Start: 2013.11.18 @ 08:27:00

GENERAL INFORMATION:

Formation: **Ft.Scott**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 10:16:00
Time Test Ended: 15:15:30
Interval: **4300.00 ft (KB) To 4338.00 ft (KB) (TVD)**
Total Depth: **4338.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole (Initial)**
Tester: **Dustin Ellis**
Unit No: **3315-Great Bend-146**
Reference Elevations: **2314.00 ft (KB)**
2309.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 6731 **Inside**
Press@RunDepth: **89.94 psia @ 4334.00 ft (KB)** Capacity: **5000.00 psia**
Start Date: **2013.11.18** End Date: **2013.11.18** Last Calib.: **2013.11.19**
Start Time: **08:27:00** End Time: **15:15:30** Time On Btm: **2013.11.18 @ 10:15:30**
Time Off Btm: **2013.11.18 @ 13:33:00**

TEST COMMENT: 1st Open 30 minutes Weak blow built to 2.5 inches into a 5 gallon bucket of water.
1st Shut in 45 minutes No blow back.
2nd Open 60 minutes Weak blow built ot 3 inches into a 5 gallon bucket of water.
2nd Shut in 60 minutes No blow back.



PRESSURE SUMMARY

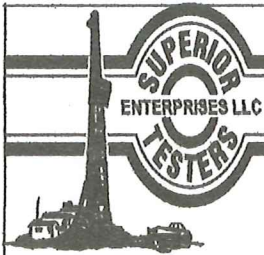
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2167.75	106.64	Initial Hydro-static
1	42.28	105.39	Open To Flow (1)
31	68.20	107.01	Shut-In(1)
77	1023.52	110.53	End Shut-In(1)
77	70.72	110.33	Open To Flow (2)
152	89.94	114.44	Shut-In(2)
197	980.07	116.92	End Shut-In(2)
198	2118.99	117.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Mud 100%	0.99

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

D&J Oil Company

6-20s-23w-Ness

4720 Wicarriott Oklahoma
73703

Wicked Witch #1

Job Ticket: 18460

DST#: 1

ATTN: Curtis Covey

Test Start: 2013.11.18 @ 08:27:00

GENERAL INFORMATION:

Formation: Ft.Scott

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:16:00

Time Test Ended: 15:15:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-146

Interval: 4300.00 ft (KB) To 4338.00 ft (KB) (TVD)

Reference Elevations: 2314.00 ft (KB)

Total Depth: 4338.00 ft (KB) (TVD)

2309.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8159

Outside

Press@RunDepth: 982.99 psia @ 4335.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.11.18

End Date:

2013.11.18

Last Calib.: 2013.11.19

Start Time: 08:27:00

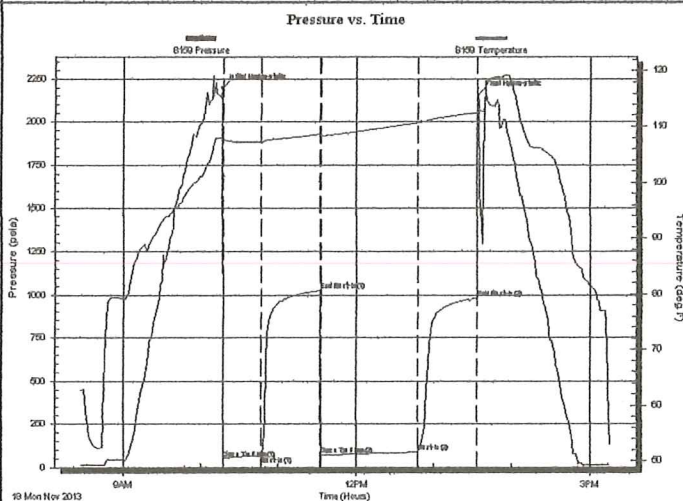
End Time:

15:16:00

Time On Btm: 2013.11.18 @ 10:16:30

Time Off Btm: 2013.11.18 @ 13:34:00

TEST COMMENT: 1st Open 30 minutes Weak blow built to 2.5 inches into a 5 gallon bucket of water.
1st Shut in 45 minutes No blow back.
2nd Open 60 minutes Weak blow built to 3 inches into a 5 gallon bucket of water.
2nd Shut in 60 minutes No blow back.



PRESSURE SUMMARY

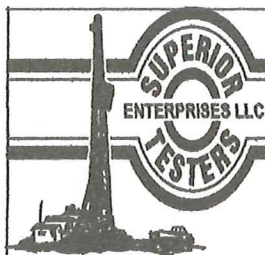
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2199.33	108.08	Initial Hydro-static
1	51.85	107.58	Open To Flow (1)
31	67.96	107.24	Shut-In(1)
76	1024.50	108.60	End Shut-In(1)
77	71.93	108.21	Open To Flow (2)
151	88.81	110.63	Shut-In(2)
197	982.99	112.47	End Shut-In(2)
198	2155.78	112.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Mud 100%	0.99

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

D&J Oil Company

6-20s-23w-Ness

4720 Wicarriott Oklahoma
73703

Wicked Witch #1

Job Ticket: 18460

DST#: 1

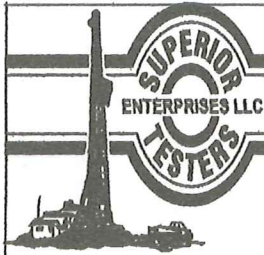
ATTN: Curtis Covey

Test Start: 2013.11.18 @ 08:27:00

Tool Information

Drill Pipe:	Length: 4272.00 ft	Diameter: 3.80 inches	Volume: 59.92 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 29.53 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 63000.00 lb
			Total Volume: 60.07 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.53 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4300.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			4277.00	
Hydrolic Tool	5.00			4282.00	
Jars	6.00			4288.00	
Safety Joint	2.00			4290.00	
Packer	5.00			4295.00	28.00 Bottom Of Top Packer
Packer	5.00			4300.00	
Anchor	33.00			4333.00	
Recorder	1.00	6731	Inside	4334.00	
Recorder	1.00	8159	Outside	4335.00	
Bullnose	3.00			4338.00	38.00 Bottom Packers & Anchor
Total Tool Length:		66.00			



DRILL STEM TEST REPORT

FLUID SUMMARY

D&J Oil Company

6-20s-23w-Ness

4720 Wicarriott Oklahoma
73703

Wicked Witch #1

Job Ticket: 18460

DST#: 1

ATTN: Curtis Covey

Test Start: 2013.11.18 @ 08:27:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 59.00 sec/qt

Water Loss: 8.00 in³

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

deg API

Water Salinity:

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Mud 100%	0.993

Total Length: 90.00 ft

Total Volume: 0.993 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6731

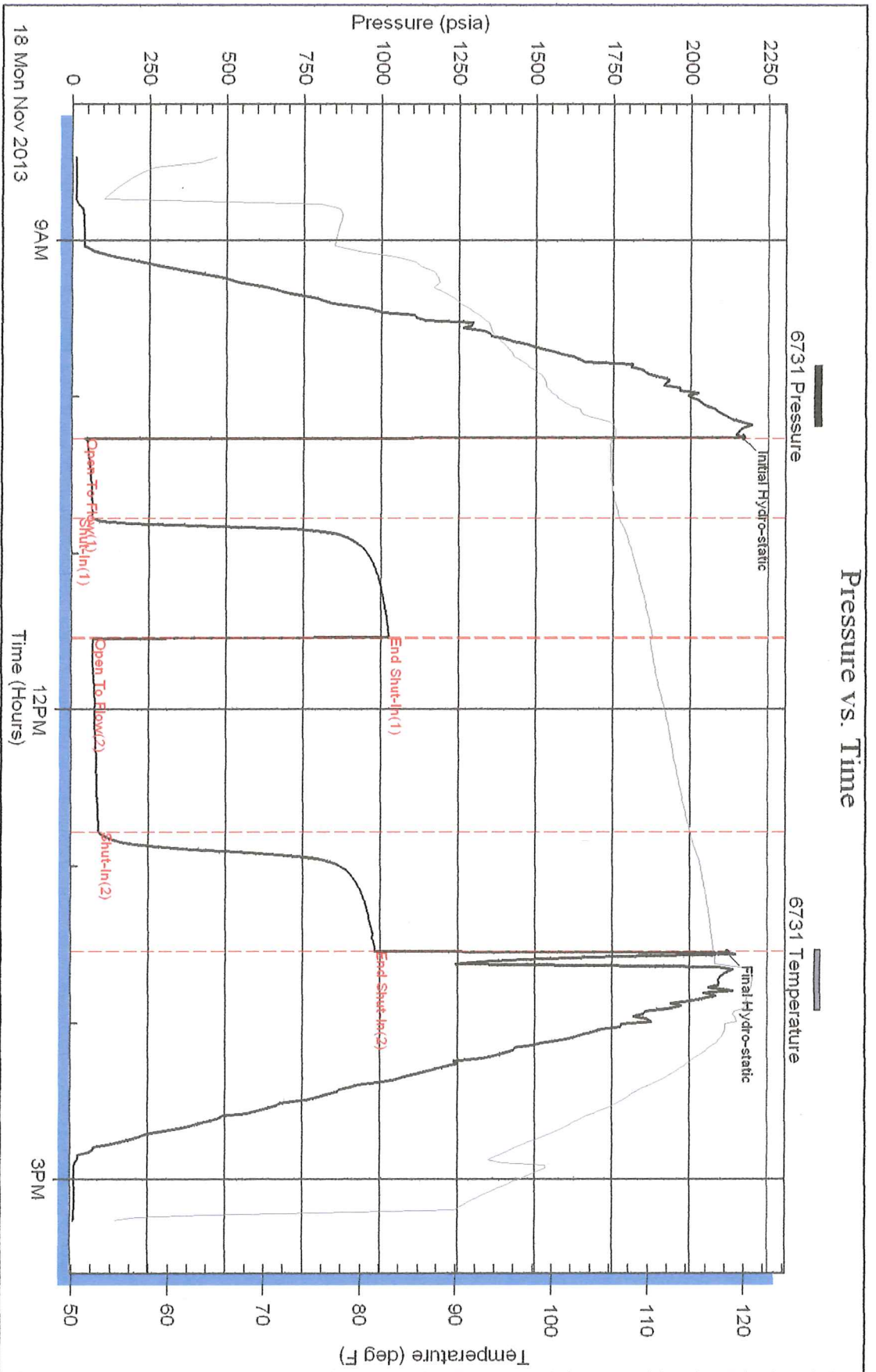
Inside

D&J Oil Company

Wicked Witch #1

DST Test Number: 1

Pressure vs. Time



Serial #: 8159

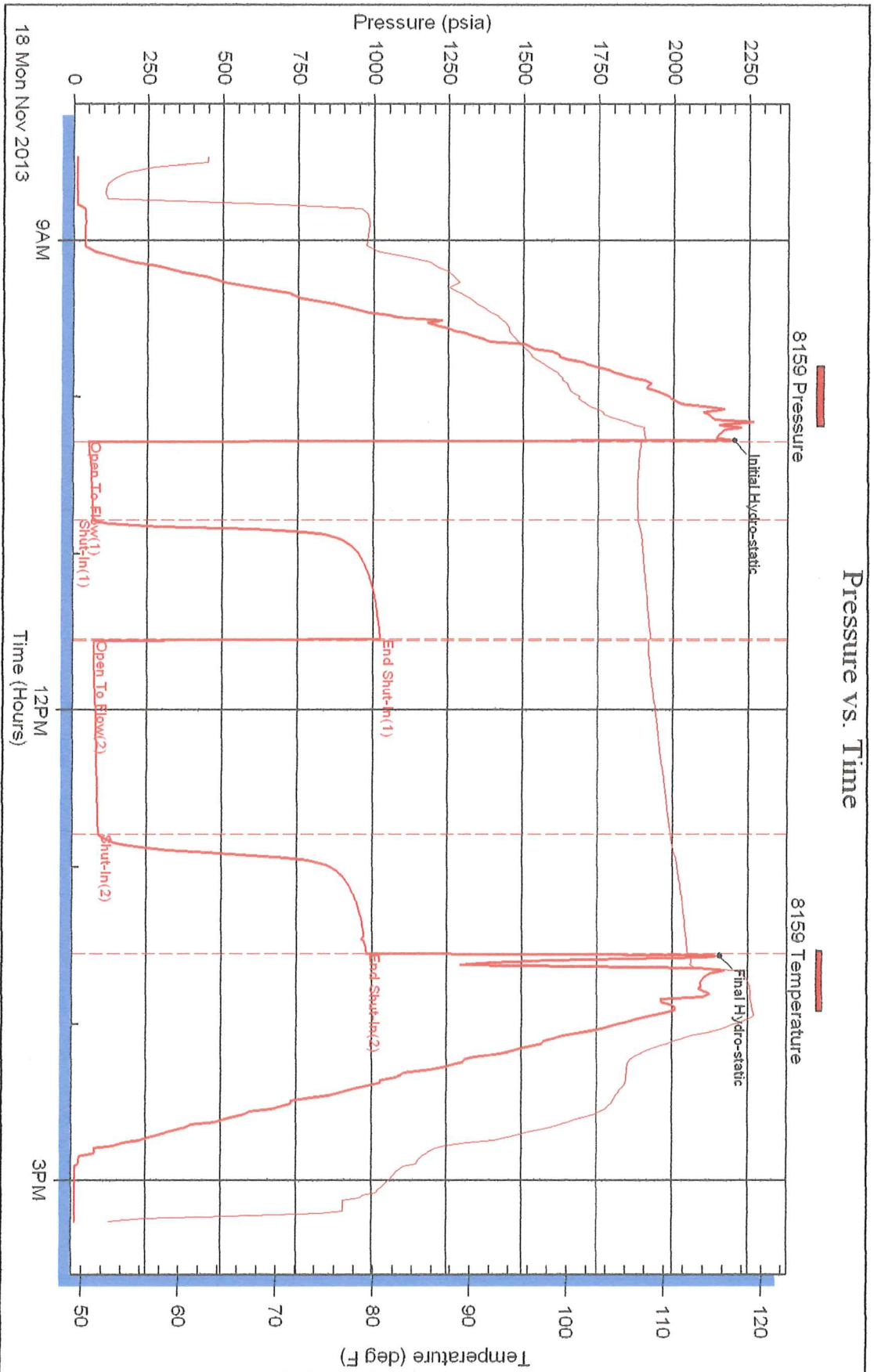
Outside

D&J Oil Company

Wicked Witch #1

DST Test Number: 1

Pressure vs. Time



Superior Testers Enterprises L.L.C. 620-639-4225
P.O. Box 138, Great Bend, Kansas 67530 Dustin
(800) 792-6902

(800) 792-6902

Initial Hydrostatic 2167 P.S.I. Final Hydrostatic 2118 P.S.I. Maximum Temp. _____ F

Final Shut-in 980 P.S.I. from 12:30 am to 1:30 am 60 minutes

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Comments Then KS1

Tool Operator Dustin Ellis Approved By W. J. [Signature]

Ticket No. 18460



DRILL STEM TEST REPORT

Prepared For: **D&J Oil Company**

4720 Wicarriott Oklahoma
73703

ATTN: Curtis Covey

Wicked Witch #1

6-20s-23w-Ness

Start Date: 2013.11.19 @ 08:35:00

End Date: 2013.11.19 @ 15:23:30

Job Ticket #: 18461

DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2013.11.20 @ 03:35:01

D&J Oil Company

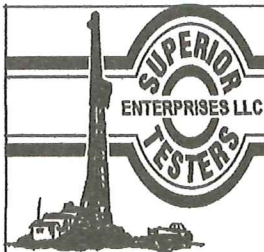
6-20s-23w-Ness

Wicked Witch #1

DST # 2

Mississippian

2013.11.19



DRILL STEM TEST REPORT

D&J Oil Company
4720 Wicarriott Oklahoma
73703
ATTN: Curtis Covey

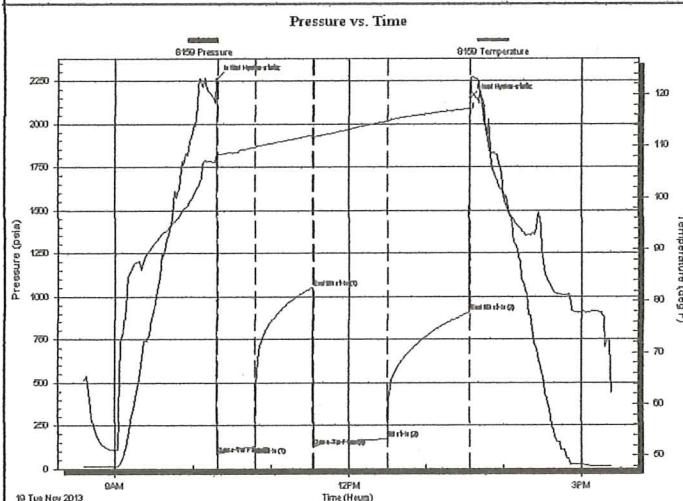
6-20s-23w-Ness
Wicked Witch #1
Job Ticket: 18461 DST#: 2
Test Start: 2013.11.19 @ 08:35:00

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:18:00
Time Test Ended: 15:23:30
Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: 3315-Great Bend-146
Interval: 4360.00 ft (KB) To 4453.00 ft (KB) (TVD)
Reference Elevations: 2314.00 ft (KB)
Total Depth: 4453.00 ft (KB) (TVD) 2309.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8159 Outside
Press@RunDepth: 907.57 psia @ 4450.93 ft (KB) Capacity: 5000.00 psia
Start Date: 2013.11.19 End Date: 2013.11.19 Last Calib.: 2013.11.20
Start Time: 08:35:00 End Time: 15:23:30 Time On Btm: 2013.11.19 @ 10:18:00
Time Off Btm: 2013.11.19 @ 13:34:00

TEST COMMENT: 1st Open 30 minutes Fair building blow built to 7.5 inches into a 5 gallon bucket of water.
1st Shut in 45 minutes No blow back
2nd Open 60 minutes Fair building blow built to 7 inches into a 5 gallon bucket of water.
2nd Shut in 60 minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2260.78	108.48	Initial Hydro-static
1	81.15	108.25	Open To Flow (1)
30	127.53	109.74	Shut-In(1)
75	1046.93	112.08	End Shut-In(1)
75	128.69	111.84	Open To Flow (2)
133	174.45	114.81	Shut-In(2)
196	907.57	117.25	End Shut-In(2)
196	2151.10	117.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
203.00	Very lightly oil spotted mud Mud 100%	2.58

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

D&J Oil Company
4720 Wicarriott Oklahoma
73703
ATTN: Curtis Covey

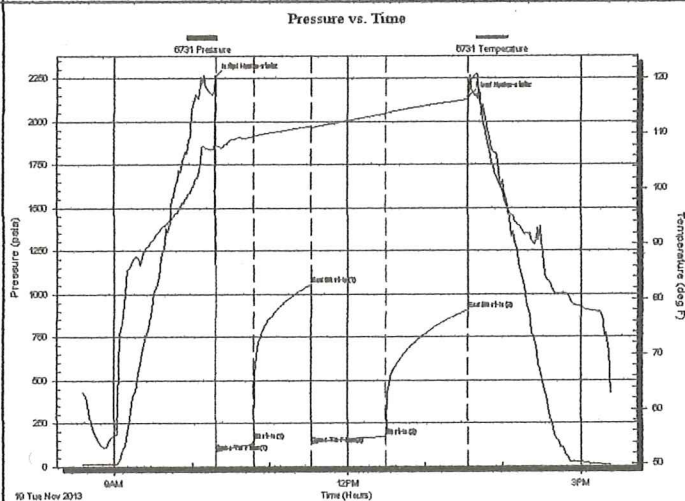
6-20s-23w-Ness
Wicked Witch #1
Job Ticket: 18461 DST#: 2
Test Start: 2013.11.19 @ 08:35:00

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 10:18:00
Time Test Ended: 15:23:30
Test Type: **Conventional Bottom Hole (Initial)**
Tester: **Dustin Ellis**
Unit No: **3315-Great Bend-146**
Interval: **4360.00 ft (KB) To 4453.00 ft (KB) (TVD)**
Reference Elevations: **2314.00 ft (KB)**
Total Depth: **4453.00 ft (KB) (TVD)**
2309.00 ft (CF)
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
KB to GR/CF: **5.00 ft**

Serial #: **6731** Inside
Press@RunDepth: **175.07 psia @ 4449.93 ft (KB)** Capacity: **5000.00 psia**
Start Date: **2013.11.19** End Date: **2013.11.19** Last Calib.: **2013.11.20**
Start Time: **08:35:00** End Time: **15:23:30** Time On Btm: **2013.11.19 @ 10:17:30**
Time Off Btm: **2013.11.19 @ 13:33:30**

TEST COMMENT: 1st Open 30 minutes Fair building blow built to 7.5 inches into a 5 gallon bucket of water.
1st Shut in 45 minutes No blow back
2nd Open 60 minutes Fair building blow built to 7 inches into a 5 gallon bucket of water.
2nd Shut in 60 minutes No blow back



PRESSURE SUMMARY

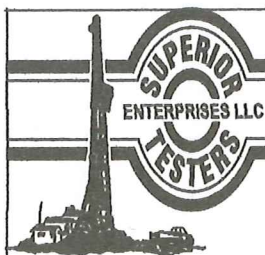
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2258.29	108.34	Initial Hydro-static
1	82.31	108.39	Open To Flow (1)
30	150.35	109.44	Shut-In(1)
75	1055.19	111.35	End Shut-In(1)
75	130.43	111.13	Open To Flow (2)
133	175.07	113.64	Shut-In(2)
196	907.22	116.19	End Shut-In(2)
196	2142.21	116.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
203.00	Very lightly oil spotted mud Mud 100%	2.58

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

D&J Oil Company
4720 Wicarriott Oklahoma
73703
ATTN: Curtis Covey

6-20s-23w-Ness
Wicked Witch #1
Job Ticket: 18461 DST#: 2
Test Start: 2013.11.19 @ 08:35:00

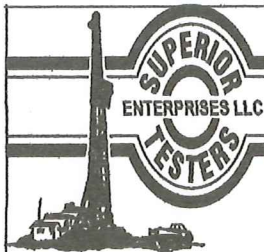
Tool Information

Drill Pipe:	Length: 4308.00 ft	Diameter: 3.80 inches	Volume: 60.43 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 29.53 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	64000.00 lb
		Total Volume:	60.58 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.53 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	4360.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	93.93 ft				
Tool Length:	121.93 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			4337.00	
Hydraulic Tool	5.00			4342.00	
Jars	6.00			4348.00	
Safety Joint	2.00			4350.00	
Packer	5.00			4355.00	28.00 Bottom Of Top Packer
Packer	5.00			4360.00	
Anchor	5.00			4365.00	
Change Over Sub	0.75			4365.75	
Drill Pipe	63.43			4429.18	
Change Over Sub	0.75			4429.93	
Anchor	19.00			4448.93	
Recorder	1.00	6731	Inside	4449.93	
Recorder	1.00	8159	Outside	4450.93	
Bullnose	3.00			4453.93	93.93 Bottom Packers & Anchor

Total Tool Length: 121.93



DRILL STEM TEST REPORT

FLUID SUMMARY

D&J Oil Company
4720 Wicarriott Oklahoma
73703
ATTN: Curtis Covey

6-20s-23w-Ness
Wicked Witch #1
Job Ticket: 18461 DST#: 2
Test Start: 2013.11.19 @ 08:35:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 8.00 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psia
Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
203.00	Very lightly oil spotted mud Mud 100%	2.579

Total Length: 203.00 ft Total Volume: 2.579 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6731

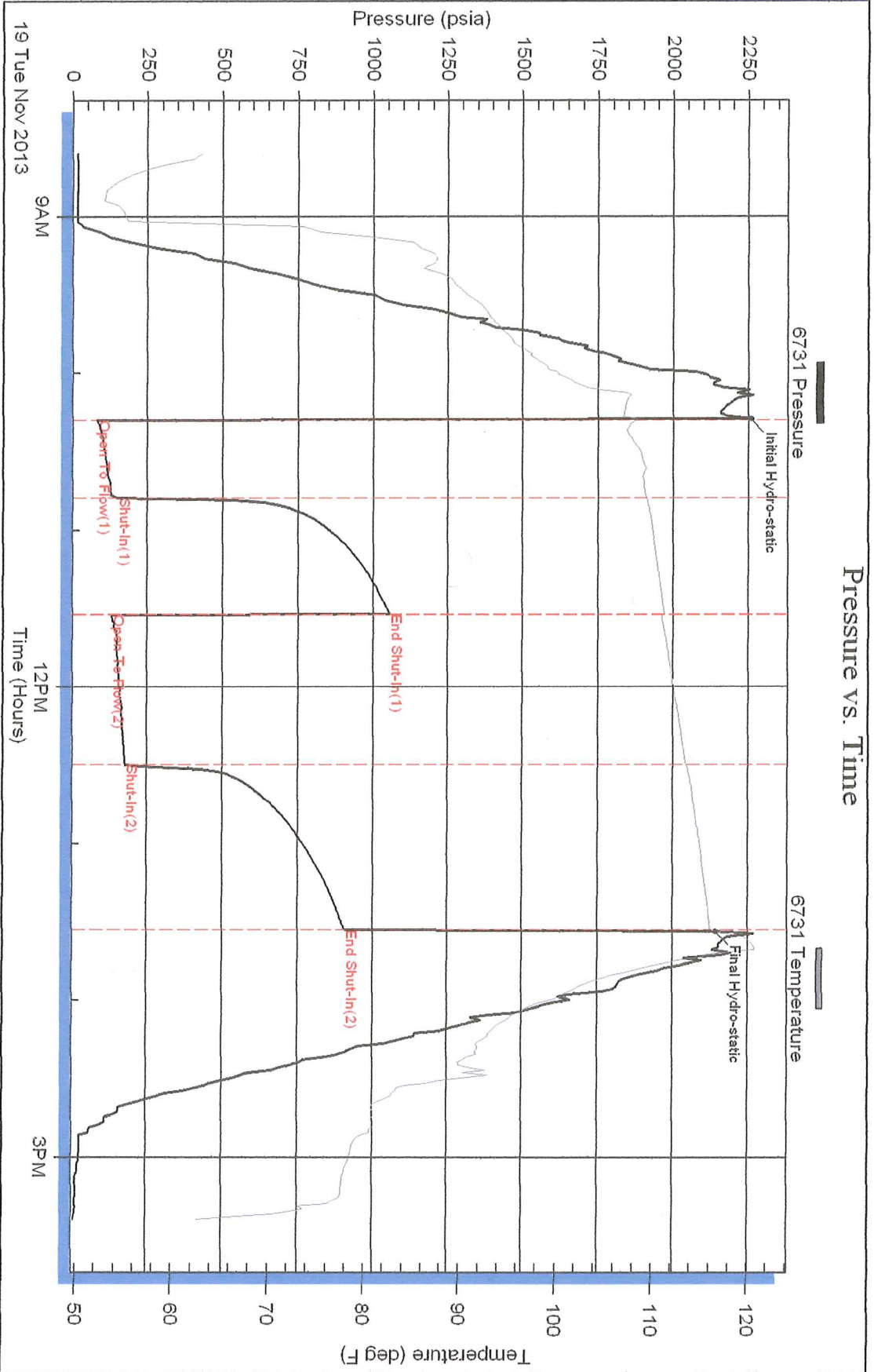
Inside

D&J Oil Company

Wicked Witch #1

DST Test Number: 2

Pressure vs. Time

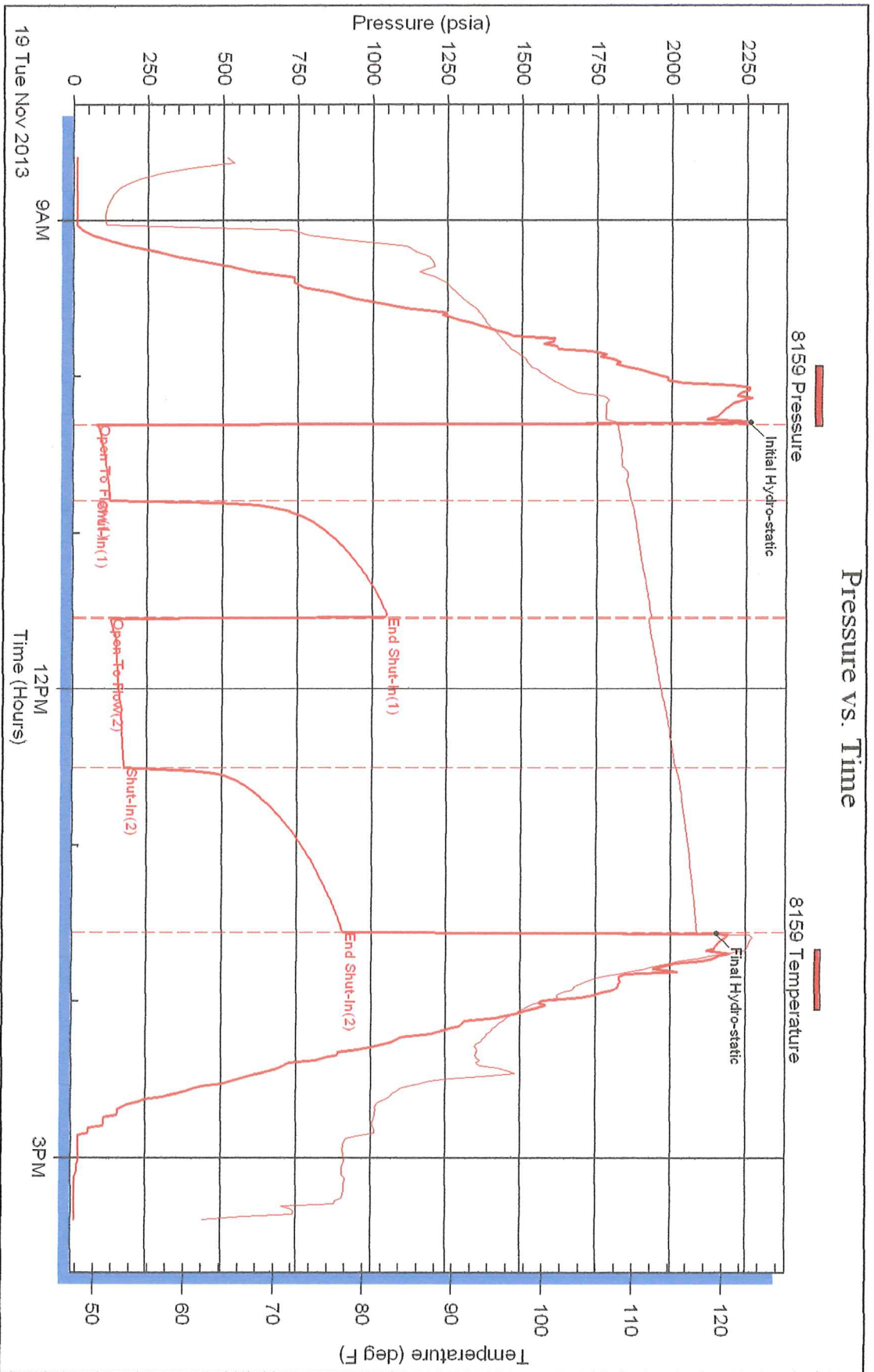


Serial #: 8159

Outside D&J Oil Company

Wicked Wfch #1

DST Test Number: 2



Superior Testers Enterprises L.L.C.

P.O. Box 138, Great Bend, Kansas 67530

(800) 792-6902

Company D&J Oil Company
 Address 4720 W. Garnett Oklahoma 73703
 Lease & # Wicked Witch #1 Sec. 6 Twp 20 Rng 23
 Date 11-19-2013 County Wess Elevation 2309 G.L. 2314 K.B.
 Drilling Contractor Murfin Drilling Rig Co
 Drill Pipe Length 4308 I.D. of Drill Pipe 3.80 Tool Joint Size 4 1/2 x 6
 Drill Collar Length 29.53 I.D. of Drill Collars 2.25 Tool Joint Size 4 1/2 x 4
 Mud Weight 9.2 Viscosity 54 Filtrate 8.0 Chlorides-Pits 5000 DST
 Top Packer Depth 4355 Bottom Packer Depth 4360 Number of Packers 2
 Tested From 4360 to 4453 Total Depth 4453 Anchor Length 93
 Test # 2 Formation Tested Mississippian Hole Size 7 7/8
 Initial Blow Fair building blow built to 7 1/2 inches into a 5 gallon bucket of water. Blow back on the 1st Shut-in 100
 Final Blow Fair building blow built to 7 inches into a 5 gallon bucket of water. Blow back on the 2nd Shut-in 100
 Initial Hydrostatic 2258 P.S.I. Final Hydrostatic 2142 P.S.I. Maximum Temp. 118 F

Initial Opening <u>82</u> P.S.I. to <u>150</u> P.S.I. from <u>10:16</u> m to <u>10:46</u> m <u>30</u> minutes
Initial Shut-in <u>1055</u> P.S.I. from <u>10:46</u> m to <u>11:31</u> m <u>45</u> minutes
Final Opening <u>130</u> P.S.I. to <u>175</u> P.S.I. from <u>11:31</u> m to <u>12:31</u> m <u>60</u> minutes
Final Shut-in <u>907</u> P.S.I. from <u>12:31</u> m to <u>1:31</u> m <u>60</u> minutes

Feet	Recovery Description	% Gas	% Oil	% Mud	% Water
203	very lightly oil spotted mud			100	
	Superior owes 1HR to Operator				

Total Feet Recovered 203 Recovery Chlorides — Rw. — ohms @ — Degrees
 Gravity of oil — Corrected Gas to Surface in — minutes into the —
 Max. Gas Gauged — MCF/day See Gas Flow Report Was a gas sample taken —
 Comments Thanks!

Extra Equipment-Jars Yes Safety Joint Yes Circulating Sub none Straddle none
 Electronic Recorder No. 6731 Depth 4449 Extra Packer (3rd) none Hook Wall none
 Bottom Recorder No. 8159 Depth 4450 Extra Packer (4th) none Sampler none
 Tool Operator Dustin Ellis Approved By N-A

Ticket No. **18461**