

Kansas Corporation Commission Oil & Gas Conservation Division

1058380

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	SecTwpS. R
Address 2:	Feet from North / South Line of Section
City:	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
☐ New Well ☐ Re-Entry ☐ Workover	Total Depth: Plug Back Total Depth:
Oil WSW SWD SIOW Gas D&A ENHR SIGW OG GSW Temp. Abd. CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.):	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: sx cmt
Operator:	
Well Name:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth: Onv. to ENHR	Chloride content: ppm Fluid volume: bbls Dewatering method used:
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:	Operator Name:
Dual Completion Permit #:	Lease Name: License #:
SWD Permit #:	Quarter Sec TwpS. R
☐ ENHR Permit #: ☐ GSW Permit #:	County: Permit #:
Spud Date or Date Reached TD Completion Date or Recompletion Date	

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					
Letter of Confidentiality Received					
Date:					
Confidential Release Date:					
☐ Wireline Log Received					
Geologist Report Received					
UIC Distribution					
ALT I I II Approved by: Date:					

Side Two



Operator Name:			Lease Name: Well #:				
Sec Twp	S. R	East West	County:				
time tool open and clo	osed, flowing and shu es if gas to surface te	d base of formations pen t-in pressures, whether s st, along with final chart(s well site report.	hut-in pressure read	ched static level,	hydrostatic press	ures, bottom h	ole temperature, fluid
Drill Stem Tests Taker (Attach Additional		Yes No		og Formation	n (Top), Depth an	d Datum	Sample
Samples Sent to Geo	logical Survey	☐ Yes ☐ No	Nam	е		Тор	Datum
Cores Taken Electric Log Run Electric Log Submitte (If no, Submit Copy	d Electronically	Yes No Yes No Yes No					
List All E. Logs Run:							
		Report all strings set-		ermediate, producti		1	
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 / SQL	JEEZE RECORD	I		
Purpose: —— Perforate —— Protect Casing —— Plug Back TD	Depth Top Bottom	Type of Cement	# Sacks Used		Type and P	ercent Additives	
Plug Off Zone							
Shots Per Foot		DN RECORD - Bridge Plug Footage of Each Interval Perf			cture, Shot, Cement mount and Kind of Ma		d Depth
	<u> </u>						
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No		
Date of First, Resumed	Production, SWD or EN	HR. Producing Meth		Gas Lift C	other (Explain)		
Estimated Production Per 24 Hours	Oil I	Bbls. Gas	Mcf Wat	er Bl	ols. G	Sas-Oil Ratio	Gravity
DISPOSITI	ON OF GAS:	N	METHOD OF COMPLE	ETION:		PRODUCTIO	ON INTERVAL:
Vented Solo	Used on Lease	Open Hole	Perf. Dually		nmingled mit ACO-4)		
(If vented, Su	bmit ACO-18.)	Other (Specify)	(Odbillit)	, (Gubi			

Form	ACO1 - Well Completion					
Operator	Hess Oil Company					
Well Name	Wood 1-7					
Doc ID	1058380					

All Electric Logs Run

Radiation Guard	
Sonic	
Compensated Density / Neutron PE	
Dual Induction	
Micro	

Form	ACO1 - Well Completion				
Operator	Hess Oil Company				
Well Name	Wood 1-7				
Doc ID	1058380				

Tops

Name	Тор	Datum
Heebner	3273	-1341
Toronto	3286	-1354
Douglas	3303	-1371
Brown Lime	3376	-1444
Lansing	3386	-1454
Muncie Creek	3506	-1574
Stark Shale	3566	-1634
Base Kansas City	3608	-1676
Viola	3643	-1711
Simpson Shale	3682	-1750
Simpson Sand	3695	-1763
Arbuckle	3733	-1801
RTD	3840	-1908
LTD	3842	-1910

Conservation Division Finney State Office Building 130 S. Market, Rm. 2078 Wichita, KS 67202-3802



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor

Mark Sievers, Chairman Ward Loyd, Commissioner Thomas E. Wright, Commissioner

June 27, 2011

Bryan Hess Hess Oil Company PO BOX 1009 MCPHERSON, KS 67460-1009

Re: ACO1 API 15-185-23674-00-00 Wood 1-7 NE/4 Sec.07-21S-14W Stafford County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully, Bryan Hess

QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Cell 785-324-1041	Home Office P.O. B	30x 32 Russell, KS 67665 No.	4 (39
Date 3-24-11 7	Twp. Range	County State On Location	// /30pm
Lease Wood V	in the same of the	tion Great Bend, Ks - W on 156 Huy	1/2
Contractor Mallard	Drilling	owner S to Carve W to Carve, 15	2w, 5
Type Job Sufnee	0	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment	and furnish
Hole Size 12 KI	T.D. 900'	cementer and helper to assist owner or contractor to do	work as listed.
Csg. \$ 5/8 1	Depth 9001	Charge Hess oil	·
Tbg. Size		Street	
Tool	33 30	City State	
Cement Left in Csg. 33,00	Shoe Joint 33,00	The above was done to satisfaction and supervision of owner a	$-\Omega \Delta t = t$
Meas Line	Displace SS BUS	Cement Amount Ordered 31) S SX Common	13%CL
EQUIPM	MENT AZ DOUCE	2% Gel USER 525	
Pumptrk 5 No. Cementer 15 Helper 12 No. Drive:	CANADI # 5 DORLY	Common	
Bulktrk /	7 #10 Cisco		
Driver KIC	t i	Gel JO	
JOB SERVICES	& REMARKS	Calcium /8	
Remarks: Coment did	MICICULATE.	Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
	11:50 -	A 1737	
Annual Contraction of the Annual Annu			
1126 111	pine on backsile	CFL-117 or CD110 CAF 38	
42° 50°)"	11.00		
3% 76 Gel	130 5x Common	Handling 553	
	Com las	Mileage FLOAT EQUIPMENT	
correspondid	Circulate		
1 Cell Stur		Centralizer	
2	I down I" pipe and	Baskets	
wash up - Rigged	down,	AFU Inserts	
		Float Shoe	
		Latch Down	
		1 Battle Dlake	
· · · · · · · · · · · · · · · · · · ·	×	1 Darres grave	
		Pumptrk Charge Long Surface	
		Mileage /3	
	A STATE OF THE STA	Tax	
<u>□ </u>		Discount	
ă 11H	-	Total Charge	
Standard The	Att. Inc.	,	

SWIFT Services. Inc. DATE 3-- 30-11 PAGE NO. JOB LOG CUSTOMER WELL NO. SIZ LONGSTOTING TICKET NO. HESS ON CO. WOOD 20075 PUMPS PRESSURE (PSI) CHART VOLUME (BBD-IGAL) TIME DESCRIPTION OF OPERATION AND MATERIALS TUBING CASING 0500 CATTON START SIL CASSIG THE WELL 0630 70-3847 SET = 3845 56 155 78-3845 ST-20 CEUTRALIZES-1,23456 CMT BSKT-3 DROP BALL - CHCYCATE 0820 400 PUMP SOO GAL MUDFLUSH 0850 12 400 PUMP 20 BBLS KCL- FLUSH 6 0852 20

PLUG RH (30SKS) MH (20SKS) 7-5 0900 200 MXCEMENT - 1005KS & 15,5 PPG 0190 24 WASH OUT PUMP - LINES 7190 RELEASE LATCH DOWN PLUS 0917 61/2 0920 DZSPLACE PLUG 1500 PLUG DOWN - PSTUP WITCH IN PLUG 09.35 91.0 OK DECEASE PSE- HELD 0937 WASH TRUCK JOB COMPLETE 1030 THANKYOU LAWE JEFF, ROB



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

Well Name: Wood #1-7

Location: Sec. 07 - T21S - R14W, Stafford County, KS

Licence Number: API No.: 15-185-23674-0000 Region: Frey

Spud Date: March 23, 2011 Drilling Completed: March 29, 2011

Surface Coordinates: 330' FNL & 2310' FEL

Bottom Hole Coordinates:

Ground Elevation (ft): 1927'

Logged Interval (ft): 2200'

K.B. Elevation (ft): 1932'

Total Depth (ft): 3842' (LTD)

Formation: Arbuckle

Type of Drilling Fluid: Chemical Gel/Polymer

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

OPERATOR

Company: Hess Oil Company Address: 2080 E. Kansas

McPherson, KS 67460

GEOLOGIST

Name: Derek W. Patterson

Company: Valhalla Exploration, LLC

Address: 133 N. Glendale

Wichita, KS 67208

REMARKS

After review of the Open Hole Logs, DST info, and sample evaluation, it was decided by operator to run 5 1/2" production casing to further evaluate the multiple Arbuckle zones encountered while drilling the Wood #1-7.

Please Note: the RTD was 3840' and the LTD was 3842'.

The well samples were saved, and will be submitted and available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.

Respectfully Submitted, Derek W. Patterson

Hess Oil Company

DAILY DRILLING REPORT

Company: Hess Oil Company

2080 E. Kansas

McPherson, KS 67460

Contact: Bryan Hess (Hess Oil Co)

Office: 620.241.4640

David Withrow (Edison Operating Co)

Cell: 316.613.1544

Geologist: Derek W. Patterson

Cell: 316.655.3550 Office: 316.558.5202

Drilling Contractor: J V Mallard, Inc., Rig: 785.731.5161 Toolpusher: Lavon Urban, Cell: 785.731.5160 Well: Wood #1-7

Location: 330' FNL & 2310' FEL

Sec. 07 - T21S - R14W

Stafford Co., KS

Elevation: 1927' GL - 1932' KB

Field: Frey

API: 15-185-23674-0000

Surface Casing: 893' of 8 5/8" set @ 900' KB

Spud Date: March 23, 2011 Drilling Complete: March 29, 2011

Date	7:00 AM Depth	Previous 24 Hours of Operations
3.28.2011	3430'	Drilling and connections Tarkio, Severy, and into Topeka. Geologist Derek W. Patterson on location 2200 hrs 3.27.11. Reset/test Bloodhound (was +20' ahead of Geolograph) and test gas detector. Drilling and connections Topeka, Heebner, Toronto, Brown Lime, and into Lansing. CFS @ 3429' (LKC 'B'), resume drilling upper Lansing.
3.29.2011	3752'	Drilling and connections upper Lansing, lower Lansing, BKC, Viola, and into Arbuckle. CFS @ 3752' (Arb). Shows and gas kick warrant DST. CTCH, short trip, CTCH, drop survey, strap out for DST #1. Conducting DST #1.
3.30.2011	RTD - 3840' LTD - 3842'	Conducting DST #1, test successful. TIH w/ bit, CTCH, resume drilling ahead to RTD of 3840', RTD reached 1345 hrs 3.29.11. Rig down for pump repairs. CTCH, drop survey, TOH for logging operations 1600 hrs 3.29.11. Open hole logging operations commenced 1800 hrs 3.29.11, logging complete 2230 hrs 3.29.11. Orders received to run 5 1/2" production casing to further evaluate Arbuckle zones encountered while drilling the Wood #1-7. Geologist Derek W. Patterson off location 2300 hrs 3.29.11.

Hess Oil Company

WELL COMPARISON SHEET

	DRILLING WELL			COMPARISON WELL			COMPARISON WELL				COMPARISON WELL					
	Hess Oil Company – Wood #1-7				Hess Oil Company – Pfister #1-6			F & M Oil Company – Frey #1			Vickers Petroleum – Frey #4					
		Sec. 7 - 2	15 - 14W		Sec. 6 - 21S - 14W				Sec. 7 - 21S - 14W			SEC. 7 - 21S - 14W				
	330' FI	330' FNL & 2310' FEL (NW NW NE)				990' FSL & 470' FEL				N2 SW SE			NE NW NE			
					Oil -	- Arb	Struc	tural	Oil	- Arb	Struc	tural	Oil -	- Arb	Struc	tural
	1932	KB			1927	KB	Relation	onship	1934	KB	Relation	onship	1929	KB	Relation	onship
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Heebner	3274	-1342	3273	-1341	3245	-1318	-24	-23	3259	-1325	-17	-16	3256	-1327	-15	-14
Toronto	3285	-1353	3286	-1354	3256	-1329	-24	-25	3272	-1338	-15	-16	3270	-1341	-12	-13
Douglas	3303	-1371	3303	-1371	3274	-1347	-24	-24	3298	-1364	-7	-7	3287	-1358	-13	-13
Brown Lime	3375	-1443	3376	-1444	3349	-1422	-21	-22	3361	-1427	-16	-17	3358	-1429	-14	-15
Lansing	3384	-1452	3386	-1454	3357	-1430	-22	-24	3369	-1435	-17	-19	3368	-1439	-13	-15
Muncie Creek	3502	-1570	3506	-1574	3474	-1547	-23	-27					3486	-1557	-13	-17
Stark Shale	3568	-1636	3566	-1634	3536	-1609	-27	-25					3545	-1616	-20	-18
Base Kansas City	3609	-1677	3608	-1676	3579	-1652	-25	-24	3592	-1658	-19	-18	3589	-1660	-17	-16
Viola	3641	-1709	3643	-1711	3611	-1684	-25	-27	3622	-1688	-21	-23	3620	-1691	-18	-20
Simpson Shale	3680	-1748	3682	-1750	3636	-1709	-39	-41	3656	-1722	-26	-28	3647	-1718	-30	-32
Simpson Sand	Not 0	Called	3695	-1763	3644 -1717		N/A	-46			3		3668	-1739	N/A	-24
Arbuckle	3734	-1802	3733	-1801	3680	-1753	-49	-48	3706	-1772	-30	-1771	3696	-1767	-35	-34
Total Depth	3840	-1908	3842	-1910	3800	-1873	-35	-37	3710	-1776	-132	-134	3710	-1781	-127	-129

Hess Oil Company

Wood #1-7

Sec. 07 - T21S - R14W 330' FNL & 2310' FEL API: 15-185-23674-0000

Stafford Co., KS

BIT RECORD

Bit #	Size	Make	Туре	Serial Number	Depth In	Depth Out	Feet	Hours
Α	12 1/4"	RRSM	RT		0'	900'	900'	12
1	7 7/8"	RR	F-27	PS 6340	900'	3840'	2940'	73.1

SURFACE CASING RECORD

March 24, 2011

Ran 20 new joints of new 23#, tally @ 893', set @ 900' KB. Cement did circulate.

Hess Oil Company

Wood #1-7

Sec. 07 - T21S - R14W 330' FNL & 2310' FEL API: 15-185-23674-0000

Stafford Co., KS

DEVIATION SURVEY RECORD

Depth	Survey
900'	3/4°
3752'	3/4°
3840'	3/4°

PIPE STRAP RECORD

Depth Out Pipe Strap 3752' 0.71' Long to Board



Weatherford*

Completion Systems

DRILL STEM TEST REPORT

Hess Oil Co

PO Box 1009

McPherson, KS 67460

ATTN: Derek Patterson

Wood #1-7

7-21S-14W Stafford

Job Ticket: 041399

DST#:1

Test Start: 2011.03.29 @ 02:30:31

GENERAL INFORMATION:

Formation: Arbuckle

Deviated: No Whipstock:

ft (KB)

Time Tool Opened: 04:31:46

Time Test Ended: 09:08:16

Interval:

Start Date:

Start Time:

3670.00 ft (KB) To 3752.00 ft (KB) (TVD)

Total Depth: 3752.00 ft (KB) (TVD)

Hole Diameter: 7.88 inchesHole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Leal Cason

Unit No: 45

Reference Bevations: 1

1932.00 ft (KB) 1927.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6798 Inside

Press@RunDepth: 163.34 psig @

163.34 psig 2011.03.29

02:30:32

3671.00 ft (KB) End Date:

End Time:

2011.03.29

Capacity: Last Calib.: 8000.00 psig

09:08:16 Tim

Time On Btm: 2011.03

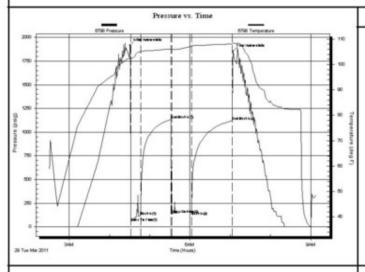
2011.03.29 2011.03.29 @ 04:30:31

Time Off Btm:

2011.03.29 @ 07:04:16

TEST COMMENT: IF: Fair Blow, Built to 7 inches

ISt: Bled Off, No Blow back FF: Fair Blow , Built To 7 1/2 inches FSt: Bled Off, No Blow back



me in.)	Pressure (psig)	Temp (deg F)	Annotation	
0	1917.51	102.31	Initial Hydro-static	
2	53.63	101.95	Open To Flow (1)	
	440 44	405.00	Ct 1 1 (4)	

PRESSURE SUMMARY

2	53.63	101.95	Open To Flow (1)
16	119.11	105.00	Shut-In(1)
62	1135.36	106.14	End Shut-In(1)
63	135.32	105.85	Open To Flow (2)
92	163.34	107.13	Shut-In(2)
153	1120.06	108.07	End Shut-In(2)
154	1853.73	108.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
243.00	GWOCM 5%G 5%W 20%O 70%	1.20
77.00	GOCM 5%G 20%O 75%M	1.08

Gas Rates

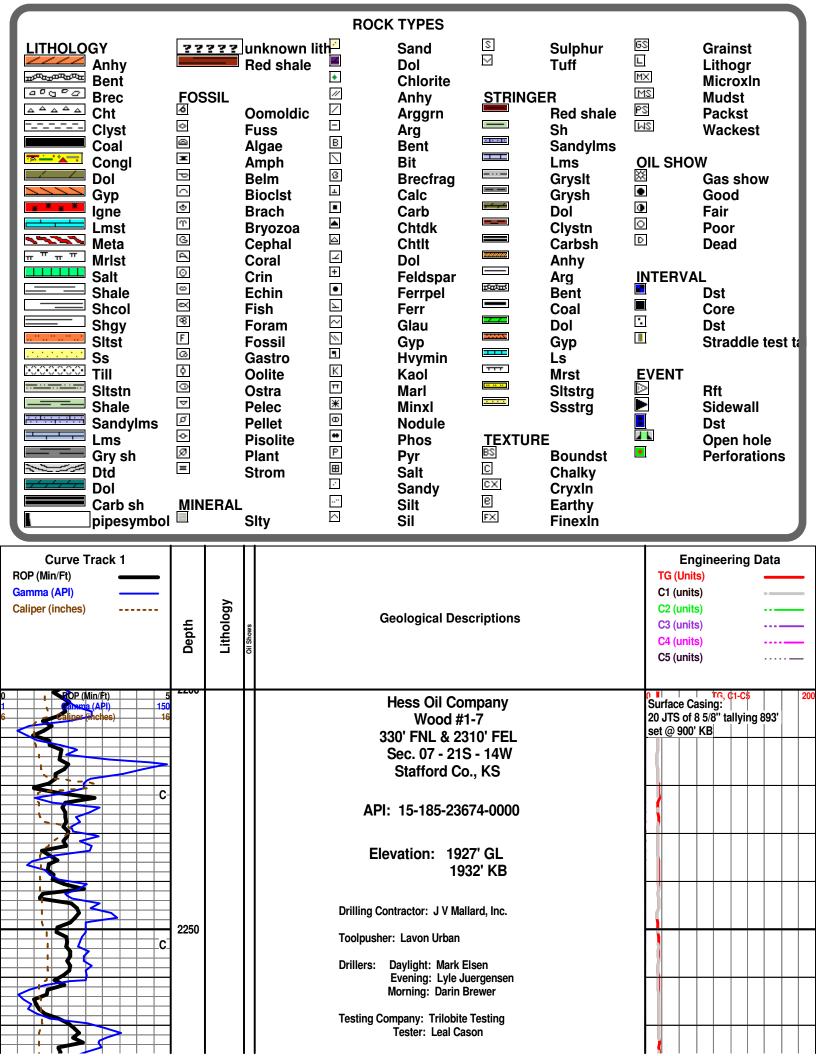
Chole (inches) Pressure (psig)

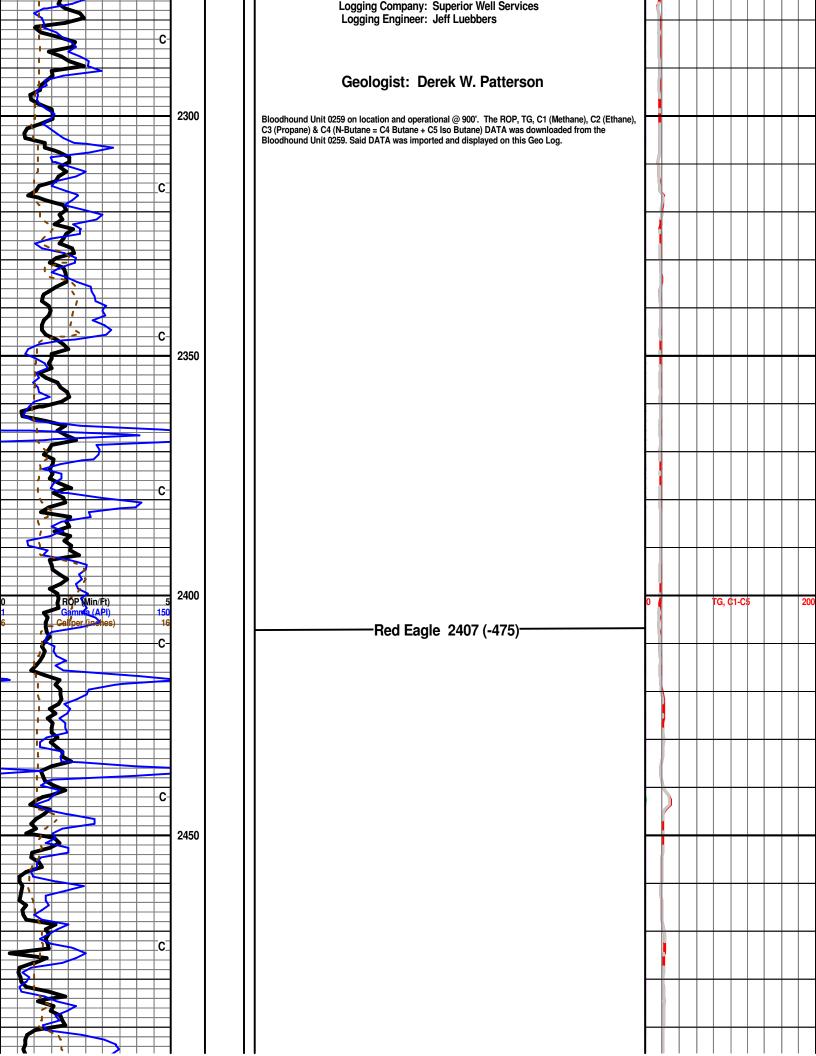
Gas Rate (Mct/d)

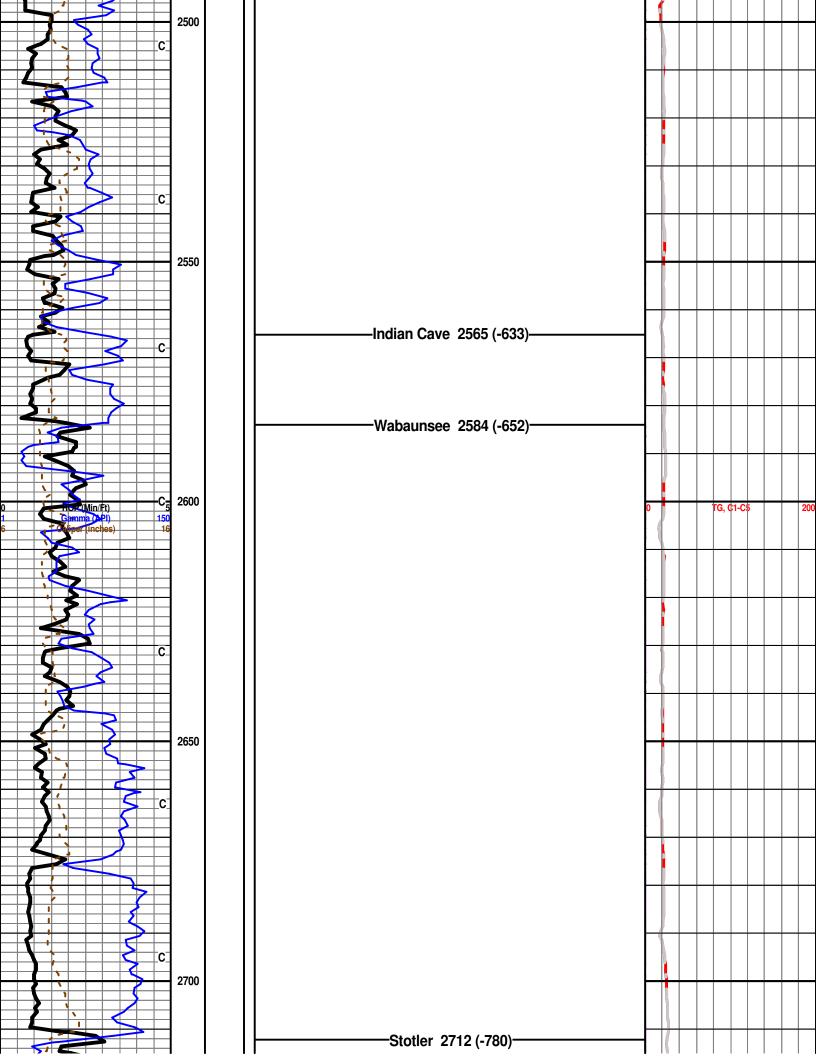
ALPINE OIL SERVICES CORPORATION

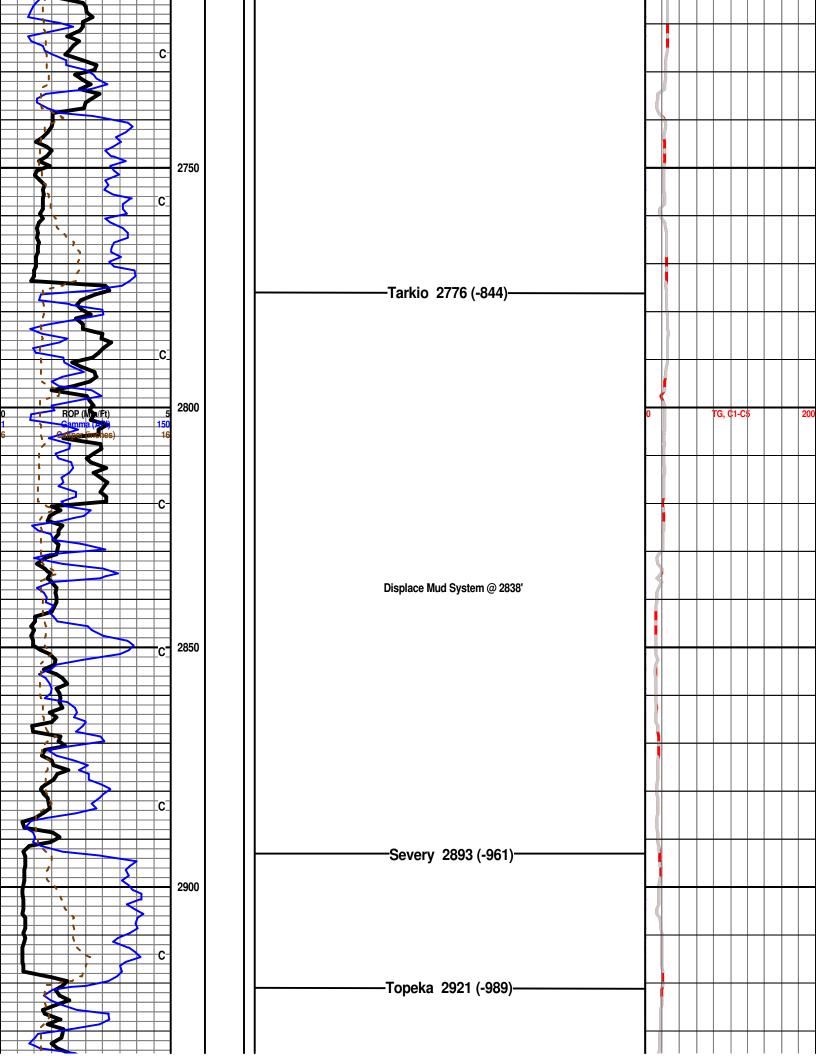
Ref. No: 041399

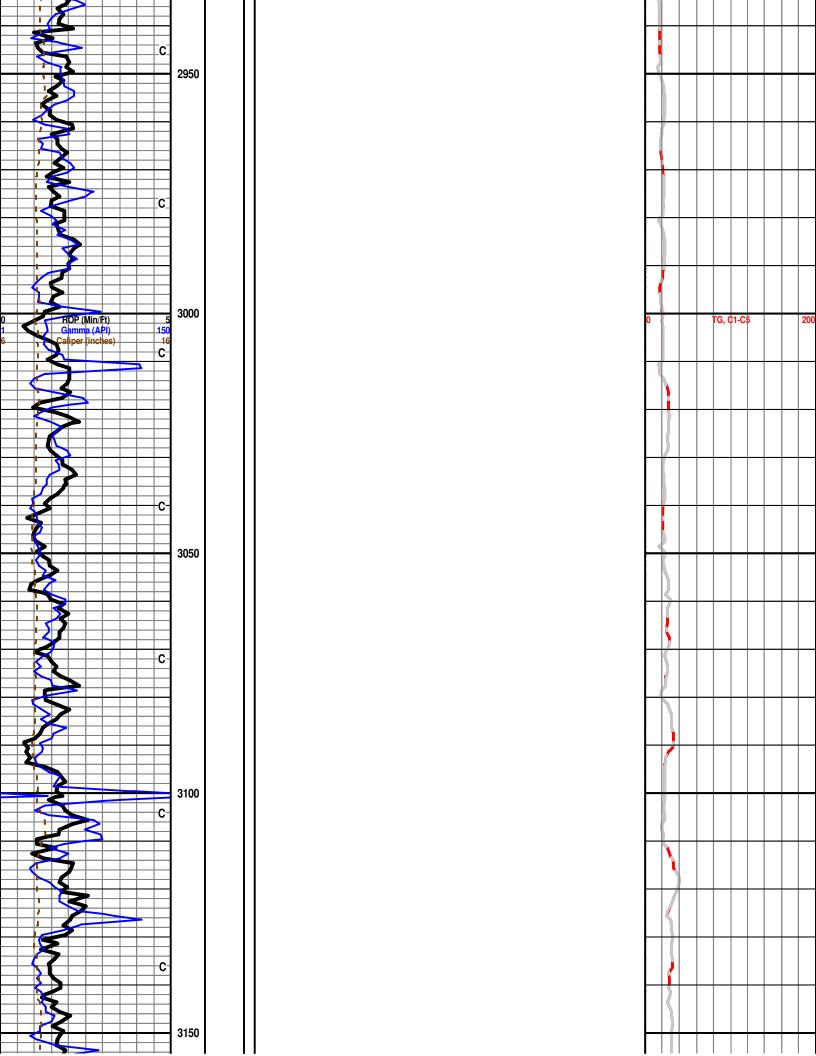
Printed: 2011.03.29 @ 09:31:34 Page 2

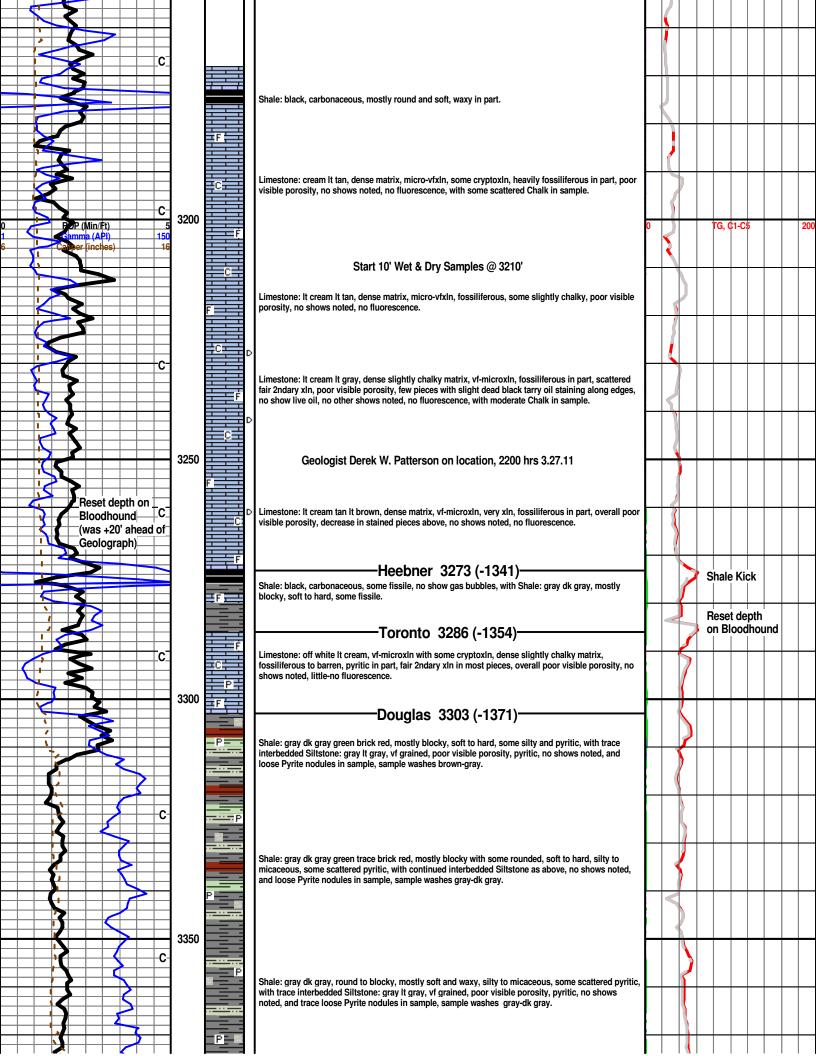




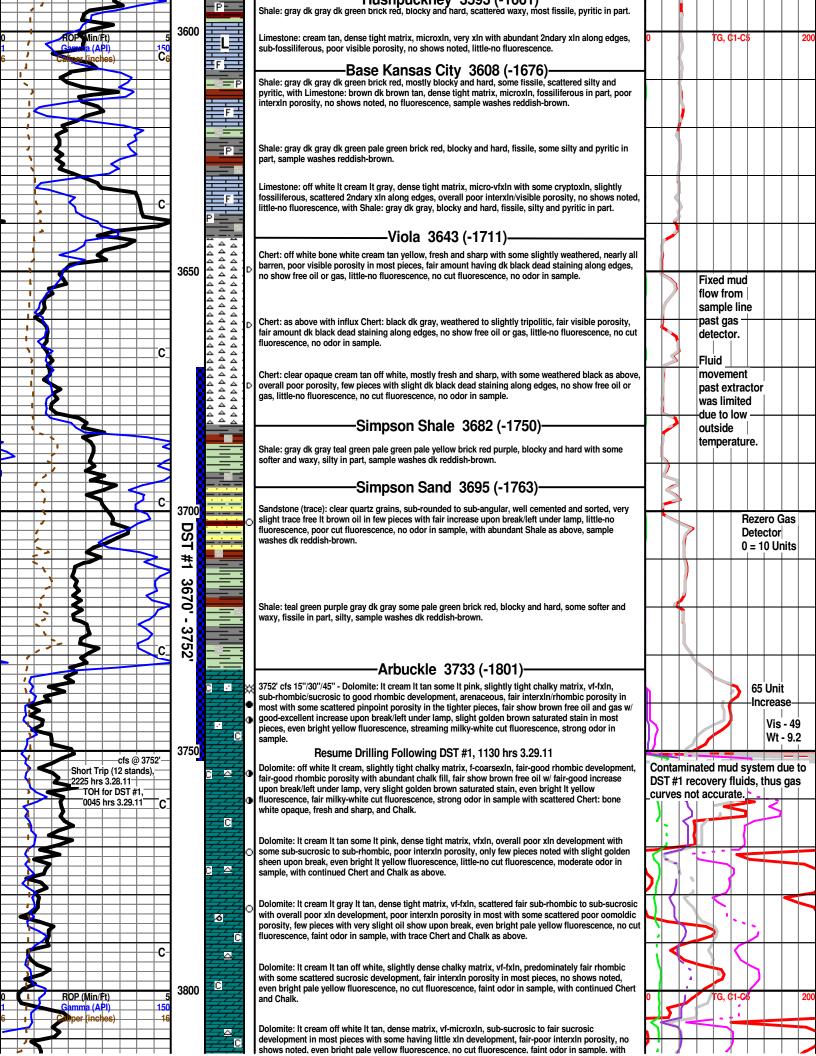








		1	1		>	P				Brown Lime 3376 (-1444) Limestone: tan brown It brown, dense tight matrix, microxln, fossiliferous to heavily fossiliferous,		1							
\exists	\exists	1	*			7	+	1	F	Limestone: tan brown It brown, dense tight matrix, microxln, fossiliferous to heavily fossiliferous, poor visible porosity, no shows noted, no fluorescence.	\vdash	-	+	\vdash		\dashv	+	+	-
			-	H	<	1	-c	1		Lansing 3386 (-1454)									
\dashv	7				1	\perp		1	FF	Limestone: It cream off white, dense sub-chalky matrix, vf-microxln, some lithographic non-descript,	\vdash	+)	+	-			+	+	_
\dashv	Y		+					1	Ā	fossiliferious in part, fair 2ndary xln along edges in most, poor visible porosity, no shows noted, little-no fluorescence.									
	2	\pm				7		3400	F			1							
0 1	_		ROP	(Min/F		•	150	3400			0			TG, (:1-C	5		2	00
6	\exists		Calipe	(inch	es)		-16	ò	11.	Shale: gray dk gray dk green, mostly blocky with some rounded, mostly soft, slightly silty and pyritic.									
					2	\gt		1	-P			*	+	\vdash			+	+	7
\Rightarrow	4	\mathbf{S}^{\dagger})	\pm	± <u>,</u>		F = 🗢	3429' cfs 15"/30" - Limestone: It cream off white It gray, dense chalky matrix, vf-microxln, fossiliferous,		1							
\Rightarrow	d	\Rightarrow			\gt		+C	1	В	fair amount of 2ndary xin along edges in most pieces, cherty in part, poor interxin porosity with few pieces having fair pinpoint porosity, slight oily sheen across sample, few pieces with slight show it			•	 20 I	 nit	 Incr	2866	4	_
\dashv	7	\Rightarrow	+							brown oil from porosity with fair increase upon break/left under lamp, even it pale yellow fluorescence, streaming milky-white cut fluorescence, moderate odor in sample.		1		[Vis		
cfs (n 34	29'				7			С	individual successives, successives, industrials successives, industrials successives, and successive successives, and successive succes			>				Wt -	9.2	
	1					+		1		Limestone: It cream It gray off white, dense sub-chalky matrix, vf-microxln, sub-fossiliferous, overall								T	
\exists			1					1	C F	poor visible porosity with scattered poor pinpoint porosity, no shows noted, little-no fluorescence, with scattered Chalk in sample.									
\exists		\exists	\pm	K	\exists	\pm		1		Limestone: dk brown dk gray, dense tight matrix, microxln, heavily fossiliferous to bioclastic with	\vdash	+	+	_		\dashv	+	+	4
		\triangleleft			>	\pm		1	<u> </u>	oolitic, some interclast porosity in few pieces, no shows noted, little-no spotty fluorescence.									
\exists	1	#	\blacktriangleleft		4	+	<u> </u> c	3450		Shale: gray dk gray, mostly blocky and hard, some fissile.	Ц	7					4	\bot	
	١					+													
		-	*			+			φ F	Limestone: It cream tan off white It gray, slightly chalky dense matrix, micro-vfxln some lithographic, fossiliferous with trace oolitic, fair 2ndary xln in most pieces along edges and between faces, poor									
\dashv	1	>	+	3		\mp		1		visible porosity in most pieces with a few having fair pinpoint porosity, no shows noted, little-no fluorescence, with scattered Chalk in sample.		₹						十	7
	1																		
	H							1	ø ∓c			+	+				+	+	4
						\pm		}	F	Limestone: cream It tan It brown, dense sub-chalky matrix, micro-vfxln, fossiliferous with oolitic, heavily oomoldic with varying small-large molds, fair-good oomoldic porosity in most pieces, fair									
	H	+					_c		*	2ndary xln in porosity, no shows noted, even-spotty bright yellow mineral fluorescence, no cut fluorescence.		<u> </u>						\perp	
	7		\pm			\pm			δ G										
						\pm													
\Rightarrow	X		¥			\pm		1	F	Limestone: It gray tan cream, dense matrix, microxin, very xin, slightly fossiliferous with scattered oolitic, some poor oomoldic development, overall poor interxin porosity, no shows noted, little-no		1					\top	+	
\Box	7)	₹			\mp		1	6	fluorescence.		A							
\dashv	-	>	\$		_	+		3500			\vdash)	-				+	+	4
\exists	-	V		5				}	= P	Muncia Creek 3506 (-1574)		1							
	1	_	\pm						P	Shale: gray dk gray, mostly blocky, soft to hard, fissile, some silty and pyritic in part.	Ш							\perp	
\Rightarrow	3	*	\blacksquare			\pm													
		\rightarrow			\Rightarrow	\pm			φ. μ. F	Limestone: It cream off white It gray, microxln, fossiliferous in part with some sub-oolitic, poor oomoldic development with few pieces having poor oomoldic porosity, overall poor visible porosity,									
\dashv	4			K		\pm		1		no shows noted, spotty bright pale yellow fluorescence in few pieces, no cut fluorescence.	\vdash	1	+	\vdash		H	+	+	-
\dashv	1	4		3		\mp	+	1	_==										
H	١	5	-			_		}	C F	Limestone: It cream cream It tan, slightly dense chalky matrix, vf-microxln, most heavily oolitic	\vdash		+			\vdash	\/:-	<u>+</u>	4
	X	4				\pm		1		fossiliferous, fair-poor intercolitic porosity, no shows noted, very poor fluorescence, no cut fluorescence, with scattered Chalk in sample.		9					Vis - Wt -		
\exists	7	4		H	\$	+		1	C C		Ц	1					WL -	9.0	
	-	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\)		4	+	C	1		Shalor aray dk gray dk groon moothy blooky post to hard some finalls							р Н - 	"	
		7	+		=	+	+			Shale: gray dk gray dk green, mostly blocky, soft to hard, some fissile.									
	d	4	\downarrow		+	+		3550	ø T	Limestone: cream It tan, dense matrix, vf-microxIn, fossiliferous with oolitic, very good oomoldic development, fair-good oomoldic porosity, abundant 2ndary xIn in porosity, no shows noted, and the property of the property	\sqcap	ſ				П		\top	7
H	1	+		5	\	\mp		1	J	spotty-even bright yellow fluorescence, no cut fluorescence.									
				H	Š	+		}	C F	Limestone: It cream off white It tan, dense tight matrix, micro-vfxln, fossiliferous with oolitic, scattered sub-oomoldic, overall poor interxln/oomoldic porosity, no shows noted, little-no fluorescence, with	\vdash	+	+	\vdash		H	+	+	4
	_	$ \overline{4} $	\blacksquare		$\mathbf{\Sigma}$	\pm		1	- ¢ - ¢	scattered Chalk in sample.]								
\exists		۷		7		7	3	1	_P	Stark Shale 3566 (-1634) Shale: gray dk gray dk green, blocky, mostly hard with some softer and waxy, fissile, pyritic in part.	Ш							\perp	
\exists	\$	\exists			7	+	c		Fφ			1							l
	Ç	\Rightarrow	+		3	\pm	+	1		Limestone: cream tan It cream, dense tight matrix, micro-vfxln, fossiliferous with oolitic, scattered									
Ħ	(#		Ħ	V	+		1	K	sub-oomoldic, overall poor interxln/oomoldic porosity, abundant 2ndary xln along edges in most pieces, no shows noted, little-no fluorescence.	\vdash	1	+	\vdash		H	\dashv	+	-
H	7	\downarrow	+		4	+	+	1	F										
		\Rightarrow	*		3	\mp		1			\vdash	_	+	-		\square	+	+	_
\vdash	1	+				+	\pm	1		Hushnuckney 3503 /-1661\	1								



c	C	continued Chert and Chalk. 3840' cfs 30" - Dolomite: brown It brown tan, dense tighter matix, vf-fxln, fair rhombic development in most, fair-poor rhombic porosity with most spaces filled by 2ndary xln, no shows noted, very poor fluorescence, grading to Dolomite: It cream, vf-fxln, sucrosic, fair sucrosic porosity, no shows noted, even bright pale yellow fluorescence, no cut fluorescence, no odor in sample, with continued Chert and Chalk. 3840' cfs 60" - Dolomite: It cream It tan, vf-fxln, fair sucrosic development, fair sucrosic porosity, no shows noted, even bright pale yellow fluorescence, no cut fluorescence, no odor in sample, with continued Chert and Chalk.	Y	/is - 51 Vt - 9.2 VL - 8.2 .CM - 2# oH - 10.3
TOH for Logging, 1600 hrs 3.29.11	3850	RTD 3840 (-1908) LTD 3842 (-1910) Rotary TD @ 3840', 1345 hrs 3.29.11 Superior Well Services Open Hole Logging TD @ 3842' Commence Open Hole Logging Operations, 1800 hrs 3.29.11 Complete Open Hole Logging Operations, 2230 hrs 3.29.11 Orders Received to Run 5 1/2" Production Casing Geologist Derek W. Patterson off location, 2300 hrs 3.29.11 Respectfully Submitted, Derek W. Patterson		



DRILL STEM TEST REPORT

Hess Oil Co

Wood #1-7

7-21S-14W Stafford

PO Box 1009

McPherson, KS 67460

Job Ticket: 041399 **DST#:1**

1927.00 ft (CF)

ATTN: Derek Patterson

Test Start: 2011.03.29 @ 02:30:31

GENERAL INFORMATION:

Formation: Arbuckle

Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole

Time Tool Opened: 04:31:46

Tester: Leal Cason
Time Test Ended: 09:08:16

Unit No: 45

Interval: 3670.00 ft (KB) To 3752.00 ft (KB) (TVD) Reference Elevations: 1932.00 ft (KB)

Total Depth: 3752.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 6798 Inside

Press@RunDepth: 163.34 psig @ 3671.00 ft (KB) Capacity: 8000.00 psig

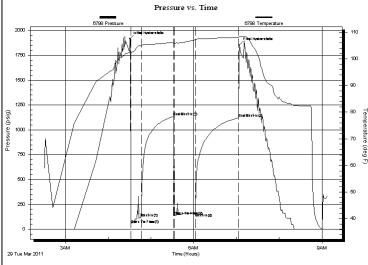
 Start Date:
 2011.03.29
 End Date:
 2011.03.29
 Last Calib.:
 2011.03.29

 Start Time:
 02:30:32
 End Time:
 09:08:16
 Time On Btm:
 2011.03.29 @ 04:30:31

 Time Off Btm:
 2011.03.29 @ 07:04:16

TEST COMMENT: IF: Fair Blow, Built to 7 inches

ISI: Bled Off, No Blow back FF: Fair Blow, Built To 7 1/2 inches FSI: Bled Off, No Blow back



	Time	Pressure	Temp	Annotation
	(Min.)	(psig)	(deg F)	
	0	1917.51	102.31	Initial Hydro-static
	2	53.63	101.95	Open To Flow (1)
	16	119.11	105.00	Shut-In(1)
Ţ	62	1135.36	106.14	End Shut-In(1)
enne	63	135.32	105.85	Open To Flow (2)
eti ire	92	163.34	107.13	Shut-In(2)
neh)	153	1120.06	108.07	End Shut-In(2)
פ	154	1853.73	108.42	Final Hydro-static
			1	

PRESSURE SUMMARY

Recovery

Length (ft)	Description	Volume (bbl)		
243.00	GWOCM 5%G 5%W 20%O 70%	1.20		
77.00	GOCM 5%G 20%O 75%M	1.08		

Gas Rai	es		
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)	

Trilobite Testing, Inc Ref. No: 041399 Printed: 2011.03.29 @ 11:09:14 Page 1



DRILL STEM TEST REPORT

FLUID SUMMARY

ppm

Hess Oil Co Wood #1-7

PO Box 1009 McPherson, KS 67460

Job Ticket: 041399 DST#: 1

7-21S-14W Stafford

ATTN: Derek Patterson Test Start: 2011.03.29 @ 02:30:31

Mud and Cushion Information

Mud Type: Gel Chem Cushion Type: Oil API: deg API Water Salinity:

Mud Weight: Cushion Length: 9.00 lb/gal ft bbl

Viscosity: 49.00 sec/qt Cushion Volume: Water Loss: 9.99 in³ Gas Cushion Type:

Resistivity: Gas Cushion Pressure: ohm.m psig

Salinity: 5000.00 ppm Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
243.00	GWOCM 5%G 5%W 20%O 70%	1.195
77.00	GOCM 5%G 20%O 75%M	1.080

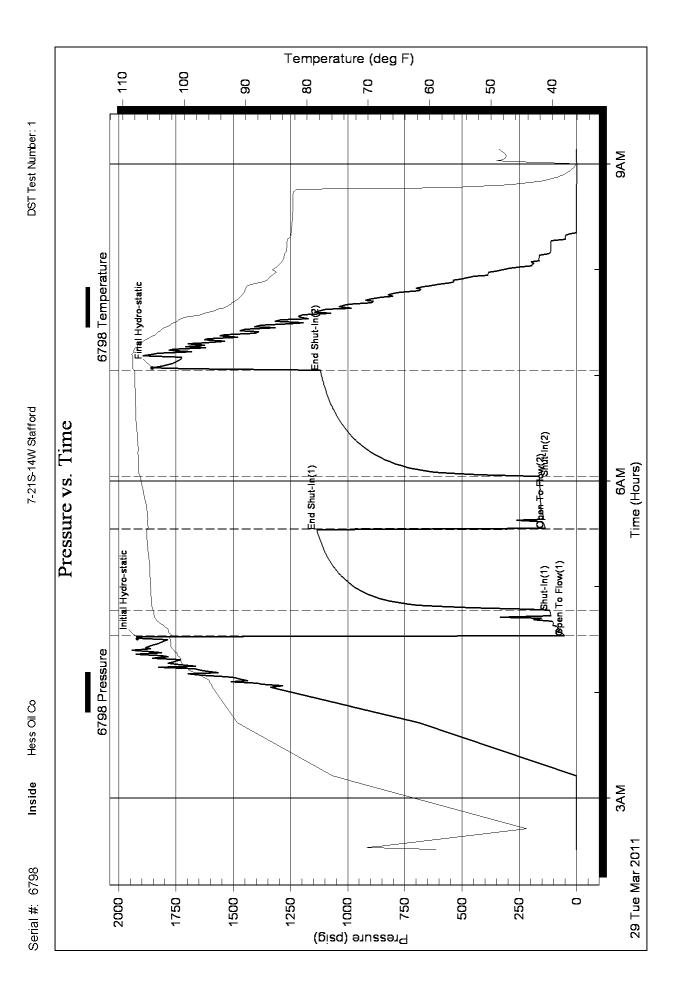
Total Length: 320.00 ft Total Volume: 2.275 bbl

Num Fluid Samples: 0 Num Gas Bombs: Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Trilobite Testing, Inc Ref. No: 041399 Printed: 2011.03.29 @ 11:09:15 Page 2



Printed: 2011.03.29 @ 11:09:16 Page 3 041399 Ref. No:

Trilobite Testing, Inc