

# ROGER L. MARTIN

INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970

## GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY HESS OIL COMPANY  
LEASE STANLEY 1-14  
FIELD TURKVILLE  
LOCATION 1292' FNL & 2970' FEL  
SECTION 14 TOWNSHIP 11S RANGE 17W  
COUNTY ELLIS STATE KANSAS

ELEVATIONS  
KB 1829' GL 1824'  
Measurements Are All  
From KB  
API 15-051-26538-00-00

CONTRACTOR MALLARD DRILLING  
SPUD 6/13/13 COMP 6/19/13  
RTD 3379' (-1550) LTD NA  
ELECTRICAL SURVEYS  
No Open Hole E-logs  
4 DST's by Trilobite

CASING  
SURFACE 8&5/8" X 20# X 209'  
set @ 216' w/ 150sx com.  
PRODUCTION 5&1/2" X 15.5# set @  
3376' (see remarks)

FORMATION TOPS	LOG	SAMPLES	CHRONOLOGY
TOPEKA		2762' (-933)	06/11/2013- Moved in Mallard Drilling rig. Spudded @ 7:30 PM. Drilled to 216' and ran 5 jts 8-5/8" x 20# x 209' surface casing. Set @ 216' and cemented w/ 150 sx common, 2% gel, 3% cc. CDC. PD @ 1:45 AM 6/12/2013
HEEBNER		2996' (-1167)	
TORONTO		3018' (-1189)	
LANSING		3038' (-1209)	06/12/2013- WOC. 06/13/2013- Drilling ahead @ 1722'. 06/14/2013- Drilling @ 2548'.
STARK		3229' (-1400)	
HERTHA		3262' (-1433)	06/15/2013- Drilled to 3120'. Ran DST #1: 2991'-3120'. 45-45-45-45. Rec 30' mud w/oil spots. Pressures: IH 1442#, IF 17-27#, ISI 225#, FF 29-34#, FSI 119#, FH 1447#.
BASE KANSAS CITY		3277' (-1448)	
CONGLOMERATE		3302' (-1473)	06/16/2013- Drilled to 3143'. Ran DST #2: 3101'-3143'. 45-45-45-45. Rec. 30' of 3% oil, 2% wtr, 95% mud, 60' of 5% oil, 15% wtr, 80% mud, and 210' GIP. Press: IH 1506#, IF 14-39#, ISI 99#, FF 37-53#, FSI 95#, FH 1446#.
ARBUCKLE		3376' (-1547)	
RTD		3379' (-1550)	06/17/2013- Drilled to 3277'. Ran DST #3: 3256'-3277'. 30-30-30-30. Rec 10' mud w/ oil spots. Press: IH 1597#, IF 25-33#, ISI 447#, FF 34-39#, FSI 252#, FH 1537#.
			06/18/2013- Drilled to 3370'. Ran DST #4: 3273'-3379'. 30-45-40-45. Rec 120' of 25% G, 45% O, 15% W, 15% M, 180' of 10% G, 40% O, 50%M; 60' of 5% G, 50% O, 45% M and 75' of 2% G, 98% O. Press: IH 1691#, IF 59-165#, ISI 1115#, FF 167-220#, FSI 1114#, FH 1625#.

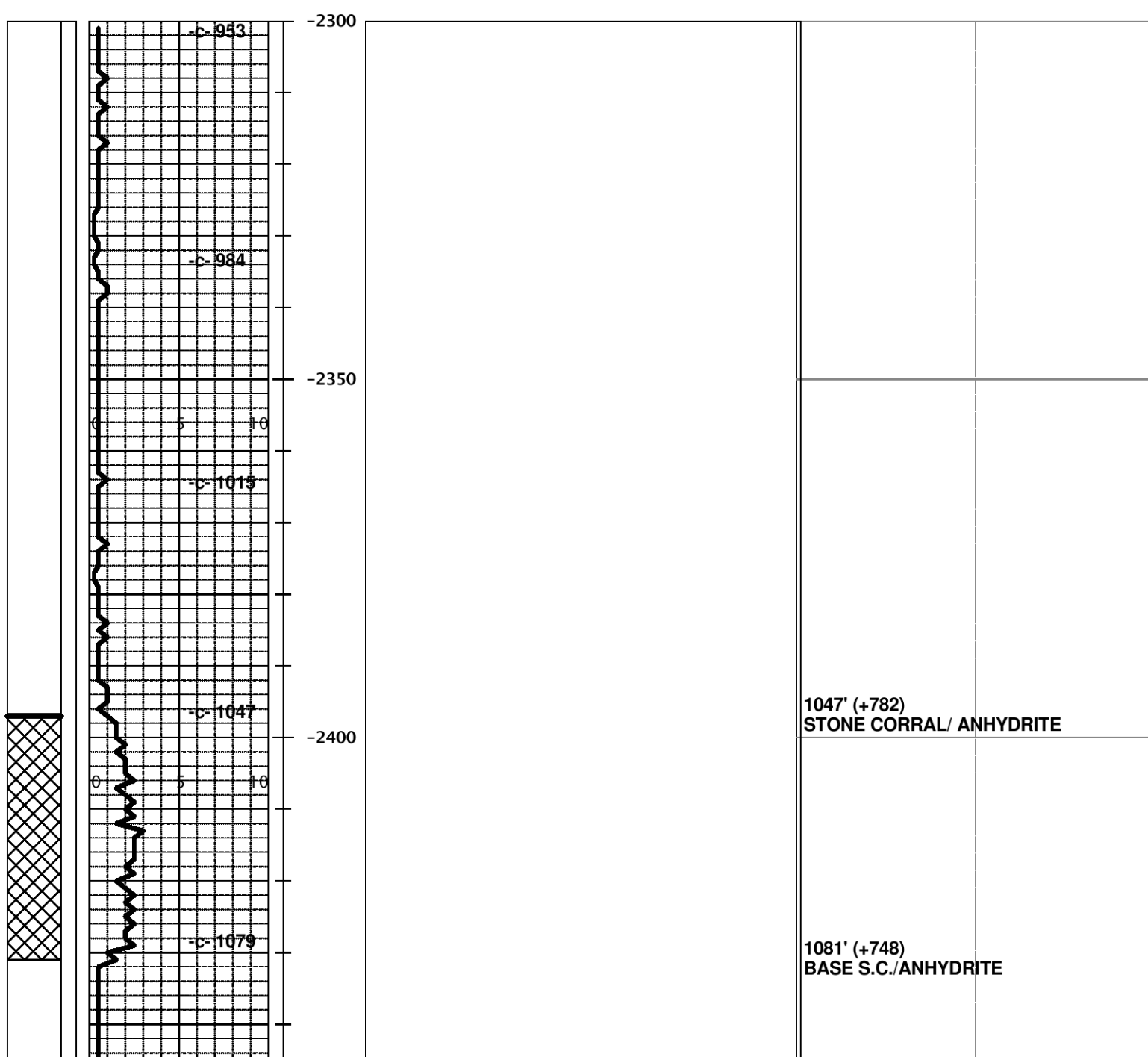
### REMARKS:

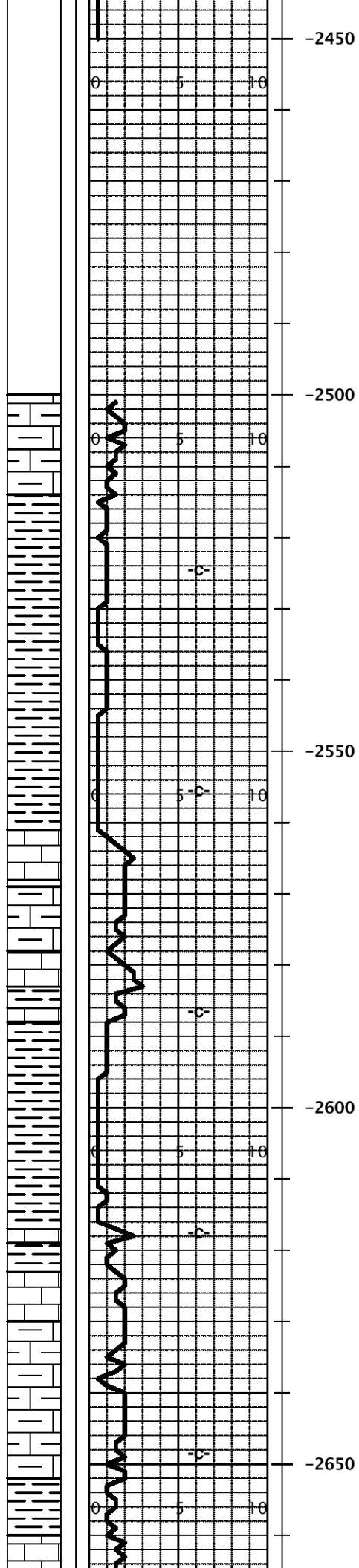
Casing Job: Ran 81 jts 5 1/2" x 15.5# casing. Set @ 3376' and cemented bottom stage w/200 sx EA-2. RH w/30 sx.

No MH. Cemented top stage w/145 sx SMD. CDC. PD @  
12:30 AM 06/19/2013. DV tool @ 1010'.  
Casing Job supervised by James (Jamie) Hess

Respectfully submitted,  
Roger L. Martin, Geologist (Wellsite)

LITH	POROSITY	DRILLING TIME MIN/FT	DST	SAMPLE DESCRIPTION	REMARKS
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-2450

0 5 10

-2500

0 5 10

-C-

-2550

0 5 10

-C-

LS: gy-tn-cm, dn- mx, Pred VPr- NVP; Trc fn oomldc w/Gd Por, NS.

LS: shly & argil w/VC SH.

LS: AA, Pred dn, sm chlky, NS.

LS: AA, Pred dn, sm chlky, NS.

SH: VC.

-2600

0 5 10

-C-

LS: gy-tn-cm, dn- mx, Pred Pr- NVP, VRr Fr- Gd mldc Por, NS. & SH: AA.

LS: Pred dn & argil, sm chlky, Pr- NVP, NS. VRr mldc w/ NS. & SH: VC, AA.

-2650

0 5 10

-C-

Pred SH: VC- AA.

LS: dn & argil w/VPr- NVP, sm chlky, NS. Trc oomldc LS w/Gd Por, NS. sm argil, shly LS.

20' SAMPLES

w/ Gd Por w/ NS. sm argil- shly LS.

SH: VC, sm blk carb.

LS: gy-wh-tn, dn to chlky, sm fos & ool w/Pr- NVP, NS.

SH: gy-blk, sm carb.

-2700

LS: gy-tn-wh, dn- sm argil, sm chlky, VPr- NVP, NS.

SH: VC- AA.

LS: gy, dn, & dn & argil- shly w/Pr- NVP.

LS: tn-gy, dn- mx- fnx w/VPr- NVP, NS.

-2750

SH- SILTS: sm blk carb SH.

{TOPEKA} LS: gy-bf-cm, Pred dn- mx- Vfnxln, sm argil, VPr- NVP, NS.

2762' (-933)  
TOPEKA

LS: gy-cm & tn, mx- fnx, sm fos- fragmntl Pkst w/Pr- Trc Fr Por, NS, sm chlky & sm argil.

CFS(-953)

LS: gy-tn-cm, Pred dn- mx, Rr fnx, sm fos, sm argil, Pred VPr- NVP w/ NS.

{Trc SFO}

LS: cm-bf-gy, mx- Vfnxln, sm m- sucro- SI dolomc, VRr fn- MdX's- 2nd ReX, sm grnlr Pkst: Pr- Trc Fr Por: IX Por, IGr Por, pp Por, Trc <1% w/spt'd- sat STN & FLR & Cut, Trc SFO & Cut, Trc Odor; sm chlky.

-2800

SH: blk carb.  
LS: dn- argil.  
SH: gy-gn-rd.

CFS(-977)  
wt: 8.6  
vis: 45  
LCM 2#

LS: cm-bf, gy, mx- Vfnx- sm msucro, sm chlky, Pr- Fr Por: IX Por, I Gr Por, pp Por, NS. sm md- fn X's, Rr dull FLR, NSO, NC. SI Cherty.

LS: tn-gy-cm, dn- mx w/VPr- NVP.

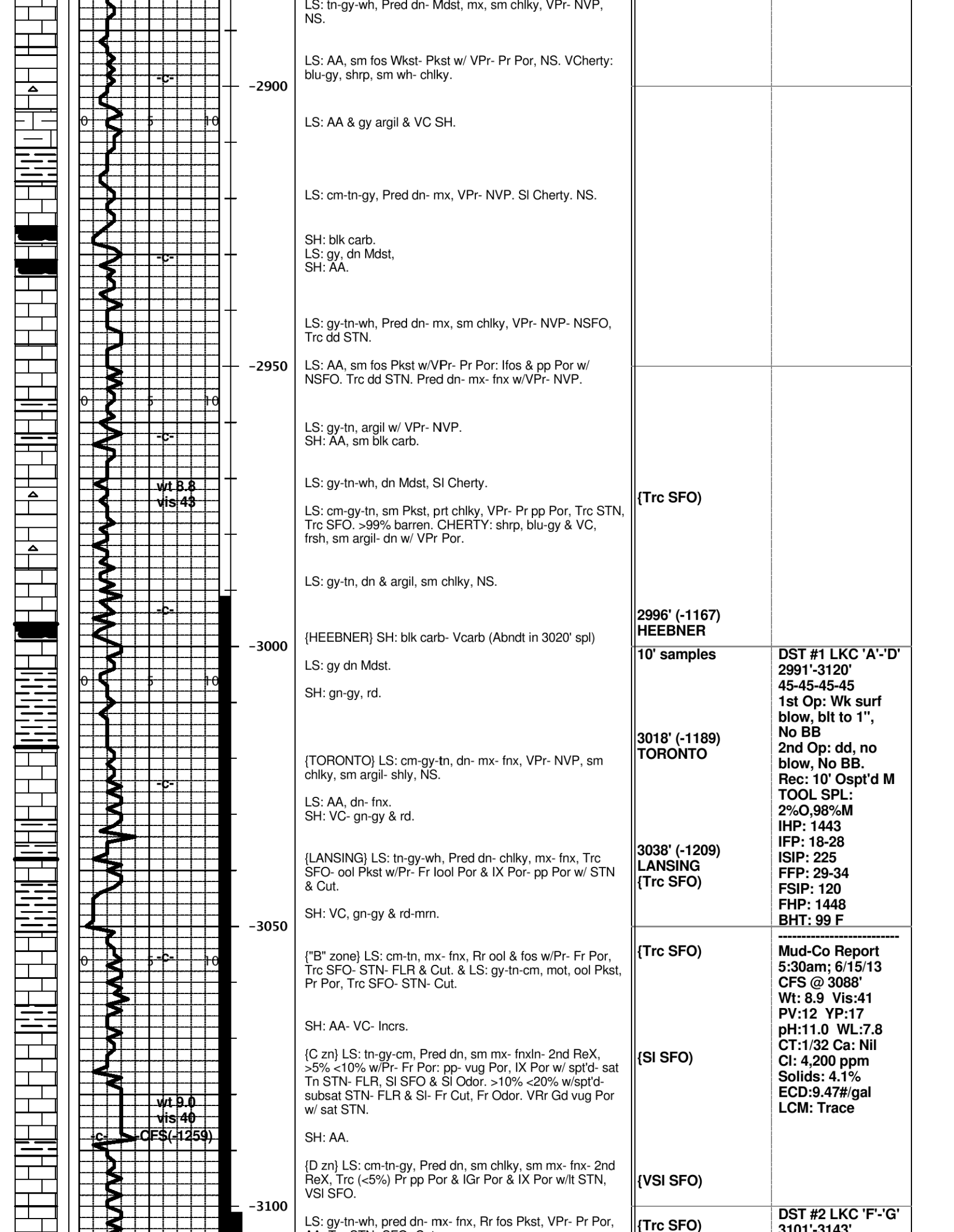
-2850

LS: AA & argil Mdst, VPr- NVP.

LS: cm-bf-gy, sm fos Pkst w/Pr- Fr Por, NS. sm chlky, SI Cherty.

SH: blk carb.  
LS: tn-gy, dn.

SH: AA & gy.



LS: tn-gy-wh, Pred dn- Mdst, mx, sm chlky, VPr- NVP, NS.

-2900  
LS: AA, sm fos Wkst- Pkst w/ VPr- Pr Por, NS. VCherty: blu-gy, shrp, sm wh- chlky.

LS: AA & gy argil & VC SH.

LS: cm-tn-gy, Pred dn- mx, VPr- NVP. SI Cherty. NS.

SH: blk carb.  
LS: gy, dn Mdst,  
SH: AA.

-2950  
LS: gy-tn-wh, Pred dn- mx, sm chlky, VPr- NVP- NSFO, Trc dd STN.

LS: AA, sm fos Pkst w/VPr- Pr Por: lfos & pp Por w/ NSFO. Trc dd STN. Pred dn- mx- fnx w/VPr- NVP.

LS: gy-tn, argil w/ VPr- NVP.  
SH: AA, sm blk carb.

LS: gy-tn-wh, dn Mdst, SI Cherty.

wt 8.8  
vis 43

LS: cm-gy-tn, sm Pkst, prt chlky, VPr- Pr pp Por, Trc STN, Trc SFO. >99% barren. CHERTY: shrp, blu-gy & VC, frsh, sm argil- dn w/ VPr Por.

LS: gy-tn, dn & argil, sm chlky, NS.

-3000  
{HEEBNER} SH: blk carb- Vcarb (Abndt in 3020' spl)

LS: gy dn Mdst.

SH: gn-gy, rd.

{TORONTO} LS: cm-gy-tn, dn- mx- fnx, VPr- NVP, sm chlky, sm argil- shly, NS.

LS: AA, dn- fnx.  
SH: VC- gn-gy & rd.

{LANSING} LS: tn-gy-wh, Pred dn- chlky, mx- fnx, Trc SFO- ool Pkst w/Pr- Fr lool Por & IX Por- pp Por w/ STN & Cut.

SH: VC, gn-gy & rd-mrn.

-3050  
{ "B" zone } LS: cm-tn, mx- fnx, Rr ool & fos w/Pr- Fr Por, Trc SFO- STN- FLR & Cut. & LS: gy-tn-cm, mot, ool Pkst, Pr Por, Trc SFO- STN- Cut.

SH: AA- VC- Incrs.  
{C zn} LS: tn-gy-cm, Pred dn, sm mx- fnxln- 2nd ReX, >5% <10% w/Pr- Fr Por: pp- vug Por, IX Por w/ spt'd- sat Tn STN- FLR, SI SFO & SI Odor. >10% <20% w/spt'd- subsat STN- FLR & SI- Fr Cut, Fr Odor. VRr Gd vug Por w/ sat STN.

wt 9.0  
vis 40

CFS(-1259)

SH: AA.

{D zn} LS: cm-tn-gy, Pred dn, sm chlky, sm mx- fnx- 2nd ReX, Trc (<5%) Pr pp Por & IGr Por & IX Por w/lt STN, VSI SFO.

-3100  
LS: gy-tn-wh, pred dn- mx- fnx, Rr fos Pkst, VPr- Pr Por,

{Trc SFO}

2996' (-1167)  
HEEBNER

10' samples

3018' (-1189)  
TORONTO

3038' (-1209)  
LANSING  
{Trc SFO}

{Trc SFO}

{SI SFO}

{VSI SFO}

{Trc SFO}

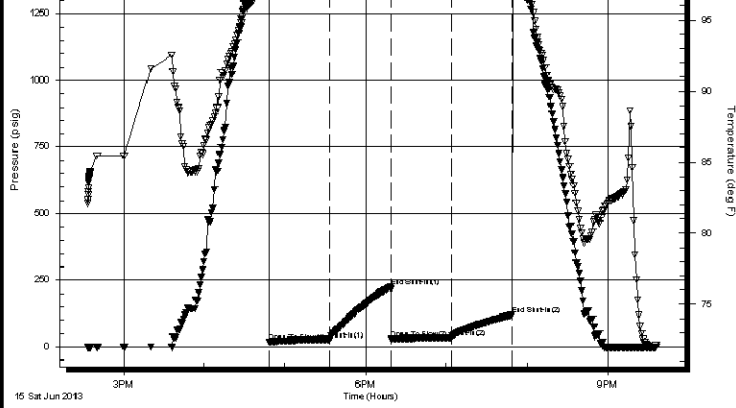
DST #1 LKC 'A'-D'  
2991'-3120'  
45-45-45-45  
1st Op: Wk surf  
blow, blt to 1",  
No BB  
2nd Op: dd, no  
blow, No BB.  
Rec: 10' Ospt'd M  
TOOL SPL:  
2%O,98%M  
IHP: 1443  
IFP: 18-28  
ISIP: 225  
FFP: 29-34  
FSIP: 120  
FHP: 1448  
BHT: 99 F

Mud-Co Report  
5:30am; 6/15/13  
CFS @ 3088'  
Wt: 8.9 Vis:41  
PV:12 YP:17  
pH:11.0 WL:7.8  
CT:1/32 Ca: Nil  
Cl: 4,200 ppm  
Solids: 4.1%  
ECD:9.47#/gal  
LCM: Trace

DST #2 LKC 'F'-G'  
3101'-3143'







0	1442.81	98.07	Initial Hydro-static
1	17.69	97.26	Open To Flow (1)
46	27.91	98.04	Shut-In(1)
91	225.12	98.38	End Shut-In(1)
92	29.12	98.30	Open To Flow (2)
137	34.48	98.57	Shut-In(2)
181	119.74	98.81	End Shut-In(2)
183	1447.56	99.15	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
30.00	100%M with oil spots	0.15
0.00	Tool Sample 2%O 98%M	0.00

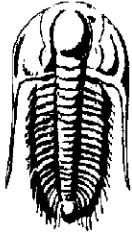
**Gas Rates**

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

Trilobite Testing, Inc

Ref. No: 5324

Printed: 2013.06.15 @ 22:49:09

 <p><b>TRILOBITE TESTING, INC</b></p>	<b>DRILL STEM TEST REPORT</b>	<b>FLUID SUMMARY</b>
	Hess Oil Company PO Box 1009 McPherson KS, 67460 ATTN: Roger Martin	14-11-17-Ellis Co KS <b>Stanley #1-14</b> Job Ticket: 5324 Test Start: 2013.06.15 @ 14:33:34

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 41.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.80 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4200.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	100%M with oil spots	0.148
0.00	Tool Sample 2%O 98%M	0.000

Total Length: 30.00 ft      Total Volume: bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:



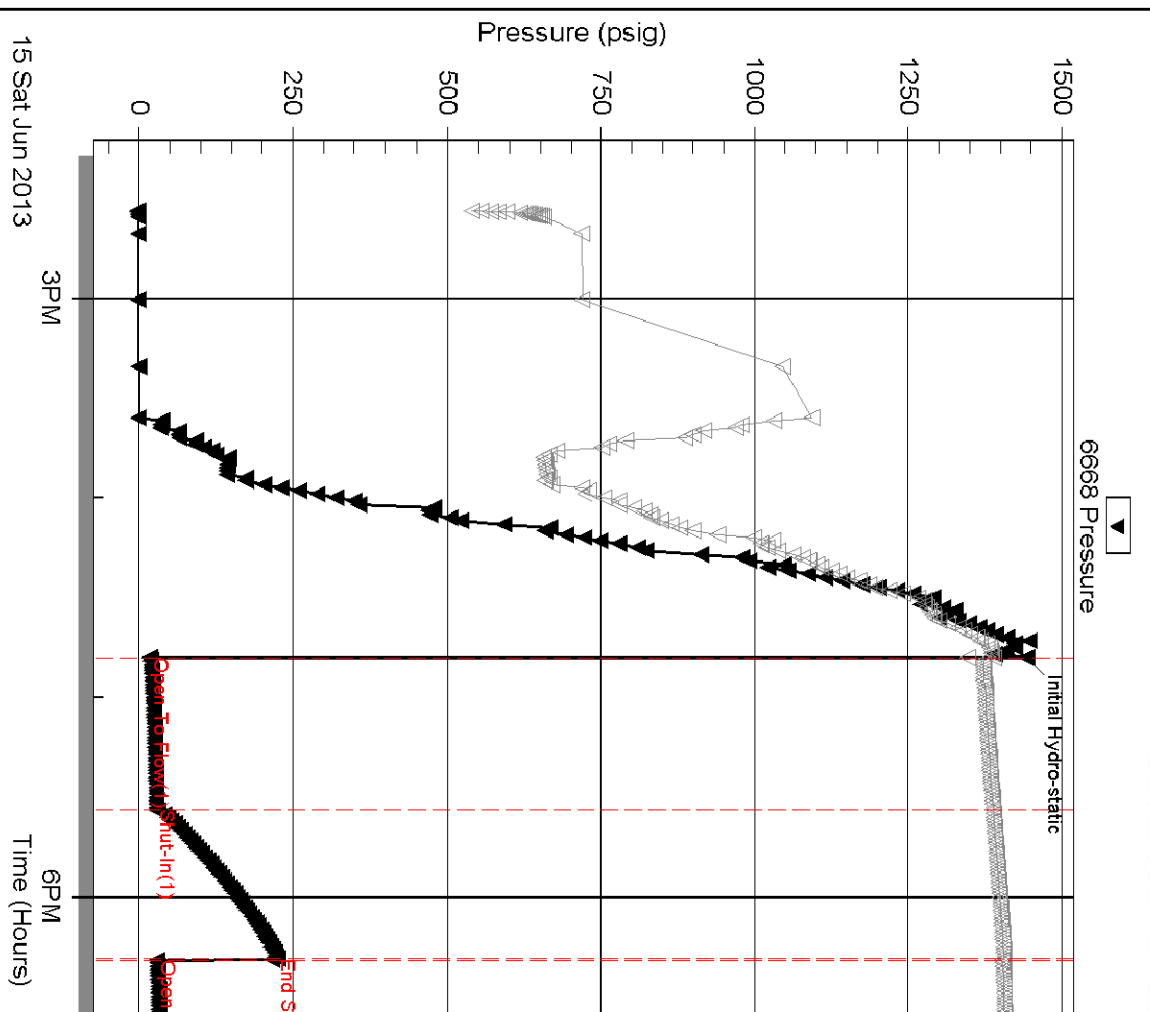
Serial #: 6668

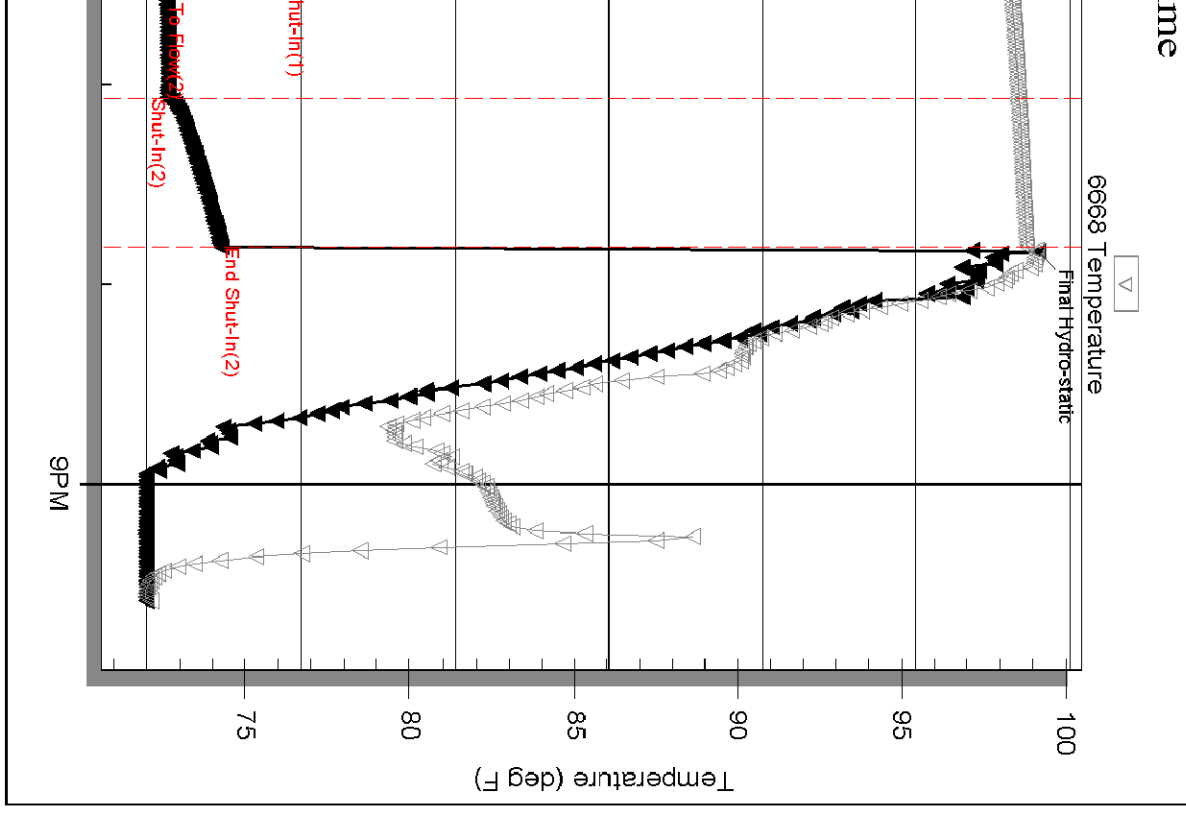
Inside

Hess Oil Company

Stanley #1-

### Pressure vs. Time





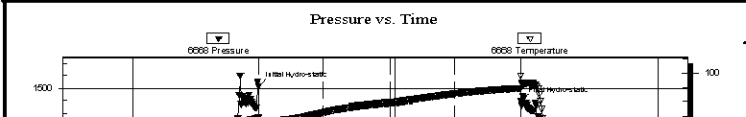
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	<b>DRILL STEM TEST REPORT</b>	
	Hess Oil Company PO Box 1009 McPherson KS, 67460 ATTN: Roger Martin	14-11-17-Ellis Co KS <b>Stanley #1-14</b> Job Ticket: 53225 <b>DST#: 2</b> Test Start: 2013.06.16 @ 05:31:09

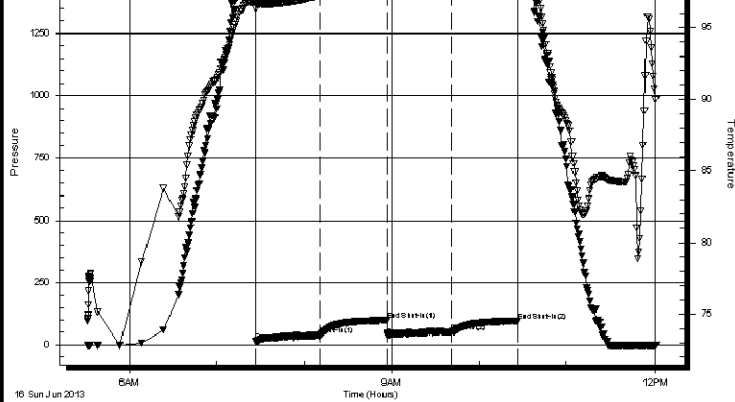
<b>GENERAL INFORMATION:</b>			
Formation:	<b>Lansing F-G</b>		
Deviated:	No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened:	07:26:54		Tester: Tate Lang
Time Test Ended:	12:00:39		Unit No: 54
<b>Interval:</b>	<b>3101.00 ft (KB) To 3143.00 ft (KB) (TVD)</b>	Reference Elevations:	1829.00 ft (KB)
Total Depth:	3120.00 ft (KB) (TVD)		1824.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition:	Good
		KB to GR/CF:	5.00 ft

<b>Serial #: 6668</b>	<b>Inside</b>		
Press@RunDepth:	53.25 psig @	3102.00 ft (KB)	Capacity: 8000.00 psig
Start Date:	2013.06.16	End Date: 2013.06.16	Last Calib.: 2013.06.16
Start Time:	05:31:11	End Time: 12:00:39	Time On Btm: 2013.06.16 @ 07:26:39
			Time Off Btm: 2013.06.16 @ 10:26:54

**TEST COMMENT:** Fair surface blow built to 5 1/2in.  
 Dead no blow back  
 Fair surface blow built to 5 1/2in.  
 Dead no blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1506.74	96.86	Initial Hydro-static



0	1500.74	90.80	Initial Hydro-static
1	14.69	96.35	Open To Flow (1)
44	39.30	97.24	Shut-In(1)
90	99.70	97.94	End Shut-In(1)
91	37.73	97.92	Open To Flow (2)
135	53.25	98.56	Shut-In(2)
180	95.59	98.95	End Shut-In(2)
181	1446.45	99.78	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
30.00	3%O 2%W 95%M	0.15
60.00	5%O 15%W 80%M	0.30
0.00	210 GIP	0.00
0.00	Tool sample 2%O 58%W 40%M	0.00

\* Recovery from multiple tests

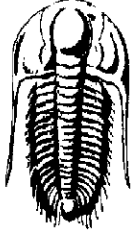
**Gas Rates**

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

Trilobite Testing, Inc

Ref. No: 53225

Printed: 2013.06.17 @ 07:55:14

 <b>TRILOBITE TESTING, INC</b>	<h2>DRILL STEM TEST REPORT</h2>	<b>FLUID SUMMARY</b>
	Hess Oil Company PO Box 1009 McPherson KS, 67460 ATTN: Roger Martin	<b>14-11-17-Ellis Co KS</b> <b>Stanley #1-14</b> Job Ticket: 53225 Test Start: 2013.06.16 @ 05:31:09

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	23000 ppm
Viscosity: 41.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4200.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	3%O 2%W 95%M	0.148
60.00	5%O 15%W 80%M	0.295
0.00	210 GIP	0.000
0.00	Tool sample 2%O 58%W 40%M	0.000

Total Length: 90.00 ft      Total Volume: 0.443 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: RW .330 @ 65 F = 23000 on the tool sample

Serial #: 6668

Inside

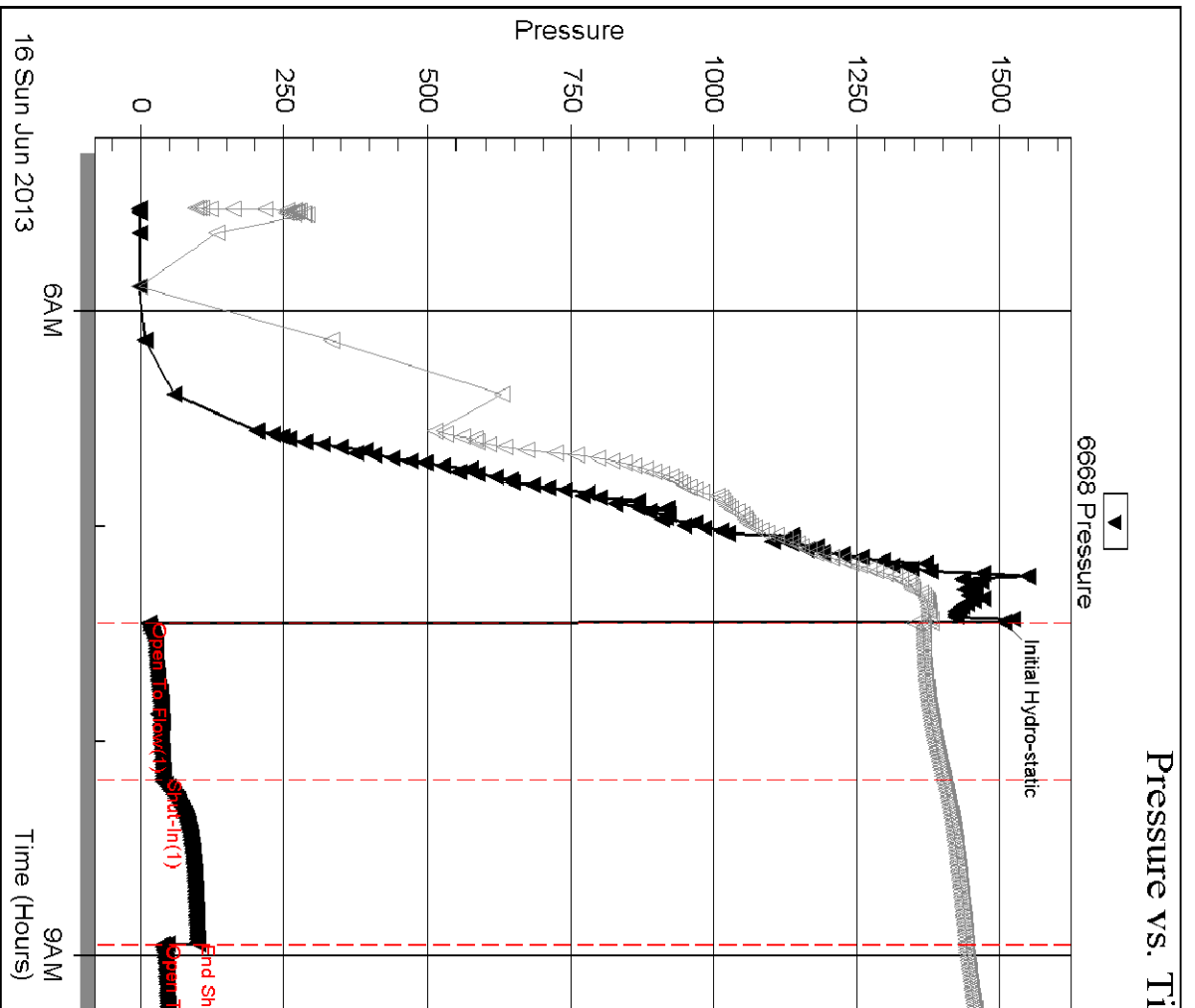
Hess Oil Company

Stanley #1-

Printed: 2013.06.17 @ 07:55:15

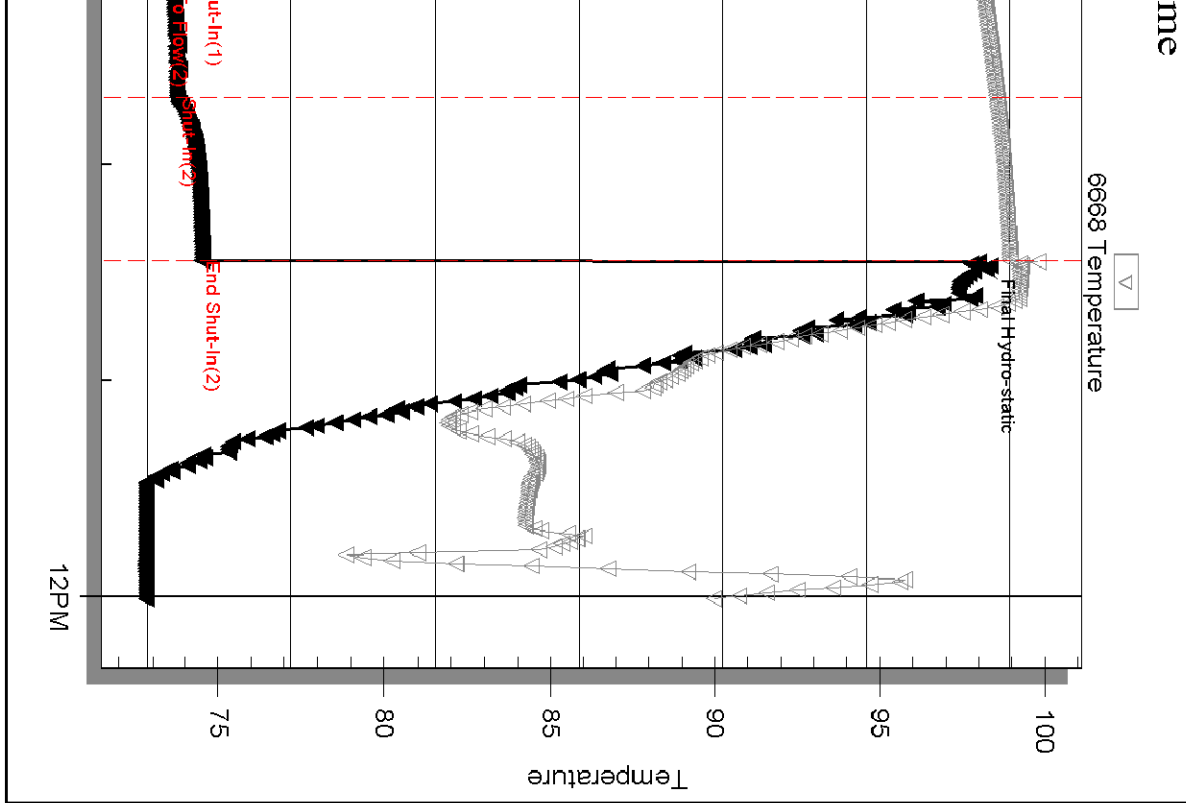
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Trilobite Testing, Inc



Trilobite Testing, Inc

Ref. No: 53225



Printed: 2013.06.17 @ 07:55:15

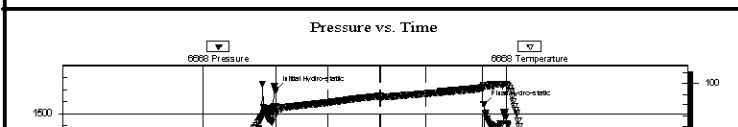
	<b>DRILL STEM TEST REPORT</b>	
	Hess Oil Company PO Box 1009 McPherson KS, 67460 ATTN: Roger Martin	14-11-17-Ellis Co KS <b>Stanley #1-14</b> Job Ticket: 53977 <b>DST#: 3</b> Test Start: 2013.06.17 @ 01:53:37

**GENERAL INFORMATION:**

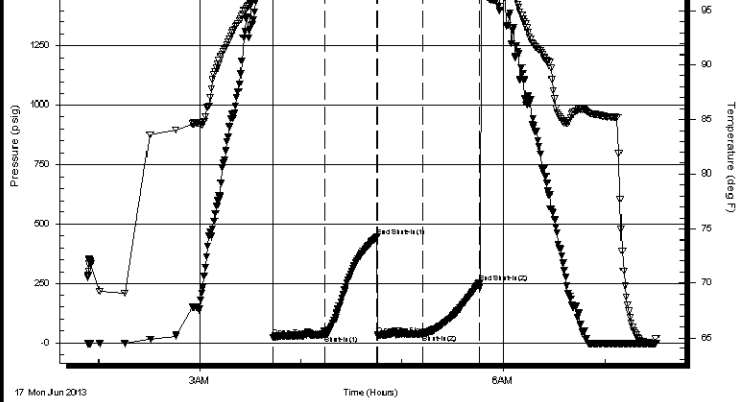
Formation: <b>LKC H-L</b>		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 03:43:22		Tester: Tate Lang
Time Test Ended: 07:30:07		Unit No: 54
<b>Interval: 3256.00 ft (KB) To 3277.00 ft (KB) (TVD)</b>		Reference Elevations: 1829.00 ft (KB)
Total Depth: 3277.00 ft (KB) (TVD)		1824.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 5.00 ft

<b>Serial #: 6668</b>	<b>Inside</b>		
Press@RunDepth: 39.52 psig @	3157.00 ft (KB)	Capacity: 8000.00 psig	
Start Date: 2013.06.17	End Date: 2013.06.17	Last Calib.: 2013.06.17	
Start Time: 01:53:39	End Time: 07:30:07	Time On Btm: 2013.06.17 @ 03:43:07	
		Time Off Btm: 2013.06.17 @ 05:46:52	

**TEST COMMENT:** Weak surface blow  
 Dead no blow back  
 Dead no blow  
 Dead no blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1597.04	97.88	Initial Hydro-static



0	1537.04	97.00	Initial Hydro-static
1	25.34	97.15	Open To Flow (1)
32	33.00	98.22	Shut-In(1)
63	447.41	98.84	End Shut-In(1)
63	34.21	98.60	Open To Flow (2)
89	39.52	99.07	Shut-In(2)
123	251.57	99.54	End Shut-In(2)
124	1537.00	99.77	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
10.00	100%M w ith oil spots	0.05
0.00	Tool Sample 100%M w ith oil spots	0.00

\* Recovery from multiple tests

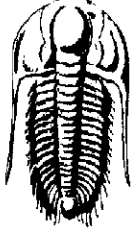
**Gas Rates**

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

Trilobite Testing, Inc

Ref. No: 53977

Printed: 2013.06.17 @ 07:53:33

 <b>TRILOBITE TESTING, INC</b>	<h2>DRILL STEM TEST REPORT</h2>	<b>FLUID SUMMARY</b>
	Hess Oil Company PO Box 1009 McPherson KS, 67460 ATTN: Roger Martin	<b>14-11-17-Ellis Co KS</b> <b>Stanley #1-14</b> Job Ticket: 53977 Test Start: 2013.06.17 @ 01:53:37

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.50 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4500.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	100%M w ith oil spots	0.049
0.00	Tool Sample 100%M w ith oil spots	0.000

Total Length: 10.00 ft      Total Volume: 0.049 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

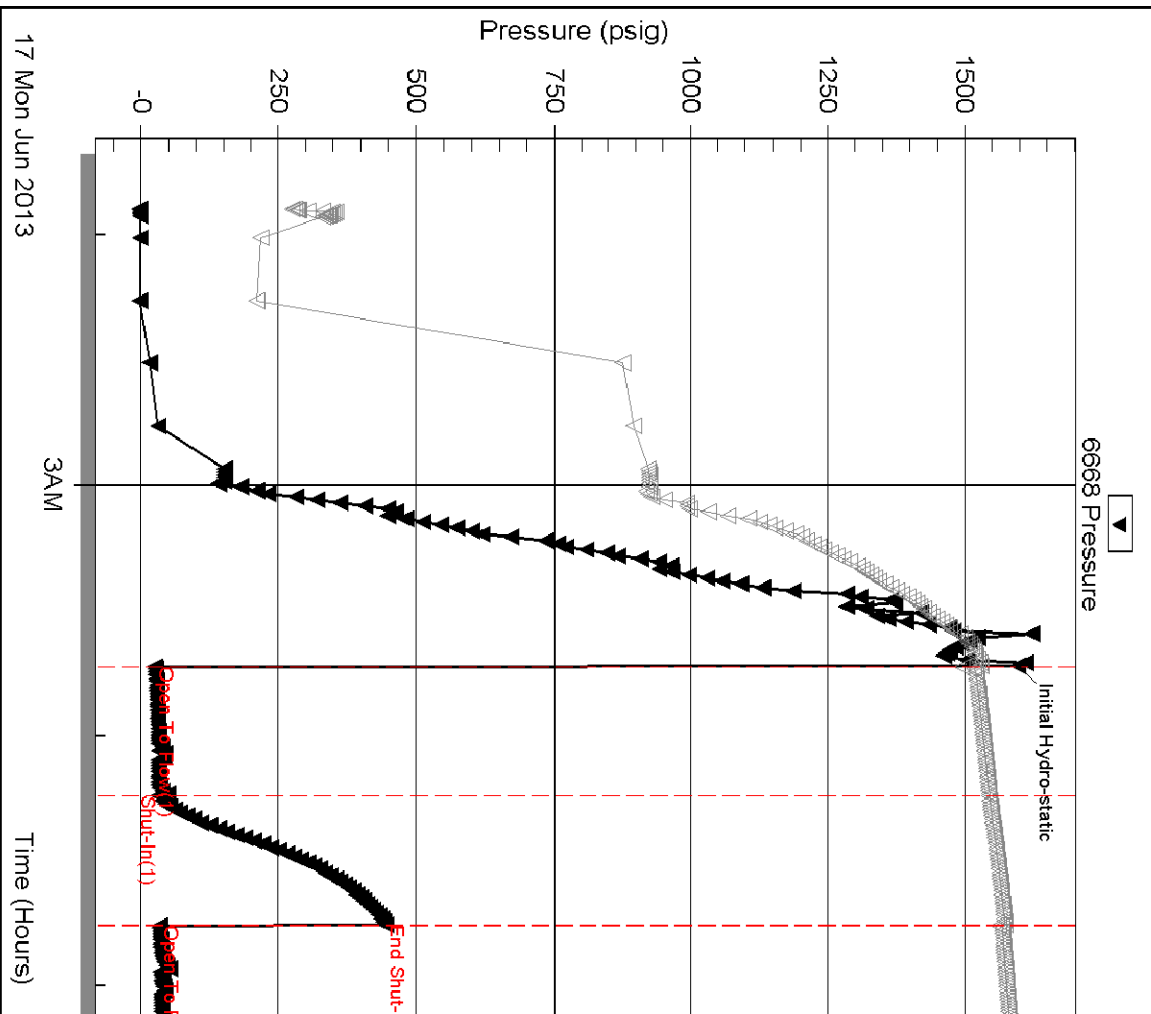
Serial #: 6668

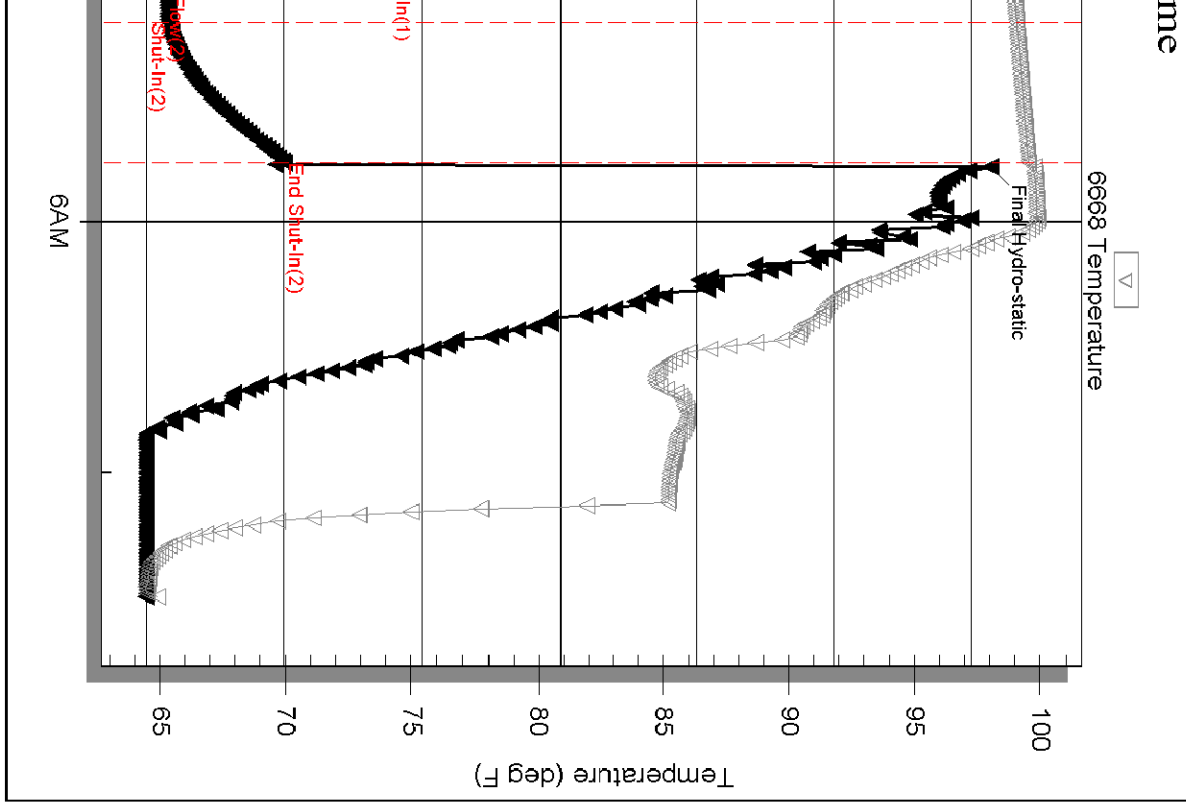
Inside

Hess Oil Company

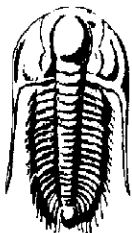
Stanley #1-

# Pressure vs. Time





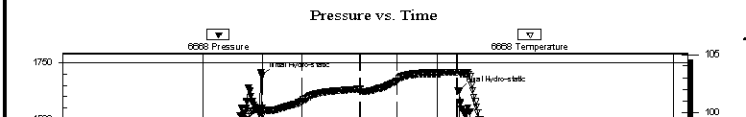
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	<b>DRILL STEM TEST REPORT</b>	
	Hess Oil Company PO Box 1009 McPherson KS, 67460 ATTN: Roger Martin	<b>14-11-17-Ellis Co KS</b> <b>Stanley #1-14</b> Job Ticket: 53978 <b>DST#: 4</b> Test Start: 2013.06.18 @ 01:33:25

<b>GENERAL INFORMATION:</b>			
Formation:	<b>Arbuckle</b>		
Deviated:	No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened:	03:46:10		Tester: Tate Lang
Time Test Ended:	08:49:40		Unit No: 54
Interval:	<b>3273.00 ft (KB) To 3379.00 ft (KB) (TVD)</b>		Reference Elevations: 1829.00 ft (KB)
Total Depth:	3379.00 ft (KB) (TVD)		1824.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition: Good	KB to GR/CF: 5.00 ft

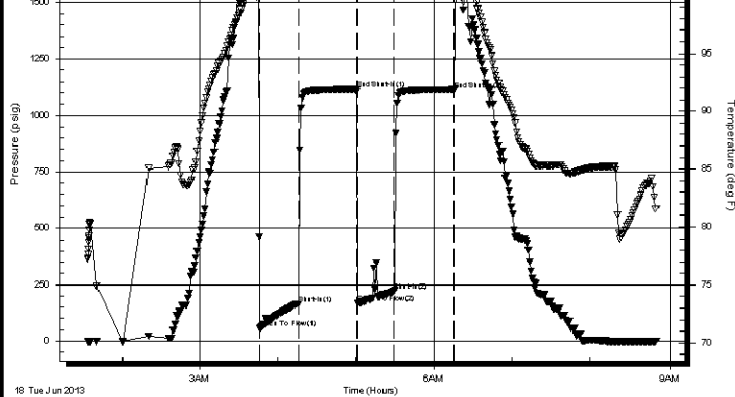
<b>Serial #: 6668</b>	<b>Inside</b>				
Press@RunDepth:	220.84 psig @	3274.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2013.06.18	End Date:	2013.06.18	Last Calib.:	2013.06.18
Start Time:	01:33:27	End Time:	08:49:40	Time On Btm:	2013.06.18 @ 03:45:25
				Time Off Btm:	2013.06.18 @ 06:16:40

**TEST COMMENT:** B.O.B. in 20 mins.  
 Dead no blow back  
 B.O.B. in 20 mins.  
 Dead no blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1691.75	100.40	Initial Hydro-static





1	100.10	100.10	Initial Hydro-static
31	165.45	100.90	Open To Flow (1)
75	1115.99	102.01	Shut-In(1)
76	167.45	101.81	End Shut-In(1)
104	220.84	102.72	Open To Flow (2)
151	1114.73	103.45	Shut-In(2)
152	1625.97	103.45	End Shut-In(2)
			Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
120.00	25%G 45%O 15%W 15%M	0.59
180.00	10%G 40%O 50%M	0.92
60.00	5%G 50%O 45%M	0.84
75.00	2%G 98%O	1.05
0.00	Tool Sample 30%G 30%O 10%W 30%M	0.00

\* Recovery from multiple tests

**Gas Rates**

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Trilobite Testing, Inc

Ref. No: 53978

Printed: 2013.06.18 @ 10:01:46

	<b>DRILL STEM TEST REPORT</b>	<b>FLUID SUMMARY</b>
	Hess Oil Company PO Box 1009 McPherson KS, 67460 ATTN: Roger Martin	14-11-17-Ellis Co KS <b>Stanley #1-14</b> Job Ticket: 53978 Test Start: 2013.06.18 @ 01:33:25

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API: 29 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.80 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4500.00 ppm		
Filter Cake: 1.00 inches		

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
120.00	25%G 45%O 15%W 15%M	0.590
180.00	10%G 40%O 50%M	0.922
60.00	5%G 50%O 45%M	0.842
75.00	2%G 98%O	1.052
0.00	Tool Sample 30%G 30%O 10%W 30%M	0.000

Total Length: 435.00 ft      Total Volume: 3.406 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: API 27 @ 80 F = 29

Serial #: 6668

Inside

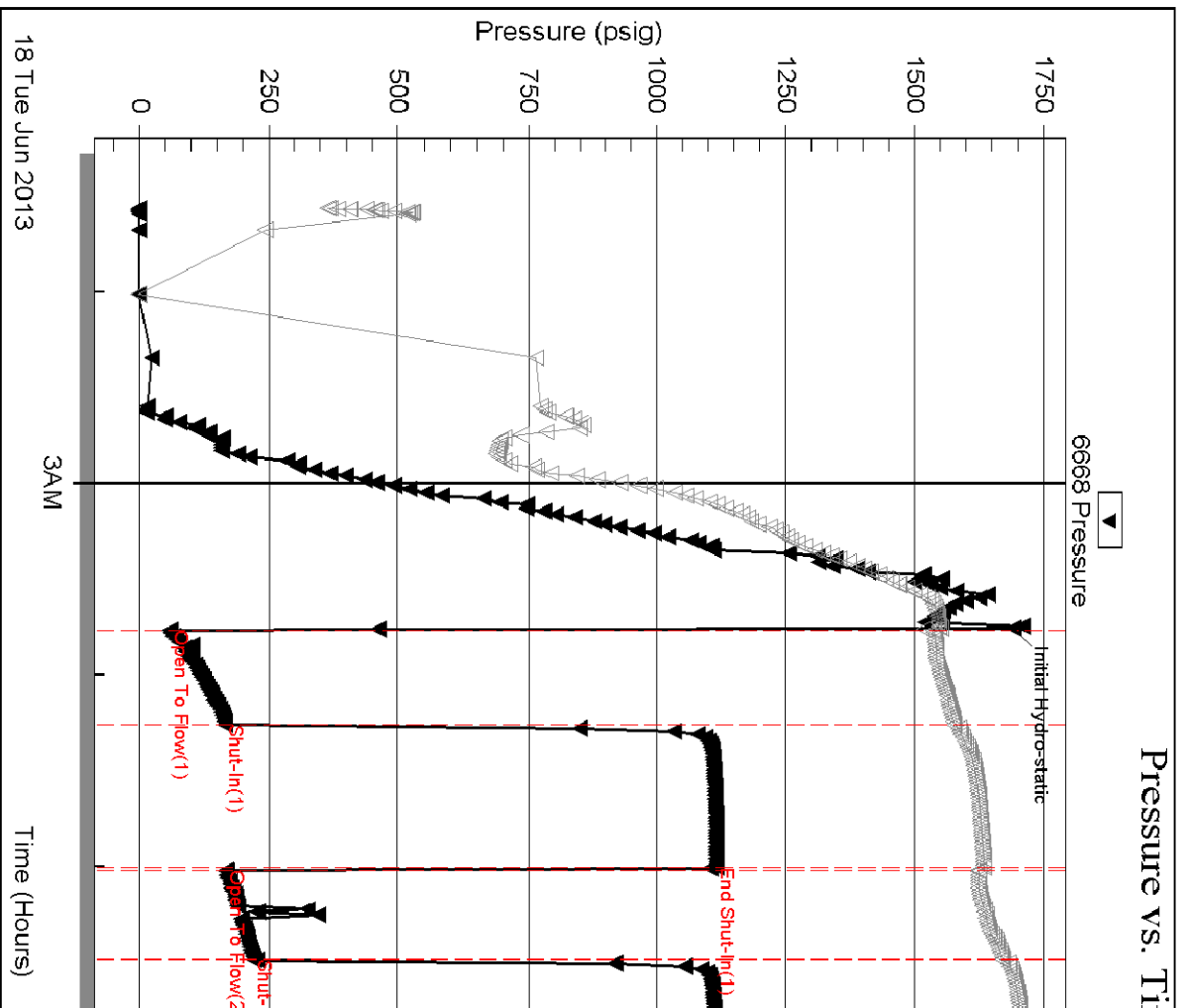
Hess Oil Company

Stanley #1-

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Ref. No: 53978

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