

KANSAS CORPORATION COMMISSION 1074864
OIL & GAS CONSERVATION DIVISION

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 # 30535
 Name: Hartman Oil Co., Inc.
 Address 1: 10500 E BERKELEY SQ PKWY STE 100
 Address 2: _____
 City: WICHITA State: KS Zip: 67206 + _____
 Contact Person: Stan Mitchell
 Phone: (620) 272-1025
 CONTRACTOR: License # 33793
 Name: H2 Drilling LLC
 Wellsite Geologist: Charlie Sturdavant
 Purchaser: _____

Designate Type of Completion:

- ☒ New Well ☐ Re-Entry ☐ Workover
- ☐ Oil ☐ WSW ☐ SWD ☐ SLOW
- ☐ 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

☐ Conv. to GSW

☐ Plug Back: _____ Plug Back Total Depth _____

☐ Commingled Permit #: _____

☐ Dual Completion Permit #: _____

☐ SWD Permit #: _____

☐ ENHR Permit #: _____

☐ GSW Permit #: _____

<u>4/14/2011</u>	<u>4/25/2011</u>	<u>4/26/2011</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-055-22098-00-00

Spot Description: _____
NW NE SE SE Sec. 16 Twp. 22 S. R. 33 ☐ East ☒ West

1030 Feet from ☐ North / ☒ South Line of Section

360 Feet from ☒ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☐ NE ☐ NW ☒ SE ☐ SW

County: Finney

Lease Name: Ward Twin Well #: 11

Field Name: _____

Producing Formation: Mississippi

Elevation: Ground: 2896 Kelly Bushing: 2905

Total Depth: 4800 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 1780 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: 1900 ppm Fluid volume: 8000 bbls

Dewatering method used: Evaporated

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

☐ Letter of Confidentiality Received
 Date: _____

☐ Confidential Release Date: _____

☒ Wireline Log Received

☐ Geologist Report Received

☐ UIC Distribution

ALT ☐ I ☒ II ☐ III Approved by: Deanna Gantner Date: 03/12/2012

1074864

Operator Name: Hartman Oil Co., Inc. Lease Name: Ward Twin Well #: 11
 Sec. 16 Twp. 22 S. R. 33 ☐ East ☒ West County: Finney

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☒ Yes ☐ No
 (Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☒ No

Cores Taken ☐ Yes ☒ No

Electric Log Run ☒ Yes ☐ No

Electric Log Submitted Electronically ☒ Yes ☐ No
 (If no, Submit Copy)

List All E. Logs Run:

Dual Compensated Porosity Log
 Dual Induction Log
 Microresistivity Log

☐ Log Formation (Top), Depth and Datum ☒ Sample

Name Top Datum
 Attached Attached Attached

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
Surface	12.250	8.625	24.0	1780	Type A	325	3%CC

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	-			

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 (If vented, Submit ACO-18.)		METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. (Submit ACO-5) ☐ Commingled (Submit ACO-4) ☐ Other (Specify) _____		PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Hartman Oil Co., Inc.
Well Name	Ward Twin 11
Doc ID	1074864

Tops

Heebner	3792	-887
Lansing	3838	-933
Base of KC	4311	-1406
Marmanton	4336	-1431
Pawnee	4422	-1517
Ft Scott	4452	-1547
Cherokee Shale	4468	-1563
Morrow Sand	4662	-1757
St Louis B	4704	-1799



PO BOX 31 Russell, KS 67665

Voice: (785) 483-3887
Fax: (785) 483-5568

INVOICE

Invoice Number: 127014
Invoice Date: Apr 26, 2011
Page: 1

Bill To:

Hartman Oil Co., Inc.
H2 Drilling & H2 Trucking
3545 W. Jones Avenue
Garden City, KS 67846

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Hart	Ward Twin #11 814851	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	Apr 26, 2011	5/26/11

Quantity	Item	Description	Unit Price	Amount
96.00	MAT	Class A Common	16.25	1,560.00
64.00	MAT	Pozmix	8.50	544.00
6.00	MAT	Gel	21.25	127.50
40.00	MAT	Flo Seal	2.70	108.00
166.00	SER	Handling	2.25	373.50
70.00	SER	Mileage 166 sx @ .11 per sk per mi	18.26	1,278.20
1.00	SER	Plug to Abandon	1,250.00	1,250.00
140.00	SER	Pump Truck Mileage	7.00	980.00
140.00	SER	Light Vehicle Mileage	4.00	560.00
1.00	CEMENTER	Terry Heinrich		
1.00	EQUIP OPER	Wayne McGhghy		
1.00	OPER ASSIST	Earl Rebarck		

DJA
A.T. Muletch
S-6-11

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 1356.24

ONLY IF PAID ON OR BEFORE
May 21, 2011

Subtotal	6,781.20
Sales Tax	174.29
Total Invoice Amount	6,955.49
Payment/Credit Applied	
TOTAL	6,955.49

ALLIED CEMENTING CO., LLC. 039835

P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

OAKLEY

W-26-11	SEC. 16	TWP. 22S	RANGE 33W	CALLED OUT	ON LOCATION 12:30 AM	JOB START 2:30 AM	JOB FINISH 3:00 AM
WARD TWEW	WELL # 11	LOCATION GARDEN CITY 9N-3W-N4W			COUNTY FINNEY	STATE KS	
OLD OR <u>NEW</u> (Circle one)				IN			

CONTRACTOR H 2 # 2
 TYPE OF JOB PTA
 HOLE SIZE 7 7/8" T.D. 4800'
 CASING SIZE DEPTH
 TUBING SIZE DEPTH
 DRILL PIPE 4 1/2" DEPTH 1810'
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT

EQUIPMENT

PUMP TRUCK CEMENTER TERRY
 # 122 HELPER WAYNE
 BULK TRUCK
 # 404 DRIVER EARL
 BULK TRUCK
 # DRIVER

REMARKS:

50 SKS AT 1810'
40 SKS AT 1100'
20 SKS AT 60'
20 SKS MOUSE HOLE
30 SKS RAT HOLE

THANK YOU

CHARGE TO: HARTMAN CO
 STREET _____
 CITY _____ STATE _____ ZIP _____

To Allied Cementing Co., LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME STEVEN CRAIG

SIGNATURE Steven Craig

OWNER SAME

CEMENT
 AMOUNT ORDERED 160 SKS 60/100 2 1/2" 14" 1/2" SEAL

COMMON	<u>96 SKS</u>	@	<u>16.25</u>	<u>1560.00</u>
POZMIX	<u>64 SKS</u>	@	<u>8.50</u>	<u>544.00</u>
GEL	<u>6 SKS</u>	@	<u>21.50</u>	<u>129.00</u>
CHLORIDE		@		
ASC		@		

<u>FLO-SEAL 1/2"</u>	@	<u>2.70</u>	<u>108.00</u>	
	@			
	@			
	@			
	@			
	@			
	@			
HANDLING	<u>166 SKS</u>	@	<u>2.35</u>	<u>373.00</u>
MILEAGE	<u>114 PER SK/MILE</u>			<u>1278.00</u>

TOTAL 3991.20

SERVICE

DEPTH OF JOB	<u>1810'</u>
PUMP TRUCK CHARGE	<u>1250.00</u>
EXTRA FOOTAGE	@
MILEAGE	<u>70 X 2</u> @ <u>7.00</u> <u>980.00</u>
MANIFOLD	@
<u>LIGHT VEHICLE 70 X 2</u>	@ <u>4.00</u> <u>560.00</u>

TOTAL 2790.00

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	

TOTAL _____

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ IF PAID IN 30 DAYS



PO BOX 31 Russell, KS 67665

Voice: (785) 483-3887
Fax: (785) 483-5566

INVOICE

Invoice Number: 126870
Invoice Date: Apr 16, 2011
Page: 1

Bill To:

Hartman Oil Co., Inc.
H2 Drilling & H2 Trucking
3545 W. Jones Avenue
Garden City, KS 67846

81485

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Hart	Ward Twin #11	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Apr 16, 2011	5/16/11

Quantity	Item	Description	Unit Price	Amount
150.00	MAT	Class A Common	16.25	2,437.50
23.00	MAT	Chloride	58.20	1,338.60
575.00	MAT	ALW Type A	15.00	8,625.00
144.00	MAT	Flo Seal	2.70	388.80
783.00	SER	handling	2.25	1,761.75
70.00	SER	Mileage 783 sx @ .11 per sk per mi	86.13	6,029.10
1.00	SER	Surface	1,925.00	1,925.00
140.00	SER	Pump Truck Mileage	7.00	980.00
1.00	SER	Manifold & Head Rental	200.00	200.00
140.00	SER	Light Vehicle Mileage	4.00	560.00
1.00	EQP	8.5/8 AFU Insert	238.00	238.00
2.00	EQP	8.5/8 Basket	314.00	628.00
3.00	EQP	8.5/8 Centralizer	67.00	201.00
1.00	EQP	8.5/8 Rubber Plug	101.00	101.00
1.00	CEMENTER	Alan Ryan		
1.00	EQUIP OPER	Wayne McGhghy		
1.00	OPER ASSIST	Earl Rebarchek		
NEW WELL COMPLETION				

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 5082.25

ONLY IF PAID ON OR BEFORE
May 11, 2011

Subtotal	25,413.75
Sales Tax	1,039.86
Total Invoice Amount	26,453.61
Payment/Credit Applied	
TOTAL	26,453.61

Dr. Muletter
4-25-11

ALLIED CEMENTING CO., LLC. 039915

MIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

DATE 4/16/11 SEC. 16 TWP. 22 RANGE 33 CALLED OUT 10:00am ON LOCATION 10:00am JOB START 2:30pm JOB FINISH 3:30pm
LEASE Word WELL # 11 LOCATION Goodwin City N to Barlow Rd COUNTY Finney STATE K
OLD OR NEW (Circle one) NEW 3 1/2 W N into

CONTRACTOR Hj #2 OWNER Same
TYPE OF JOB Surface
HOLE SIZE 12 1/4 T.D. 1780
CASING SIZE 8 1/8 DEPTH 1780
TUBING SIZE DEPTH
DRILL PIPE 4 1/2 DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 45.8
CEMENT LEFT IN CSG. 45.8
PERFS.
DISPLACEMENT 112 BBL Hj #2

EQUIPMENT
PUMP TRUCK CEMENTER Alan
422 HELPER Wayne
BULK TRUCK
394 DRIVER Earl
BULK TRUCK
373 DRIVER Mike

CEMENT
AMOUNT ORDERED 525 SK ALLW Type
1/4 lb Flo Seal 370 CC
150 Com 370 CC

COMMON 150 @ 16.25 2437.50
POZMIX @
GEL @ 58.00 1338.00
CHLORIDE 23 @
ASC @

ALLW Type - 525 SK @ 15.00 8625.00
Flo Seal 144 lb @ 2.20 388.80
HANDLING 283 SK @ 2.25 1761.25
MILEAGE 114 SK/mile 6029.10
TOTAL 20520.55

REMARKS:

Rm 8 1/8 Cas. Circulate Ball Then Insert
Take out Bottom Mix 525 ALLW 1/4 Flo Seal, 370 CC
Fill w/ 150 Com 370 CC Co Displace
Plug w/ 112 BBL Hj #2. 200 PSI GIFT
Plug Plug @ 1000 PSI. Float
Cement Did Circulate.
Thank You Alan, Wayne,
Earl, Mike

SERVICE

DEPTH OF JOB 1780
PUMP TRUCK CHARGE 1925.00
EXTRA FOOTAGE @
MILEAGE 70 x 2 @ 2.00 980.00
MANIFOLD Head @ 200.00 200.00
Lite Vehicle 70 x 2 @ 4.00 560.00

CHARGE TO: Hartman Oil
STREET
CITY STATE ZIP

TOTAL 2665.00

PLUG & FLOAT EQUIPMENT

AFH Insert 1 @ 235.00
Raskets - 2 @ 214.00 628.00
Control Valve - 3 @ 67.00 201.00
Rubber Plug - 1 @ 101.00 101.00

TOTAL 1168.00

To Allied Cementing Co., LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

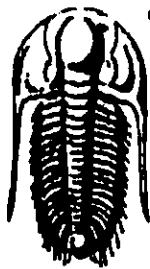
PRINTED NAME

SIGNATURE Kevin Wenzel

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co**

10500 E Berkeley Sq Pkwy
Ste 100
Wichita, KS 67206

ATTN: Charlie Sturdavant

16-22s-33w Finney,KS

Ward #11 Twin

Start Date: 2011.04.23 @ 03:48:00

End Date: 2011.04.23 @ 13:02:45

Job Ticket #: 041205 DST #: 1

 **FILE**

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-525-4778 fax: 785-625-5620

ORIGINAL

Printed: 2011.05.03 @ 13:59:50 Page 1

Hartman Oil Co

Ward #11 Twin

16-22s-33w Finney,KS

DST # 1

Cherokee

2011.04.23



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hartman Oil Co
10500 E Berkeley Sq Pkwy
Ste 100
Wichita, KS 67206
ATTN: Charlie Sturdavant

Ward #11 Twin
16-22s-33w Finney, KS
Job Ticket: 041205 DST#: 1
Test Start: 2011.04.23 @ 03:48:00

GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: **No Whipstock:** ft (KB)
Time Tool Opened: 07:20:00
Time Test Ended: 13:02:45

Test Type: **Conventional Bottom Hole**
Tester: **Kevin Mack**
Unit No: **48**

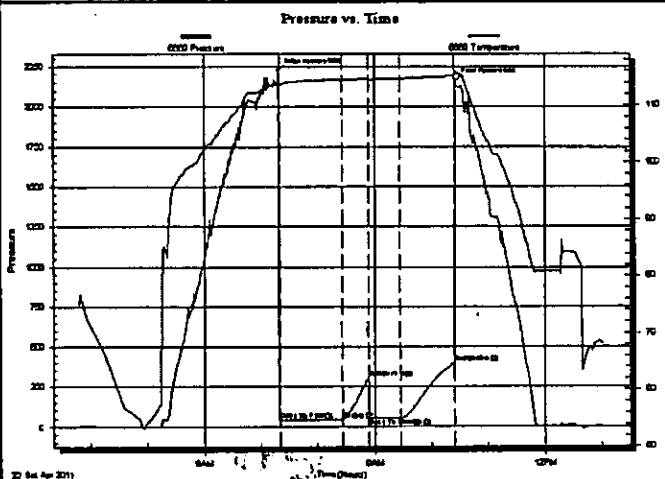
Interval: **4465.00 ft (KB) To 4593.00 ft (KB) (TVD)**
Total Depth: **4593.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2905.00 ft (KB)**
2895.00 ft (CF)
KB to GR/CF: **10.00 ft**

Serial #: **6669** Outside
Press@RunDepth: **53.69 psig @ 4588.00 ft (KB)**
Start Date: **2011.04.23** End Date: **2011.04.23**
Start Time: **03:48:15** End Time: **13:02:45**

Capacity: **8000.00 psig**
Last Calib.: **2011.04.23**
Time On Btm: **2011.04.23 @ 07:19:00**
Time Off Btm: **2011.04.23 @ 10:25:30**

TEST COMMENT: **F: 1/2" blow built to 3/4", then died at 40 min.**
IS: No Return
FF: No Blow
FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2219.91	113.60	Initial Hydro-static
1	42.13	113.10	Open To Flow (1)
67	45.91	114.43	Shut-In(1)
95	303.16	114.59	End Shut-In(1)
95	55.03	114.49	Open To Flow (2)
128	53.69	114.61	Shut-In(2)
186	404.01	115.02	End Shut-In(2)
187	2156.96	115.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCWM 1%O 1%W 98%M	0.30

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Co

Ward #11 Twin

10500 E Berkeley Sq Hwy
Ste 100
Wichita, KS 67206
ATTN: Charlie Sturdavant

16-22s-33w Finney, KS

Job Ticket: 041205

DST#: 1

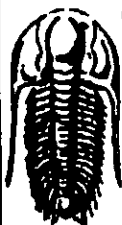
Test Start: 2011.04.23 @ 03:48:00

Tool Information

Drill Pipe:	Length: 4211.00 ft	Diameter: 3.80 inches	Volume: 59.07 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 90000.00 lb
			Total Volume: 60.25 bbl	Tool Chased ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4465.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	128.00 ft			
Tool Length:	156.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4438.00	
Shut In Tool	5.00			4443.00	
Hydraulic tool	5.00			4448.00	
Jars	5.00			4453.00	
Safety Joint	3.00			4456.00	
Packer	5.00			4461.00	28.00 Bottom Of Top Packer
Packer	4.00			4465.00	
Stubb	1.00			4466.00	
Perforations	27.00			4493.00	
Change Over Sub	1.00			4494.00	
Drill Pipe	93.00			4587.00	
Change Over Sub	1.00			4588.00	
Recorder	0.00	8358	Outside	4588.00	
Recorder	0.00	6669	Outside	4588.00	
Bullnose	5.00			4593.00	128.00 Bottom Packers & Anchor

Total Tool Length: 156.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Co

Ward #11 Twin

10500 E Berkeley Sq Pkwy

16-22s-33w Finney, KS

Ste 100

Job Ticket: 041205

DST#: 1

Wichita, KS 67206

Test Start: 2011.04.23 @ 03:48:00

ATTN: Charlie Sturdavant

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: 57.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
60.00	OCWM 1%O 1%W 98%M	0.295

Total Length: 60.00 ft

Total Volume: 0.295 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial#:

Laboratory Name:

Laboratory Location:

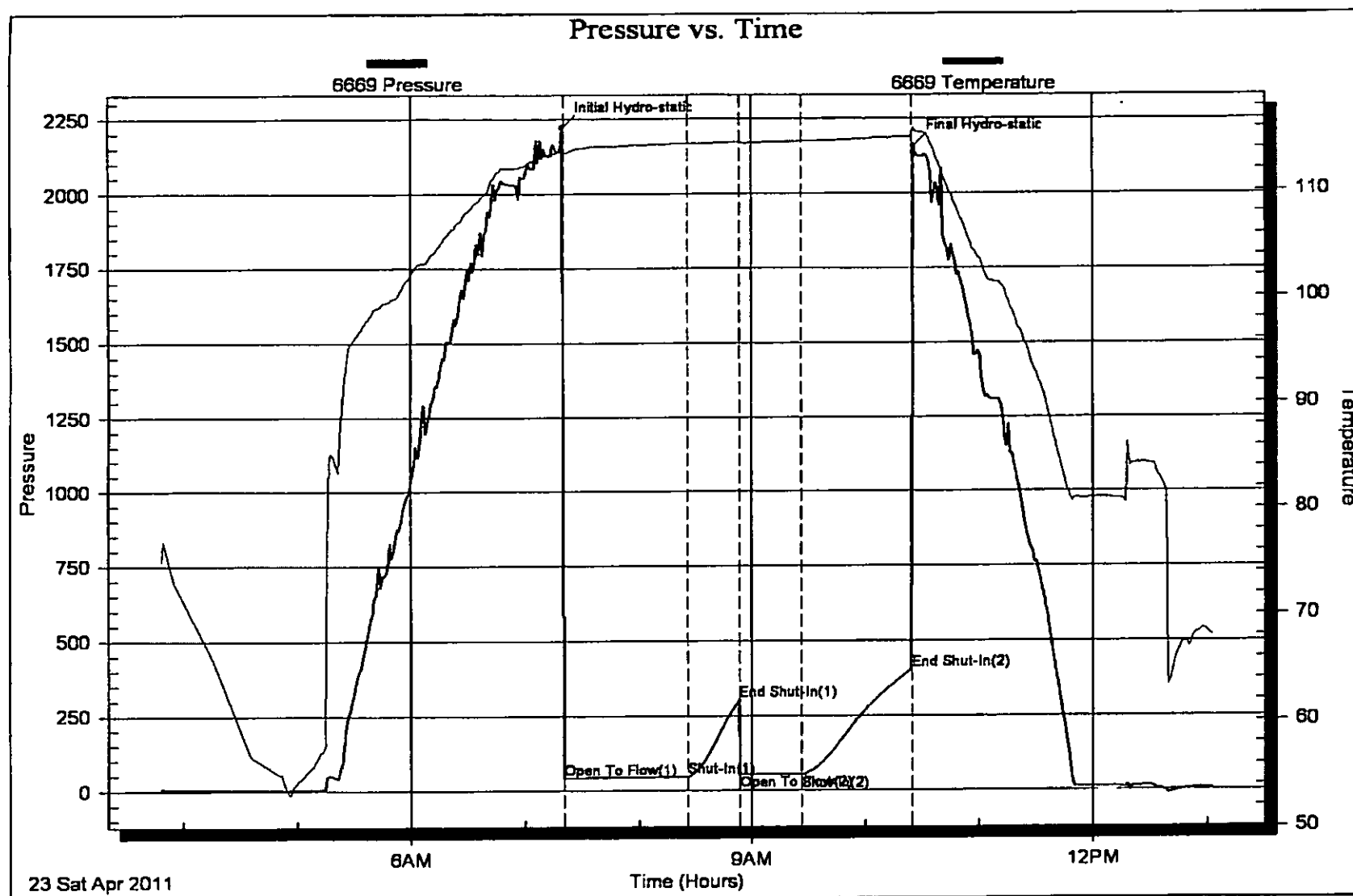
Recovery Comments:

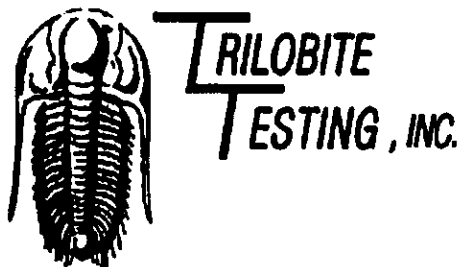
Serial #: 6669

Outside Hartman Oil Co

16-22s-33w Finney,KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Hartman Oil Co**

10500 E Berkeley Sq Pkwy
Ste 100
Wichita, KS 67206

ATTN: Charlie Sturdavant

16-22s-33w Finney,KS

Ward #11 Twin

Start Date: 2011.04.24 @ 12:22:00

End Date: 2011.04.24 @ 20:33:15

Job Ticket #: 041206 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Hartman Oil Co

Ward #11 Twin

16-22s-33w Finney,KS

DST # 2

Mississippian

2011.04.24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hartman Oil Co
10500 E Berkeley Sq Pkwy
Ste 100
Wichita, KS 67206
ATTN: Charlie Sturdavant

Ward #11 Twin
16-22s-33w Finney, KS
Job Ticket: 041206 DST#: 2
Test Start: 2011.04.24 @ 12:22:00

GENERAL INFORMATION:

Formation: Mississippian
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:01:15
Time Test Ended: 20:33:15

Test Type: Conventional Bottom Hole
Tester: Kevin Mack
Unit No: 48

Interval: 4698.00 ft (KB) To 4715.00 ft (KB) (TVD)
Total Depth: 4715.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2905.00 ft (KB)
2895.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6669

Outside

Press@RunDepth: 39.02 psig @ 4710.00 ft (KB)

Start Date: 2011.04.24

End Date:

2011.04.24

Capacity: 8000.00 psig

Last Calib.: 2011.04.24

Start Time: 12:22:15

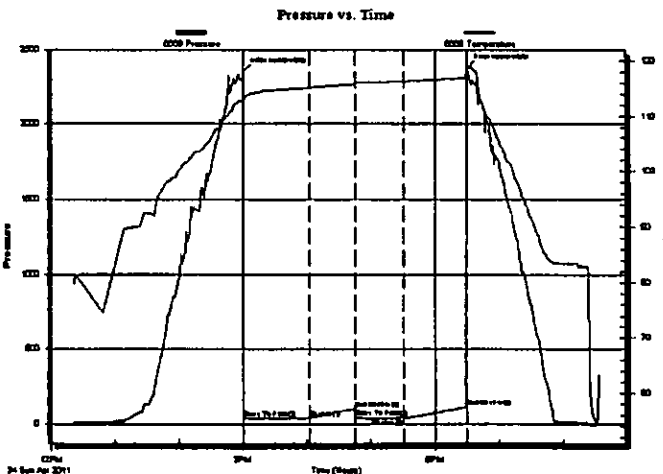
End Time:

20:33:15

Time On Btm: 2011.04.24 @ 15:01:00

Time Off Btm: 2011.04.24 @ 18:30:30

TEST COMMENT: IF: Surface blow built to
IS: No Return
FF: Surface blow started at 25 min built to 1/4"
FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2356.16	113.36	Initial Hydro-static
1	34.20	113.02	Open To Flow (1)
62	38.44	115.18	Shut-In(1)
105	99.17	115.77	End Shut-In(1)
105	39.11	115.88	Open To Flow (2)
151	39.02	116.34	Shut-In(2)
209	110.58	116.97	End Shut-In(2)
210	2382.20	118.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	50' GIP	0.00
50.00	OCM 70M 30o	0.25

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hartman Oil Co

Ward #11 Twin

10500 E Berkeley Sq Pkwy

16-22s-33w Finney, KS

Ste 100

Job Ticket: 041206

DST#: 2

Wichita, KS 67206

Test Start: 2011.04.24 @ 12:22:00

ATTN: Charlie Sturdavant

Tool Information

Drill Pipe:	Length: 4461.00 ft	Diameter: 3.80 inches	Volume: 62.58 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 98000.00 lb
		Total Volume:	63.76 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4598.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	45.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4671.00	
Shut In Tool	5.00			4676.00	
Hydraulic tool	5.00			4681.00	
Jars	5.00			4686.00	
Safety Joint	3.00			4689.00	
Packer	5.00			4694.00	28.00 Bottom Of Top Packer
Packer	4.00			4698.00	
Stubb	1.00			4699.00	
Perforations	11.00			4710.00	
Recorder	0.00	8358	Outside	4710.00	
Recorder	0.00	6669	Outside	4710.00	
Bullnose	5.00			4715.00	17.00 Bottom Packers & Anchor

Total Tool Length: 45.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hartman Oil Co

Ward #11 Twin

10500 E Berkeley Sq Pkw y

16-22s-33w Finney, KS

Ste 100

Job Ticket: 041206

DST#: 2

Wichita, KS 67206

Test Start: 2011.04.24 @ 12:22:00

ATTN: Charlie Sturdavant

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: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	50' GIP	0.000
50.00	OCM 70M 30o	0.246

Total Length: 50.00 ft

Total Volume: 0.246 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6669

Outside Hartman Oil Co

16-22s-33w Finney, KS

DST Test Number: 2

