

1195265

Operator Name: _____ Lease Name: _____ Well #: _____

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

INSTRUCTIONS: Show important tops 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.

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>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> 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 <i>(Amount and Kind of Material Used)</i>	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: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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OPERATOR

Company: AARON J. WERTH DBA BLACKHAWK PRODUCTION COMPANY
 Address: 1607 OAKMONT
 HAYS, KANSAS 67601

Contact Geologist: AARON J. WERTH
 Contact Phone Nbr: 785-625-2041
 Well Name: BRAUN # 1
 Location: E2 SW SE NE Sec.3-14s-17w
 Pool: API: 15-051-26,678-00-00
 State: KANSAS Country: TOULON
 USA

Scale 1:240 Imperial

Well Name: BRAUN # 1
 Surface Location: E2 SW SE NE Sec.3-14s-17w
 Bottom Location:
 API: 15-051-26,678-00-00
 License Number: 32504
 Spud Date: 3/14/2014 Time: 1:30 PM
 Region: ELLIS COUNTY
 Drilling Completed: 3/19/2014 Time: 8:34 PM
 Surface Coordinates: 2310' FNL & 977' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 1993.00ft
 K.B. Elevation: 2000.00ft
 Logged Interval: 2900.00ft To: 3567.00ft
 Total Depth: 3567.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.1913082 Latitude: 38.8649472
 N/S Co-ord: 2310' FNL
 E/W Co-ord: 977' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: GEOLOGIST Name: HERB DEINES

CONTRACTOR

Contractor: DISCOVERY DRILLING, INC.
 Rig #: 3
 Rig Type: MUD ROTARY
 Spud Date: 3/14/2014 Time: 1:30 PM
 TD Date: 3/19/2014 Time: 8:34 PM
 Rig Release: 3/21/2014 Time: 1:45 AM

ELEVATIONS

K.B. Elevation: 2000.00ft Ground Elevation: 1993.00ft
 K.B. to Ground: 7.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING TO FURTHER TEST ARBUCKLE. SHOWS IN ARBUCKLE UNUSUAL IN THAT THERE WAS NO SULFUR ODOR TYPICAL OF ARBUCKLE OILS AND FORMATION MATERIAL APPEARED TO BE MORE REWORKED DOLOMITE CONSISTING OF MANY TYPES OF POROUS MATERIAL WITH SATURATED STAINING AND FREE OIL. THE OIL PRODUCTIVE CLASTIC LIMESTONE BENCHES FOUND IN THE PLEASANTON SECTION IN THE BAUMRUCKER FIELD IN SOUTHEASTERN ELLIS COUNTY WOULD BE A COMPARISON MODEL IN THAT THE LIMESTONE BENCHES HAD TO BE PERFORATED AND ACIDIZED BEFORE PRODUCTIVE POTENTIAL COULD BE DETERMINED.

OPEN HOLE LOGGING BY GEMINI WIRELINE: DUAL INDUCTION LOG, COMPENSATED DENSITY/NEUTRON LOG, MICRO RESISTIVITY LOG

DRILL STEM TESTING BY TRILOBITE TESTING, INC: TWO (2) CONVENTIONAL TESTS

FORMATION COMPARISON CHART AND CHRONOLOGY OF DAILY ACTIVITY


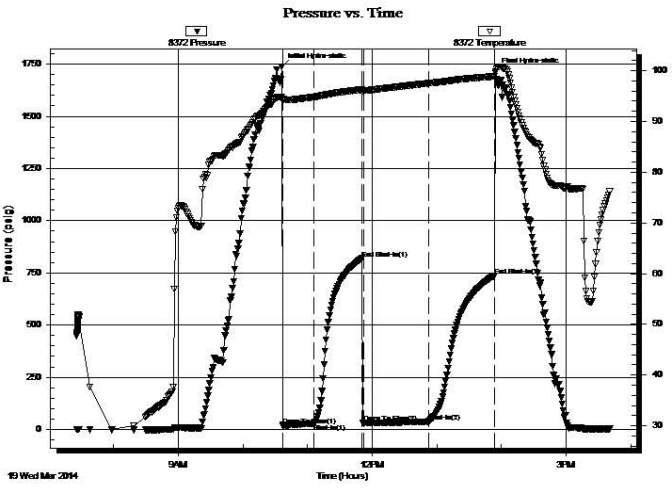
	BRAUN #1	BRAUN #2	BROWN # B1
	2310'FNL&977'FEL	NW NE SE	SE SE NE
	SEC.3-14S-17W	SEC.3-14-17W	SEC.3-14-17W
	1993.4'GL 2000'KB		
<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1180 +820	+ 816	+820
B-Anhydrite	1218 +782	+ 781	+779
Topeka	2989 -989	- 985	
Heebner Sh.	3237-1237	-1235	-1244
Toronto	3258-1258		-1264
LKC	3287-1287	-1179	-1294

BKC	3510-1510	-1498	-1525
Rework Arbuckle	3522-1522		
Arbuckle		-1511	-not reached
RTD	3567-1567	-1538	-1565


CHRONOLOGY OF DAILY ACTIVITY

- 3-14-14 RU, Spud 1:30 PM,
- 3-15-14 835', drill to 1192', set 8 5/8" surface casing to 1191.6' w/425 sxs
Common 2%gel 3%CC, plug down 11:30PM, slope 1 degree, WOC
- 3-16-14 1192', WOC, drill plug 11:30 AM
- 3-17-14 2210', drilling
- 3-18-14 3075', drilling, displaced 2850'
- 3-19-14 3549', CFS 3535', CFS 3549', Short trip-20 stands, TOWB, DST # 1
3510' to 3549', TIWB, CFS 3555', CFS 3560', CFS 3567', RTD 3567' @
8:34 PM, TOWB, DST # 2 3548' to 3567'
- 3-20-14 3567', finish DST # 2, log behind DST # 2, decision to run casing,
TIWB, LDDP, run casing and cement.
- 3-21-14 3567', finish cementing, plug down 1:15AM, rig released 1:45AM

DST # 1 3510' TO 3549' ARBUCKLE

	DRILL STEM TEST REPORT																																										
	Blackhawk Production Company 1607 Oakmont Hays, KS 67601 ATTN: Herb Deines	3-14S-17W Ellis, KS Braun #1 Job Ticket: 54019 DST#: 1 Test Start: 2014.03.19 @ 07:25:42																																									
GENERAL INFORMATION: Formation: Arbuckle Deviated: No Whipstock: ft (KB) Time Tool Opened: 10:36:42 Time Test Ended: 15:40:12 Test Type: Conventional Bottom Hole (Initial) Tester: Brannan L Unit No: 48 Interval: 3510.00 ft (KB) To 3549.00 ft (KB) (TVD) Total Depth: 3549.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Fair Reference Elevations: 2000.00 ft (KB) 1992.00 ft (CF) KB to GR/CF: 8.00 ft																																											
Serial #: 8372 Inside Press@RunDepth: 38.07 psig @ 3545.00 ft (KB) Start Date: 2014.03.19 End Date: 2014.03.19 Start Time: 07:25:43 End Time: 15:40:12 Capacity: 8000.00 psig Last Calib.: 2014.03.19 Time On Btm: 2014.03.19 @ 10:36:12 Time Off Btm: 2014.03.19 @ 13:54:12																																											
TEST COMMENT: 30- IF- Slow ly built to 2.5" 45- IS- No blow 60- FF- Built very slow ly to 2" 60- FS- No blow																																											
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DST # 2 3548' TO 3567' ARBUCKLE

	DRILL STEM TEST REPORT	
	Blackhawk k Production Company	3-14S-17W Ellis, KS
	1607 Oakmont Hays, KS 67601	Braun #1 Job Ticket: 54020 DST#: 2
ATTN: Herb Deines		Test Start: 2014.03.19 @ 22:37:01

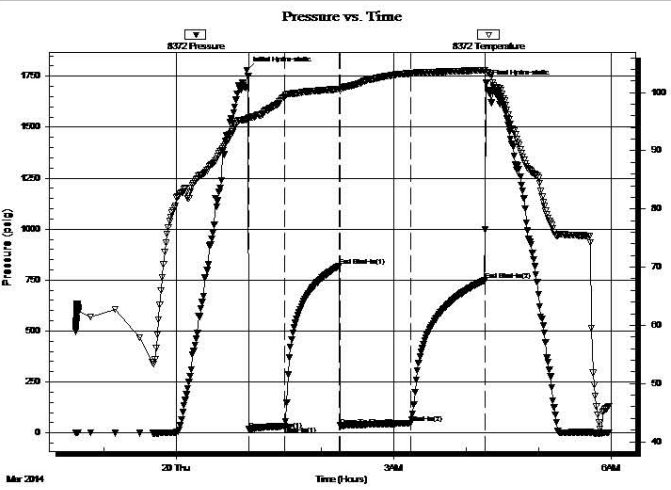
GENERAL INFORMATION:

Formation: Arbuckle	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)	Tester: Brannan L
Time Tool Opened: 01:00:01	Unit No: 48
Time Test Ended: 05:57:31	Reference Elevations: 2000.00 ft (KB)
Interval: 3548.00 ft (KB) To 3567.00 ft (KB) (TVD)	1992.00 ft (CF)
Total Depth: 3567.00 ft (KB) (TVD)	KB to GR/CF: 8.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Fair

Serial #: 8372

Inside	Press@RunDepth: 47.81 psig @ 3564.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2014.03.19	End Date: 2014.03.20	Last Calib.: 2014.03.20
Start Time: 22:37:02	End Time: 05:57:31	Time On Btm: 2014.03.20 @ 00:58:31
		Time Off Btm: 2014.03.20 @ 04:16:31

TEST COMMENT: 30- IF- Slow ly built to 2.5"
45- IS- No blow
60- FF- Slow ly built to 3"
60- FS- No blow



PRESSURE SUMMARY			
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1780.10	95.37	Initial Hydro-static
2	16.97	95.42	Open To Flow (1)
31	32.99	99.31	Shut-In(1)
76	818.25	100.59	End Shut-In(1)
77	35.54	100.37	Open To Flow (2)
135	47.81	103.31	Shut-In(2)
197	748.31	103.86	End Shut-In(2)
198	1716.58	103.56	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
80.00	MW, 35%M 65%W	0.82

* Recovery from multiple tests

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

Trilobite Testing, Inc Ref. No: 54020 Printed: 2014.03.20 @ 07:35:20

ROCK TYPES

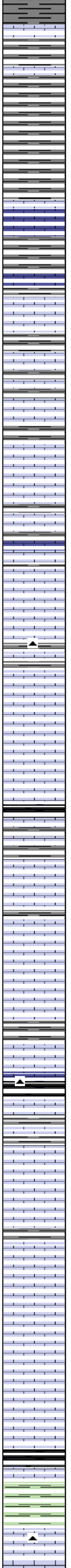
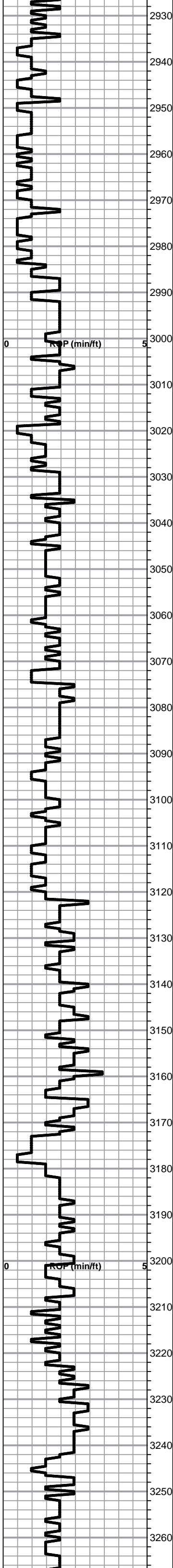
Clystgy	Dol Lime	Lmst fw>	shale, gry	shale, red
Dolprim	Lmst fw<7	shale, grn	Carbon Sh	

ACCESSORIES

MINERAL
▲ Chert, dark

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

<p>Curve Track #1</p> <p>ROP (min/ft)</p>	<p>Depth Intervals</p> <p>DST</p> <p>Cored Interval</p> <p>DST Interval</p>	<p>Lithology</p>	<p>Oil Show</p>	<p>Geological Descriptions</p> <p>BEGIN 1' DRILL TIME FROM 2900' TO RTD BEGIN 10' WET AND DRY SAMPLES FROM 2950' TO RTD</p> <p>ANHYDRITE TOP 1180+820 ANHYDRITE BASE 1218+779 Lime, med-dark brn, fn-vfxln, fossiliferous-fusulinids</p>	<p>Curve Track #3</p> <p>1:240 Imperial</p> <p>8 5/8" SURFACE CASING SET TO 1191.6' W/ 425 SXS COMMON 2% 3%CC</p> <p>SLOPE 1 DEGREE @1192'</p>
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Lime, med brn-med grayish brn, fnxln-granular in part, slightly fossiliferous

Shale, lt-med gray, soft blocky

Lime, med brn, fnxln

Shale, lt-med gray, soft blocky to sticky in part

TOPEKA SPL 2991-991 ELog 2989-989

Lime, lt-med brn, fn-micro xln

Lime, med brn-grayish, fn-micro xln, fusulinids

Lime, med brn-med grayish brn, fn-micro xln, slightly fossiliferous

Lime, lt-med brn-grayish brn, fnxln with slight mottling near shale boundary

Lime, lt-med brn-grayish brn, fnxln, slightly fossiliferous-fusulinids

Lime, lt-med brn, fnxln

Lime, lt-med brn, mostly fnxln, soft granular in part, slightly fossiliferous

Lime, lt-med brn, fnxln-granular in part, slight bedded chalk

Lime, lt-med brn-grayish brn, fnxln, slightly fossiliferous

Lime, lt-med brn, fnxln grading into granular, bedded chalk with sticky clumps in part

Shale, black carbonaceous, blocky

Lime, med brn, micro xln

Lime, crm-tan, fn-vfxln, lithographic

Lime, crm-lt brn, fn-vfxln, slight bedded chalk in part

Lime, lt-med brn, fnxln-granular in part, slight bedded chalk

Lime, tan-lt-med brn, fnxln, scattered chert fragments, slightly fossiliferous

Lime, lt brn grading into med gray near shale boundary, fnxln

Shale, black carbonaceous, fissile, blocky

Lime, lt-med gray, fn-vfxln

Lime, lt-med brn, mostly fnxln, slight bedded chalk

Lime, tan-lt brn, fnxln, granular with chalk in part

Lime, lt brn, fnxln

Lime, tan-lt brn-lt gray, fnxln-granular in part, slight bedded chalk

Lime, tan-lt brn, fnxln

Lime, tanlt brn, fnxln, scattered fusulinids

Lime, lt-med brn, fnxln, slight mottling in part

HEEBNER SHALE SPL 3241-1241 ELog 3237-1237

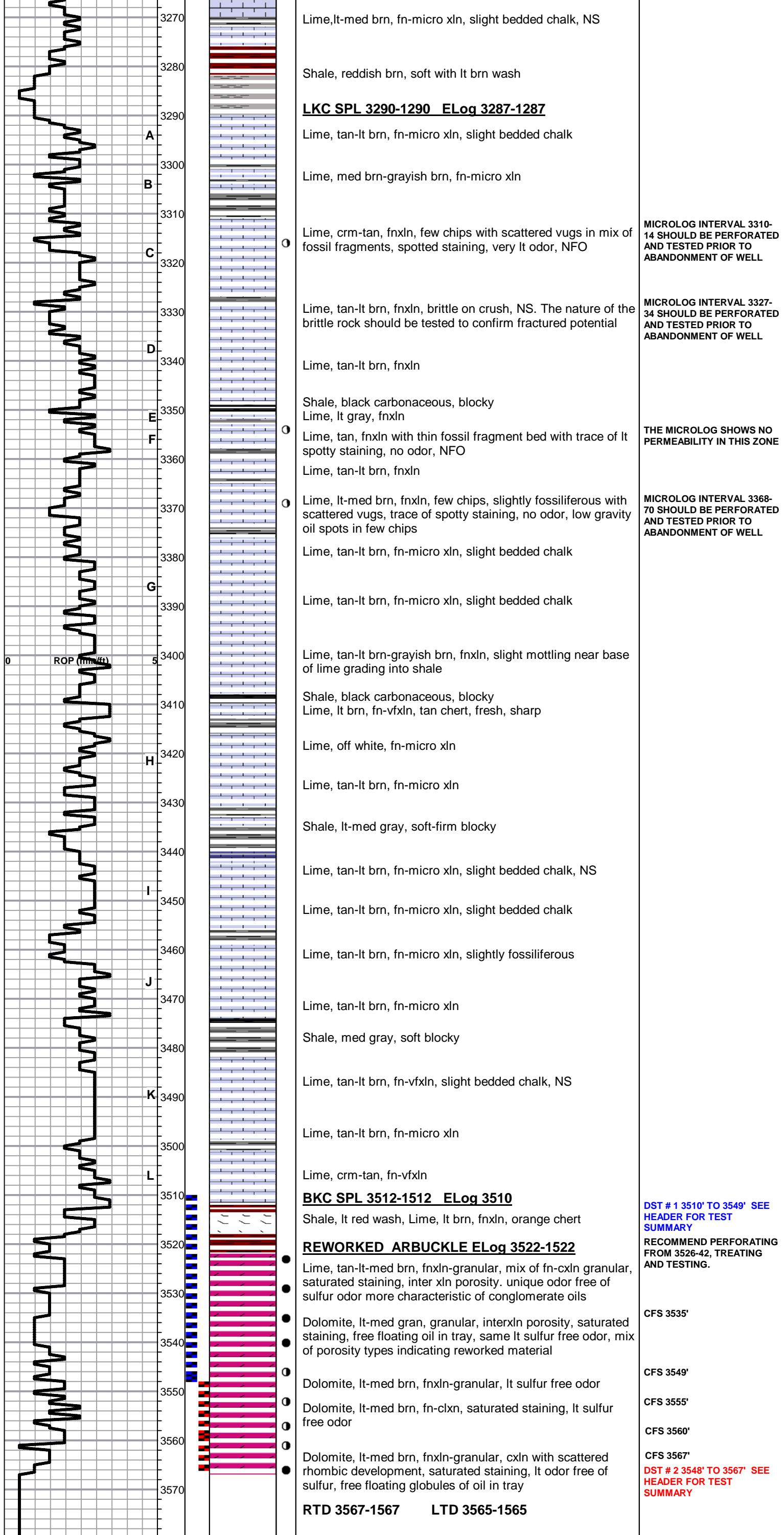
Shale, black carbonaceous, fissile, blocky

Lime, med brn, micro xln

Shale, lime green, soft sticky

TORONTO ELog 3258-1258

Lime, crm-tan, fn-vfxln, slight bedded chalk, NS
Chert, tan with orange



Lime,lt-med brn, fn-micro xln, slight bedded chalk, NS

Shale, reddish brn, soft with lt brn wash

LKC SPL 3290-1290 ELog 3287-1287

Lime, tan-lt brn, fn-micro xln, slight bedded chalk

Lime, med brn-grayish brn, fn-micro xln

Lime, crm-tan, fnxln, few chips with scattered vugs in mix of fossil fragments, spotted staining, very lt odor, NFO

MICROLOG INTERVAL 3310-14 SHOULD BE PERFORATED AND TESTED PRIOR TO ABANDONMENT OF WELL

Lime, tan-lt brn, fnxln, brittle on crush, NS. The nature of the brittle rock should be tested to confirm fractured potential

MICROLOG INTERVAL 3327-34 SHOULD BE PERFORATED AND TESTED PRIOR TO ABANDONMENT OF WELL

Lime, tan-lt brn, fnxln

Shale, black carbonaceous, blocky
Lime, lt gray, fnxln

THE MICROLOG SHOWS NO PERMEABILITY IN THIS ZONE

Lime, tan, fnxln with thin fossil fragment bed with trace of lt spotty staining, no odor, NFO

Lime, tan-lt brn, fnxln

Lime, lt-med brn, fnxln, few chips, slightly fossiliferous with scattered vugs, trace of spotty staining, no odor, low gravity oil spots in few chips

MICROLOG INTERVAL 3368-70 SHOULD BE PERFORATED AND TESTED PRIOR TO ABANDONMENT OF WELL

Lime, tan-lt brn, fn-micro xln, slight bedded chalk

Lime, tan-lt brn, fn-micro xln, slight bedded chalk

Lime, tan-lt brn-grayish brn, fnxln, slight mottling near base of lime grading into shale

Shale, black carbonaceous, blocky
Lime, lt brn, fn-vfxln, tan chert, fresh, sharp

Lime, off white, fn-micro xln

Lime, tan-lt brn, fn-micro xln

Shale, lt-med gray, soft-firm blocky

Lime, tan-lt brn, fn-micro xln, slight bedded chalk, NS

Lime, tan-lt brn, fn-micro xln, slight bedded chalk

Lime, tan-lt brn, fn-micro xln, slightly fossiliferous

Lime, tan-lt brn, fn-micro xln

Shale, med gray, soft blocky

Lime, tan-lt brn, fn-vfxln, slight bedded chalk, NS

Lime, tan-lt brn, fn-micro xln

Lime, crm-tan, fn-vfxln

BKC SPL 3512-1512 ELog 3510

Shale, lt red wash, Lime, lt brn, fnxln, orange chert

DST # 1 3510' TO 3549' SEE HEADER FOR TEST SUMMARY

REWORKED ARBUCKLE ELog 3522-1522

Lime, tan-lt-med brn, fnxln-granular, mix of fn-cxln granular, saturated staining, inter xln porosity. unique odor free of sulfur odor more characteristic of conglomerate oils

RECOMMEND PERFORATING FROM 3526-42, TREATING AND TESTING.

Dolomite, lt-med gran, granular, interxln porosity, saturated staining, free floating oil in tray, same lt sulfur free odor, mix of porosity types indicating reworked material

CFS 3535'

Dolomite, lt-med brn, fnxln-granular, lt sulfur free odor

CFS 3549'

Dolomite, lt-med brn, fn-clxn, saturated staining, lt sulfur free odor

CFS 3555'

Dolomite, lt-med brn, fnxln-granular, cxln with scattered rhombic development, saturated staining, lt odor free of sulfur, free floating globules of oil in tray

CFS 3560'

CFS 3567'

DST # 2 3548' TO 3567' SEE HEADER FOR TEST SUMMARY

RTD 3567-1567 LTD 3565-1565



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Blackhawk k Production Company

3-14S-17W Ellis, KS

1607 Oakmont
Hays, KS 67601

Braun #1

Job Ticket: 54019

DST#: 1

ATTN: Herb Deines

Test Start: 2014.03.19 @ 07:25:42

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:36:42

Time Test Ended: 15:40:12

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 48

Interval: 3510.00 ft (KB) To 3549.00 ft (KB) (TVD)

Reference Elevations: 2000.00 ft (KB)

Total Depth: 3549.00 ft (KB) (TVD)

1992.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8372 Inside

Press@RunDepth: 38.07 psig @ 3545.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.19

End Date:

2014.03.19

Last Calib.:

2014.03.19

Start Time:

07:25:43

End Time:

15:40:12

Time On Btm:

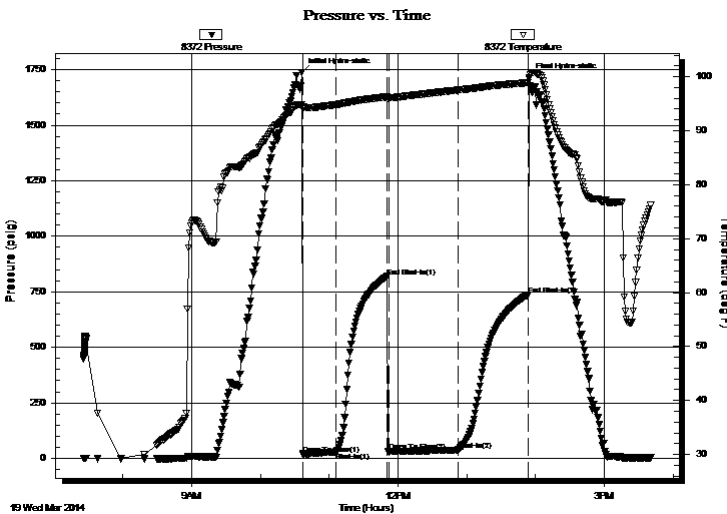
2014.03.19 @ 10:36:12

Time Off Btm:

2014.03.19 @ 13:54:12

TEST COMMENT: 30- IF- Slow ly built to 2.5"
45- IS- No blow
60- FF- Built very slow ly to 2"
60- FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1737.87	94.80	Initial Hydro-static
1	18.45	94.10	Open To Flow (1)
30	28.25	94.83	Shut-In(1)
74	819.03	96.29	End Shut-In(1)
76	31.45	96.09	Open To Flow (2)
136	38.07	97.54	Shut-In(2)
197	736.36	98.91	End Shut-In(2)
198	1712.55	99.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	OCM, 40%O 60%M	0.48
0.00	10' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Blackhawk k Production Company

3-14S-17W Ellis, KS

1607 Oakmont
Hays, KS 67601

Braun #1

Job Ticket: 54019

DST#: 1

ATTN: Herb Deines

Test Start: 2014.03.19 @ 07:25:42

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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
55.00	OCM, 40%O 60%M	0.480
0.00	10' GIP	0.000

Total Length: 55.00 ft Total Volume: 0.480 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

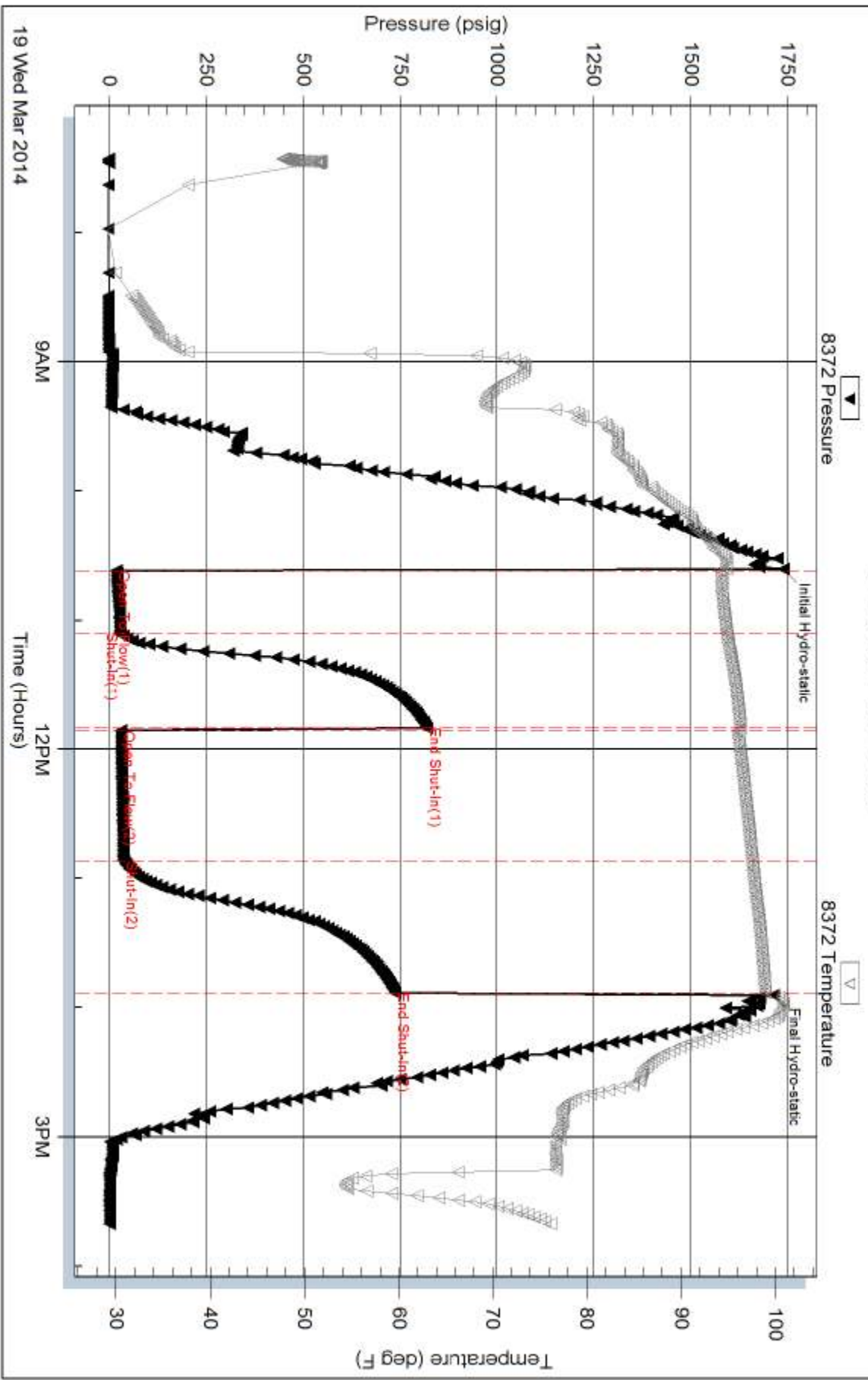
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



19 Wed Mar 2014

9AM

12PM

3PM



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Blackhawk k Production Company

3-14S-17W Ellis, KS

1607 Oakmont
Hays, KS 67601

Braun #1

Job Ticket: 54020

DST#: 2

ATTN: Herb Deines

Test Start: 2014.03.19 @ 22:37:01

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:00:01

Time Test Ended: 05:57:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 48

Interval: 3548.00 ft (KB) To 3567.00 ft (KB) (TVD)

Reference Elevations: 2000.00 ft (KB)

Total Depth: 3567.00 ft (KB) (TVD)

1992.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8372

Inside

Press@RunDepth: 47.81 psig @ 3564.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.19

End Date:

2014.03.20

Last Calib.:

2014.03.20

Start Time: 22:37:02

End Time:

05:57:31

Time On Btm:

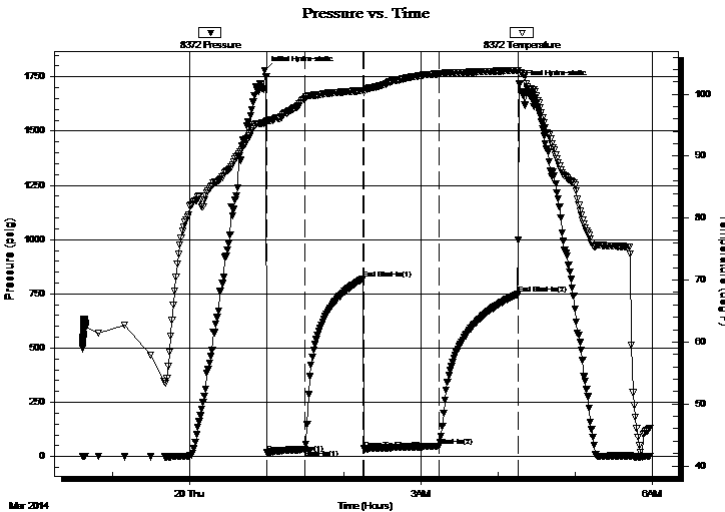
2014.03.20 @ 00:58:31

Time Off Btm:

2014.03.20 @ 04:16:31

TEST COMMENT: 30- IF- Slow ly built to 2.5"
45- IS- No blow
60- FF- Slow ly built to 3"
60- FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1780.10	95.37	Initial Hydro-static
2	16.97	95.42	Open To Flow (1)
31	32.99	99.31	Shut-In(1)
76	818.25	100.59	End Shut-In(1)
77	35.54	100.37	Open To Flow (2)
135	47.81	103.31	Shut-In(2)
197	748.31	103.86	End Shut-In(2)
198	1716.58	103.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	MW, 35%M 65%W	0.82

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Blackhawk k Production Company

3-14S-17W Ellis, KS

1607 Oakmont
Hays, KS 67601

Braun #1

Job Ticket: 54020

DST#: 2

ATTN: Herb Deines

Test Start: 2014.03.19 @ 22:37:01

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:

35000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	MW, 35%M 65%W	0.822

Total Length: 80.00 ft Total Volume: 0.822 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

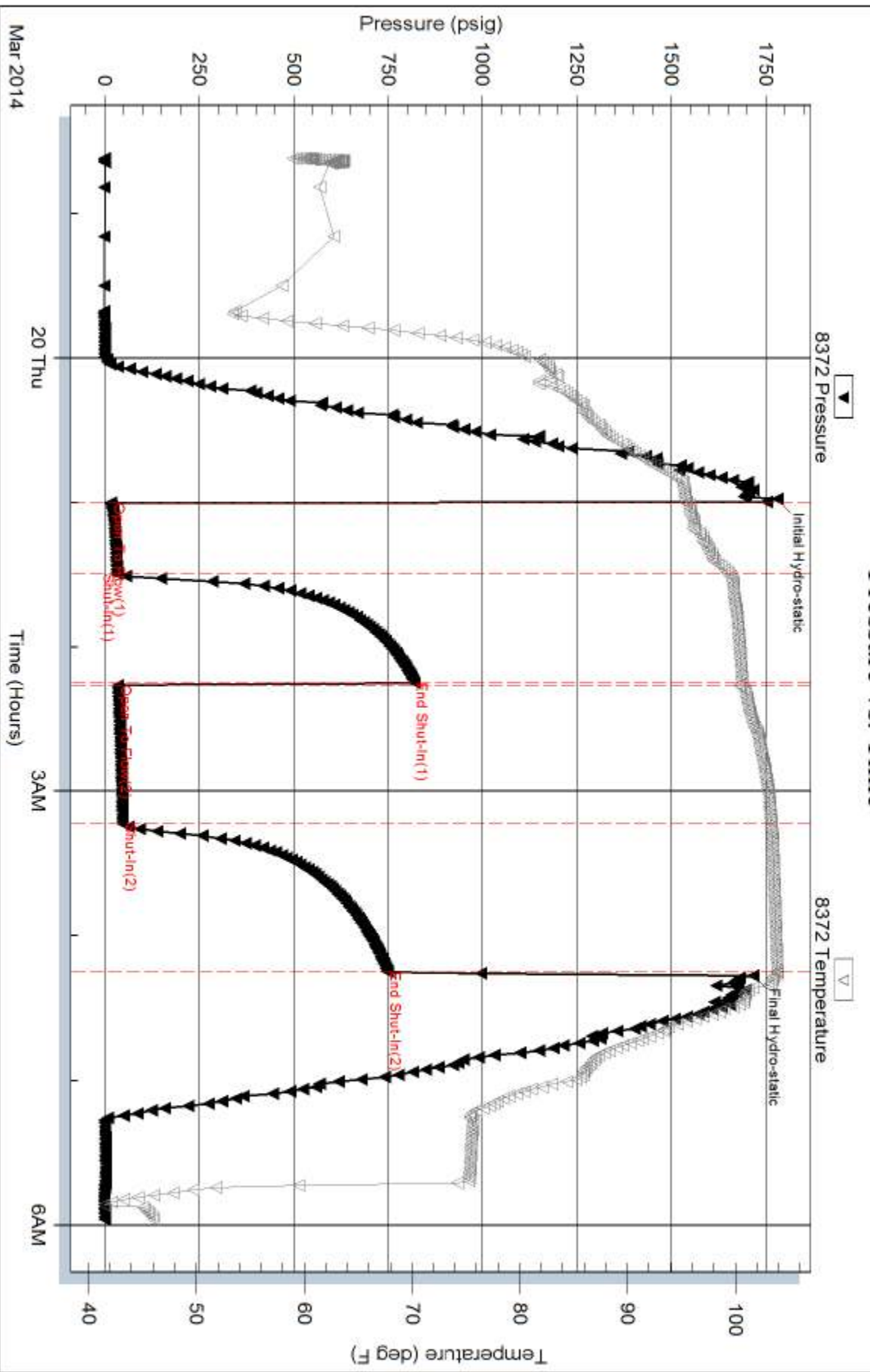
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 3/15/2014
 Invoice # 51

P.O.#:

Due Date: 4/14/2014

Division: Russell

Invoice

Contact:
 Blackhawk Production Company
Address/Job Location:
 Blackhawk Production Company
 1607 Oakmont
 Hays Ks 67601

*Pd 4-17-14
 CK# 1872
 \$ 9665.49
 Braun #1
 Drilling*

Reference:
 BRAUN #1 *Drilling*
Description of Work:
 LONG SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No				
Common-Class A	425	\$ 7,125.00	Yes				
Bulk Truck Mat-Material Service Charge	449	\$ 1,003.65	No				
Calcium Chloride	15	\$ 933.12	Yes				
8 5/8" Centralizer	3	\$ 214.59	Yes				
Premium Gel (Bentonite)	9	\$ 163.76	Yes				
8 5/8" Top Rubber Plug	1	\$ 118.47	Yes				
Baffle Plate Aluminum, 8 5/8"	1	\$ 100.59	Yes				
Pump Truck Mileage-Job to Nearest Camp	9	\$ 100.39	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	9	\$ 58.74	No				

Invoice Terms:

Net 30 SubTotal: \$ 10,838.85
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,625.83)

SubTotal for Taxable Items:	\$ 7,357.20
SubTotal for Non-Taxable Items:	\$ 1,855.83
Total:	\$ 9,213.02
Tax:	\$ 452.47

6.15% Ellis County Sales Tax

Thank You For Your Business!

Amount Due: \$ 9,665.49
Applied Payments:
Balance Due: \$ 9,665.49

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 051

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3/15/14	3	14	17	Ellis	Ks	10:00am	11:30am
				Location <u>TOWSON ELU 3E to 320 Rd 1/2 N WES</u>			
Lease <u>Braun</u>			Well No. <u>1</u>	Owner			
Contractor <u>Discovery An. Mfg</u>			<u>Rj #3</u>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job <u>Surface Sol</u>			Charge To <u>Black Hawk Production Co.</u>				
Hole Size <u>12 1/4</u>	T.D. <u>1192</u>		Street				
Csg. <u>8 5/8</u>	Depth <u>1191.60</u>		City				
Tbg. Size	Depth		State				
Tool	Depth		The above was done to satisfaction and supervision of owner agent or contractor.				
Cement Left in Csg. <u>42.24</u>	Shoe Joint <u>42.24</u>		Cement Amount Ordered <u>425 Com 3+2</u>				
Meas Line	Displace <u>23.19</u>						
EQUIPMENT				Common <u>425</u>			
Pumptrk	No.	Cementer Helper <u>Nick</u>	<u>Shane</u>	Poz. Mix <u>4</u>			
Bulktrk	No.	Driver <u>Connie</u>	<u>M</u>	Gel. <u>28. 9</u>			
Bulktrk	No.	Driver		Calcium <u>39. 15</u>			
JOB SERVICES & REMARKS				Hulls			
Remarks:				Salt			
Rat Hole				Flowseal			
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
<u>Cement</u>				Handling <u>449</u>			
				Mileage			
				FLOAT EQUIPMENT			
<u>Thanks!</u>				Guide Shoe			
				Centralizer <u>8 5/8 3</u>			
				Baskets			
Quality Oilwell Cementing				AFU Inserts <u>Baffled Plate</u>			
				Float Shoe			
				Latch Down			
				<u>Plus Rubber</u>			
				Pumptrk Charge <u>Long Surface</u>			
				Mileage <u>9</u>			
				Tax			
				Discount			
X Signature <u>John Daulton</u>				Total Charge			



QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 3/20/2014
 Invoice # 7180

P.O.#:

Due Date: 4/19/2014

Division: Russell

Invoice

Contact:
 Blackhawk Production Company
Address/Job Location:
 Blackhawk Production Company
 1607 Oakmont
 Hays Ks 67601

*pd
 4-22-14
 clct# 1882
 # 13,462.76
 Braun #1
 Completion*

Reference:
 BRAUN 1 *Completion*

Description of Work:
 PROD STRING

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No	Flo Seal	75	\$167.65	Yes
mon, MetsoBeads, Plater, Gel, FloSeal, Calcium)	300	\$ 6,410.82	Yes	Pump Truck Mileage-Job to Nearest Camp	9	\$100.39	No
Common-Class A	150	\$ 2,514.71	Yes	Bulk Truck Mileage-Job to Nearest Bulk Plant	9	\$58.74	No
Gilsonite	750	\$ 1,257.35	Yes	Rotating Head (4 1/2", 5 1/2", or 2 7/8")	1	\$40.24	No
Bulk Truck Matl-Material Service Charge	470	\$ 1,050.59	No				
5 1/2" Basket	2	\$ 768.94	Yes				
5 1/2" Turbolizer	7	\$ 453.76	Yes				
Mud Clear	500	\$ 413.53	Yes				
Auto Fill Float Shoe, 5 1/2"	1	\$ 342.00	Yes				
Latch Down Plug & Baffle, 5 1/2"	1	\$ 250.35	Yes				
Salt (Fine)	13	\$ 202.83	Yes				

Invoice Terms:

Net 30

SubTotal: \$ 15,052.45
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (2,257.87)

SubTotal for Taxable Items:	\$ 10,864.66
SubTotal for Non-Taxable Items:	\$ 1,929.93
Total:	\$ 12,794.58
Tax:	\$ 668.18

6.15% Ellis County Sales Tax

Thank You For Your Business!

Amount Due: \$ 13,462.76
Applied Payments:
Balance Due: \$ 13,462.76

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Home Office P.O. Box 32 Russell, KS 67665

No. 7180
3-21-14

Phone 785-483-2025
Cell 785-324-1041

Date	3-20-14	Sec.	3	Twp.	14	Range	17	County	Ellis	State	Ks	On Location		Finish	1:15 AM
Location													Toulon Elevator, 3E to 320 Rd		

Lease	Braun	Well No.	1	Owner	1 1/2 N W 1/4
-------	-------	----------	---	-------	---------------

Contractor	Discovery #3	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
------------	--------------	--	--	--	--

Type Job	Longstring	Charge To	Blackhawk Production
----------	------------	-----------	----------------------

Hole Size	7 7/8"	T.D.	3567'
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Csg.	5 1/2"	Depth	3566'
------	--------	-------	-------

Tbg. Size		Depth	
-----------	--	-------	--

Tool		Depth	
------	--	-------	--

Cement Left in Csg.	19.10	Shoe Joint	19.10'	Cement Amount Ordered	150 Com 10% Salt 5% Gilsomite
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Meas Line		Displace	86 1/2 BCS	300 sq GMDC 1/4" Flo-seal - 500 gal	Mud Clear 48
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EQUIPMENT

Pumptrk	16	No.		Cement Helper	Billy	Rick	Common	150
Bulktrk	13	No.		Driver	Clayton		Poz. Mtx	300 Q MDC
Bulktrk	14	No.		Driver	Chad		Gel.	
				Driver			Calcium	

JOB SERVICES & REMARKS

Remarks:		Salt	13
Rat Hole		Flowseal	75#
Mouse Hole		Kol-Seal	750#
Centralizers	1, 3, 5, 7, 9, 11, 54	Mud CLR 48	500 gal
Baskets	6, 55	CFL-117 or CD110 CAF	38
D/V or Port Collar	pipe on bottom break	Sand	
Circulation pump	500 gal mud	Handling	4/70
Clear 48, plug	Bottom hole w/ 30 SK	Mileage	

FLOAT EQUIPMENT

GMDC 1/4" Flo-seal	plug mousehole w/ 15 SK	Guide Shoe	
mix 255 sq GMDC 1/4" + 150 sq Com	10% salt 5% Gilsomite	Centralizer	6 turbos 1 Reg
shut down wash	pump & lines	Baskets	2
Released Plug + Disposal	with 86 1/2 BCS of water	AFU Inserts	
Released + held.		Float Shoe	1
		Latch Down	1

Lift pressure	300 #	Rotating head Assy	
Land plug to	1500 #	Pumptrk Charge	prod string
Cement did Circulate		Mileage	9

X Signature	Dolan Doshier	Tax	
		Discount	
		Total Charge	

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/>

Shari Feist Albrecht, Chair
Jay Scott Emler, Commissioner
Pat Apple, Commissioner

Sam Brownback, Governor

August 27, 2014

AARON J. WERTH
Werth, Aaron J. dba Blackhawk Production
Company
1607 OAKMONT
HAYS, KS 67601

Re: ACO-1
API 15-051-26678-00-00
Braun 1
NE/4 Sec.03-14S-17W
Ellis County, Kansas

Dear AARON J. WERTH:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 3/14/2014 and the ACO-1 was received on August 19, 2014 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department