

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application of Heavy Oil Treatment)
Solutions, LLC, to Authorize the Injection of Salt Water) Docket No. 15-CONS-233-CUIC
into the Arbuckle Formation at the Robbins #3 Well,) License No. 34847
Located in the NE/4 of Section 23, Township 12 South,) Conservation Division
Range 20 East, Leavenworth County, Kansas.)

**DIRECT TESTIMONY
OF GERALD W. HUNDLEY**

I. BACKGROUND INFORMATION AND QUALIFICATIONS

Q: PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A: Gerald W. Hundley, 25314 Mackey Rd., Lawrence, KS 66044.

Q: WHAT IS YOUR OCCUPATION?

A: I the operator of Heavy Oil Treatment Solutions, LLC.

Q: WHAT WAS THE NATURE OF YOU EMPLOYMENT PRIOR TO THAT TIME?

A: I was a professor at Gardner City Community College for 38 years teaching a variety of
courses including Soil Conservation and Surveying.

II. PURPOSE OF THE SUBJECT APPLICATION

**Q: WHAT IS THE PURPOSE FOR FILING THE APPLICATION WHICH IS THE
SUBJECT OF THIS DOCKET?**

A: To obtain authority authorizing a disposal well under Permit Number D-32017.

**Q: WILL THE DISPOSAL WELL WHICH IS THE SUBJECT OF THE PENDING
APPLICATION COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS
PROMULGATED BY THE KANSAS CORPORATION COMMISSION?**

1 A: Yes.

2 **Q: WHAT MEASURES WERE TAKEN TO PREVENT POLLUTION OF FRESH AND**
3 **USABLE GROUND WATER, SURFACE WATER AND SURROUNDING**
4 **PROPERTIES BY THIS DISPOSAL WELL?**

5 A: Heavy Oil Treatment Solutions, LLC took several precautions intended to protect fresh and
6 usable water and surrounding properties. The packet attached hereto as Exhibit Hundley-1
7 contained detailed information about each of these extra precautions taken by Heavy Oil
8 Treatment Solutions, LLC.

9 **Q: HAS A MECHANICAL INTEGRITY TEST BEEN PERFORMED UPON THE**
10 **SUBJECT DISPOSAL WELL?**

11 A: Yes, a mechanical integrity test was performed upon the subject well on October 22, 2014, and
12 the test results for said well were satisfactory. A copy of said mechanical integrity test is
13 attached hereto as Exhibit Hundley-2.

14 **Q: IN YOUR OPINION DOES THE SUBJECT DISPOSAL WELL POSE A**
15 **SIGNIFICANT RISK TO FRESH AND USABLE GROUND WATER FORMATIONS**
16 **IN THE AREA?**

17 A: No.

18 **Q: IN SOME OF THE PREFILED TESTIMONY THAT HAS BEEN FILED IN THIS**
19 **DOCKET IT IS ALLEGED THAT SOME OF THE PRODUCTION WELLS UPON**
20 **THE SUBJECT OIL AND GAS LEASE DO NOT COMPLY WITH THE SETBACK**
21 **REQUIREMENTS SET FORTH IN K.A.R. 82-3-108, ARE THESE ALLEGATIONS**
22 **TRUE?**

1 A: No they are not. First of all, the wells referenced in that testimony are not located on the
2 Robins Lease. Those wells are located upon neighboring leases operated by Heavy Oil
3 Treatment Solutions, LLC. Notwithstanding that discrepancy, we did measured the wells
4 described in the protestant's prefiled testimony after reading the allegations therein and
5 confirmed that all of the wells referenced in said testimony do comply with applicable set back
6 requirements.

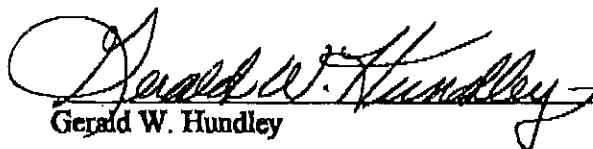
7 **Q: DOES THIS COMPLETE YOUR TESTIMONY TO THE COMMISSION?**

8 A: Yes.

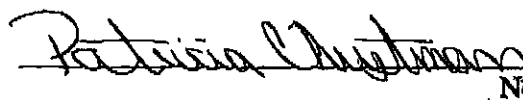
VERIFICATION OF GERALD W. HUNDLEY

STATE OF KANSAS)
) ss:
COUNTY OF Douglas)

Gerald W. Hundley, being duly sworn, upon his oath states that he has read the document title "Pre-filed Testimony of Gerald W. Hundley" to which this Verification is attached, that he is aware of its contents, and declares that the statements contained in said document are true and correct to the best of his information, knowledge and belief.


Gerald W. Hundley

SUBSCRIBED AND SWORN to before me on this 14 day of November, 2014.


Notary Public

Appointment/Commission Expires:

1-2-2017



Robbins Lease Design & Development Plan
Section 23, Township 12 S., Range 20 E., Leavenworth County, Kansas

The design features listed below on the Robbins lease were an attempt to protect the property and the fresh water resources of all surrounding property owners and the protection against any potential oil leaks or spills.

1. Well Surface Casing. State regulations for setting surface casing in Leavenworth County for alternate II are a minimum of forty (40) feet or first solid formation.

a) Surface casing on all producing wells exceeded the minimum required depths and some wells were set at 100 feet or more.

b) The water disposal well (Robbins # 3) set 108 feet of surface casing.

2. Cement. All surface casing and long string pipe of producing wells were cemented with OWC cement for a faster and stronger bond.

3. Long String Installation. A professional casing crew, D & S Casing, LLC, from Great Bend, Kansas, was used to hang the 5 1/2" down hole casing to better insure tighter joint connections than what the drilling rig could achieve.

4. Oil & Gas Lines. SDR-7 polyvinyl pipe was used for all oil & gas lines which have a burst pressure of 600 psi. The producing wells do not exceed 275 psi.

5. Land Restoration. After construction, all disturbed land was restored and seeded with K-31 fesque grass seed blended with wheat seed as a cover crop.

6. Water Run-Off and Silt Prevention Design. Rock dams, with embedded hay bales, were constructed on all downhill drainage routes to block and filter out any potential silt from run-off.

7. Oil Booms. Eight inch oil booms have been installed on each silt prevention dams to protect downhill neighbors against any potential oil leaks or spills.

8. Trench Dams. Concrete dams were built in the down hill line trenches, before backfilling, as a pre-emptive measure to block any potential oil leaks or spills following the trench downhill.

EXHIBIT

Hundley-1

9. Well Rod & Tubing. All producing wells will be completed with rod and tubing and all well fittings are hard plumbed and have no pumpjack hose to break.

10. Wellhead. All wells have wellheads with stuffing box specifications of 1600 psi against leakage or blow-outs.

11. Underground Fittings. All risers and underground fittings are stainless steel to prevent rusting.

12. Gas Separators. All gas separators are rated at 500 psi which will prevent any blow-offs since they exceed all wellhead pressures.

13. Tank Battery Berm. An oversized tank battery pad and berm is being constructed which exceeds minimum construction standards and specifications. The construction will be with a clay material and top dressed with AB-3 rock.

14. Well Berms. There will be berms constructed that surround each producing oil well to contain and localize any potential leaks or spills.

15. Vandal Protection. All oil storage tanks will be padlocked with high grade steel locks. Each well sample outlet valve is padlocked and must be unlocked before any oil samples can be obtained from any well.

16. SPCC Plan. A SPCC Plan (Spill Prevention and Control Plan) was filed to provide an emergency response plan to notify local officials of any lease emergency or contingency.

LINWOOD

LINWOOD

disposal well

wells drilled

wells to be drilled

TEDROW

R28851

11

ROBBINS

R28849

ROBBINS

R28844

R28843

R28842

R28848

ROBBINS

R28845

ROBBINS

R28840

R28847

ROBBINS

disposal well

R28846

ROBBINS

R28840

ROBBINS

R28837

R28838

R28839

ROBBINS

R28836

R28835

ROBBINS

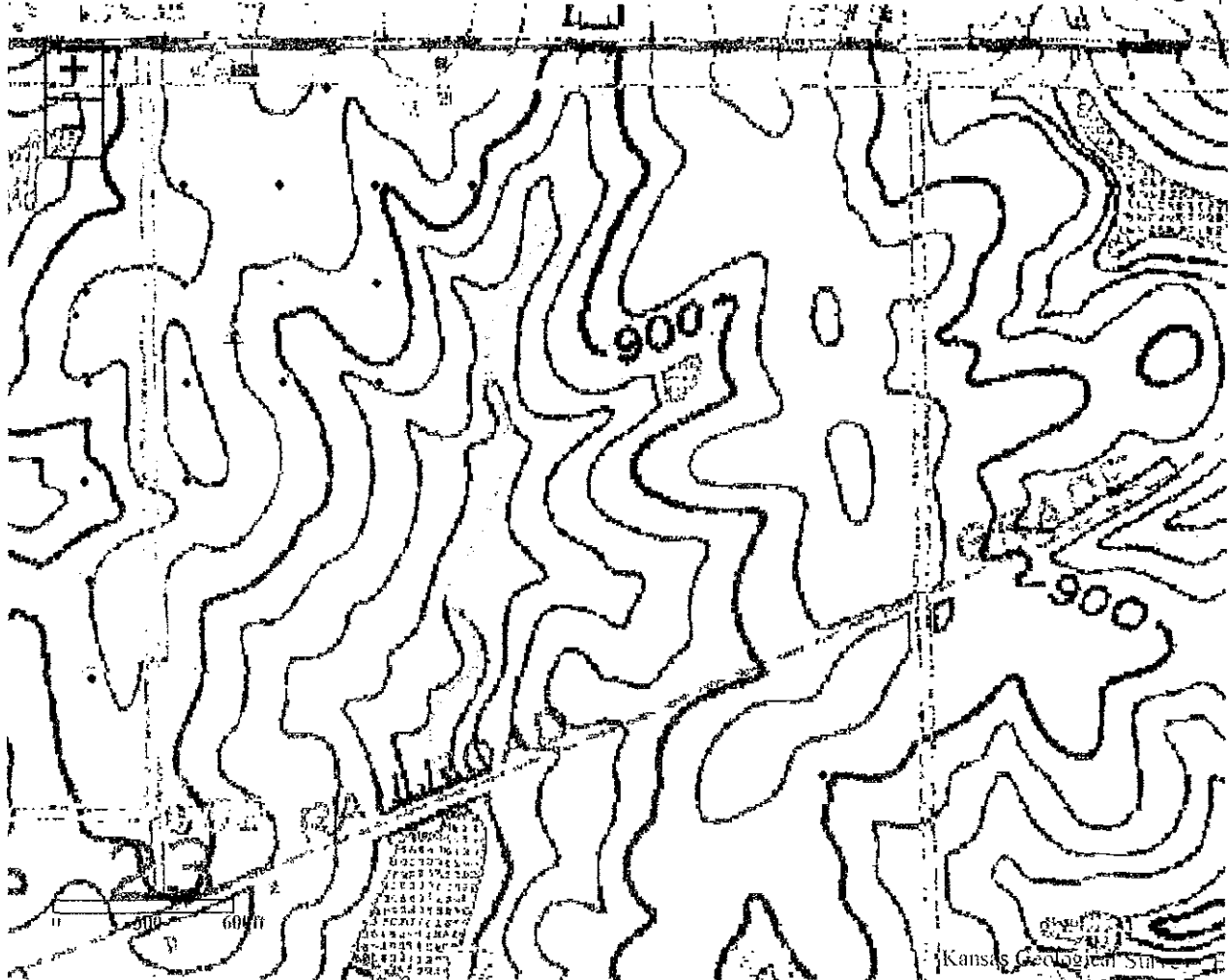
250TH

250TH

Kansas Oil and Gas

Kansas Geological Survey

Statewide View | Zoom to Location | Filter Wells | Label Wells | Download Wells | Print to PDF | Clear Highlight |



NO 5751

Date 09/14 2011

Drilling Co. S. H. H. Rig No. 100

Helpers: Edwin James # 108 Amount: \$ 7.20

Hyman 1102 Bayshore Blvd. 2000 ft. at 5 1/2

Date Work Completed 09/14/14 7:41 PM

By: 11/11/10

810 E 7TH
PO Box 92
EUREKA, KS 67045
(620) 583-5561

API 15-103-21416



Cement or Acid Field Report

Ticket No. **1719**

Foreman KEVIN MCCOY

Camp EUREKA

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
9-14-14		Robbins #3	23	12S	20E	LV	Ks
Customer Heavy Oil Treatment Solutions, LLC			Unit #	Driver		Unit #	Driver
Mailing Address 25314 Mackey Rd.			105	Dave G.			
City Lawrence			112	John S.			
State Ks			113	Rudy M.			
Zip Code 66044							

Job Type <u>Longstring</u>	Hole Depth <u>2092'</u>	Slurry Vol. <u>31 BBL Stage 1</u>	Tubing
Casing Depth <u>1921.79'</u>	Hole Size <u>7 7/8</u>	<u>60 BBL Stage 2</u>	Drill Pipe
Casing Size & Wt. <u>5 1/2 15.50 #</u>	Cement Left in Casing <u>0'</u>	<u>13.7 # Stage 1</u>	Other
Displacement <u>31.7 BBL Stage 2</u>	Displacement PSI	<u>12.7 # Stage 2</u>	BPM
		Water Gal/SK	
		Bump Plug to	

Remarks: Safety Meeting: 5 1/2 Set @ 1921' w/ Packer shoe. DV Tool Set @ 1314' Below G.L. Rig up to 5 1/2 casing. Set Packer shoe @ 1500 PSI. Pump 10 BBL water. Mixed 100 SKS THICK Set Cement w/ 5" Kol-Seal/sk, 1" PhenoSeal/sk @ 13.7 #/gal, yield 1.75 = 31 BBL slurry. Wash out Pump & Lines. Shut down. Release Latch down Flex Plug. Displace Plug to Seat w/ 46 BBL fresh water. FINAL Pumping Pressure 500 PSI. Bump Plug to 1000 PSI. Release Pressure. Drop Trip Bomb. wait 6 mins. Open DV Tool @ 1300 PSI. Circulate 7 BBL Cement off top of DV Tool to the Pit. Circulate 1 1/2 Hrs w/ mud Pump. Stage #1 Complete. Stage #2. Pump 5 BBL Fresh water. Mixed 210 SKS 60/40 Pozmix Cement w/ 6% Gel, 2" PhenoSeal/sk @ 12.7 #/gal = 60 BBL slurry. Wash out Pump & Lines. Shut down. Release Closing Plug. Displace Plug to Seat w/ 31.7 BBL Fresh water. FINAL Pumping Pressure 600 PSI. Bump Plug to 1600 PSI. DV Tool Closed @ 1300 PSI. Release Pressure. NO FLOW BACK. Tool Closed. NO Cement to Surface. Job Complete. Rig down. Centralizers on #12, 3, 5, 13. Basket on top of #13. DV Tool on top of #14.

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C 102	1	Pump Charge Stage #1	1050.00	1050.00
C 107	85	Mileage	3.95	335.75
C 102	1	Pump Charge Stage #2	1050.00	1050.00
C 201	100 SKS	THICK Set Cement	19.50	1950.00
C 207	500 #	Kol-Seal 5" /sk	.45 #	225.00
C 208	100 #	PhenoSeal 1" /sk	1.25 #	125.00
C 203	210 SKS	60/40 Pozmix Cement	12.75	2677.50
C 206	1100 #	Gel 6%	.20 #	220.00
C 208	420 #	PhenoSeal 2" /sk	1.25 #	525.00
C 108 B	14.53 TONS	Ton Mileage	1.35	1667.32
C 752	1	5 1/2 Type A Packer shoe	1400.00	1400.00
C 681	1	5 1/2 Float Collar Body only	225.00	225.00
C 776	1	5 1/2 DV Tool (Stage Collar) w/ Plugs	3325.00	3325.00
C 604	1	5 1/2 Cement Basket	225.00	225.00
C 504	5	5 1/2 x 7 7/8 Centralizers	48.00	240.00
C	1	Thread Lock Kit	30.00	30.00
		PAID IN FULL w/ 5% Discount CK #1105 9-14-14		
		THANK YOU		
		Sub TOTAL		15,270.57
		Sales Tax 7.15%		798.48
		Total		16,069.05

Authorization Witnessed By Jim Mitchen Title _____

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.

An aerial photograph of a vast, flat, muddy field, likely a wetland or marsh. The field is a uniform brownish-grey color with some subtle textures. In the lower right portion of the field, a red tractor with large rear wheels and smaller front wheels is parked. To the right of the tractor, a small figure of a person is visible. The field is bordered on the right by a dense line of green trees. The sky is a pale, clear blue.

Seeding & Land Restoration



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE

Invoice # 271161

Invoice Date: 09/19/2014 Terms: 0/30/10,n/30

Page 1

MISCELLANEOUS ACCOUNTS
HEAVY OIL TREATMENT
1513 MUSTANG DR
BALDWIN CITY KS 66006
() -

ROBBINS #3
48137
NE23-12-20
9-10-14
KS

Part Number	Description	Qty	Unit Price	Total
1104S	CLASS "A" CEMENT (SALE)	60.00	15.7000	942.00
1118B	PREMIUM GEL / BENTONITE	113.00	.2200	24.86
1102	CALCIUM CHLORIDE (50#)	113.00	.7800	88.14
1107	FLO-SEAL (25#)	15.00	2.4700	37.05

Sublet Performed	Description	Total
9995-120	CEMENT EQUIPMENT DISCOUNT	-327.62

Description	Hours	Unit Price	Total
370 MIN. BULK DELIVERY	1.00	368.00	368.00
510 80 BBL VACUUM TRUCK (CEMENT)	3.00	100.00	300.00
666 CEMENT PUMP (SURFACE)	1.00	870.00	870.00
666 EQUIPMENT MILEAGE (ONE WAY)	45.00	4.20	189.00
666 CASING FOOTAGE	108.00	.00	.00

Amount Due 2897.13 if paid after 09/29/2014

Parts:	1092.05	Freight:	.00	Tax:	54.66	AR	2546.09
Labor:	.00	Misc:	.00	Total:	2546.09		
Sublt:	-327.62	Supplies:	.00	Change:	.00		

Signed

Date

BARTLESVILLE, OK
918/338-0808

EL DORADO, KS
316/322-7022

EUREKA, KS
620/583-7664

PONCA CITY, OK
580/762-2303

OAKLEY, KS
785/672-8822

OTTAWA, KS
785/242-4044

THAYER, KS
620/839-5269

GILLETTE, WY
307/686-4914

CUSHING, OK
918/225-2650

P.O. Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT

TICKET NUMBER 48137
LOCATION Alhambra, CA
FOREMAN Casey Kennedy

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
9/16/14	9999	Robbins #3	NE23	12	20	LV
CUSTOMER						
Heavy Oil Treatment						
MAILING ADDRESS						
1513 Mustang Dr						
CITY	STATE	ZIP CODE	TRUCK #	DRIVER	TRUCK #	DRIVER
Baldwin	KS	66000	729	Caskan	✓	Safety Machine
			660	Kei Car	✓	
			510	Dash Web	✓	
			370	Mit Fox	✓	

JOB TYPE <u>surface</u>	HOLE SIZE <u>12 1/4"</u>	HOLE DEPTH <u>130'</u>	CASING SIZE & WEIGHT <u>8 5/8"</u>
CASING DEPTH <u>108'</u>	DRILL PIPE	TUBING	OTHER <u>15' landing sub</u>
SLURRY WEIGHT	SLURRY VOL	WATER gal/sk	CEMENT LEFT in CASING <u>4'</u>
DISPLACEMENT <u>7.0 bbls</u>	DISPLACEMENT PSI	MIX PSI	RATE <u>5 bpm</u>

REMARKS: held safety meeting, established circulation, mixed & pumped 60 sks Class "A" cement w/ 2% premium gel, 2% Calcium Chloride, & 1/4 # Floval per sk, cement to surface, displaced cement w/ 7.0 bbls fresh water, shut in casing.

[illegible]

Revin 3737

AUTHORIZATION

No Co. Rep. on location

TITLE

DATE _____

SALES TAX	54.16
ESTIMATED TOTAL	2546.08

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

A photograph of a stone silt prevention dam in a forest stream. The dam is constructed from several large, flat, grey stones stacked horizontally across the stream bed. The water is clear and flows over the stones. The surrounding area is a dense forest with green foliage and trees. The ground is covered with dry leaves and twigs. The text "Silt Prevention Dams" is overlaid on the right side of the image.

Silt Prevention Dams

A photograph of a silt prevention dam in a grassy field. The dam is constructed from a line of large, reddish-brown rocks and boulders, creating a barrier across the path of water. The water is dark and turbulent, flowing over the rocks. The surrounding area is covered in green grass and some bare, dry branches. The lighting is bright, casting shadows on the grass.

Silt Prevention Dams



Silt Prevention Dams

A photograph of a grassy field with a path leading through it. The path is made of dry grass and is flanked by green grass. The field is covered in a mix of green and dry grass, with some areas showing signs of erosion or silt. The path leads from the foreground towards the background, where a line of trees is visible. The overall scene suggests a natural area where silt prevention measures are being implemented.

Silt Prevention Dams

Silt Prevention Dams



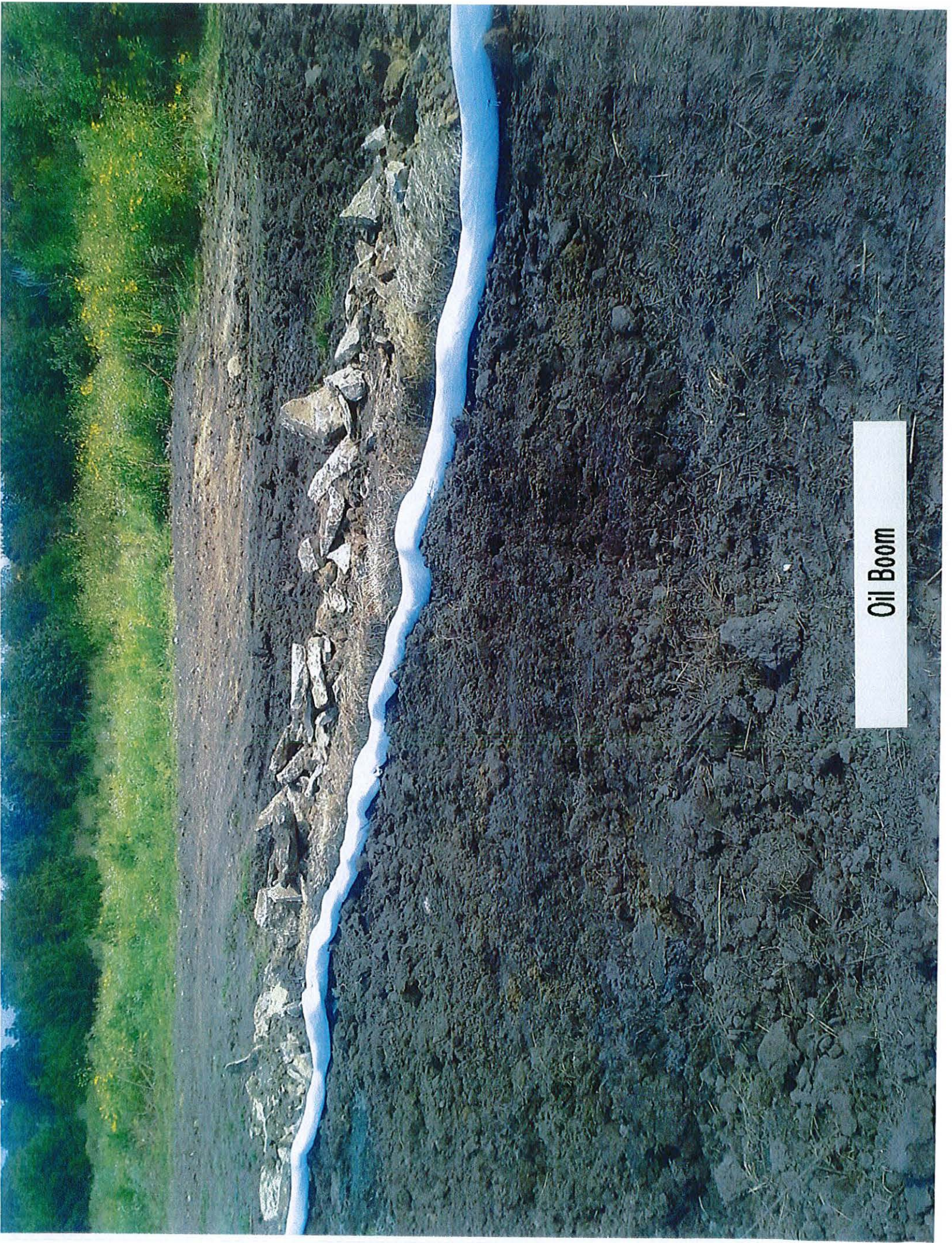
Oil Boom



Oil Boom



Oil Boom



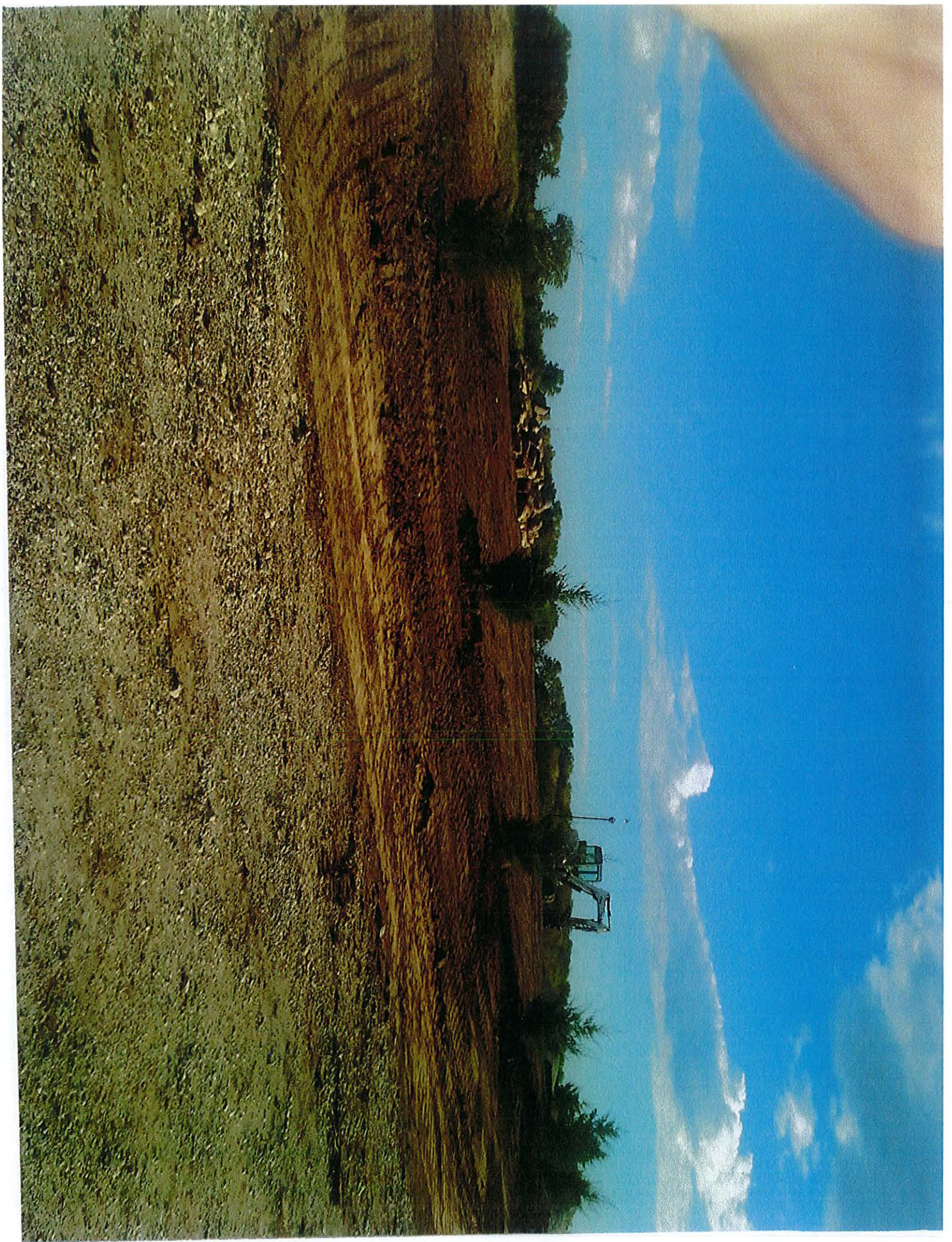
A photograph of a forest stream. The water is dark and flows through a dense forest of green trees. The ground is covered in dark, wet soil and fallen leaves. A white rectangular label with the text "Oil Boom" is positioned on the right side of the image.

Oil Boom

Oil Boom







OKSPCC.COM
Richard L. Dollar
11749 S 252 E Ave
Broken Arrow, Ok 74014
918-671-7777

INVOICE

Date: 9/29/2014

HEAVY OIL TREATMENT SOLUTIONS LLC

% Jim Mietchen
1513 Mustang Dr
Baldwin City, Kansas 66006
785-594-7100

Two (2) SPCC Spill Plans @ \$400.00 each.....	\$800.00
One (1) SPCC Annual Inspection @ \$75 each.....	\$75.00
Total.....	\$875.00

- 400² Rq 9/29/14
1121

Leases: New SPCC: Robbins ✓
 New SPCC: Hundley
 Annual Inspection: Mini – Farm

Thank you for the opportunity to be of service to your firm.

Richard L. Dollar

CASING MECHANICAL INTEGRITY TEST

DOCKET# D-32017Disposal Well ☒ Enhanced Recovery:

NW 1/4

Repressuring ☐Flood ☐Tertiary ☐SESWNWNE, Sec 23, T 12 S, R 20 EWGPS 4246

Feet from South Section Line

2250

Feet from East Section Line

Date injection started

API #15- 103-21416Lease RobbinsWell # 3County LeavenworthOperator: Heavy Oil Treatment Solutions, LLCOperator License# 34847

Name &

Address 25314 Mackay Rd.Contact Person Gerald HundleyLawrence, KS 66044Phone 785-479-2401

Max. Auth. Injection Press _____ Psi; Max Inj. Rate _____ bbl/d;

If Dual Completion - Injection above production _____ Injection below production _____

	Conductor	Surface	Production	Liner	Tubing
Size		<u>8 5/8</u>	<u>5 1/2</u>		<u>2 7/8</u>
Set at		<u>100</u>	<u>1917</u>		<u>1921.8</u>
Cement Top		<u>0</u>	<u>0</u>		Type <u>Plastic Liner</u>
" Bottom		<u>100</u>	<u>1917</u>		
DV/Perf.					
Packer type	<u>J-Packer</u>				
Zone of injection	<u>1917</u>				
		ft. to ft. <u>2092</u>			
			TD (and plug back) <u>2092</u>		ft. depth
			Size <u>5 1/2</u>	Set at <u>1871.8</u>	
				Perf. or <u>open hole</u>	<u>open hole</u>

Type MIT: Pressure: ☒ Radioactive Tracer Survey: ☐ Temperature Survey: ☐F Time: Start 10 Min 20 Min 30 Min

I

E Pressures: 300 300 300 Set up 1 System Pres. during test _____

L

D _____ Set up 2 Annular Pres. during test _____

D _____ Set up 3 Fluid loss during test _____ bbls.

A

T Tested: Casing ☐ or Casing - Tubing Annulus ☒

A

The bottom of the tested zone in shut in with

Tubing and PackerTest Date 10/22/2014 Using Balboa oil well serv. Company's EquipmentThe operator hereby certifies that the zone between 0 feet and 1871.8 feet

was the zone tested

[Signature]owner
TitleThe results were Satisfactory ☒ Marginal _____ Not Satisfactory _____State Agent: Tasha C. Herman Title: Perit Witness: YES _____ NO ☒

REMARKS:

☐ Origin. Conservation Div.: ☐ KDHE/T: mf ☐ Dist. Office☐ Computer Update ☐ Is there Chemical Sealant or a Mechanical Casing patch in the annular space? (Y/N) ☐GPS Lat 38.997555GPS Long -95.157549SCANNED
(If YES, please describe in REMARKS)
KCC Form U-7NAD 83

EXHIBIT

OCT 31 2014

Hundley-2