

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACD-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

ORIGINAL

Operator: License # 3273
Name: Herman Loeb ✓
Address P. O. Box 524
Lawrenceville, II 62439
Purchaser: _____
Operator Contact Person: George Payne
Phone (812) 853-3813
Contractor: Name: Duke Drilling
License: 5929
Wellsite Geologist: Jon Christensen

API NO. 15- 097-21357-0000
County Kiowa
NE . NE . SE Sec. 14 Twp. 28S Rge. 18 X W
2310 Feet from (S)N (circle one) Line of Section
330 Feet from (E)W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, (SE), NW or SW (circle one)
Lease Name Hardy ✓ Well # 2
Field Name Hardy
Producing Formation Mississippian Chert
Elevation: Ground 2202 KS 2211
Total Depth 4987 PSTD
Amount of Surface Pipe Set and Cemented at 499 ✓ Feet
Multiple Stage Cementing Collar Used? _____ Yes X No
If yes, show depth set _____ Feet
If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ sx cnt.

Designate Type of Completion
 New Well _____ Re-Entry _____ Workover _____
_____ Oil _____ SWD _____ SIGW _____ Exp. Abd.
_____ Gas _____ ENHR SIGW _____
_____ Dry _____ Other (Core, WSP, Exp., Cathodic, etc.) _____

If Workover/Re-Entry: old well _____ follows _____
Operator: _____
Well Name: _____
Comp. Date _____ Old Total _____
_____ Deepening _____ Re-perf. _____ Conv. to Inj/SWD
_____ Plug Back _____ PSTD
_____ Commingled _____ Docket No. _____
_____ Dual Completion _____ Docket No. _____
_____ Other (SWD or Inj?) _____ Docket No. _____
11/18/93 11/26/93 12/16/93
Spud Date Date Reached TD Completion Date

Drilling Fluid Management Plan 5-31-94CB
(Data must be collected from the Reserve Pit)
Chloride content 56,000 ppm Fluid volume 720 bbls
Dewatering method used trucked to disposal
Location of fluid disposal if hauled offsite: _____
Operator Name Peter H. Beren
Lease Name B. H. Koehn #12 SWD License No. 3051
SW Quarter Sec. 28 Twp. 29 S Rng. 18 (E)W
County Kiowa Docket No. D-5617

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FEB 16 1994
OIL & GAS CONSERVATION DIVISION
WICHITA, KS

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature George A. Payne
Title Petroleum Engineer Date 2/11/94
Subscribed and sworn to before me this 11th day of February, 1994.
Notary Public Constance J. Sands
Date Commission Expires 8-12-94

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC _____ SWD/Rep _____ MGPA
 KGS _____ Plug _____ Other _____
(Specify)

Operator Name Herman L. Loeb Lease Name Hardy Well # 2
 Sec. 14 Twp. 28S Rge. 18 East County Kiowa
 West

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

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
 (Submit Copy.)

List All E.Logs Run: Dual induction, spectral density, neutron, microlog, cement bond.

Log Formation (Top), Depth and Datum Sample

Name	Top	Datum
Heebner	4046	KB 9' AGL
Brown lime	4221	
Lansing	4234	
Marmaton	4644	
Cherokee shale	4764	
Mississippian	4816	
Kinderhook	4905	
Viola	4975	

CASING RECORD <input checked="" 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
Surface	12 1/4"	8 5/8	24	499	60/40 Poz	350	2% gel, 3% CaCl
Production	7 7/8"	5 1/2	15.5	4984	Class A	185	see below*
* 5# Calseal, 5# gilsonite, 18% salt, 3/4% Halad 322							

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					

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
2/ft	4818-4834	750 gal 7 1/2% HCl	
		21,590 gal gelled water & 28,000 # sand	

TUBING RECORD Size 2 7/8" Set At 4815' Packer At none Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. est. prod. Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil Bbls. Gas 4.4 Mcf Water Bbls. Gas-Oil Ratio Gravity
OPEN FLOW

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.) METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Other (Specify) Production Interval 4818-34'

Herman Loeb #2 Hardy
Kiowa Co., Kansas

ORIGINAL

API# 15-097-21357

Drill Stem Test #1 Nov. 24, 1993

Test Interval: 4,822 to 4,843 ft
Bottomhole Temp: 128 deg F

	<u>Duration</u>	<u>Pressure</u>	<u>Gas Flow</u>
Initial Flow:	35 min	289 psi	802 MCFPD
Initial Closed-in:	60 min	1142 psi	
Final Flow:	45 min	280 psi	847 MCFPD
Final Closed-in:	99 min	1125 psi	

Gas to the surface in 1 min. Recovered 120 ft of gas & oil cut mud (25% oil, 20% gas, 55% mud). Closed-in pressures are nearly at static pressure (1145.9 psig).

Drill Stem Test #2 Nov. 25, 1993

Test Interval: 4,842 to 4,898 ft
Bottomhole Temp: 128 deg F

	<u>Duration</u>	<u>Pressure</u>	<u>Gas Flow</u>
Initial Flow:	30 min	815 psi	263 MCFPD
Initial Closed-in:	63 min	1144 psi	
Final Flow:	45 min	1086 psi	108 MCFPD
Final Closed-in:	96 min	1139 psi	

Gas to the surface in 3 min. Recovered 860 ft of heavy gas and mud cut oil (40% oil, 30% gas, 30% mud), 1000 ft gassy oil, 1240 ft of saltwater (Chlorides 98,000 PPM). Closed-in pressures are nearly at static pressure (1145.9 psig).

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WICHITA, KS

CUSTOMER COPY



HALLIBURTON ORIGINAL

REMIT TO:
P.O. BOX 951046
DALLAS, TX 75395-1046

INVOICE

INVOICE NO.	DATE
509958	11/27/1993

WELL LEASE NO./PROJECT	WELL/PROJECT LOCATION	STATE	OWNER
HARDY 2	KIOWA	KS	SAME
SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	TICKET DATE
PRATT	DUKE DRILLING #5	CEMENT PRODUCTION CASING	11/27/1993
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER
518940	G A PAYNE		
			SHIPPED VIA
			COMPANY TRUCK
			FILE NO.
			60233

HERMAN LOEB - LOEB OIL CO.
P O BOX 524
LAWRENCEVILLE, IL 62439

DIRECT CORRESPONDENCE TO:
OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2000
OKLAHOMA CITY, OK 73102-5601

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
000-117	MILEAGE CEMENTING ROUND TRIP	70	MI	2.75	192.50
		1	UNT		
001-016	CEMENTING CASING	4982	FT	1,635.00	1,635.00
		1	UNT		
030-016	CEMENTING PLUG 5W ALUM TOP	5	1/2 IN	60.00	60.00
		1	EA		
018-317	SUPER FLUSH	10	SK	100.00	1,000.00
5A	FLOAT SHOE - SSII-5-1/2 8RD	1	EA	225.00	225.00
837.07100					
24A	INSERT FLOAT VALVE - 5 1/2" 8RD	1	EA	110.00	110.00
815.19251					
40	CENTRALIZER-5-1/2 X 8-1/2	8	EA	44.00	352.00
806.60022					
60	CLEANER-ROTO WALL-LOOPED CABLE	10	EA	30.00	300.00
807.00084					
66	FASGRIP LIMIT CLAMP 5 1/2"	12	EA	12.00	144.00
807.64031					
019-240	CASING SWIVEL W/WALL CLEANERS	1	EA	185.00	N/C
504-308	CEMENT - STANDARD	200	SK	6.96	1,392.00
509-968	SALT	1700	LB	.13	221.00
508-291	GILSONITE BULK	1000	LB	.40	400.00
508-127	CAL SEAL 60	10	SK	20.70	207.00
507-775	HALAD-322	141	LB	6.90	972.90
500-207	BULK SERVICE CHARGE	257	CFT	1.35	346.95
500-306	MILEAGE CMTG MAT DEL OR RETURN	396.22	TMI	.95	376.41

INVOICE SUBTOTAL

7,934.76

DISCOUNT-(BID)
INVOICE BID AMOUNT

1,428.25-
6,506.51

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***** CONTINUED ON NEXT PAGE *****

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer

CUSTOMER COPY

INVOICE



HALLIBURTON ORIGINAL

REMIT TO: P.O. BOX 951046 DALLAS, TX 75395-1046

INVOICE NO. 509958 DATE 11/27/1993

WELL LEASE NO./PROJECT: HARDY 2 WELL/PROJECT LOCATION: KIOWA STATE: KS OWNER: SAME

SERVICE LOCATION: PRATT CONTRACTOR: DUKE DRILLING #5 JOB PURPOSE: CEMENT PRODUCTION CASING TICKET DATE: 11/27/1993

ACCT. NO.: 518940 CUSTOMER AGENT: G A PAYNE VENDOR NO.: CUSTOMER P.O. NUMBER: SHIPPED VIA: COMPANY TRUCK FILE NO.: 60233

HERMAN LOEB - LOEB OIL CO. P O BOX 524 LAWRENCEVILLE, IL 62439

DIRECT CORRESPONDENCE TO: OKLAHOMA TOWER 210 WEST PARK AVENUE SUITE 2000 OKLAHOMA CITY, OK 73102-5601

Table with columns: REFERENCE NO., DESCRIPTION, QUANTITY, UM, UNIT PRICE, AMOUNT. Rows include KANSAS STATE SALES TAX (196.32) and PRATT COUNTY SALES TAX (40.08).

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INVOICE TOTAL - PLEASE PAY THIS AMOUNT =====> \$6,742.91



JOB LOG FORM 2013 R-4

CUSTOMER: Hedrick Loop WELL NO.: 2 LEASE: Hedrick JOB TYPE: 5 1/2" Long string TICKET NO.: 509958

Table with columns: CHART NO., TIME, RATE (BPM), VOLUME (BBL) (GAL), PUMPS (T, C), PRESSURE (PSI) (TUBING, CASING), DESCRIPTION OF OPERATION AND MATERIALS. Includes entries for 0100, 0900, 1020, 1151, 1219, 1222, 1223, 1225, 1226, 1235, 1238, 1253, 1345.

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Phone 913-483-2627, Russell, Kansas
 Phone 316-793-5861, Great Bend, Kansas

ORIGINAL Phone Plainville 913-434-2812
 Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC. 3627
 Home Office P. O. Box 31 Russell, Kansas 67665

New

11/15/93

Date	11/19/93	Sec.	14	Twp.	28N	Range	15W	Called Out	11:00 PM	On Location	1:30 AM	Job Start	5:45 AM	Finish	5:45 AM	
Lease	Hardy	Well No.	2	Location				Greenshiring 2E S1S	County	McPherson	State	KS				

Contractor	Duke Drilling Rig #5	Owner	Same
Type Job	5/8" Surface Csg	To Allied Cementing Co., Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.	
Hole Size	12 1/4	T.D.	500
Csg.	5/8" 24#	Depth	499
Tbg. Size		Depth	
Drill Pipe		Depth	
Tool		Depth	
Cement Left in Csg.	12	Shoe Joint	12
Press Max.	250	Minimum	50
Meas Line		Displace	31 PBL
Perf.			

Charge To	Herman Loeb Co
Street	P.O. Box 524
City	Lawrenceville State IL 62439
The above was done to satisfaction and supervision of owner agent or contractor.	
Purchase Order No.	
X	<i>[Signature]</i>

CEMENT

Amount Ordered	350 sacks 60/40, 270 gal 370 cc/l
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EQUIPMENT

Pumptrk	No.	Cementer	Max Ball
	266	Helper	Justin Hart
Pumptrk	No.	Cementer	
		Helper	
Bulktrk	256	Driver	John Kelley
		Driver	

Consisting of	
Common	
Poz. Mix	
Gel.	
Chloride	
Quickset	

DEPTH of Job	
Reference:	
499 FT	Pump Charge
23 MI	Mileage
1 Ea.	5/8" Top Wood Plug
	Sub Total
	Tax
	Total

Sales Tax	
Handling	
Mileage	
Sub Total	
Total	

Remarks: 1. 5/8" Surface Csg with 350 sacks
 60/40 270 gal 370 cc/l² Drop Plug
 Displace 31 PBL Close in Head
 Cement Did Circulate ✓

Floating Equipment

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 WICHITA, KS

GEORGE A. PAYNE
Petroleum Engineer
7588 Marywood Drive
Newburgh, IN 47630
Telephone (812) 853-3813

ORIGINAL

Certified Mail # P 134 903 556
Return Receipt Requested

February 11, 1994

Mr. David P. Williams
Production Supervisor
Kansas Corporation Commission
200 Colorado Derby Bldg
202 W. 1st Street
Wichita, KS 67202-1286

Re: Hardy #2 ACO-1 Form
API # 15-097-21357

Dear Mr. Williams:

I am enclosing an original and two copies of the completion report for the above well. I have attached copies of the cementing tickets and a summary of the drill stem test data.

I have also enclosed one copy of all open-hole and cased-hole logs and a copy of the wellsite geologist's report.

The well is currently shut-in while the gas contract is negotiated. We will provide the date of first production and estimated production when it becomes available.

If you have any questions or need any additional data, you may contact me at the above phone number.

Yours truly,



G. A. Payne

Copy: Herman Loeb
Attachment

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