

SIDE ONE

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

API NO. 15- 171-20,403 -00-00

County Scott

NE/4 Sec. 34 Twp. 19S Rge. 34 X East West

3620 Ft. North from Southeast Corner of Section

200 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

Lease Name Hattendorf Well # 1

Field Name Wildcat

Producing Formation _____

Elevation: Ground 3043' KB 3048'

Total Depth 5000' PBDT _____

Operator: License # 5565

Name: National Cooperative Refinery Assn.

Address 6000 W. 10th

City/State/Zip Great Bend, Ks. 67530

Purchaser: _____

Operator Contact Person: Steve Brackeen

Phone (316) 793-7824

Contractor: Name: Abercrombie-Drilling, Inc.

License: 5422

Wellsite Geologist: _____

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD Temp. Abd.

Gas Inj Delayed Comp.

Dry Other (Core, Water Supply, etc)

If OWMO: old well info as follows:

Operator: N/A

Well Name: _____

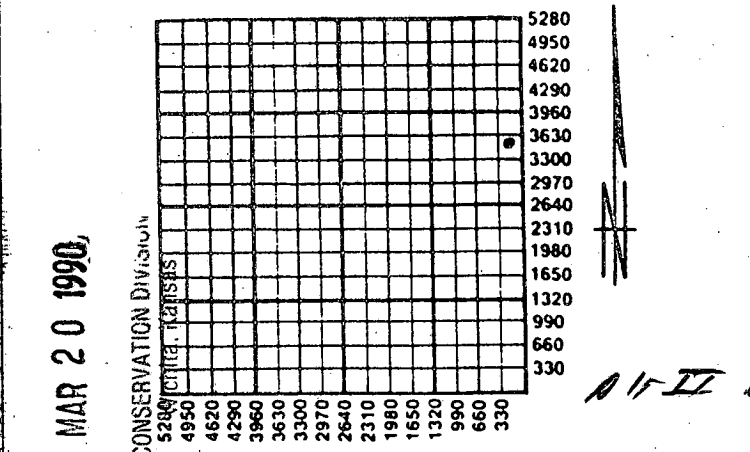
Comp. Date _____ Old Total Depth _____

Drilling Method:

Mud Rotary Air Rotary Cable

01-23-90 02-04-90 2-5-90

Spud Date Date Reached TD Completion Date



Amount of Surface Pipe Set and Cemented at 310.63' 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.

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 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 drillers time log 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. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

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 Steve Brackeen

Title District Foreman Date 3/9/90

Subscribed and sworn to before me this 3rd day of March, 19 90.

Notary Public Patricia Schultz

Date Commission Expires _____
NOTARY PUBLIC - State of Kansas
PATRICIA SCHULTZ
My Appt. Exp. 1-29-93

K.C.C. OFFICE USE ONLY

Letter of Confidentiality Attached
 Wireline Log Received
 Drillers Timelog Received

Distribution

KCC SWD/Rep NGPA
 KGS Plug Other
 (Specify)

SIDE TWO

Operator Name National Cooperative Refinery Assn Lease Name Hattendorf Well # 1
 Sec. 34 Twp. 19S Rge. 34 East County Scott 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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Attach Additional Sheets.) Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy.)	<p align="center">Formation Description</p> <input type="checkbox"/> Log <input type="checkbox"/> Sample Name _____ Top _____ Bottom _____
<p>SEE ATTACHMENTS</p>	

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
Surface	12 1/4"	8 5/8"	24#	310.63'	60/40 poz	250	2% gel, 3% cc
PERFORATION RECORD				Acid, Fracture, Shot, Cement Squeeze Record			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)			Depth
TUBING RECORD							
Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No				
Date of First Production	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)						
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity		

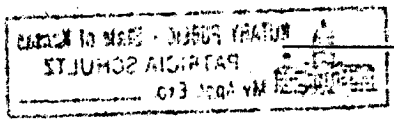
Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION

Open Hole Perforation Dually Completed Commingled

Other (Specify) _____

Production Interval _____



HATTENDORF No. 1

15-171-20403-00-00

FORMATION TOPS

Formation	Sample Top	Log Top	Subsea
Base Stone Corral	2276	2272	775
Herrington	2694	2690	357
Krider	2724	2722	325
Winfield		2766	281
Towanda		2827	220
Ft. Riley		2865	182
Werford		2990	57
Concil Grove		3015	31
Funston		3037	10
Grouve		3058	-11
Bader		3124	-77
Neva		3180	-133
Red Eagle		3250	-203
Foraker		3311	-264
Woodsiding		3359	-312
Tarkio		3518	-471
Howard		3632	-585
Topeka		3669	-622
Heebner	3926	3933	-886
Toronto		3945	-898
Lansing	3976	3974	-927
Base K. C.	4440	4440	-1393
Marmaton	4460	4467	-1420
Cherokee	4590	4590	-1543
Morrow	4770	4759	-1712
Morrow Sandstone	4808	4807	-1760
Mississippian	4846	4858	-1811

RECEIVED
STATE OF KANSAS
MAR 20 1980
CONSERVATION DIVISION
Wichita, Kansas

HATTENDORF No. 1

15-171-20403-00-00

	D.S.T. #1
Formation	Chase Group
Interval	2825-2927
Testing Company	Trilobite Testing Co.
Tester	Rod Steinbrink
Type	Bottom hole conventional test with no water cushion. Used two packers. Down hole choke was 3/4".
Initial Flow	2115-2125hrs Open with weak surface blow. Built to 2" in 10min
Initial Shut In	2125-2155hrs Blow died in 18min
Final Flow	2155-2255hrs Open with weak surface blow. Built to 2" and held
Final Shut In	2255-0155hrs Blow died in 22min
Recovery	90' water cut mud
Chart Depth	PRESSURES 2830
Initial Hydrostatic	1362
Initial Flow	78-78
Intital Shut in	695
Final Flow	90-112
Final Shut In	695
Final Hydrostatic	1328
Sampler Chamber	3200cc mud 300cc filtrate 7000ppm cl at 60psi
Bottom Hole Temp.	102°F

STAT

MAR 20 1990

CONSERVATION DIVISION
Wichita, Kansas

HATTENDORF No. 1

15-171-20403-00-00

D.S.T. #2

Formation	Topeka
Interval	3890-3940
Testing Company	Trilobite TEsting Co.
Tester	Rod Steinbrink
Type	Bottom hole conventional test with no water cushion. Used two packers. Down hole choke was 3/4"
Initial Flow	1048-1058hrs Open with 1" blow. Built to 18" in 7min
Initial Shut In	1058-1128hrs Weak surface throughout
Final Flow	1128-1228hrs Open with surface blow. Built to 5oz on a 1/8" choke in 15min. Dropped to 1" in 60min
Final Shut In	1228-1428hrs Blow died immediately
Recovery	945' of salt 58000ppm CL
Chart Depth	PRESSURES 3935
Initial Hydrostatic	1980
Initial Flow	78-146
Initial Shut In	1040
Final Flow	180-450
Final Shut In	1051
Final Hydrostatic	1892
Bottom Hole Temp.	112°F
Sampler Chamber	3500cc salt water at 50psi 58000ppm

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CONSERVATION DIVISION
Wichita, Kansas

HATTENDORF No.1

15-171-20403-00-00

D.S.T. #3

Formation	Marmaton
Interval	4540-4589
Testing Company	Trilobite Testing Co.
Tester	Rod Steinbrink
Type	Bottom hole conventional test with no water cushion. Used two packers. Down hole choke was 3/4".
Initial Flow	1542-1552hrs Open with 2" blow. Built to 18" in 4min
Initial Shut In	1552-1622hrs Weak blow throughout
Final Flow	1622-1722hrs Open with strong blow. Built to 8oz in 30min. Dropped to 7oz in 60min on 1/8" choke
Final Shut In	1722-1922hrs Blow died quickly
Recovery	1400 salt water with trace oil 46000ppm Cl
Chart Depth	4584
Initial Hydrostatic	2368
Initial Flow	90-202
Initial Shut In	1184
Final Flow	259-640
Final Shut in	1173
Final Hydrostatic	2280
Sample Chamber	3500cc salt water at 100psi 50000ppm Cl
Bottom Hole Temp.	115°F

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Wichita, Kansas

HATTENDORF No. 1

15-171-20403-00-00

D.S.T. #4	
Formation	Morrow
Interval	4790-4806
Testing Company	Trilobite Testing Co.
Tester	Rod Steinbrink
Type	Bottom hole conventional test with no water cushion. Used two packers. Down hole choke was 3/4"
	Misrun

SEARCHED
SERIALIZED

MAR 20 1990

CONSERVATION DIVISION
Wichita, Kansas

HATTENDORF No. 1

15-171-20403-00-00

D.S.T. #5	
Formation	Morrow
Interval	4746-4806
Testing Company	Trilobite Testing Co.
Tester	Rod Steinbrink
Type	Bottom hole conventional test with no water cushion. Used two packers. Down hole choke was 3/4"
Initial Flow	0730-0740hrs Weak surface blow throughout
Initial Shut In	0740-0810hrs Dead
Final Flow	0810-0910hrs Dead
Final Shut In	0910-1210hrs Dead
	PRESSURES
Chart Depth	4796
Initial Hydrostatic	2417
Initial Flow	23-23
Initial Shut In	70
Final Flow	23-23
Final Shut In	70
Final Hydrostatic	2382
Sample Chamber	3500cc mud
Pipe recovery	10' mud
Bottom Hole Temp.	115°F

MAR 20 1990

CONSERVATION DIVISION
Wichita, Kansas

ORIGINAL



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

INVOICE

HALLIBURTON SERVICES

A Halliburton Company

INVOICE NO.	DATE
908211	01/23/1990

WELL LEASE NO./PLANT NAME	WELL/PLANT LOCATION	STATE	WELL/PLANT OWNER
HATTENDORF 1	SCOTT	KS	SAME
SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	TICKET DATE
755 CITY	ABERCROMBIE	CEMENT SURFACE CASING	01/23/1990
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER
622920	TOM BERGIN		
		SHIPPED VIA	FILE NO.
		COMPANY TRUCK	89389

NATIONAL COOPERATIVE
REFINERY ASSOCIATION
6000 W. 10TH
GREAT BEND, KS 67530

DIRECT CORRESPONDENCE TO:
SUITE 600
COLORADO DERBY BUILDING
WICHITA, KS 67202-0000

RECEIVED TO
FEB 03 1990
DATA PROCESSING

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
000-117	MILEAGE	71	MI	2.20	156.20
		1	UNT		
001-016	CEMENTING CASING	311	FT	399.40	399.40
		1	UNT		
030-503	CMTG PLUG LA-11,CP-1,CP-3, TOP	8 5/8	IN	59.00	59.00
		1	EA		
40	CENTRALIZER 8-5/8" MODEL S-4	1	EA	53.00	53.00
807.93059					
24A	INSERT FLOAT VALVE - 8 5/8" 8RD	1	EA	171.00	171.00
815.19502					
27	FILL-UP UNIT 7"- 8 5/8"	1	EA	29.00	29.00
815.19415					
504-308	STANDARD CEMENT	150	SK	5.45	817.50
506-105	POZMIX A	100	SK	2.88	288.00
506-121	HALLIBURTON-GEL 2%	4	SK	.00	N/C
509-406	ANHYDROUS CALCIUM CHLORIDE	6	SK	26.25	157.50
500-207	BULK SERVICE CHARGE	262	CFT	.95	248.90
500-306	MILEAGE CMTG MAT DEL OR RETURN	794.490	TMI	.70	556.14
INVOICE SUBTOTAL					2,935.64
DISCOUNT - (BID)					587.12
INVOICE BID AMOUNT					2,348.52
*-KANSAS STATE SALES TAX					78.92
INVOICE TOTAL - PLEASE PAY THIS AMOUNT					\$2,427.44

Checked by [Signature]
Date 2-5-90
Approved as to current month operating
or drilling invoicing only.
[Signature]
Production Department

MAR 20 1990
Wichita, KS APPROVED
BY STEVE BRACKEEN [Signature]
DATE 1-30-90
AFE# 1-0-000

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND ATTORNEY FEES IN THE AMOUNT OF 20% OF THE AMOUNT OF THE UNPAID ACCOUNT.

ORIGINAL



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

INVOICE

HALLIBURTON SERVICES

A Halliburton Company

INVOICE NO.	DATE
835925	02/05/1990

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		STATE	WELL/PLANT OWNER	
HATTENDORT 1		SCOTT		KS	SAME	
SERVICE LOCATION		CONTRACTOR	JOB PURPOSE		TICKET DATE	
		ADERCROMBIE	PLUG TO ABANDON		02/05/1990	
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.	
622920	GARY L. CLARK			COMPANY TRUCK	90099	

TRANSMITTED TO
FEB 19 1990
DATA PROCESSING

NATIONAL COOPERATIVE
REFINERY ASSOCIATION
CRUDE OIL DIV HEADQUARTERS
1775 SHERMAN ST STE 3000
DENVER, CO 80203

DIRECT CORRESPONDENCE TO:
SUITE 600
COLORADO DERBY BUILDING
WICHITA, KS 67202-0000

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
000-117	MILEAGE	71	MI	2.20	156.20
		1	UNT		
090-910	MISCELLANEOUS PUMPING JOB	1	TRK	370.00	370.00
030-503	CMTG PLUG LA-11,CP-1,CP-3,TOP	8 5/8	IN	59.00	59.00
		1	EA		
504-308	STANDARD CEMENT	141	SK	5.45	768.45
506-105	POZMIX A	94	SK	2.88	270.72
506-121	HALLIBURTON-GEL 2%	4	SK	.00	N/C
507-277	HALLIBURTON-GEL BENTONITE	8	SK	13.00	104.00
507-210	FLOCELE	25	LB	1.23	30.75
500-207	BULK SERVICE CHARGE	235	CFT	.95	223.25
500-306	MILEAGE CMTG MAT DEL OR RETURN	760.943	TMI	.70	532.66
INVOICE SUBTOTAL					2,515.03
DISCOUNT-(BID)					503.00-
INVOICE BID AMOUNT					2,012.03
*-KANSAS STATE SALES TAX					83.51
INVOICE TOTAL - PLEASE PAY THIS AMOUNT					\$2,095.54

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STATE

MAR 20 1990

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CONSERVATION
Wichita, Kansas

FEB 12 1990 MAR 20 1990

OFFICE MGR. CONSERVATION DIVISION
Wichita, Kansas

Checked by _____
Date _____
Approved as to current month operating
or drilling invoicing only.
Maria B...
Production Department

10-062

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND ATTORNEY FEES IN THE AMOUNT OF 20% OF THE AMOUNT OF THE UNPAID ACCOUNT.