

ORIGINAL

KCC

RELEASED

SEP 17

OCT 07 1992

SIDE ONE

CONFIDENTIAL

FROM CONFIDENTIAL

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

API NO. 15-023-20,510-00-0010-792

County CHEYENNE  
APP NW NE Sec. 4 Twp. 3S Rge. 39 X East West

Operator: License # 03628

4620 Ft. North from Southeast Corner of Section

Name: HARVEST ENERGY COMPANY

1780 Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

Address P.O. BOX 620006

Lease Name SHERLOCK Well # 2-4

LITTLETON, CO 80162

Field Name BIRD CITY

City/State/Zip

Producing Formation NIORARA (BEECHER ISLAND)

Purchaser: WILLIAMS GAS MARKETING COMPANY

Elevation: Ground 3371 KB 3376

Operator Contact Person: ALAN L. NACKERUD

Total Depth 1356 PBDT 1354

Phone (303) 972-8750

Contractor: Name: CRANDALL DRILLING & TRENCHING, INC.

License: 30480

Wellsite Geologist: ALAN L. NACKERUD

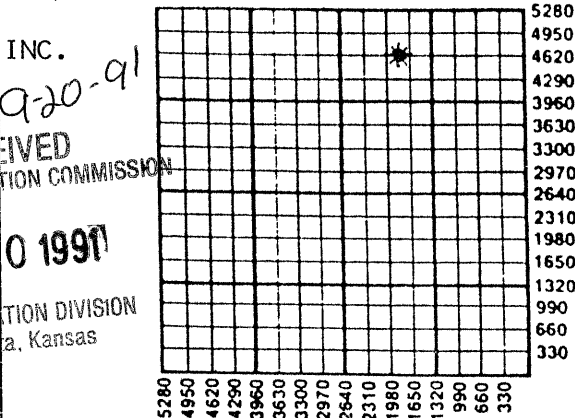
Designate Type of Completion

New Well  Re-Entry  Workover

Oil  SWD  Temp. Abd.

Gas  Inj  Delayed Comp.

Dry  Other (Core, Water Supply, etc.)



Amount of Surface Pipe Set and Cemented at 256 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.

If **OWNO**: old well info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_

Drilling Method:

Mud Rotary  Air Rotary  Cable

6/12/91 6/14/91 7/11/91

Spud Date Date Reached TD Completion Date

**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 [Signature]

Title OWNER Date 9/17/91

Subscribed and sworn to before me this 7th day of September, 1991.

Notary Public [Signature]

Date Commission Expires My Commission expires July 27, 1992

8441 W. Bowles Ave.  
Littleton, CO 80123

**K.C.C. OFFICE USE ONLY**  
F  Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Drillers Timelog Received  
  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other  
(Specify)

P1

**SIDE TWO**

Operator Name HARVEST ENERGY COMPANY Lease Name SHERLOCK Well # 2-4  
 Sec. 4 Twp. 3S Rge. 39  East County CHEYENNE  
 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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Attach Additional Sheets.)  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy.)	<p style="text-align: center;"><b>Formation Description</b></p> <p style="text-align: center;"><input checked="" type="checkbox"/> Log <input type="checkbox"/> Sample</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%; text-align: center;">Name</td> <td style="width:20%; text-align: center;">Top</td> <td style="width:20%; text-align: center;">Bottom</td> </tr> <tr> <td style="text-align: center;">NIOBRARA</td> <td style="text-align: center;">1248</td> <td style="text-align: center;">-</td> </tr> </table>	Name	Top	Bottom	NIOBRARA	1248	-
Name	Top	Bottom					
NIOBRARA	1248	-					

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	9 7/8	7	20	256	IDEAL	70	-
PRODUCTION	6 1/4	4 1/2	9.5	1354	50/50POZ	75	2% GEL
<b>PERFORATION RECORD</b>				<b>Acid, Fracture, Shot, Cement Squeeze Record</b>			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)			Depth
2	1248-50, 1254-56, 1260-62, 1270-84			49,000# 20/40 SAND, 45,000# 10/20 SAND, 60 TONS CO2			SAME
<b>TUBING RECORD</b>				Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
N/A		Size	Set At	Packer At			
Date of First Production 7/14/91		Producing Method <input checked="" 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	
			91				

**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 1248-1284



P.O. Box 4442  
Houston, Texas 77210

# ORIGINAL CEMENTING LOG

RELEASED  
STAGE NO.  
0010 7 1993

Date 6-14-91 District Oakley Ticket No. 609903  
 Company Harcourt Energy Rig Cranford Well  
 Lease Skedack Well No. 2-4  
 County Cherokee State KS  
 Location 41/4 Sec 5N 1E 9in Field \_\_\_\_\_

CEMENT DATA  
 Spacer Type SEP 1-7 FROM CONFIDENTIAL  
 Amt. \_\_\_\_\_ Skts Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG  
CONFIDENTIAL

CASING DATA  
 Surface  Intermediate  Production  Liner   
 Size 4 1/2 Type \_\_\_\_\_ Weight 9.5 Collar \_\_\_\_\_

LEAD: Pump Time \_\_\_\_\_ hrs. Type 50/50/2  
28.66 Excess 30  
 Amt. 75 Skts Yield 1.23 ft<sup>3</sup>/sk Density 14.4 PPG

TAIL: Pump Time \_\_\_\_\_ hrs. Type \_\_\_\_\_  
 Excess \_\_\_\_\_  
 Amt. \_\_\_\_\_ Skts Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG

Casing Depths: Top \_\_\_\_\_ Bottom \_\_\_\_\_

WATER: Lead \_\_\_\_\_ gals/sk Tail \_\_\_\_\_ gals/sk Total \_\_\_\_\_ Bbls

Pump Trucks Used 6459  
 Bulk Equip. 2037

Drill Pipe: Size \_\_\_\_\_ Weight \_\_\_\_\_ Collars \_\_\_\_\_  
 Open Hole: Size \_\_\_\_\_ T.D. \_\_\_\_\_ ft. P.B. to \_\_\_\_\_ ft.

Float Equip. Manufacturer Baker  
 Shoe Type Cement Depth 1349

CAPACITY FACTORS  
 Casing: Bbls/Lin. ft. .0163 Lin. ft./Bbl \_\_\_\_\_  
 Open Holes: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl \_\_\_\_\_  
 Drill Pipe: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl \_\_\_\_\_  
 Annulus: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl \_\_\_\_\_  
 Perforations: Fluid \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Amt. \_\_\_\_\_

Float Type Latex Down Plug Depth 1329  
 Centralizers: Quantity 6 Plugs Top \_\_\_\_\_ Btm \_\_\_\_\_  
 Stage Collars \_\_\_\_\_  
 Special Equip \_\_\_\_\_  
 Disp. Fluid Type H<sub>2</sub>O Amt. 267 Bbls. Weight 84 PPG  
 Mud Type \_\_\_\_\_ Weight \_\_\_\_\_ PPG

COMPANY REPRESENTATIVE \_\_\_\_\_ CEMENTER Fitz

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls/Min	
9:00						On Location & Set up Tubs Prigah Safety Meeting
2:30						Break Circulation mix 300gal. Mix Sure of mix Cement Wash out pump lines Release plug & Displace to Collar Plug Down Tub finished
3:00						
3:20						

RECEIVED  
STATE CORP. & MIN. COMMISSION

SEP 20 1991

*[Signature]*  
*[Signature]*