

8-14-23E

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

Operator: License # 4591
Name FREDRICK HARTWIG
Address 5204 Pawnee Dr.
City/State/Zip Shawnee, Ks.

Purchaser Cottonwood Joint Venture

Operator Contact Person Susie Glaze
Phone 913-782-2476

Contractor: License # 5885
Name A.G. Glaze Delg. Co.

Onsite Geologist N/A
Phone none

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD Temp Abd
 Gas Inj Delayed Comp.
 Dry Other (Core, Water Supply etc.)
If **OWHO**: old well info as follows:
Operator
Well Name n/a
Comp. Date Old Total Depth.....

WELL HISTORY

Drilling Method:
 Mud Rotary Air Rotary Cable
11-12-86 11-13-86 11-15-86
Spud Date Date Reached TD Completion Date
882 n/a
Total Depth PBTD

Amount of Surface Pipe Set and Cemented at 21 feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set n/a feet
If alternate 2 completion, cement circulated from 0 feet depth to 21 w/ 5 SX cmt
Cement Company Name A.G. Glaze Delg. Co.
Invoice # Co. INC 4392

API NO. 15-091-21,632

County Johnson

NE SE SE Sec 8 Twp N 23 Rge 23 East West
990 Ft North from Southeast Corner of Section
330 Ft West from Southeast Corner of Section

(Note: Locate well in section plat below)

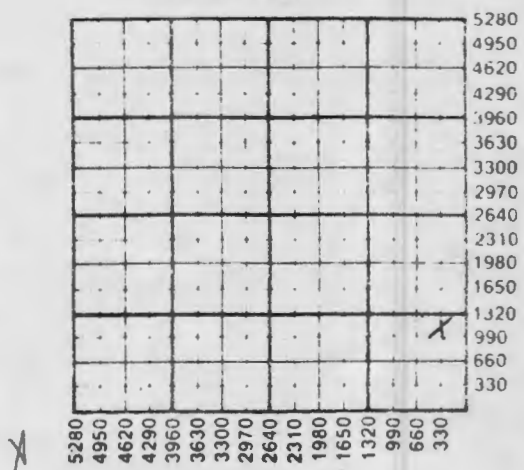
Lease Name Hartwig Well # #2

Field Name Hartwig

Producing Formation Bartlesville

Elevation: Ground KB.....

Section Plat



WATER SUPPLY INFORMATION

Disposition of Produced Water: Disposal
Docket # Repressuring

Questions on this portion of the ACO-1 call:

Water Resources Board (913) 296-3717

Source of Water:
Division of Water Resources Permit # n/a

Groundwater Ft North from Southeast Corner (Well) Ft West from Southeast Corner of Sec n/a Twp n/a Rge n/a East West

Surface Water Ft North from Southeast Corner (Stream, pond etc) Ft West from Southeast Corner Sec Twp Rge East West

Other (explain)
(purchased from city, R.W.D. #)

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. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

SIDE TWO

Operator Name FREDRICK HARTWIG Lease Name Hartwig Well # #2

Sec. 8 Twp. 14 Rge. 23 East West County Johnson

WELL LOG

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
Samples Sent to Geological Survey Yes No
Cores Taken Yes No

Formation Description
 Log Sample

Name Top Bottom
Bartlesville 795 - 860

	Oil	Gas	Water	Gas-Oil Ratio	Gravity
Estimated Production Per 24 Hours	Bbls	<u>40,000</u> MCF	Bbls	CFPB	

METHOD OF COMPLETION

Production Interval

Disposition of gas: Vented Solid Open Hole Perforation Other (Specify)

CASING RECORD New 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
<u>Surface</u>	<u>8"</u>	<u>7"</u>	<u>91.60</u>	<u>21</u>	<u>Portland</u>	<u>5</u>	<u>Water</u>
<u>Prod. Pipe</u>	<u>6"</u>	<u>2 7/8"</u>		<u>882'</u>	<u>Paznik</u>	<u>1.74</u>	<u>2% Gel</u>

PERFORATION RECORD

Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth

Shots Per Foot	Specify Footage of Each Interval Perforated	Depth
<u>2</u>	<u>820 - 10 - 840</u>	<u>840</u>
	<u>518 - 1 1/16</u>	<u>Fract.</u>

TUBING RECORD Size Set At Packer at Liner Run Yes No

Date of First Production 2-20-01 Producing Method Flowing Pumping Gas Lift Other (explain).....

A. G. Glaze Drilling Co., Inc.

BEST COPY AVAILABLE

WELL LOG

8-14-23E

WELL OWNER Hartwig

API # _____

LEASE NAME Hartwig

DATE Dec. 6, 1985

WELL # #2 Page #1

DRILLER Steve Glaze

Thickness of Strata	Formation	Total Depth	Comment	# of Joints In	Time	# of Joints Out
21	Surface	21				
9	hime	30				
9	Shale	39				
6	hime	45				
9	Shale	54				
19	hime	73				
12	Shale	85				
1	hime	86				
2	Shale	88				
16	hime	104				
4	Shale	108				
22	hime	130				
54	Shale	184				
4	hime	188				
8	Shale	196				
5	hime	201				
1	Shale	202				
2	hime	204				
21	Shale	225				
5	hime	230				
7	Shale	237				
7	hime	244				
35	Shale	279				
1	hime	280				
10	Shale	290				
9	hime	299				
1	Shale	300	water bet			
15	hime	315				
2	Shale	317				
2	Blk Slate	319				
2	Shale	321				
23	hime	344	Bethany Sells			

KANSAS WILDLIFE SURVEY
WICHITA BRANCH
FEB 20 1987

STATE CORPORATION COMMISSION

FEB 1 1987

CONSERVATION DIVISION
Wichita, Kansas

SEP 22

A. G. Glaze Drilling Co., Inc.

WELL LOG

WELL OWNER Hartwig
 LEASE NAME Hartwig
 WELL # #2 Page 2

API # _____
 DATE Dec 6, 1985
 DRILLER Mike Glaze

Thickness of Strata	Formation	Total Depth	Comment	# of Joints In	Time	# of Joints Out
2	Shale	346				
3	Blk Slate	349				
3	lime	352				
5	Shale	357				
7	lime	364	Hertha			
9	Shale	373				
6	sandstone	379	Test - 0 -			
15	Shale	394				
6	sandstone	400	Test - 0 -			
121	shale	521				
3	Blk Slate	524				
21	Shale	542				
3	lime	545				
4	Shale	549				
3	lime	552	stop @ 550			
5	Shale	557				
8	lime	565				
20	Shale	585				
4	Blk Slate	589				
10	Shale	599				
4	lime	603				
5	Shale	608				
3	Red Bed	611				
11	Shale	622				
3	Blk Slate	625				
20	Shale	645				
9	sandstone	654	Test - 0 -			
59	Shale	713				
6	sandstone	719	Test - 0 -			
14	Shale	733				
2	Blk Slate	735				
4	Shale	739				
1	lime	740				
1	Shale	741				

LAND SURVEY
 FEB 20 1987

A. G. Glaze Drilling Co., Inc.

BEST COPY AVAILABLE

WELL LOG

8-14-23E PI

WELL OWNER Hartwig

API # _____

LEASE NAME Hartwig

DATE Dec. 6, 1985

WELL # #2 Page #3

DRILLER Glaze

Thickness of Strata	Formation	Total Depth	Comment	# of Joints In	Time	# of Joints Out
1	Coal	742				
19	Shale	761				
1	Coal	762				
3	Shale	765				
3	Sandstone	768				
19	Shale	787	slight gas show 820			
2	Blk Slate	789	slight increase at 814' of 80,000			
6	Shale	795	Test 820' 363,000 Test 830			
65	Sandstone	860	Emptied U Tube 6" above			
22	Sandy shale	882	T.D. Test 840' 1,158,000 Merc.			
			Test 850' " "			
			Test 860' " "			
			↑ Killed ↑			

NOV 10 1987