

AMENDED

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

145-20470-0001

API NO. 15-.....
County..... Pawnee
NE NW 27 22S Rge. 15 East
NE NE NW 27 22S Rge. 15 X West

Operator: License # 5163
Name White Hawk Oil Company
Address P.O. Box 1150
City/State/Zip Great Bend, Kansas 67530

4950 Ft North from Southeast Corner of Section
4040 Ft West from Southeast Corner of Section
(Note: Locate well in section plat below)

Purchaser..... Texaco

Lease Name Sutton Well # 5
(formerly Smith-Sutton Gas Well #1)
Field Name Dunes

Operator Contact Person Robert Lundberg
Phone

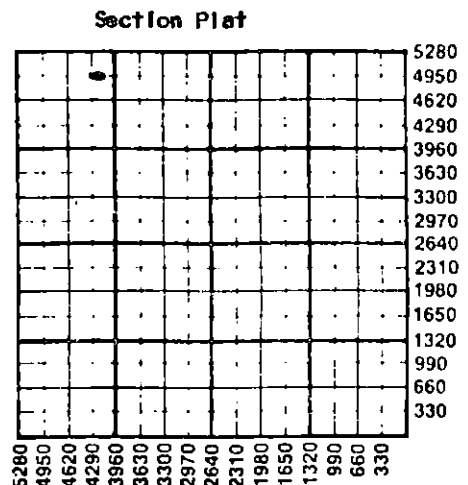
Producing Formation..... Arbuckle

Elevation: Ground.....KB..... 1993

Contractor: License # 5122
Name Woodman-Jannitti Drilling Co.
Wellsite Geologist Lewis Chubb
Phone.....

Designate Type of Completion
___ New Well ___ Re-Entry X Workover
X Oil ___ SWD ___ Temp Abd
___ Gas ___ Inj ___ Delayed Comp.
___ Dry ___ Other (Core, Water Supply etc.)

If ~~OWNO~~: old well info as follows:
Operator White Hawk Oil Company
Well Name Smith-Sutton Gas Unit #1
Comp. Date 7-7-77 Old Total Depth.....



WATER SUPPLY INFORMATION

Disposition of Produced Water: X Disposal
Docket # C-4033 ___ Repressuring

WELL HISTORY

Drilling Method:
X Mud Rotary ___ Air Rotary ___ Cable
6-12-77 7-7-77
Spud Date Date Reached TD Completion Date
*3961
Total Depth PBTD
246' 8-5/8" / w 300sks 50-50 pozmix
Amount of Surface Pipe Set and Cemented at 254 feet
Multiple Stage Cementing Collar Used? X Yes ___ No
If yes, show depth set 954 feet
If alternate 2 completion, cement circulated
from 954 feet depth to surface 300
Cement Company Name Halliburton
Invoice # 252530

Questions on this portion of the ACO-1 call:
Water Resources Board (913) 296-3717
Source of Water:
Division of Water Resources Permit #.....
___ Groundwater.....Ft North from Southeast Corner
(Well)Ft West from Southeast Corner of
Sec Twp Rge ___ 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. #)

*Orig. TD 2951'-Drilled 10' deeper in Arbuckle.

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.

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 Robert Lundberg
Title Production Superintendent Date 1-15-88

K.C.C. OFFICE USE ONLY
F ___ Letter of Confidentiality Attached
C ___ Wireline Log Received
C ___ Drillers Time Log Received
Distribution
X KCC ___ SWD/Rep ___ NGPA
X KCS ___ Plug ___ Other
(Specify)

Subscribed and sworn to before me this 15th day of January 1988.
Notary Public Mildred Carter
Date Commission Expires 5-11-91

1-20-88 CONSERVATION DIVISION
Wichita, Kansas

Sec. 27 Imp. Page 15

SIDE TWO

Operator Name White Hawk Oil Company Lease Name Sutton Well # 5

Sec. 27 Twp. 22S Rge. 15 East West County Pawnee

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

See attached

See attached

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	13 3/4"	8 5/8"	28#	255	50-50 port	300	2% Gel
Long String	7 7/8"	5 1/2"	14#	3949'	Howcolite	400	10% Gilsonite 18% salt
PERFORATION RECORD				Acid, Fracture, Shot, Cement Squeeze Record			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)		Depth	
	2949 - 2956 & 2989 *						
* Squeezed off perforations and depleted Howard formation of old well. Now producing open hole Arbuckle							
TUBING RECORD		Size 2 1/2"	Set At 3,958	Packer at	Liner Run	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First Production	Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (explain).....						
Estimated Production Per 24 Hours	Oil	Gas	Water	Gas-Oil Ratio	Gravity		
	11 Bbls	0 MCF	315 Bbls	CFPB			

METHOD OF COMPLETION

Production Interval

Disposition of gas: Vented Open Hole Perforation
 Sold Other (Specify)
 Used on Lease Dually Completed Commingled

K. T. WOODMAN
REG. PHONE 733-0418
OFF. PHONE 265-7650
WICHITA, KANSAS

15.145-20470-0000

D. J. IANNITTI
PHONE 792-2921
GREAT BEND, KANSAS

WOODMAN & IANNITTI DRILLING COMPANY

Rotary Drilling Contractors

1008 DOUGLAS BUILDING
104 S. BROADWAY
WICHITA, KANSAS 67202

June 27, 1977

Company;	White Hawk Oil Co.
Farm;	Smith Sutton Gas Unit #1
Location;	250' E of NE NW NW
Section;	27-22S-15W
County;	Pawnee
Contractor;	Woodman & Iannitti Drilling Co.
Comm;	June 13, 1977
Compl;	June 22, 1977
Total Depth	3951'
Casing;	8 5/8 @ 255' with 300 sx. 5 1/2 @ 3949 1/2 with 400 sx.

Figures Indicate Bottom Of Formations:

20	Clay
110	Sand
255	Blue Shale
340	Shale
935	Red Bed
967	Anhy
1500	Shale
1700	Shale
2305	Lime & Shale
2735	Lime & Shale
2935	Shale & Lime
3185	Lime & Shale
3310	Lime & Shale
3430	Lime
3525	Lime & Shale
3785	Lime
3951	Lime

I certify the above to be a true and correct copy of the driller's log to the best of my knowledge and belief.

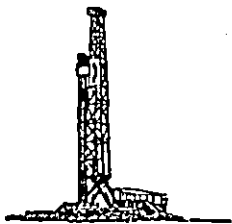
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STATE CORPORATION CO. Woodman & Iannitti Drilling Co.

JAN 20 1988

K. T. Woodman
K. T. Woodman

CONSERVATION DIVISION
Wichita, Kansas

JUN 28 1977



LEWIS O. CHUBB
Geologist - Petroleum - Geophysicist
1507 Van Fleet P. O. Box 854
GREAT BEND, KANSAS 67530

Phone (316) 793-6749

June 23, 1977

White Hawk Oil Company
P. O. Box 1150
Great Bend, Kansas 67530

RE: White Hawk Oil Co.
Smith-Sutton Gas, Unit #1
275 E of NE NW NW
Section 27-22s-15w
Pawnee County, Kansas

Gentlemen:

The following is the geological report for the above captioned well:

CONTRACTOR:	Woodman-Iannitti Drilling
DATE COMMENCED:	June 13, 1977
DATE COMPLETED:	June 22, 1977
ROTARY TOTAL DEPTH:	3951'
SURFACE CASING:	Set 8 5/8 @ 255'
PRODUCTION CASING:	Set 5 1/2 @ 3949'
ELEVATIONS:	1993'KB; 1991'DF; 1988'GL
DEPTH MEASURED FROM:	1993' KB
DRILLING TIME PLOTTED:	1800' to 3951'
SAMPLES EXAMINED:	1900' to 3951'
DST (Miller):	#1 Tarkio Sand #2 Howard Lime
LOG: Petro-Log	Radiation Guard Log Compensated Density Log
COMPLETION:	Production casing was set to further test the Howard-Tarkio and Arbuckle formations.

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FORMATION DATA

<u>FORMATION</u>	<u>DEPTH (Log)</u>	<u>SUBSEA</u>
Anhydrite	950'	1043'
Anhydrite Base	973'	1020'
Herrington	1952'	41'
Krider	1972'	21'
Winfield	2000'	-7'
Towanda	2060'	-67'
Ft. Riley	2099'	-106'
Base Florence	2194'	-201'
Wereford	2245'	-252'
Neva	2447'	-454'
Red Eagle	2507'	-514'
Wabaunsee	2687'	-694'
Tarkio Lime	2816'	-823'
Sand	2841-54'	-848'
Elmont	2878'	-885'
Howard	2948'	-955'
Severy	2996'	-1003'
Topeka	3021'	-1028'
Heebner	3392'	-1399'
Toronto	3408'	-1415'
Douglas	3427'	-1434'
Brown Lime	3514'	-1521'
Lansing	3525'	-1532'
Base KC	3755'	-1762'
Conglomerate	3780'	-1787'
Viola	3849'	-1856'
Simpson	3908'	-1915'
Arbuckle	3946'	-1953'
Log T.D.	3947'	-1954'
R. T. D.	3951'	-1958'

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STRUCTURAL POSITION IN RELATION TO NEARBY TESTS

<u>FORMATION</u>	<u>SMITH SUTTON 60 #1</u>	<u>SMITH #3</u>	<u>SUTTON #2</u>
Winfield	-7'	-6'	
Ft. Riley	-106'	-110'	
Neva	-454'	-457'	
Tarkio	-823'	-822'	
Howard	-955'	-954'	
Topeka	-1028'	-1029'	
Heebner	-1399'	-1401'	-1399'
Brown Lime	-1521'	-1525'	-1519'
Lansing	-1532'	-1536'	-1529'
Base K. C.	-1762'	-1767'	-1759'
Viola	-1856'	-1872'	-1881'
Simpson	-1915'	-1931'	-1911'
Arbuckle	-1953'	-1974'	-1956'
R. T. D. (Driller)	-1958'	-1992'	
Log T. D.	-1954'		

ZONES OF INTEREST

<u>FORMATION</u>	<u>DEPTH</u>	<u>DESCRIPTION</u>
Herrington	1952-1972	Limestone, tan, fine crystalline to dense, dolomitic, trace sucrosic porosity. No show. Log: 14% porosity, 52% salt water. No show on gas log.
Krider	1972-1989	Limestone, gray, fine crystalline to dense, dolomitic, sucrosic porosity. No show. No show on gas log.
Winfield	2000-2020	Dolomite, tan, fine grained, sucrosic with tan to gray chert. Sucrosic porosity. Log: 12-15% porosity, 56-71% salt water. No show on gas log.
Towanda	2060-2069	Limestone, tan to gray, fine crystalline, sucrosic dolomitic cherty, sucrosic porosity. Log: 14% porosity, 49% salt water. Gas log - 8 to 10 units for short period, judged very thin.

ZONES OF INTEREST

<u>FORMATION</u>	<u>DEPTH</u>	<u>DESCRIPTION</u>
Ft. Riley	2099-2110	Limestone, gray, fine crystalline, oolitic, oolitic, dense matrix, poor permeability. Log: no value.
Florence	2156-2170	Limestone, tan, highly fossiliferous with good fossiliferous porosity. Log: 22% porosity, 63% salt water. Gas log - 10 units 3 minutes.
Crouse	2310-2315	Limestone, tan, cream, fossiliferous, partly chalky, good fossiliferous porosity. No show in spls. Log: 19% porosity, 39% salt water. Gas log - 10 units 2 minutes.
Neva	2447-2450	Limestone, white, fossiliferous, dense, calcitic - calcite veins. No show. Log no value.
Red Eagle	2506-2512	Limestone, tan, microoolitic to dense. No show. Log: 8% porosity, 58% salt water. No show gas log.
Tarkio Sand	2841-2854	Sandstone, gray, fine grained sub-angular to angular, micaceous, argillaceous shaley, show free gas. Log: 21 to 23% porosity, 41 to 43% salt water. Gas log 15 to 28 units.
DST #1	2838-2863	Strong blow GTS (4 Min.) REC.: 540' Gas cut mud 120' Gas cut water GAUGE: 242 (10) 195 (20) 169 (30) IFP: 224# 224# (30) ISIP: 996# (30) GAUGE: 319 (10) 242 (20) 195 (30) 169 (40) FFP: 264# 264# (40) FSIP: 797# (30) TEMP: 100° Tool slid 9' to bottom. Packers leaked while sliding.
Howard	2948-2960	Limestone, tan, buff, fine crystalline to granular chalky calcitic prob veins, possible fracture. Show free gas. Log: 10-19% porosity, 28-61% salt

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ZONES OF INTEREST

<u>FORMATION</u>	<u>DEPTH</u>	<u>DESCRIPTION</u>
Howard (Cont)	2948-2960	water. Gas log 22 to 56 units.
DST #2	2938-2967'	Strong blow GTS 3 Minutes. REC.: 65' Gas cut mud GAUGE: 220 (10) 283 (20) 319 (30) IFP: 132#-132# (30) ISIP: 1026# (30) GAUGE: 369 (10) 369 (20) 353 (30) FFP: 142-132 (30) FSIP: 1016 (30) TEMP: 88°
	2987-2996	Limestone, tan, fine crystalline, fossiliferous, good fossiliferous and vugular porosity. No show spls. Log: 12% porosity, 43-59% salt water. Gas log 100 units (trip gas?).
Douglas	3432-3450	Sandstone, gray, fine grained, sub-angular, micaceous, argillaceous, good porosity. No show. Log: 22% porosity, 78% salt water.
Lansing 'H'	3650-3654	Limestone, tan, oolitic with dense matrix, oolitic porosity, trace heavy oil and stain. Judged no value.
'J'	3694-3696	Limestone, tan, dense with trace oolitic and vuggy porosity. No show.
Viola	3862-3870	Chert, white, granular, slightly weathered with trace quartzitic sand, gilsonitic, judged no value.
Simpson Sand	3924-3928	Sandstone, tan, brown, medium grained, rounded sub-angular dense trace porosity. No show.
	3938-3946	Sandstone as above with trace free oil, odor, stain. No show. Gas log. Log: 8% porosity, 53% salt water.
Arbuckle	3946-3949	Dolomite tan, dense trace fine crystalline, trace stain, trace free oil, slight odor. TEST.

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SUMMARY

The subject well was under geological supervision from 1900' to 3951' RTD. A Dresser portable gas logging unit was installed and operating from 1900' to R.T.D.

Only two significant shows were noted and tested. A possible third zone, 2986-2994, was encountered about the time trip gas was recorded from Drill Stem Test #2. Good porosity was noted in this zone and possible gas production may be obtained from the top of this limestone.

No significant shows were noted in the Topeka - Toronto, Douglas, Lansing, Conglomerate or Viola.

A small show was noted in the thin Simpson Sand which occurs very near the top of the Arbuckle Dolomite.

Only a few feet of Arbuckle was cut and pipe cement in order to further test from open hole.

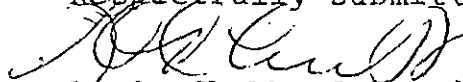
Petro-Log ran a Radiation Guard Log from T.D. to 1900'. A Compensated Density log was run from 3100' to 1900' in order to better calculate the shallow gas zones.

RECOMMENDATIONS

It is recommended that further testing of the following formation be made opposite perforations.

Howard	2987'-2989'
	2949'-2958'
Tarkio	2841'-2850'
Crouse	2308'-2310'

Respectfully submitted,


L. O. Chubb, Geologist

LOC;bst