SIDE ONE

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

S

API NO. 15-15-185-22,559-0000

County Stafford

SE SE NE Sec. 12 Twp. 22 Rge. 12 __ East X West

2970 Ft North from Southeast Corner of Section
330 Ft West from Southeast Corner of Section
(Note: Locate well in section plat below)

Operator: License # 6988
Name SMITH OIL OPERATIONS
Address P.O. Box 550
City/State/Zip Hutchinson, KS 67504

Lease Name Willinger "A" Well # 1

Purchaser Alpine Petroleum

Field Name MAX

Producing Formation Simpson

Operator Contact Person Dale Ohl
Phone (316) 663-6622

Elevation: Ground 1783 KB 1788

Contractor: License # 5929
Name Duke Drilling Co., Inc.

Wellsite Geologist Robert Lewellyn
Phone (316) 744-2567

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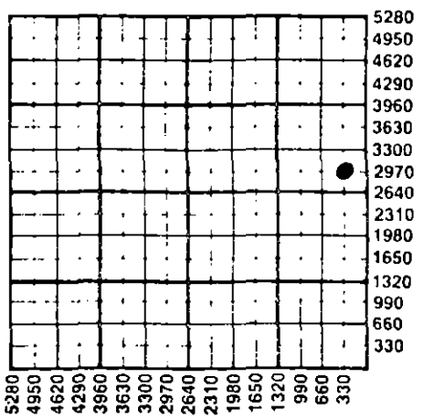
APR 13 1989
4-3-89
CONSERVATION DIVISION
Wichita, Kansas

Section Plat



Designate Type of Completion
X New Well __ Re-Entry __ Workover

X Oil __ SWD __ Temp Abd
__ Gas __ Inj __ Delayed Comp.
__ Dry __ Other (Core, Water Supply etc.)

If OWWO: old well info as follows:
Operator
Well Name
Comp. Date Old Total Depth

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 # T 88-592

X Groundwater 2970 Ft North from Southeast Corner
(Well) 330 Ft West from Southeast Corner of
Sec 12 Twp 22 Rge 12 __ East X 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. #)

WELL HISTORY

Drilling Method:
X Mud Rotary __ Air Rotary __ Cable

12-02-88	12-08-88	01-09-89
Spud Date	Date Reached TD	Completion Date
3625'	3597'	
Total Depth	PBTD	

Amount of Surface Pipe Set and Cemented at 303 feet
Multiple Stage Cementing Collar Used? __ Yes XX No
If yes, show depth set feet
If alternate 2 completion, cement circulated
from feet depth to w/ SX cmt
Cement Company Name
Invoice #

ALT I

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 Dale R. Ohl
Title Controller Date 3/30/89

Subscribed and sworn to before me this 30th day of March 19 89
Notary Public Lorene R. Kahler
Date Commission Expires August 26, 1989

NOTARY PUBLIC - State of Kansas
LORENE R. KAHLER
My Appt. Exp. 8-26-89

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)

4-3-89

Sec. 12 Twp. 22 Rge. 12 E

Form ACO-1 (5-86)

SIDE TWO

Operator Name SMITH OIL OPERATIONS Lease Name Willinger "A" Well # 1

Sec. 12 Twp. 22 Rge. 12 ☐ East ☒ West County Stafford

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

DST #1 - 3252-3299 LKC, 30/45/60/45, IHP 1635, IFP 58-58, ISIP 1094, FFP 70-82, FSIP 1036, FHP 1635. Recovered 135' Gas, 105' VSO&GCM. Weak building to strong blow thru test.

DST #2 - 3410-3481 LKC, 30/30/30/30, IHP 1727, IFP 82-82, ISIP 105, FFP 82-82, FSIP 94, FHP 1727. Recovered 20' mud with spots of oil on top. Very weak blow dead in 15 min.

DST #3 - 3518-3608 Simpson, 30/45/60/60, IHP 1854, IFP 105-235, ISIP 1151, FFP 282-424, FSIP 1059, FHP 1854. Recovered 1160 clean gassy oil. Strong blow thru test. Gas to surface in 45 min. on second opening, TSTM.

Formation Description

☒ Log ☐ Sample

Name	Top	DATUM
Anhydrite	534	(+1254)
Base Anhydrite	553	(+1235)
Howard	2672	(- 884)
Severy	2726	(- 938)
Topeka	2767	(- 979)
Heebner Shale	3066	(-1278)
Toronto Limestone	3083	(-1295)
Douglas Shale	3098	(-1310)
Brown Limestone	3198	(-1410)
Lansing-KS City	3223	(-1435)
Base Kansas City	3489	(-1701)
Viola	3499	(-1711)
Simpson Shale	3549	(-1761)
Simpson Sand	3576	(-1788)
ROTARY TOTAL DEPTH	3625	(-1837)

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
Surface	12¼"	8-5/8"	20#	303'	60/40 poz	175	2%gel 3%cc
Production	7-7/8"	5½"	14 &15.5#	3620	Surfill	165	5# Gilsonite

PERFORATION RECORD

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	3577-3581	300 GAL 7 1/2% mud acid	3581

TUBING RECORD Size 2 7/8 Set At 3591 Packer at None Liner Run ☐ Yes ☒ No

Date of First Production 01/11/89

Producing Method ☐ Flowing ☒ Pumping ☐ Gas Lift ☐ Other (explain)

	Oil	Gas	Water	Gas-Oil Ratio	Gravity
Estimated Production Per 24 Hours	28 Bbls	-0- MCF	-0- Bbls	-0- CFPB	44°

METHOD OF COMPLETION

Disposition of gas: ☐ Vented ☐ Sold ☒ Used on Lease

☐ Open Hole ☒ Perforation ☐ Other (Specify)

☐ Dually Completed ☐ Commingled

Production Interval

3577-3581

15,185-22559-0000

DRILLER'S WELL LOG

DATE COMMENCED: December 2, 1988
DATE COMPLETED: December 8, 1988

SMITH OIL OPERATIONS
WILLINGER "A" #1
SE SE NE
Sec. 12, T22S, R12W
Stafford County, Ks.

ELEVATION: 1788 K.B.

0	- 535'	Surface Soil, Red Bed, Sand
535	- 557'	Anhydrite
557	- 1400'	Shale
1400	- 2672'	Lime & Shale
2672	- 2748'	Lime
2748	- 2763'	Shale & Sand
2763	- 3063'	Lime
3063	- 3083'	Shale & Lime
3083	- 3097'	LIme
3097	- 3195'	Shale
3195	- 3219'	Lime & Shale
3219	- 3473'	Lime
3473	- 3502'	Shale, Lime
3502	- 3548'	Chert
3548	- 3625'	Sand
	3625'	RTD

Surface Pipe: Set new 8-5/8", 20# pipe @ 303' w/175 sacks 60/40 pozmix 2% gel 3% cc.

Production Pipe: Set used 5½", 14 & 15.5# @3620' w/165 sacks Surfill, w/5# Gilsonite per sacks, w/500 gal. Mud Flush.

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CONSERVATION DIVISION
Wichita, Kansas

A F F I D A V I T

STATE OF KANSAS
COUNTY OF BARTON) ss

Leonard Williamson of lawful age, does swear and state that the facts and statements herein are true and correct to the best of his knowledge.

Leonard Williamson

Subscribed and sworn to before me this 12 day of December 1988.

DOROTHY M. HAGUE
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 5-5-90

Dorothy M Hague
Notary Public

15-185-22559-0000

ROBERT C. LEWELLYN

petroleum geologist

(316) 744-2567

P. O. Box 2608
Wichita, Kansas 67201

GEOLOGICAL REPORT

RICHARD E. SMITH OIL PROPERTIES
No. A-1 Willinger
SE SE NE Section 12-22S-12W
Stafford County, Kansas

SPUDDED:	December 02, 1988
DRILLING COMPLETED:	December 09, 1988
DRILLING CONTRACTOR:	Duke Drilling Co., Inc.
SURFACE CASING:	8 5/8" @ 303/KBM
ELECTRIC LOGS:	Wire Tech RAG, CDL, II Ind.
ELEVATIONS:	1788 KB 1785 DF 1783 GL

FORMATION TOPS: (Electric Log)

Anhydrite	534	(+1254)
Base Anhydrite	553	(+1235)
Howard	2672	(- 884)
Severy	2726	(- 938)
Topeka	2767	(- 979)
Heebner Shale	3066	(-1278)
Toronto Limestone	3083	(-1295)
Douglas Shale	3098	(-1310)
Brown Limestone	3198	(-1410)
Lansing-Kansas City Group	3223	(-1435)
Base Kansas City	3489	(-1701)
Viola	3499	(-1711)
Simpson Shale	3549	(-1761)
Simpson Sand	3550	(-1762)
Simpson Sand	3576	(-1788)
Log Total Depth	3621	(-1833)
ROTARY TOTAL DEPTH	3625	(-1837)

Samples were examined from 2600 feet to Rotary Total Depth, and all zones having shows of sufficient quality for evaluation were drill stem tested. Following is a description of zones of interest, shows, drill stem tests, etc.

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HOWARD ZONES:

2674-2677 Limestone, buff, some tan, finely crystalline and chalky, scattered very poor intercrystalline and vugular porosity, no show of oil.

2681-2683 Limestone, buff to tan, finely crystalline and chalky, scattered poor vugular and intercrystalline porosity, no show of oil.

2700-2702 & 2705-2707 Limestone, buff, some tan, some cream chalky, finely crystalline and slightly fossiliferous, scattered poor interfossil and intercrystalline porosity, no show of oil.

TOPEKA ZONES:

2767-3066 The Topeka section consists of cream to buff, chalky and finely crystalline limestones, interbedded with thin layers of shale. Portions of the limestones are partly fossiliferous and numerous sections of poor to fair intercrystalline, interfossil, pinpoint and vugular porosity are present within the Topeka interval. No shows of oil were observed in the Topeka, and none of the porosity zones carried more than six ohms of resistivity, thus calculating non-productive on the Electric log.

TORONTO ZONES:

3083-3098 Limestone, cream to buff, finely crystalline and chalky, partly fossiliferous, scattered poor intercrystalline porosity, no show of oil.

DOUGLAS ZONES:

3098-3223 The Douglas section consisted of gray to greenish gray shales. Thin sections of the Stranger sand were present just below the Brown lime at 3203-3207 and 3213-3217. The sand had just a trace of very poor light spotted stain with no free oil and no odor. No other sand sections were present in the Douglas interval.

LANSING-KANSAS CITY ZONES:

3223-3243 A zone Limestone, cream to buff, finely crystalline and slightly fossiliferous, partly chalky, scattered very poor intercrystalline porosity, no show of oil.

3245-3259 B zone Limestone, buff, some tan, dense to finely crystalline, some slightly fossiliferous, zone mostly tight, no show of oil.

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3260-3263 C zone — Limestone, cream to buff, chalky and finely crystalline, mostly tight with trace of very poor intercrystalline porostiy, no show of oil.

3265-3268 D zone — Limestone, cream to buff, finely crystalline, slightly fossiliferous, fair vugular and intercrystalline porosity, fair spotted stain, fair to good show of gassy free oil, faint odor.

3286-3290 E zone — Limestone, buff, finely crystalline and slightly fossiliferous, scattered poor to fair intercrystalline porosity, scattered poor to fair spotted stain, slight show of free oil, questionable odor.

3293-3302 F zone — Limestone, cream to buff, dense to finely crystalline, partly fossiliferous, fair vugular and intercrystalline porosity, some interfossil porosity, fair to good spotted stain, fair to good show of gassy free oil, faint to fair odor.

Note: In comparing Electric log measurements with drilling time measurements, it appears that depths on all drill stem tests should be corrected downhole four feet to correlate with electric log measurements.

DST No. 1 3252-3299 — 30-45-60-45; weak blow, building to strong blow on both flow periods; recovered 135 feet of gas in pipe, 105 feet of very slightly to slightly oil and gas cut mud; ISIP 1094# FSIP 1036# IFP 58-58# FFP 70-82#.

3312-3318 G zone — Limestone, cream to buff, finely crystalline and chalky, mostly tight, some scattered oolitic with isolated oolicasts, no show of oil.

3058-3065 H zone — Limestone, buff, some tan, some gray, finely crystalline and partly fossiliferous, partly oolitic, scattered poor to fair ooliticastic and interfossil porosity, scattered gilsonite, no show of oil. As is typical of many oolicastic zones, zone calculates 19-20% porosity and 15-18% water saturation, but samles indicate the zone to be non-productive.

3374-3389 I zone — Limestone, buff to tan, dense to finely crystalline, zone is mostly tight with trace of very poor intercrystalline porosity, no show of oil.

3399-3405 J zone — Limestone, cream to buff, finely crystalline and oolitic, fair ooliticastic porosity in this zone and in upper section at 3392-3394, scattered gilsonite, no show of oil.

3420-3426 K zone — Limestone, cream, finely crystalline and oolitic, scattered fair interoolitic and intercrystalline porosity, fair spotted stain, slight to fair

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free oil, faint to fair odor, trace of vugular porosity with show of oil as above.

3466-3471 L zone — Limestone, buff, some tan, dense to finely crystalline, scattered poor to fair intercrystalline porosity with poor to fair spotted stain, some dense fragments with stain on possible fracture faces, trace of free oil, faint odor.

3472-3489 M zone — Limestone, cream to buff, dense to finely crystalline, scattered fair intercrystalline and vugular porosity, poor spotted stain, slight show of free oil, questionable odor.

DST No. 2 3410-3483 — 30-30-30-30; weak blow, died in 15 minutes; recovered 20 feet of mud with spots of oil on top; ISIP 105# FSIP 94# IFP 82-82# FFP 82-82#.

VIOLA ZONES:

3499-3516 — Chert, white to cream, mostly fresh, no visible porosity, considerable scattered gilsonite, rare trace of poor spotted live oil stain, no free oil, no odor.

3516-3549 — Chert, white to cream, mostly fresh, some tripolitic with very poor weathered vugular porosity, much scattered gilsonite, trace of poor scattered live oil stain, no free oil, no odor.

SIMPSON ZONES:

3550-3554 — Sand, dolomitic, fine to medium grained, fairly well cemented, subround to subangular, fairly well sorted, poor to fair porosity, poor to fair spotted stain, trace of free oil, faint questionable odor.

3576-3582 — Sand, slightly dolomitic, medium grained, subangular, fairly well cemented to friable, fairly well sorted, fair porosity, good show of gassy free oil, fair to good spotted stain, faint odor to no odor.

DST No. 3 3518-3608 — 30-45-60-60; strong blow throughout test, gas to surface in 75 minutes; recovered 1160 feet of clean gassy oil, no water; ISIP 1151# FSIP 1059# IFP 105-235# FFP 282-424#

3582-3625 — Shale, green to greenish gray, drab.

3625 — ROTARY TOTAL DEPTH

RECOMMENDATIONS:

After drilling to a depth of 3625 (-1837) the Arbuckle dolomite had not been reached, so it was decided to suspend drilling at this point.

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It is recommended that the Simpson sand be perforated from 3577 to 3580, and treated as necessary to facilitate production.

After depletion of the above sand, the Simpson sand at 3550 should be perforated from 3550-3552 and evaluated for possible production.

Drill Stem test No. 3 covered the lower portion of the Viola, which exhibits some very high porosity readings on the log. It is possible that some of the fluid recovery from DST No. 3 came from the Viola, but I consider this highly unlikely. Nothing on the test charts indicates fluid flow from more than one zone; the oil is too high gravity to be Viola oil; even though the oil is black, contrary to some observations, Simpson oil is black in much of Kansas, as opposed to the green or straw colored oil found further South. The Viola has a history of being non-permeable in this area. If the Viola is perforated, treatment would be effective only if the Viola will give up at least a few gallons of fluid per hour; otherwise, acid or fracture treatment has not normally resulted in commercial production from the Viola in this area.

Prior to abandonment of this well, the following Lansing-Kansas City zones should be perforated and evaluated for production with acid treatment:

F zone	Perforate 3295-3302
E zone	Perforate 3287-3289
D zone	Perforate ~~3276-3279~~ & 3266-3269

Respectfully submitted

Robert C. Lewellyn
Petroleum Geologist

RCL:cd