STATE OF KANSAS STATE CORPORATION COMMISSION CONSERVATION DIVISION 245 North Water WICHITA, KANSAS 67202

WELL PLUGGING APPLICATION FORM File One Copy

API Number	15 - 153 - 2038	0'/-00-00 (of this well	1)
*	-	on Company, Inc.	
-		Building, Denver, Colo	
Lease (Farm Na	m e) Pettera	ngganatan di saturi da mata mata kata da mata kata da mata kata da mata kata da mata da mata da mata da mata d	Well No. 3-8
•			Rge. 31 (E) (W) X
		•	Field Name
			Rotary D & A X
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State Corporation Commission

CONSERVATION DIVISION

(Oil, Gas and Water) 245 North Water WICHITA, KANSAS 67202 Telephone (316) 263-3238

15-153-20357-00-00

June 20, 1979

WELL PLUGGING AUTHORITY

Well No.

Lease

Description

County Total Depth

Plugging Contractor

3-8

Pettera

SE NE Sec. 3-15-31W

Rawlins 4375'

Toltek Drilling Company

Denver, Colorado

Oxford Exploration Company 1030 Denver Club Building

80202

Gentlemen:

This is your authority to plug the above subject well in accordance with the Rules and Regulations of the State Corporation Commission.

This authority is void after 90 days from the above date.

Yours very truly,

Mr. <u>Gilbert Balthazor</u>, <u>P.O. Box 9</u>, <u>Palco</u>, <u>Kansas</u> 67657 is hereby assigned to supervise the plugging of the above named well.

OXFORD EXPLORATION COMPANY

No. 3-8 Pettera

NE SE Section 3, T1S-R31W Rawlins County, Kansas

> JAMES K. PRICE Geologist

> > STATE CORPORATION COMMISSION
> >
> > 06-25-1979
> >
> > JUN 25 1979

15-153-20357-00-00

CONSERVATION DIVISION Wichita, Kansas

WELL:

No. 3-8 Pettera

OPERATOR:

Oxford Exploration Company

CONTRACTOR:

Toltek Drilling Company, Rig No. 4

Toolpusher: Vernon Stewart

LOCATION:

SE NE Section 3, Township 1 South, Range 31 West

COUNTY:

Rawlins

STATE:

Kansas

ELEVATION:

2888 G.L.

2896 K.B.

COMMENCED:

June 5, 1979

CASING:

326.95', 8-5/8'' casing set at 336' K.B., with 200 sacks regular, with 2% CaCl, 3% Gel. Plug down at 11:30 P.M., June 5, 1979. Fair returns.

CORES:

None

DRILLSTEM TESTS:

DST No. 1 4007-4115' ("D" and "E" Zones)

LOGS:

Radiation Guard Log (Petro Log, Eng: Bob Wilson)

COMPLETED DRILLING:

June 14, 1979, 5:50 P.M.

STATUS:

D & A

FORMATION TOPS (LOGS)

FORMATION	$\overline{ ext{DEPTH}}$	ELEVATION
Niobrara	900	+1996
Fort Hays	1273	+1623
Greenhorn	1559	+1337
Dakota	1695	+1201
Morrison	2247	+649
Blaine	2434	+462
Cedar Hills	2488	+408
Stone Corral	2704	+192
b/Stone Corral	2744	+152
Foraker	3444	-548
	3787	-891
Oread Lansing "A" Zone	3891	-995
	3944	-1048
	3977	-1081
Lansing "C" Zone	4074	-1178
Lansing "E" Zone	4113	-1217
Lansing "F" Zone	4140	-1244
b/Lansing-K.C.		-1434
Cherokee SS.	4330	
TOTAL DEPTH	4375 (Logger)	4380 (Driller)

WELL REPORT NO. 3-8 PETTERA

CHRONOLOGICAL HISTORY

DATE	DEPTH (7:00 A.M.)	DAY OF OPERATION	COMMENTS
6-5-79		1	Rig up, spud and ran surface csg.
6-6-79	324	2	Drilling mouse hole.
6-7-79	2118	3	Drilling - losing circulation.
6-8-79	2740	4	Waiting on water.
6-9-79	2772	5	Fishing.
6-10-79	2772	6	Fishing.
6-11-79	3019	7	Lost circulation @ 2:30 a.m.
-			Mixing LCM.
6-12-79	3606	8	Drilling.
6-13-79	4023	9	Trip for Bit No. 5.
6-14-79	4197	10	Drilling. T.D. 4380 @ 5:50 P.M.
6-15-79	4380	11	Waiting on cementers. D&A.

BIT RECORD

NO.	MAKE	SIZE	TYPE	DEPTH OUT	FEET	HOURS	DEVIATION
1A	HTC	12-1/4	RR	336		•	
1	HTC	7-7/8	osc3J	2366	2030^	16-1/4	1 ⁰ @ 2366'
. 2	HTC	7-7/8	OSC3J	2772	436	10-1/4	_
3	STC	7-7/8	DTJ	3548	776	15-1/2	1 ⁰ @ 3548'
4	STC	7-7/8	DTJ	4023	485	17-1/4	
5	HTC	7-7/8	osc3J	4380	357	12-3/4	

PLUGS

Plug No. 1: 70 sacks @ 1220' Plug No. 2: 20 sacks @ 330' Plug No. 3: 10 sacks @ 40'

Plug No. 4: 3 sacks in Rat Holes.

LOG ANALYSIS

INTERVAL	FORMATION	POROSITY	Rw	<u>Sw(%)</u>
3791-93		8.5	.07	73
3797-98	Oread	7		81
3798-3800	Oread	8		69
3800-02	Oread	9		59
3802-05		9		66
3842-43		13		49
3843-45		13		77

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LOG ANALYSIS (Co	ontinued))
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INTERVAL	FORMATION	POROSITY	Rw	Sw(%)
3945-49	Lansing "B"	7		100
3978-86	Lansing "C"	7.5		100
4030-36	Lansing "D"	3		100
4078-80	Lansing "E"	5.5		100
4080-82	Lansing "E"	7		27
4114-18	Lansing "F"	9		100
4334-44	Cherokee	21	.12	100

DRILLSTEM TESTS

DST NO. 1, 4007-4115'

IFP 30 min., ISIP 60 min., FFP 15 min., FSIP 75 min. Opened with a very weak blow which died in 20 minutes. No blow during the final flow period.

Pipe Recovery: 20' Mud w/trace of 0il

Pressures: IH 2055 FF 90-90 IF 90-90 FSI 1059

ISI 1077 FH 2037

BHT: 115° F

SAMPLE DESCRIPTION

LOG DEPTH SAMPLE DEPTH	DESCRIPTION
3370-3400	SHALE, orange-red, silty; LIMESTONE, dense to chalky, some relict clastic texture, grey-tan to white with some mottled orange-red clay contamination.
3400-30	SHALE and LIMESTONE, as above.
3430-60	Sample, as above.
3460-90	Sample, as above, with SHALE, dark grey to black.
3490-3520	Sample, as above with grey SHALE, as above and some SILTSTONE, grey, calcareous.

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LOG DEPTH SAMPLE DEPTH	DESCRIPTION
3520-50	Mixed SHALE - Trip Sample.
3550-80	Mostly cavings, as above - Trip Sample.
3580-3610	SHALE, multicolored, red, pink, purple; some LIMESTONE, tan, grey, dense clastic texture, no shows; SHALE, grey, as above.
3610-40	Sample, as above.
3640-70	Sample, as above; trace CHERT, white-orange banded.
3670-3700	Sample, as above.
3700–30	LIMESTONE, mottled tan-white, dense to chalky, some with pale yellow tint, no visible porosity, no shows, fusulinides; SHALE, orange-red to purple.
3730-50	Sample, as above.
. 3750–60	Sample, as above; SHALE, as above, increasing.
3760-70	LIMESTONE, mottled with pink-red contamination; SHALE, as above.
3770-80	Sample, as above.
3780-90	Sample, as above; with increase in SHALE, brick red to brown.
OREAD (3792)	
3790–3800	LIMESTONE, white to grey, dense, increasing in sample, as above.
3800-10	No sample.
3810-20	LIMESTONE, grey-tan, dense, some with faint relict clastic texture, no visible porosity or shows.
3820-30	LIMESTONE, grey to white, dense to chalky in part.
3830-40	LIMESTONE, as above.

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LOG DEPTH SAMPLE DEPTH	DESCRIPTION
3840-50	Sample, as above, some with relict clastic structure.
3850-60	LIMESTONE, as above.
3860-70	Sample, as above.
3870-80	LIMESTONE, as above, with some oolicastic mottled, tan, yellow, white; SHALE, red-brown, increasing slightly.
3880-90	Sample, as above.
3890-3900	LIMESTONE, increasing, mostly grey-tan dense with much white chalky; SHALE, as above.
3900-10	Sample, as above.
LANSING "A" ZONE	(3896)
3910-20	LIMESTONE, as above, some tan, dense, some with slightly yellowish caste, no visible porosity or shows.
3920-25	LIMESTONE, as above.
3925-30	LIMESTONE, as above, increasingly chalky, no shows.
3930-35	LIMESTONE, tan, dense, to white chalky, fusulinides.
3935-40	LIMESTONE, as above.
3940–45	Sample, as above.
3945–50	Sample, as above.
3950-55	Sample, as above.
LANSING "B" ZONE	(3950)
3955-60	LIMESTONE, grey, dense with yellow to red shaly contamination.
3960–65	LIMESTONE, as above, with trace CHERT, white-grey, trans-lucent.
3965–70	LIMESTONE, grey-tan, dense to mostly chalky, no visible porosity or shows.

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LOG DEPTH SAMPLE DEPTH	DESCRIPTION
3970–75	LIMESTONE, as above.
3975–80	LIMESTONE, as above, with slight increase in grey, dense, tight, no shows.
3980-85	LIMESTONE, as above with trace, mottled brown spotty oil staining in chalky porosity.
3985-90	Sample, as above, no shows.
LANSING "C" ZONE	(3984)
3990-95	LIMESTONE, mixed, as above, increasingly clayey.
3995-4000	Sample, as above.
4000–10	Sample, as above.
4010-20	LIMESTONE, as above, with trace CHERT, amber.
4023 Circ. 15"	Sample, as above.
4023-30	Trip Sample, most SHALE, red to brown, some LIMESTONE, as above.
4030-40	Sample, as above.
LANSING "D" ZONE	(4036)
4040-50	Mixed SHALE, as above and LIMESTONE, grey, tan, dense to chalky, clayey, as above.
4050-60	Sample, as above.
4060–70	Sample, as above, with LIMESTONE, as above, increasing.
4070-80	Sample, as above.
4080-90	Sample, as above.
LANSING "E" ZONE	(4080)
4090-4100	Sample, as above, with trace fine grainstone with brown oil staining, spotty yellow fluorescence and fair cut.
4100-10	Sample, as above with trace show, as above.

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LOG DEPTH SAMPLE DEPTH	DESCRIPTION
4110-15 CIRC. 20"	LIMESTONE, grey-tan, dense to chalky, no shows.
40"	Sample, as above.
60"	Sample, as above.
4115–20	Trip Sample - brick red to brown SHALE.
4120-30	Trip Sample, as above.
LANSING "F" ZONE	(4119)
4130-40	Sample, as above, with slight increase in LIMESTONE, mottled, grey-tan, dense, no porosity or shows.
4140-50	No Sample.
4150-60	LIMESTONE, as above, also LIMESTONE, tan, brown, dense, trace crinoidal columnals.
4160-70	Sample, as above.
4170-80	LIMESTONE, grey-tan dense, some white chalky; SHALE, brick red to brown.
4180-90	Sample, as above.
4190-4200	Mixed LIMESTONE, tan, dense to chalky; SHALE, brown, increasing.
4200-10	Sample, as above.
4210-20	Sample, as above, some medium grey SHALE, soft.
4220-30	SHALE, red-brown, as above, grey, as above; LIMESTONE, tan to white chalky, as above.
4230-40	Sample, as above.
4240-50	Sample, as above.
4250-60	Sample, as above, with SHALES increasing.
4260-70	Sample, as above, predominantly SHALE, as above.
4270-80	Sample, as above; LIMESTONE, mottled, somewhat argillaceous.

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LOG DEPTH SAMPLE DEPTH	DESCRIPTION
4280-90	Sample, as above, with trace SANDSTONE, fine grained, grey, clay-filled.
4290–4300	Predominantly SHALE, light grey, slightly calcareous; some brick red to brown; LIMESTONE, as above.
4300-10	Sample, as above.
4310-20	Sample, as above.
4320-30	Sample, as above.
4333 CIRC. 15"	Sample, as above.
30"	Sample, as above.
45"	Sample, as above.
4333-40	Sample, as above.
4342 CIRC. 15"	Sample, as above.
30"	Sample, as above.
CHEROKEE SANDSTONE	E (4335)
45"	Sample, as above, with SANDSTONE, coarse grained, rounded to very angular mostly clear to amber individual grains, no staining.
60"	Sample, as above, with no increase in SANDSTONE, as above, no shows.
4342-80	As above, with SANDSTONE, as above, increasing with depth through 10' samples, no shows.
4380 CIRC. 60"	SANDSTONE, as above.