

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL DEEPEN PLUG BACK

NAME OF COMPANY OR OPERATOR TOSCO Production Finance Corp. DATE 9/24/81
10100 Santa Monica Blvd. Los Angeles California 90067
 Address City State

DESCRIPTION OF WELL AND LEASE

Name of lease John Temple Well number CH-9 Elevation (ground) 975.9

WELL LOCATION (give footage from section lines)
2640 ft. from (N) sec. line 100 ft. from (E) sec. line

WELL LOCATION Section 14 Township 32N Range 32W County Barton

Nearest distance from proposed location to property or lease line: 15 feet
 Distance from proposed location to nearest drilling, completed or applied - for well on the same lease: 1320 feet

Proposed depth: 350' Rotary or Cable tools Rotary Approx. date work will start 10/01/81

Number of acres in lease 163 Number of wells on lease, including this well, completed in or drilling to this reservoir: 3
 Number of abandoned wells on lease: 0

If lease, purchased with one or more wells drilled, from whom purchased: Name _____ No. of Wells: producing _____
 Address _____ inactive _____
 abandoned _____

Status of Bond Single Well Amt. _____ Blanket Bond Amt. \$20,000 ON FILE ATTACHED

Remarks (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) use back of form if needed.

Proposed casing program:				Approved casing - To be filled in by State Geologist			
amt.	size	wt./ft.	cem.	amt.	size	wt./ft.	cem.

I, the undersigned, state that I am the Geologist of the CARMEL ENERGY, INC. (company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature Jeffery J. Weber
Jeffery F. Weber

DISTRIBUTION: 30045 copy - Houston SAMPLES REQUIRED OCT 05 1981
 Permit Number 30045 1 copy - TOSCO SAMPLES NOT REQUIRED
 Approval Date 10/13/81 1 copy - Deerfield SAMPLES NOT REQUIRED
 Approved By Wallace B. Howe P.O. Box 89
 Deerfield, MO
 64741 WATER SAMPLES REQUIRED @

Remit two copies to: Missouri Oil and Gas Council
 P.O. Box 250 Rolla, Mo. 65401
 One will be returned for driller's signature

Approval Limited to
 Stratigraphic Test Only

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

MISSOURI OIL AND GAS COUNCIL
PLUGGING RECORD

Form OGC-7

Owner **Tosco Production and Finance Corp.** Address **10100 Santa Monica Blvd. Los Angeles, California 90067**

Name of Lease **John Temple** Well No. **CH-9** Sec. **14 T32N-R32W**

Location of Well **2640 FNL 100 FEL Elev. 975.9** Sec-Twp-Rge or Block & Survey _____ County **Barton**

Application to drill this well was filed in name of **TOSCO** Has this well ever produced oil or gas **NO** Character of well at completion (initial production) Oil (bbls/day) _____ Gas (MCF/day) _____ Dry? **NO**

Date Abandoned: **12/5/81** Total depth **165'** Amount well producing prior to abandonment. Oil (bbls/day) _____ Gas (MCF/day) _____ Water (bbls/day) _____

Name of each formation containing oil or gas. Indicate which formation open to well-bore at time of abandonment	Fluid content of each formation	Depth interval of each formation	Size, kind & depth of plugs used. Indicate zones squeeze cemented, giving amount cement.
WARNER	Oil + Water	20'-69' & 70'-137'	

Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped etc)	Packers and shoes
NONE					

Was well filled with mud-laden fluid? **Yes** Indicate deepest formation containing fresh water. **NONE**

NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE

Name	Address	Direction from this well:
Tony Davis	Rt 1 Intha, Mo.	North West RECEIVED
		DEC 18 1981

Method of disposal of mud pit contents: **NO Pit Used. (Portable Pit)**

Use reverse side for additional detail **Well was plugged from T.D. to surface with Class A**
File this form in duplicate with **Portland Cement.**

MO. OIL & GAS COUNCIL

CERTIFICATE: I, the undersigned, state that I am the **Geologist** of the **Carmel Energy, Inc.** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

DISTRIBUTION:

- 1 COPY - HOUSTON
- 1 COPY - DEERFIELD
- P. O. BOX 59
- DEERFIELD, MO 64741
- 1 copy TOSCO

Raymond M. Follader
Signature

CONFIDENTIAL

Remit two copies; one will be returned

until 12/5/82
BWW

Oilfield Research Laboratories
GENERAL INFORMATION & SUMMARY

John Temple

Company Tosco Production Finance Corp. Lease Walter Ison Well No. CH-9
 Location 2640' FNL & 100' FEL
 Section 14 Twp. 32N Rge. 32W County Barton State Missouri

Elevation, Feet 975.9
 Name of Sand..... Warner
 Top of Core 20.0
 Bottom of Core 110.0
 Top of Sand (Tested) 26.9
 Bottom of Sand 110.0
 Total Feet of Permeable Sand 23.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
2 - 7	8.5	8.5
15 - 20	1.5	10.0
80 - 90	1.0	11.0
300 - 900	7.8	18.8
1000 - 2500	4.2	23.0

Average Permeability Millidarcys 534.6
 Average Percent Porosity 25.5
 Average Percent Oil Saturation 20.2
 Average Percent Water Saturation..... 64.1
 Average Oil Content, Bbls./A. Ft. 371.
 Total Oil Content, Bbls./Acre..... 11,688.

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OILFIELD RESEARCH LABORATORIES

LOG

Name Tosco Production Finance Corp. Lease John Temple ~~Walter Ison~~ Well No. CH-9

<u>Depth Interval, Feet</u>	<u>Description</u>
20.0 - 24.0	Clay.
24.0 - 26.9	Grayish black carbonaceous sandstone with clay partings.
26.9 - 28.0	Brownish black carbonaceous sandstone.
28.0 - 28.9	Gray slightly sandy shale.
28.9 - 32.0	Brownish black carbonaceous sandstone.
32.0 - 44.9	Gray slightly carbonaceous sandstone.
44.9 - 53.3	Gray slightly carbonaceous sandstone.
53.3 - 60.4	Black carbonaceous sandstone.
60.4 - 60.8	Gray shale.
60.8 - 64.0	Black carbonaceous sandstone.
64.0 - 64.8	Grayish black slightly shaly carbonaceous sandstone.
64.8 - 65.8	Light gray limestone with fine shale partings.
65.8 - 66.9	Grayish black carbonaceous sandstone with shale partings.
66.9 - 67.7	Grayish black shaly carbonaceous sandstone.
67.7 - 68.8	Grayish black shaly slightly calcareous carbonaceous sandstone.
68.8 - 70.2	Gray shale.
70.2 - 70.8	Grayish black carbonaceous slightly calcareous shaly sandstone.
70.8 - 73.0	Grayish black carbonaceous shaly slightly calcareous sandstone with intermittent shale partings.
73.0 - 80.9	Brownish black and gray slightly calcareous laminated carbonaceous sandstone and shale.
80.9 - 82.0	Grayish black slightly calcareous carbonaceous sandstone with shale partings.
82.0 - 87.0	Gray and brownish black laminated slightly calcareous shale and carbonaceous sandstone.
87.0 - 88.9	Grayish black calcareous carbonaceous shaly sandstone

OILFIELD RESEARCH LABORATORIES

-2-

LOG

- 88.9 - 92.4 Gray shale with fine sandstone partings.
- 92.4 - 101.2 Grayish black slightly calcareous carbonaceous shaly sandstone with intermittent shale partings.
- 101.2 - 101.7 Brownish black carbonaceous slightly calcareous sandstone.
- 101.7 - 106.3 Brownish black slightly calcareous slightly carbonaceous shaly sandstone with shale partings.
- 106.3 - 107.3 Brownish black slightly calcareous carbonaceous shaly sandstone.
- 107.3 - 108.1 Light gray sandstone with fine shale partings.
- 108.1 - 110.0 Grayish brown slightly calcareous carbonaceous sandstone with shale partings.

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Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

John Temple
Walter Ison

Well No. CH-9

Company Tosco Production Finance Corporation Lease Walter Ison

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation		Oil Content Bbis. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water			Ft.	Cum. Ft.		
1	27.6	25.1	29	56	565	876.	1.1	1.1	622	963.60
2	29.4	24.2	33	56	620	1039.	1.1	2.2	682	1142.90
3	31.2	26.7	26	36	539	1752.	1.0	3.2	539	1752.00
4	33.4	43.3	7	61	235	*	1.0	4.2	235	0.00
5	35.3	37.0	7	66	201	*	1.0	5.2	201	0.00
6	37.4	39.6	2	76	61	*	1.0	6.2	61	0.00
7	39.4	34.6	13	71	349	*	1.0	7.2	349	0.00
8	41.3	31.7	9	84	221	2453.	1.0	8.2	221	2453.00
9	43.1	35.6	6	80	166	*	1.0	9.2	166	0.00
10	45.4	30.3	4	88	94	1803.	1.1	10.3	103	1983.30
11	47.4	28.5	1	86	22	*	1.0	11.3	22	0.00
12	49.3	25.3	5	84	98	730.	1.0	12.3	98	730.00
13	51.3	22.0	8	83	137	527.	1.0	13.3	137	527.00
14	53.2	23.5	10	79	182	711.	1.3	14.6	237	924.30
15	55.4	24.2	23	63	432	419.	1.0	15.6	432	419.00
16	57.3	21.9	35	60	595	312.	1.0	16.6	595	312.00
17	59.4	30.0	46	35	1071	674.	1.4	18.0	1499	943.60
18	61.3	29.3	28	49	637	*	1.2	19.2	764	0.00
19	63.1	26.0	47	43	948	89.	1.0	20.2	948	89.00
20	64.5	17.3	33	34	443	4.8	0.8	21.0	354	3.84
21	68.6	18.5	22	74	316	2.6	1.1	22.1	348	2.86
22	70.4	18.0	30	52	419	3.1	0.6	22.7	251	1.86
23	71.4	17.8	12	69	166	2.3	1.0	23.7	166	2.30
24	88.5	18.9	44	38	645	5.6	1.0	24.7	645	5.60
25	93.4	19.8	33	54	507	2.6	1.0	25.7	507	2.60
26	95.5	19.9	17	71	263	4.7	1.0	26.7	263	4.70
27	97.5	19.8	13	76	200	4.0	1.0	27.7	200	4.00
28	99.5	21.2	20	67	329	6.3	1.0	28.7	329	6.30
29	101.4	20.3	20	65	315	15.	0.5	29.2	158	7.50
30	105.6	14.9	29	60	335	Imp.	1.3	30.5	436	0.00
31	109.4	19.3	8	71	120	15.	1.0	31.5	120	15.00

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NOTE: * PERMEABILITY SAMPLES UNOBTAINABLE.

Permit #: 20045

Date Issued: 10-13-81

County: Barton

Date Cancelled: _____

CONFIDENTIAL UNTIL: _____

Date Plugged: 12-5-81

OGC FORMS	Date Received
1	
2	
3	<u>10-5-81</u>
3i	
4	
4i	
5	
6	
7	<u>12-5-81</u>
8	
11	
12	
Misc. Form 2	

COMMENTS:

strat test
Jim@TD check

	TYPE	ID #	Date Received
Logs	drillers		<u>5-13-83</u>
Samples	chip		
	core		
Analyses	water		
	core		

Additional Submitted Data:

sat & perm