



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
MISSOURI OIL AND GAS COUNCIL

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

APPLICATION TO DRILL     DEEPEN     PLUG BACK     FOR AN OIL WELL     OR GAS WELL

NAME OF COMPANY OR OPERATOR <b>PENSE BROTHERS DRILLING CO., INC.</b>		DATE <b>6/08/93</b>	
ADDRESS <b>P.O. BOX 551</b>	CITY <b>FREDERICKTOWN</b>	STATE <b>MO</b>	ZIP CODE <b>63645</b>

**DESCRIPTION OF WELL AND LEASE**

NAME OF LEASE <b>WILLIAM R. McMAHON, ET UX</b>	WELL NUMBER <b>#1</b>	ELEVATION (GROUND) <b>955 (TOPO)</b>
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WELL LOCATION: **1488** FT. FROM (S) SECTION LINE **660** FEET FROM (E) SECTION LINE

SECTION <b>5</b>	TOWNSHIP <b>43N</b>	RANGE <b>33W</b>	COUNTY <b>CASS</b>
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NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE **167** FEET

DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED - FOR WELL ON THE SAME LEASE **N/A** FEET

PROPOSED DEPTH <b>475'</b>	DRILLING CONTRACTOR, NAME AND ADDRESS <b>TOWN OIL CO. - 16205 W. 287th PAOLA, KAN 66071</b>	ROTARY OR CABLE TOOLS <b>ROTARY (AIR)</b>	APPROX. DATE WORK WILL START <b>ON APPROVAL</b>
NUMBER OF ACRES IN LEASE <b>40</b>	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR <b>1</b>		NUMBER OF ABANDONED WELLS ON LEASE <b>0</b>

IF LEASE PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED?

NAME **N/A**

NO OF WELLS: PRODUCING **0**  
INJECTION **0**  
INACTIVE **0**  
ABANDONED **0**

STATUS OF BOND:  SINGLE WELL AMOUNT \$     BLANKET BOND AMOUNT \$ **20,000.00**     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.)

**N/A**

PROPOSED CASING PROGRAM				APPROVED CASING - TO BE FILLED IN BY STATE GEOLOGIST			
AMOUNT	SIZE	WT/FT	CEM.	AMOUNT	SIZE	WT/FT	CEM.
50'	7"	19 LB.	TO SURF.	"	"	"	"
T.D. TO SURF	4 1/2"	9 LB.	TO SURF.	"	"	"	"

I, the undersigned, state that I am the **ASSISTANT VICE PRESIDENT** of the **PENSE BRDS. DRG. CO., 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 **B. E. BLANCETT**    DATE **6/08/93**

PERMIT NUMBER <b>#80563</b>	<input checked="" type="checkbox"/> DRILLER'S LOG REQUIRED	<input checked="" type="checkbox"/> E-LOGS REQUIRED IF RUN
APPROVAL DATE BY FAX <b>6-10-93</b>	<input checked="" type="checkbox"/> CORE ANALYSIS REQUIRED IF RUN	<input checked="" type="checkbox"/> DRILL STEM TEST INFO. REQUIRED IF RUN
APPROVED BY <i>[Signature]</i>	<input type="checkbox"/> SAMPLES REQUIRED	
	<input checked="" type="checkbox"/> SAMPLES NOT REQUIRED	
	<input type="checkbox"/> WATER SAMPLES REQUIRED AT _____	

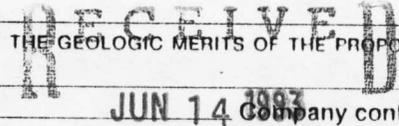
**NOTE** ▶ THIS PERMIT NOT TRANSFERABLE TO ANY OTHER PERSON OR TO ANY OTHER LOCATION

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.

I, \_\_\_\_\_ of the \_\_\_\_\_ Company confirm that an approved drilling permit has been obtained by the owner of this well. Council approval of this permit will be shown on this form by presence of a permit number and signature of authorized council representative.

DRILLER'S SIGNATURE \_\_\_\_\_

**MO Oil & Gas Council**





MISSOURI DEPARTMENT OF NATURAL RESOURCES  
MISSOURI OIL AND GAS COUNCIL  
**WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG**

Form OGC-5

NEW WELL  WORKOVER  DEEPEN  PLUG BACK  INJECTION  SAME RESERVOIR  DIFFERENT RESERVOIR  OIL  GAS  DRY

OWNER <i>PENSE BROTHERS DRILLING CO., INC.</i>		ADDRESS <i>P.O. Box 551, FREDERICKTOWN, MO 63645</i>			
LEASE NAME <i>WILLIAM R. McMAHON, ET UX</i>		WELL NUMBER <i>1</i>			
LOCATION <i>NE 1/4 SE 1/4</i>		SEC. TWP. AND RANGE OR BLOCK AND SURVEY <i>5-43N-33W, CASS CO., MO</i>			
COUNTY <i>CASS</i>	PERMIT NUMBER (OGC-3 OR OGC-3H) <i>20563</i>		DATE SPUNDED <i>6-10-93</i>		DATE TOTAL DEPTH REACHED <i>6-11-93</i>
DATE COMPLETED READY TO PRODUCE OR INJECT <i>8/10/93</i>		ELEVATION (DF, RKR, RT, OR Gr.) FEET <i>955 GR. (TOD)</i>		ELEVATION OF CASING HD. FLANGE <i>955 GR. (TOD)</i>	
TOTAL DEPTH <i>300'</i>	PLUG BACK TOTAL DEPTH <i>N/A</i>		ROTARY TOOLS USED (INTERVAL) <i>0 TO 300'</i>		CABLE TOOLS USED (INTERVAL) <i>N/A</i>
PRODUCING OR INJECTION INTERVAL(S) FOR THIS COMPLETION <i>251' - 261'</i>		DRILLING FLUID USED <i>AIR + WATER</i>		DATE FILED <i>N/A</i>	
WAS THIS WELL DIRECTIONALLY DRILLED? <i>N/A</i>	WAS DIRECTIONAL SURVEY MADE? <i>N/A</i>	WAS COPY OF DIRECTIONAL SURVEY FILED? <i>N/A</i>		DATE FILED <i>9/24/93</i>	
TYPE OF ELECTRICAL OR OTHER LOGS RUN (LIST LOGS FILED WITH THE STATE GEOLOGIST) <i>GAMMA NEUTRON &amp; CORE</i>				DATE FILED <i>9/24/93</i>	

**CASING RECORD**

CASING (REPORT ALL STRINGS SET IN WELL - CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)						
PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB. FT)	DEPTH SET	SACKS CEMENT	AMOUNT PULLED
<i>SURF</i>	<i>9 5/8"</i>	<i>7"</i>	<i>17</i>	<i>51'04"</i>	<i>4</i>	<i>NIL</i>
<i>PROD. CSG.</i>	<i>6 1/4"</i>	<i>4 1/2"</i>	<i>10.5 LB.</i>	<i>295'03"</i>	<i>45</i>	<i>NIL</i>

**TUBING RECORD**

**LINER RECORD**

SIZE	DEPTH SET	PACKER SET AT	SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
<i>2 3/8</i> IN.	<i>250</i> FEET						

**PERFORATION RECORD**

**ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD**

NUMBER PER FEET	SIZE AND TYPE	DEPTH INTERVAL	AMOUNT AND KIND OF MATERIAL USED	DEPTH INTERVAL
<i>2</i>	<i>3 1/8" DMH-HSC</i>	<i>251' - 261'</i>	<i>300 GAL 15% HCL 20/40 # 2000 LBS 10/20 SAND</i>	<i>251' - 261'</i>
				<i>251' - 261'</i>

**INITIAL PRODUCTION**

DATE OF FIRST PRODUCTION OR INJECTION <i>8/10/93</i>		PRODUCING METHOD (INDICATE IF FLOWING, GAS LIFT, OR PUMPING - IF PUMPING, SHOW SIZE AND TYPE OF PUMP) <i>PUMPING - 1 1/2" x 4' PUMP</i>					
DATE OF TEST <i>8/11/93</i>	HOURS TESTED <i>24</i>	CHOKE SIZE <i>N/A</i>	OIL PRODUCED DURING TEST <i>6</i> bbls.	GAS PRODUCED DURING TEST <i>3</i> MCF	WATER PRODUCED DURING TEST <i>2</i> bbls.	OIL GRAVITY <i>33.4</i> API (CORR.)	
TUBING PRESSURE <i>NIL</i>	CASING PRESSURE <i>TSTM</i>	CAL'ATED RATE OF PRODUCTION PER 24 HOURS <i>6</i> bbls.		OIL <i>6</i> bbls.	GAS <i>3</i> MCF	WATER <i>2</i> bbls.	GAS OIL RATIO <i>500-1</i>

DISPOSITION OF GAS (STATE WHETHER VENTED, USED FOR FUEL OR SOLD)  
*VENTED*

METHOD OF DISPOSAL OF MUD PIT CONTENTS  
*CUTTINGS ONLY - NO ADDITIVES - TO BE QUERILLED WITH TOPSOIL*

CERTIFICATE: I, THE UNDERSIGNED, STATE THAT I AM THE *ASSIT. VICE PRESIDENT* OF THE *PENSE BROS. DRG. CO., 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.

DATE <i>9/24/93</i>	SIGNATURE <i>B &amp; Blawett</i>
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**RECEIVED**  
SEP 30 1993

INSTRUCTIONS: ATTACH DRILLERS LOG OR OTHER ACCEPTABLE LOG OF WELL.

\* SHOW ALL IMPORTANT ZONES OF POROSITY, DETAIL OF ALL CORES, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION (SEE * ABOVE)
	0	19	TOPSOIL TO CLAY TO SHALE
	19	52	LIMESTONE (WINTERSET)
	52	60	SHALE, BLUE GREY
	60	80	LIMESTONE (BETHANY FALLS)
	80	87	SHALE, BLUE GREY TO SANDY SHALE
	87	94	LIMESTONE (KANSAS CITY)
	94	98	SHALE, GREY TO DARK GREY
	98	104	LIMESTONE (HERTHA)
	104	241	SHALE TO SANDY SHALE, SLIGHT SANDSTONE STRIATIONS.
	241	245	SHALE, DARK GREY TO BLACK
	245	269	SANDSTONE - HEPLER (GOOD OIL SHOWS) CORE 247' - 270.3'
	269	273	SHALE, GREY, CALCAREOUS.
	273	300	SHALE, GREY TO BLUE GREY SLIGHTLY CALCAREOUS.

LOG

Company Pease Brothers Drilling Company, Inc. Lease McMahon Well No. 1

HEPLER SANDSTONE

<u>Depth Interval, Feet</u>	<u>Description</u>
247.0 - 248.7	Sandstone, light brown, slightly calcareous.
248.7 - 249.5	Limestone, light gray, shaly with scattered shale partings.
249.5 - 250.3	Sandstone, light brown, slightly shaly, slightly calcareous with scattered shale partings.
250.3 - 250.6	Shale, gray with scattered limestone nodules and inclusions.
250.6 - 251.0	Limestone, light gray, slightly sandy.
251.0 - 251.8	Sandstone, light brown, slightly calcareous with widely scattered shale partings.
251.8 - 252.1	Shale, gray, calcareous with scattered limestone inclusions.
252.1 - 253.4	Sandstone, light brown, slightly calcareous with widely scattered limestone inclusions.
253.4 - 254.6	Sandstone, light grayish brown, very shaly, slightly calcareous with scattered shale partings.
254.6 - 256.8	Sandstone, light brown, slightly shaly, slightly calcareous with scattered shale partings.
256.8 - 257.5	Limestone, light gray.
257.5 - 258.3	Sandstone, light brown, slightly calcareous with scattered shale partings.
258.3 - 259.0	Shale, gray, slightly calcareous with scattered limestone inclusions.
259.0 - 259.5	Sandstone, light grayish brown, shaly, slightly calcareous with scattered shale partings.
259.5 - 260.4	Sandstone, light brown, slightly calcareous.
260.4 - 261.7	Limestone, light grayish brown, sandy.

LOG

Company Reese Brothers Drilling Company, Inc. Lease McMahon Well No. 1

HEPLER SANDSTONE Continued

<u>Depth Interval, Feet</u>	<u>Description</u>
261.7 - 262.1	Limestone, light gray.
262.1 - 263.0	Sandstone, brown, slightly calcareous with widely scattered shale partings.
263.0 - 264.3	Sandstone, light grayish brown, shaly, slightly calcareous.
264.3 - 264.6	Shale, gray, slightly calcareous.
264.6 - 267.4	Sandstone, brown, slightly calcareous.
267.4 - 267.8	Sandstone, light brown, calcareous.
267.8 - 268.3	Limestone, light gray.
268.3 - 269.6	Sandstone, light grayish brown, very shaly, slightly calcareous with scattered shale partings and containing a vertical fracture from 268.3 - 269.2.
269.6 - 270.3	Shale, gray, calcareous, silty.

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SEP 30 1993

MO Oil & Gas Council

**W. C. LETHCHO**  
 COUNTY ENGINEER & SURVEYOR  
 Bates County Court House  
 BUTLER, MO. 64730  
 Phone 679-4031

JUNE 8, 1993

WELL REFERENCE TIES IN THE NORTHEAST QUARTER  
 OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP  
 43 NORTH, RANGE 33 WEST OF THE 5TH PRINCIPAL  
 MERIDIAN IN CASS COUNTY, MISSOURI.

FOR: PENSE BROTHERS DRILLING CO. INC.  
 ADRIAN, MO 64720  
 816-297-4433

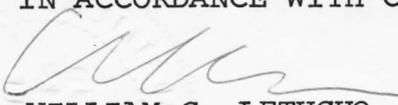
SHEET 1 OF 2

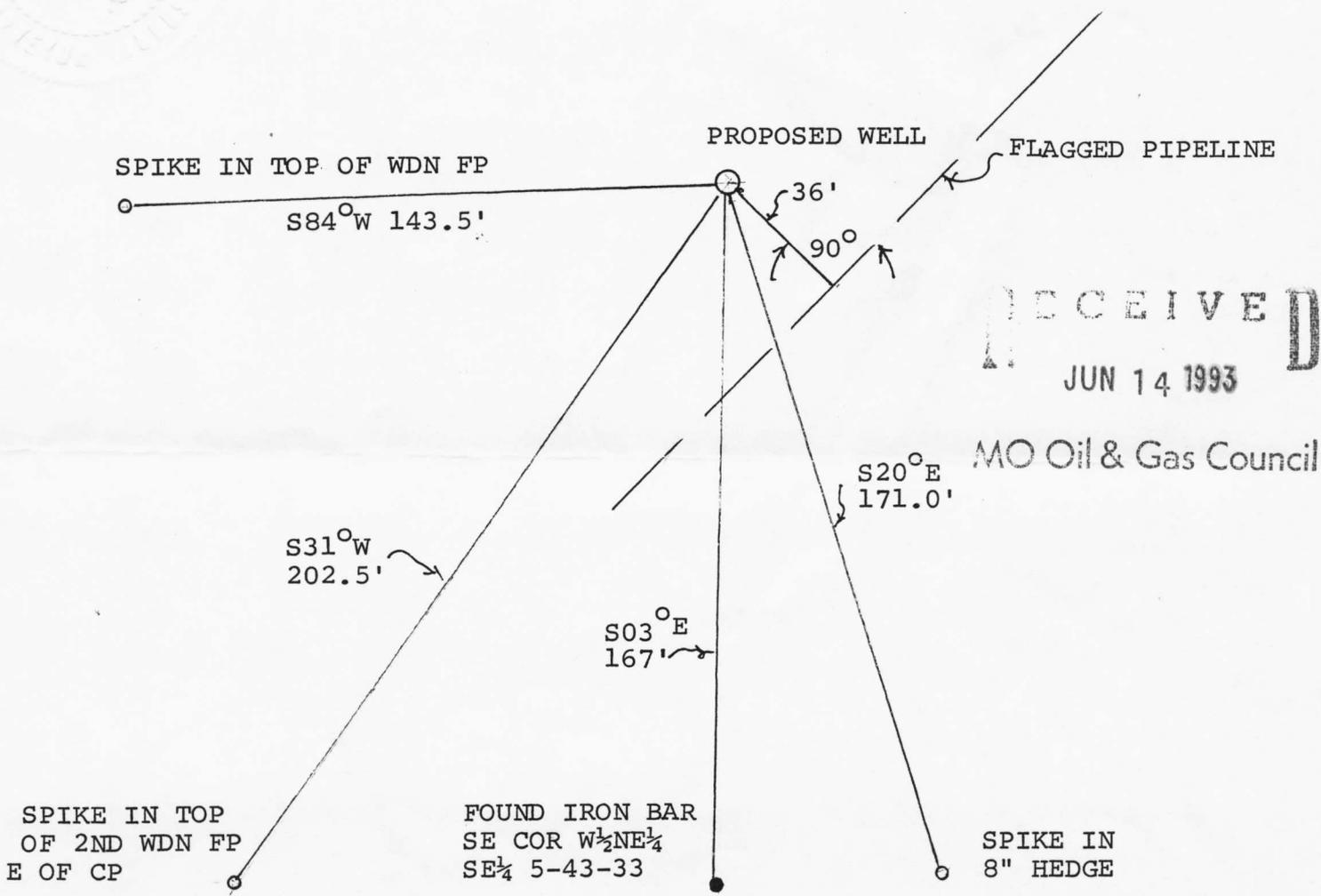


1"=40'

MAG BRGS  
 8° EAST  
 DECL

THIS IS TO CERTIFY THE REFERENCE TIES SHOWN ARE  
 IN ACCORDANCE WITH CURRENT MINIMUM STANDARDS.

  
 WILLIAM C. LETHCHO LS-1539



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 JUN 14 1993  
 MO Oil & Gas Council

WELL LOCATION MAP  
CASS COUNTY TAX  
MAP 16-03



CO ROAD

1"=400'±

SHEET 2 OF 2

LEE

GROWTH  
IND.

RENO

40.00 AC

MCMAHON

PROPOSED  
WELL 660'±

2.004  
61.00 AC

1871.05

546.29

662.38

662.38

662.38

632.38

CAVE CREEK ESTATES

WILLIAM C. LETHCHO *6-8-93*  
COUNTY SURVEYOR/HIGHWAY ENGINEER  
BATES COUNTY COURTHOUSE  
BUTLER, MO. 64730-2026

2.012  
19.65 AC

2.013  
19.65 AC

2.014  
18.75 AC

1488'±

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JUN 17 1993

2.010  
1.36 AC

PIPELINE EASEMENT

391.15

662.80

662.80

662.80

632.80

1.75 AC (D)  
5.53 AC (C)

2  
205.45 AC

72.53 AC

MOBILE Gas Council

03  
80 AC

1690.90

12.93

1310.12

292.03

31.40

120.76

363

3

2

8

9

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1

Company Pense Brothers Drilling Company, Inc. Lease McMahon Well No. 1

Sample No.	Depth, Feet	Porosity Percent	Percent Saturation			Oil Content Bbls. / A. Ft.	Permeability, Millidarcys
			Oil	Water	Total		
1	247.7	17.3	35	36	71	470	26.
2	250.1	10.8	27	45	72	226	6.5
3	251.5	20.8	29	30	59	468	30.
4	252.4	19.5	33	46	79	499	56.
5	253.3	18.6	40	46	86	608	44.
6	254.4	17.4	19	71	90	257	0.78
7	256.5	15.1	35	40	75	410	4.7
8	257.7	15.7	14	76	90	171	18.
9	259.7	16.0	40	51	91	497	3.0
10	262.5	14.0	40	42	82	434	26.
11	263.5	19.2	23	62	85	343	4.2
12	265.4	19.1	34	48	82	504	13.
13	266.5	18.0	34	54	88	475	17.
14	267.5	17.3	32	56	88	430	10.
15	268.7	16.0	12	78	90	149	0.40

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 MO Oil & Gas Council



# OILFIELD RESEARCH LABORATORIES

P.O. BOX 647 - 536 N. HIGHLAND - CHANUTE, KS 66720 - PHONE (316) 431-2650 - FAX (316) 431-2671

June 23, 1993

Pense Brothers Drilling Company, Inc.  
P. O. Box 398  
Adrian, MO 64720

Gentlemen:

Attached hereto are the results of tests run on the rotary core taken from the McMahon Lease, Well No. 1, located in Section 5, T43N, R33W, Cass County, Missouri.

The core was sampled and sealed in plastic by a representative of the client and submitted to our laboratory on June 11, 1993.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Alan M. Dunning

AMD:bl

5 c to Adrian, MO

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SEP 30 1993

MO Oil & Gas Council 1

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION