

- New Location  *Revised 7/24/79*
- Drill Deeper
- Abandonment  *- 8/1/83*
- Fracture
- Redrill

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the regulations of the oil and gas section of the mining laws of West Virginia.

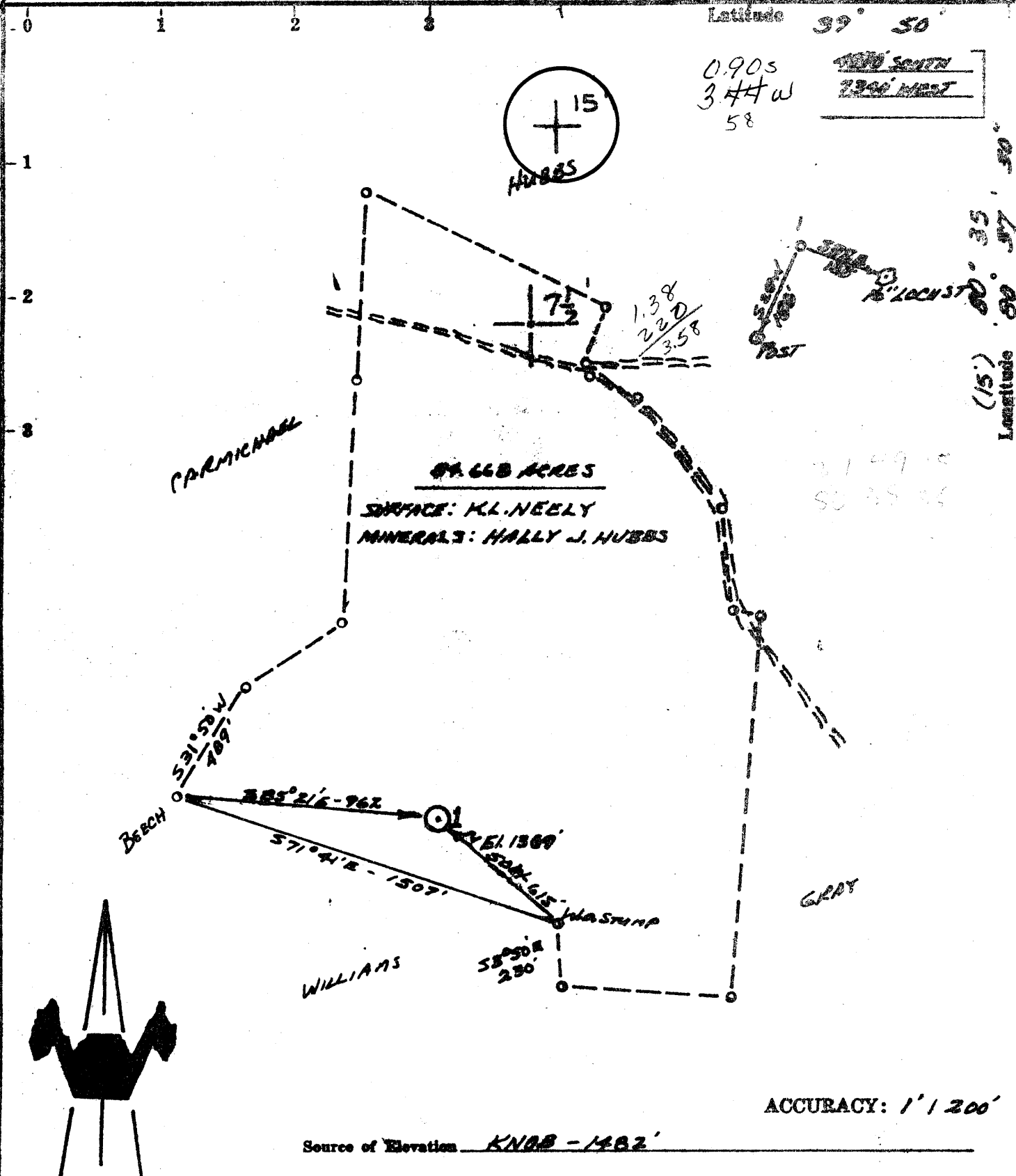


Company Cabot Oil & Gas Co. of W. Va.  
APPALACHIAN EXPL. & PROD. CO.  
 Address CHARLESTON, W. VA. 25322  
 Farm HALLY J. HUBBS (NEELY)  
 Tract Acres 84.668 Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1369'  
 Quadrangle CAMERON (15')  
CLAY EASTON (7.5')  
 County MARSHALL District NEADE  
 Engineer CHET WATERMAN  
 Engineer's Registration No. 3788  
 File No. 79-418 Drawing No. \_\_\_\_\_  
 Date 6/2/79 Scale 1" = 500'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. 47-051-0662-P

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.

Gordon 3200'



- New Location  *REMOVED 7/24/79*
- Drill Deeper
- Abandonment
- Fracture
- Redrill

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

*Chet Waterman*

Company APPALACHIAN EXPL. & DEV. CORP.

Address CHARLESTON, W. VA.

Farm HALLY J. HUBBS (NEELY)

Tract Acres 64.668 Lease No. \_\_\_\_\_

Well (Farm) No. 1 Serial No. \_\_\_\_\_

Elevation (Spirit Level) 1369'

Quadrangle CAMERON (15') GLEN EASTON (7.5') SC

County MARSHALL District MEADE

Engineer CHET WATERMAN

Engineer's Registration No. 3788

File No. 79-418 Drawing No. \_\_\_\_\_

Date 6/7/79 Scale 1" = 500'

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
CHARLESTON

WELL LOCATION MAP  
FILE NO. 47-051-0662

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

AUG 10 1979

*Goodman 82m 5-5 Cameron-Garner (23)*

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date: June 26, 1979

FORM 17-35  
(Obverse)

Operator's  
Well No. Hally J. Hubbs #1

[08-78]

WELL OPERATOR'S REPORT

OF  
REPERFORATION, TRAPPING AND/OR STIMULATING, OR PHYSICAL CHANGE

API Well No. 47-051-662  
State County Per

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal  
 "Gas", Production / Underground storage / Deep / Shallow  
 LOCATION: Elevation: 1369' Watershed: Upper Bowman Run  
 District: Meade County: Marshall Quadrangle: Glen Easton

WELL OPERATOR Appalachian Exploration & Dev., Inc. DESIGNATED AGENT James R. Cramblett  
 Address P.O. Box 628 Address P.O. Box 628  
Charleston, West Virginia 25322 Charleston, West Virginia 25322

PERMITTED WORK: Drill X / Convert / Drill deeper / Re-drill / Fracture or stimulate  
 Plug off old formation / Perforate new formation  
 Other physical change in well (specify)

PERMIT ISSUED ON July 30, 1979

OIL & GAS INSPECTOR FOR THIS WORK:

(IF APPLICABLE: PLUGGING OF DRY HOLE OR  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED

Name Phillip Lee Tracy  
 Address P. O. Box 173 - Dodd Street  
Middlebourn, WV 26149

GEOLOGICAL TARGET FORMATION: Gordon Depth 3037-3086 feet  
 Depth of completed well, 3201 feet Rotary X / Cable Tools  
 Water strata depth: Fresh, 100 feet; salt, 1910 feet.  
 Coal seam depths: 814'; 980'; 1031'; 1066' Is coal being mined in the area?  
 Work was commenced August 3, 1979, and completed August 10, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor	9-5/8"					338'	338'	110 sks. Kinds
Fresh water								
Coal	7"		17# and 20#			2543'	2543'	200 sks. Sizes
Intermediate								
Production Tubing	4-1/2"		9.5#			3188'	3188'	50 sks. Depths set
Liners								Perforations: Top Bottom

RECEIVED  
JUL 1981

OPEN FLOW DATA

Producing formation Gordon Sand OIL & GAS DIVISION DEPT. OF MINES  
 Gas: Initial open flow, 169 Mcf/d Oil: Initial open flow, 3050-3060 feet  
 Final open flow, TSTM Mcf/d Oil: Final open flow,        Bbl/d  
 Time of open flow between initial and final tests,        hours  
 Static rock pressure,        psig (surface measurement) after        hours shut in  
 [If applicable include multiple completion--]

Second producing formation        Pay zone depth        feet  
 Gas: Initial open flow,        Mcf/d Oil: Initial open flow,        Bbl/d  
 Final open flow,        Mcf/d Oil: Final open flow,        Bbl/d  
 Time of open flow between initial and final tests,        hours  
 Static rock pressure,        psig (surface measurement) after        hours shut in

JUL 27 1981

[09-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

8/28/79 - Broke down Gordon with 2550#. Pumped 1000 gals. 15% HCL at 10 BPM at 2700#. Dropped perf balls. Complete shut-off at 3000#.

8/29/79 - Treated Gordon with 15,000# 80/100 (Maximum conc. 6#/gal.) and 45,000# 20/40 (Maximum conc. 8#/gal.). Average injection rate 7.7 BPM; with nitrogen, 25.4 BPM. Average treating pressure 3625#. Total fluid 454 bbls. (310 bbls. S/L) 715,000 cubic feet of nitrogen at 15,000 cubic feet/min. Used 70% quality foam. ISIP 2700#.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Shale			0	308	
Sand			308	350	
Shale			350	524	
Sand			524	622	
Shale			622	814	
Coal			814	816	
Shale			816	980	
Coal			980	984	
Sand			984	1020	
Shale			1020	1031	
Coal			1031	1034	
Shale			1034	1066	
Coal			1066	1070	
Shale			1070	1540	
Sand			1540	1560	Show gas
Shale			1560	1596	
Sand			1596	1620	
Shale			1620	1898	
Sand			1898	1938	
Shale			1938	1996	
Sand			1996	2014	
Shale			2014	2164	
Sandy Lime			2164	2220	
Shale			2220	2278	
Injun Sand			2278	2440	
Shale			2440	2782	
Berea			2782	2804	
Shale			2804	3037	
Gordon			3037	3086	E. Log
Shale			3086	T.D.	D.T.D. 3180' L.T.D. 3201'

(Attach separate sheets to complete as necessary)

APPALACHIAN EXPLORATION & DEVELOPMENT, INC.

Well Operator

By

*James L. Cramblitt*

Its

Regional Manager, Drilling and Production

NOTE: Regulation 2.05(f) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. Hally J. Hubbs #1

API Well No. 47 - 051 - 0662  
State County Permit

WELL TYPE: Oil  / Gas  /  
(If "Gas", Production  / Underground storage  / Deep  / Shallow  )

LOCATION: Elevation: 1369' Watershed: Upper Bowman Run  
District: Meade County: Marshall Quadrangle: Glen Easton

WELL OPERATOR Appalachian Exploration & Development, Inc. DESIGNATED AGENT R. P. Parsons  
Address P. O. Box 628 Address P. O. Box 628  
Charleston, WV 25322 Charleston, WV 25322

OIL & GAS ROYALTY OWNER Hally J. Hubbs  
Address Route 1, Box 243  
Moundsville, WV 26041

COAL OPERATOR Consolidation Coal  
Address Attn: Mr. Bill Yavatek  
Box 537  
Moundsville, WV 26041

ACREAGE 84.668  
SURFACE OWNER Kenneth L. Neely  
Address Route 1, Box 126  
Glen Easton, WV 26039  
ACREAGE 84.668

COAL OWNER(S) XXXXXXXXXXXXXXXXXXXXXXXXXXXX  
Name Same as shown above.  
Address " " " "  
Name \_\_\_\_\_  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Macy  
Address \_\_\_\_\_

**RECEIVED**  
JUL 30 1979

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed  / lease  / other contract  / dated August 10, 1979 by the undersigned well operator from McCombs, Conrad and Barrett

OIL & GAS DIVISION  
DEPT. OF MINES

[If said deed, lease, or other contract has been recorded:]  
Recorded on August 8, 19 75, in the office of the Clerk of the County Commission of Marshall County, West Virginia, in - - Book - - at page - -. A permit is requested as follows:

PROPOSED WORK: Drill  / Drill deeper  / Redrill  / Fracture or stimulate  /  
Plug off old formation  / Perforate new formation  /  
Other physical change in well (specify) \_\_\_\_\_

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

**BLANKET BOND**

Appalachian Exploration & Development, Inc.  
Well Operator

By R P Parsons  
Its District Production Superintendent

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Clint Hurt  
Address P. O. Box 1973  
Midland, TX 79702

GEOLOGICAL TARGET FORMATION, Gordon

Estimated depth of completed well, 3200 feet Rotary  / Cable tools  /

Approximate water strata depths: Fresh, 100 feet; salt,        feet.

Approximate coal seam depths: 802 952 1072 Is coal being mined in the area? Yes  / No  /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft	New	Used	For drilling			Left in well
Conductor	3-3/8					30'	30'	5	Kinds
Fresh water	9-5/8		36#			300'	300'	100	
Coal									Sizes
Intermediate	7"		17#			2475'	2475'	200	
Production	4-1/2		9.5#			3200'	3200'	100	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

**NOTE:** Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the permit. **THIS PERMIT MUST BE POSTED AT THE WELL SITE** in connection therewith.

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 3-31-80.

  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator        / owner        / lessee        / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:       , 19       

By         
Its

FORM IV-38  
[08-78]

Date: September 20, 1984

Operator's Well No. Hally Hubbs #1

API Well No. 47 - 051 - 0662P  
State County Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION  
DIVISION  
AFFIDAVIT OF PLUGGING AND FILLING WELL

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas", Production X / Underground storage \_\_\_ / Deep \_\_\_ / Shallow X /  
LOCATION: Elevation: 1369' Watershed: Upper Bowman Run  
District: Meade County: Marshall Quadrangle: Glen Easton

WELL OPERATOR Cabot Oil & Gas Corp. of WV  
Address P.O. Box 628  
Charleston, West Virginia 25322

DESIGNATED AGENT Robert E. Horrell  
Address P.O. Box 628  
Charleston, West Virginia 25322

STATE OF WEST VIRGINIA, )  
  ) SS:  
COUNTY OF KANAWHA )

Mark McCormick and Mike Wine (Pool Well Service)

being first duly sworn according to law, depose and say that they are experienced in the work of plugging and filling oil and gas wells; that they were employed by Cabot Oil & Gas Corp. of WV the well operator, and participated in the work of plugging and filling the above well; that the work was commenced on May 22, 1984, and completed on May 22, 1984, in the following manner:

PERMITTED WORK: Plug and abandon X / Clean out and replug \_\_\_ /

PLUGGING MATERIALS

Type of Cement	Other Materials	Depth	Thickness
Class A w/	3% CaCl <sub>2</sub>	3050	250
	8.7# Gel	2800	400
Class A w/	3% CaCl <sub>2</sub>	2405	100
	8.7# Gel	2305	2205
Class A w/	3% CaCl <sub>2</sub>	100	to surface

Bridge Plugs Used--Type and Depth

Baker Model S 4-1/2" Bridge Plug @ 2750'.  
Cut 4-1/2" @ 2310'.

VENT PIPE

MISCELLANEOUS MATERIALS

CASING LOST 4 1/2" (878') 7" (2543')

TYPE OF RIG: 9-5/8" (338')

Owner: Well Op'r \_\_\_ / Contractor X /

Rig time: 1 days plus \_\_\_ hours

COAL SEAMS (NAMES AND DEPTHS)

814', 980', 1031', 1066'

DESCRIPTION OF WELL MONUMENT

7" casing bearing API number

Mark A. McCormick (SEAL)  
Mike Wine (SEAL)

Subscribed and sworn to before me this  
20 day of September, 1984.  
My commission expires March 5, 1989.

Louise Miller  
Notary Public

OCT 09 1984