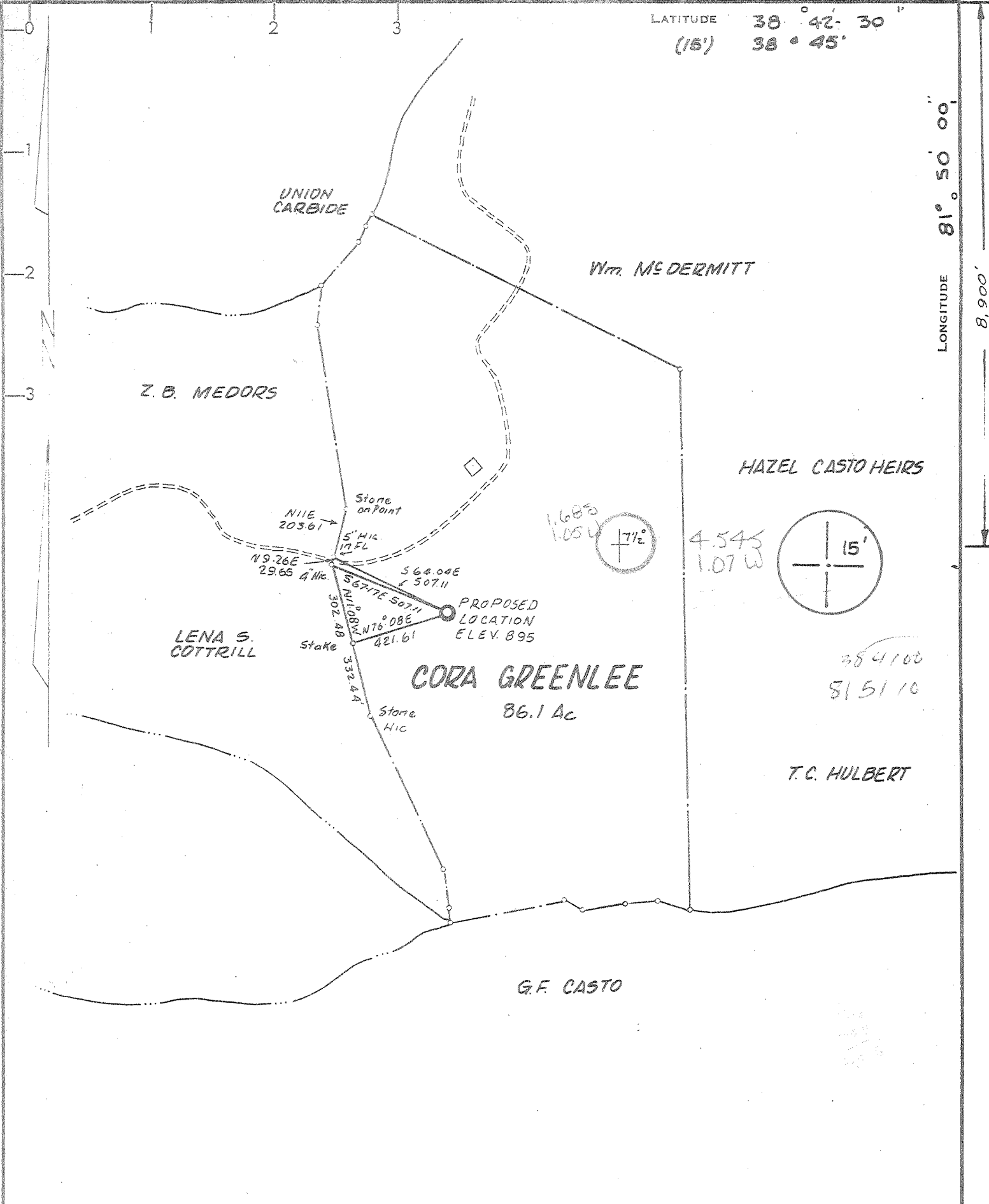


LATITUDE 38° 42' 30"
(15') 38° 45'

LONGITUDE 81° 50' 00"

8,900'



CERTIFICATE

"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."

Minimum degree of accuracy is one part in 200

Signed

Frank J. Barber LLS#299

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY
 ADDRESS P.O. BOX 537, RIPLEY, WEST VIRGINIA
 FARM CORA GREENLEE, LESLIE HENDERSON
 MAP _____ ACRES 86.1 LEASE NO. _____
 WELL (FARM) NO. 1 SERIAL NO. KEM 13
 ELEVATION (SPIRIT LEVEL) 895
 QUADRANGLE ELMWOOD, WINFIELD 15' NE
 COUNTY MASON DISTRICT UNION
 POINT OF PROVEN ELEVATION BM 628
 FILE NO. _____ DRAWING NO. _____
 DATE FEB. 26, 1979 SCALE 1" = 500 FT.

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE No. **47-053-0189**

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 62,500. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

APR 10 1979

Deep Well 4900' 5 1/2" 15'-5" Rock Castle (346)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division
WELL RECORD *41*

RECEIVED

FEB 20 1980

OIL & GAS DIVISION
DEPT. OF MINES

Rotary Oil _____
Cable _____ Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Quadrangle Elmwood
Permit No. 47-053-0189

Company <u>Kaiser Exploration and Mining Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P. O. Box 8, Ravenswood, WV 26164</u>				
Farm <u>Cora Sommers Greenlee</u> Acres <u>86.1</u>	Size			
Location (waters) <u>Mud Lick</u>	20-16			
Well No. <u>KEM 13</u> Elev. <u>895</u>	Cond.			
District <u>Union</u> County <u>Mason</u>	13-10" 10 3/4"	251' (KB)	Same	125 sx class A (To surface) (Dowell)
The surface of tract is owned in fee by <u>Leslie R. Henderson</u>	9 5/8			
Address <u>P. O. Box 1224, Athens, O 45701</u>	8 5/8			65 sx pozmix
Mineral rights are owned by <u>Cora Sommers Greenlee</u>	7	2639' (KB)	Same	100 sx class A (Halliburton)
Address <u>Box 286, Pt. Pleasant, WV</u>	5 1/2			
Drilling Commenced <u>9/5/79</u>	4 1/2	4884' (KB)	Same	225 sx pozmix (Halliburton)
Drilling Completed <u>9/12/79</u>	3			
Initial open flow <u>200,000</u> cu. ft. <u>--</u> bbls.	2			
Final production <u>2500 M</u> cu. ft. per day <u>--</u> bbls.	Liners Used			
Well open <u>24</u> hrs. before test <u>1890</u> RP.				

Well treatment details: Attach copy of cementing record.
Perforated the Oriskany S.S. from 4822' - 4829' (K.B.) w/ 4 holes/ft; Halliburton and Aircowell fractured zone w/30,000# 80/100 mesh sand, 30,000# 20/40 mesh sand; 500 gal 28% HCL, 832 BBL water, and 170,000 SCF nitrogen.

2,500 MCF

Coal was encountered at _____ Feet _____ Inches
 Fresh water _____ Feet _____ Salt Water _____ Feet _____
 Producing Sand Oriskany Depth 4822-29

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	8		<i>Tops From KB = 903'</i>
Siltstone			8	44		
Shale			44	95		
Sand			95	197		
Red Rock			197	452		
Sand			452	464		
Red Rock			464	503		
Shale			503	518		
Red Rock			518	612		
Sand			612	622		
Red Rock			622	790		
Sand			790	808		
Red Rock			808	1001		
Sand			1001	1018		
Shale			1018	1080		
Sand			1080	1121		
Siltstone			1121	1142		
Sand			1142	1156		
Siltstone			1156	1280		
Shale			1280	1310		
Salt Sands			1310	1494		
Shale			1494	1610		
Siltstone			1610	1758		

(over)

* Indicates Electric Log tops in the remarks section.

MAR 10 1980

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Maxton Sand			1758	1825		
Big Lime			1826	1940		
Big Injun Sand			1940	2030		
Shale			2030	2082		
Sand			2082	2145		
Siltstone			2145	2304		
Shale			2304	2524		
Coffee Shale			2524	2547		
Berea			2547	2564		
Shale			2564	3740		
Brown Shale			3740	4181		
Shale			4181	4517		
Marcellus			4517	4734		
Onondaga			4734	4802		
Oriskany			4802	4858		
Helderberg			4858	4908		
T.D.			4908			

see log from 1002 10

H 3745
 J 4178
 A 4314
 Bk 4518
 C 4734

base Big Lime 2030

Date February 20 1980

APPROVED Kaiser Exploration and Mining Company

By Robert A. Poyner
Operations Manager

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Not known at this time NAME Robert A. Pryce
 ADDRESS _____ ADDRESS P. O. Box 537, Ripley, WV 25271
 TELEPHONE _____ TELEPHONE 372-2827 or 372-2828
 ESTIMATED DEPTH OF COMPLETED WELL: 4900 ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 TYPE OF WELL: OIL _____ GAS X COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8 10 3/4	250	250	Cement to surface
8 - 5/8			
7	2575	2575	125 sks = 625 feet
5 1/2			
4 1/2	4900	4900	125 sks = 1500 feet
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? None BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title