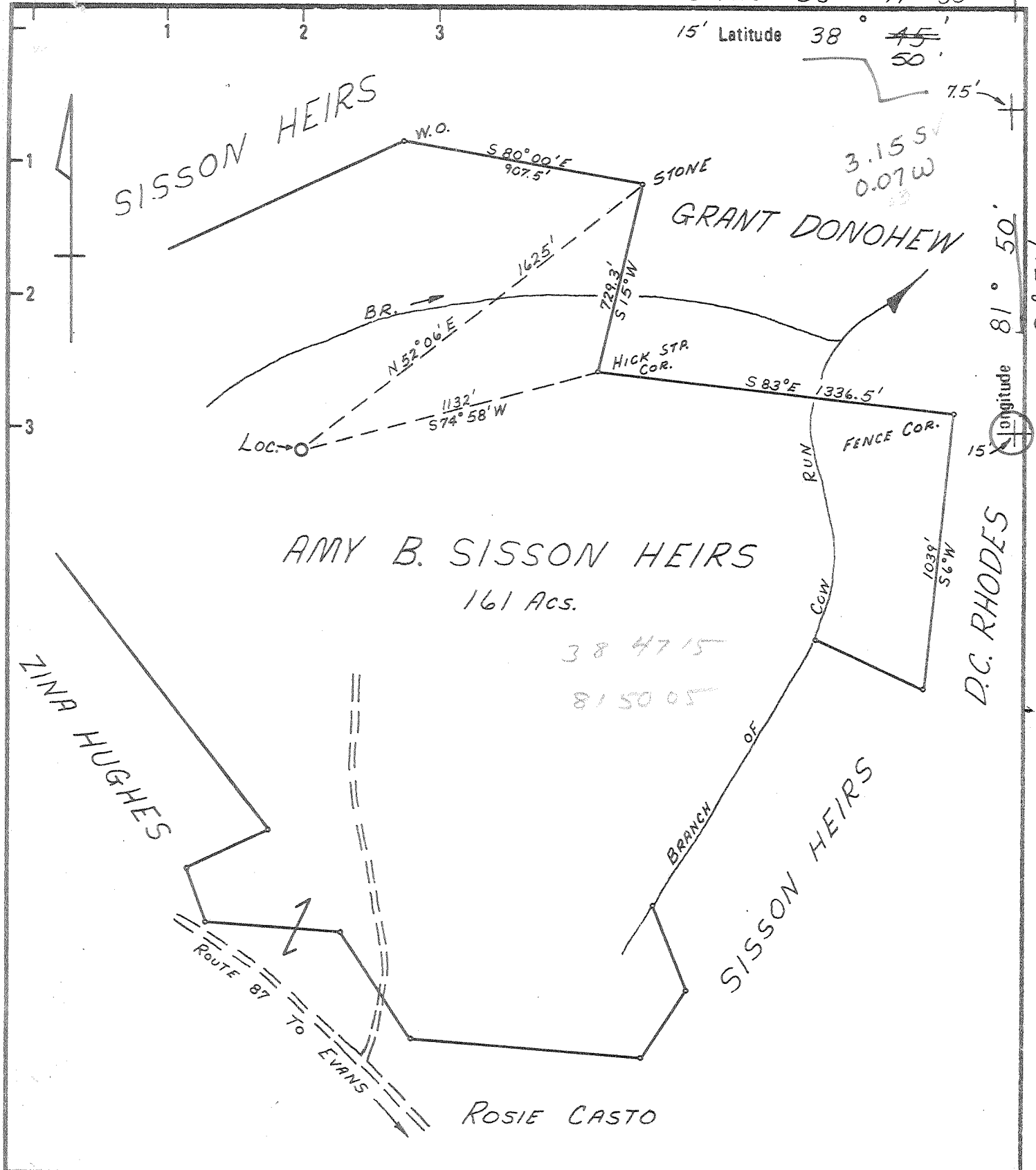


7.5' Topo = 38° 47' 30"

15' Latitude 38° ~~45'~~ 50'



Longitude 81° 50' 15"

D.C. RHODES

AMY B. SISSON HEIRS  
161 Acs.

38 47 15  
81 50 05

ZINA HUGHES

ROUTE 87 TO EVANS

ROSIE CASTO

New Location   
Drill Deeper   
Abandonment

Minimum Error of Closure 1 IN. 200  
Source of Elevation USGS B.M. EL. 939 RT. 87 SOUTH OF LOCATION  
"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."

Company KAISER EXPL. & MINING Co.  
Address Box 98 RAVENSWOOD, WV  
Farm BEULAH C. ASHCRAFT  
AMY B. SISSON HEIRS  
Tract \_\_\_\_\_ Acres 161 Lease No. 4424  
Well (Farm) No. DEK # 49 Serial No. \_\_\_\_\_  
Elevation (Spirit Level) 842.0'  
Quadrangle 7.5' COTTAGEVILLE  
15' RAVENSWOOD SC  
County JACKSON District UNION  
SURVEYOR  
Engineer [Signature]  
SURVEYOR'S  
Engineer's Registration No. 149  
File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
Date 8-15-77 Scale 1" = 500'

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

WELL LOCATION MAP  
FILE NO. JAC-1414

+ 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.

6-6 (359) 47-035 SEP 21 1977

477 Deep Well. 575 ~~At Lee~~



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JAN 17 1978

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
Oil and Gas Division

OIL & GAS DIVISION  
DEPT. OF MINES

WELL RECORD 16

Quadrangle Cottageville 7 1/2

Permit No. JAC 1414

Rotary xxx Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas xxx \_\_\_\_\_  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

Company Kaiser Exploration & Mining Co.  
Address Box 98, Ravenswood, W.Va.  
Farm Amy B. Sisson Acres 161  
Location (waters) Br. of Cow Run  
Well No. DEK #49 Elev. 842'  
District Union County Jackson  
The surface of tract is owned in fee by \_\_\_\_\_  
Beulah C. Ashcraft, Etux.  
Address 10483 Darby Cr. Rd; Orient, OH  
Mineral rights are owned by Beulah C. Ashcraft, Etux.  
Address Same  
Drilling Commenced 8/22/77  
Drilling Completed 9/10/77  
Initial open flow 82 M cu. ft. Day bbls.  
Final production 125 cu. ft. per day \_\_\_\_\_ bbls.  
Well open \_\_\_\_\_ hrs. before test \_\_\_\_\_ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"			
9 5/8	249	249	120 Sax to Surf.
8 5/8			
7	2,504'	2504'	75 Sax 625'
5 1/2			
4 1/2	4747	4747	150 Sax (1711' fill up)
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record. Halliburton

Perforated Oriskany Section at 4702' to 4704' with 8 Omega Jet Shots/foot. Fractured Oriskany with 1000 gals HCl, 38,000# sand and 692 BBLs water.

Initial Production = 125 MCF/Day

Coal was encountered at \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Oriskany Sand Depth 4681-4706

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			0	98		
Sand			98	117		
Shale			117	155		
Sand			155	178		
Shale			178	246		
Sand			246	263		
Shale			263	276		
Red Rock			276	326		
Sand			326	347		
Shale			347	393		
Sand			393	404		
Red Rock			404	443		
Shale			443	483		
Sand			483	505		
Red Rock			505	547		
Shale			547	565		
Sand			565	580		
Red Rock			580	634		
Sand			634	644		
Shale			644	758		
Sand			758	766		
Red Rock			766	791		
Shale			791	830		
Sand			830	839		

(over)

\* Indicates Electric Log tops in the remarks section.

JAN 23 1978

Formation	Color	Hard or Soft	Top Feet $\frac{1}{2}$	Bottom Feet	Oil, Gas or Water	* Remarks	
Red Rock			839	847			
Sand			847	876			
Red Rock			876	935			
Sand			935	984			
Shale			984	1076			
Sand			1076	1097			
Shale			1097	1128			
Sand			1128	1217			
Shale			1217	1301			
Sand			1301	1333			
Shale			1333	1345			
Sand			1335	1377			
Shale			1377	1413			
Sand			1413	1475			
Shale			1475	1624			
Sand			1624	1680			
Shale			1680	1715			
Broken Shale			1715	1750			
Maxon Sand			1750	1830			
Bia Lime			1830	1952			
Shale			1952	1972			
Injun Sand			1972	2096			
Shale			2096	2437			
Coffee Shale			2437	2454			
Berea Sand			2454	2466			
Shale			2466	3616			
Brown Shale			3616	4060			
Shale			4060	4458			
Marcellus			4458	4598			
Corniferous			4598	4681			
Oriskany			4681	4706			
Lime	HDBG		4706	4761			
					4598	4681	4706
					842	842	842
					<u>3756</u>	<u>3839</u>	<u>3864</u>

Date January 11, 19 78

APPROVED

Robert A. Payne Owner

By Staff Petroleum Geologist  
(Title)



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AUG 22 1977

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE August 19, 1977

Surface Owner Beulah C. Ashcraft, etux  
Address 10483 Darby Cr. Rd; Orient, OH  
Mineral Owner Beulah C. Ashcraft, etux  
Address Same  
Coal Owner Beulah C. Ashcraft, etux  
Address Same  
Coal Operator Not Operated  
Address \_\_\_\_\_

Company Kaiser Exploration & Mining Company  
Address Box 98, Ravenswood, WV 26164  
Farm Amy B. Sisson Acres 161  
Location (waters) Br. of Cow Run  
Well No. DEK #49 Elevation 842'  
District Union County Jackson  
Quadrangle Cottageville 7 1/2'; Ravenswood 15'

THIS PERMIT MUST BE POSTED AT THE WELL SITE

If provisions being in accordance with Chapter 22,  
of the W. Va. Code, the location is hereby approved

INSPECTOR

for drilling. This permit shall expire if TO BE NOTIFIED Richard Morris

operations have not commenced by 12-22-77 ADDRESS Grantsville, W. Va.

Deputy Director - Oil & Gas Division

PHONE 354-7259

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated June 2nd 1977 by Beulah C. Ashcraft, et al made to Devon-Eason and recorded on the 20th day of July 1977, in Jackson County, Book 144 Page 654

XXX NEW WELL \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE  
\_\_\_\_\_ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND  
ECONOMIC SURVEY  
P. O. BOX 879  
MORGANTOWN, WEST VIRGINIA 26505  
AC-304 - 292-6331

Address  
of  
Well Operator

Very truly yours, KAISER EXPLORATION & MINING COMPANY

(Sign Name) Robert A. Pryce  
Well Operator Robert A. Pryce  
PO Box 98

Street  
Ravenswood, WV 26164  
City or Town

State

\*SECTION 3 . . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

JAC-1414

PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

47-035

Signed by Robert A. Pryce

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

PROPOSED WORK ORDER TO XXX DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME FWA DRILLING COMPANY NAME BILL W. BACKUS  
 ADDRESS PO Box 448, Elkview, WV ADDRESS PO Box 1433, Charleston, WV 25325  
 TELEPHONE 965-3379 TELEPHONE 342-3171  
 ESTIMATED DEPTH OF COMPLETED WELL: 4775' ROTARY XXX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Marcellus  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS XXX 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	250'	250'	120 Sack= To Surface
8 - 5/8			
7	2525'	2525'	75 Sack = 625'
5 1/2			
4 1/2	4775'	4775'	150 Sack = 1800'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS \_\_\_\_\_ FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS None Anticipated  
 IS COAL BEING MINED IN THE AREA? No 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