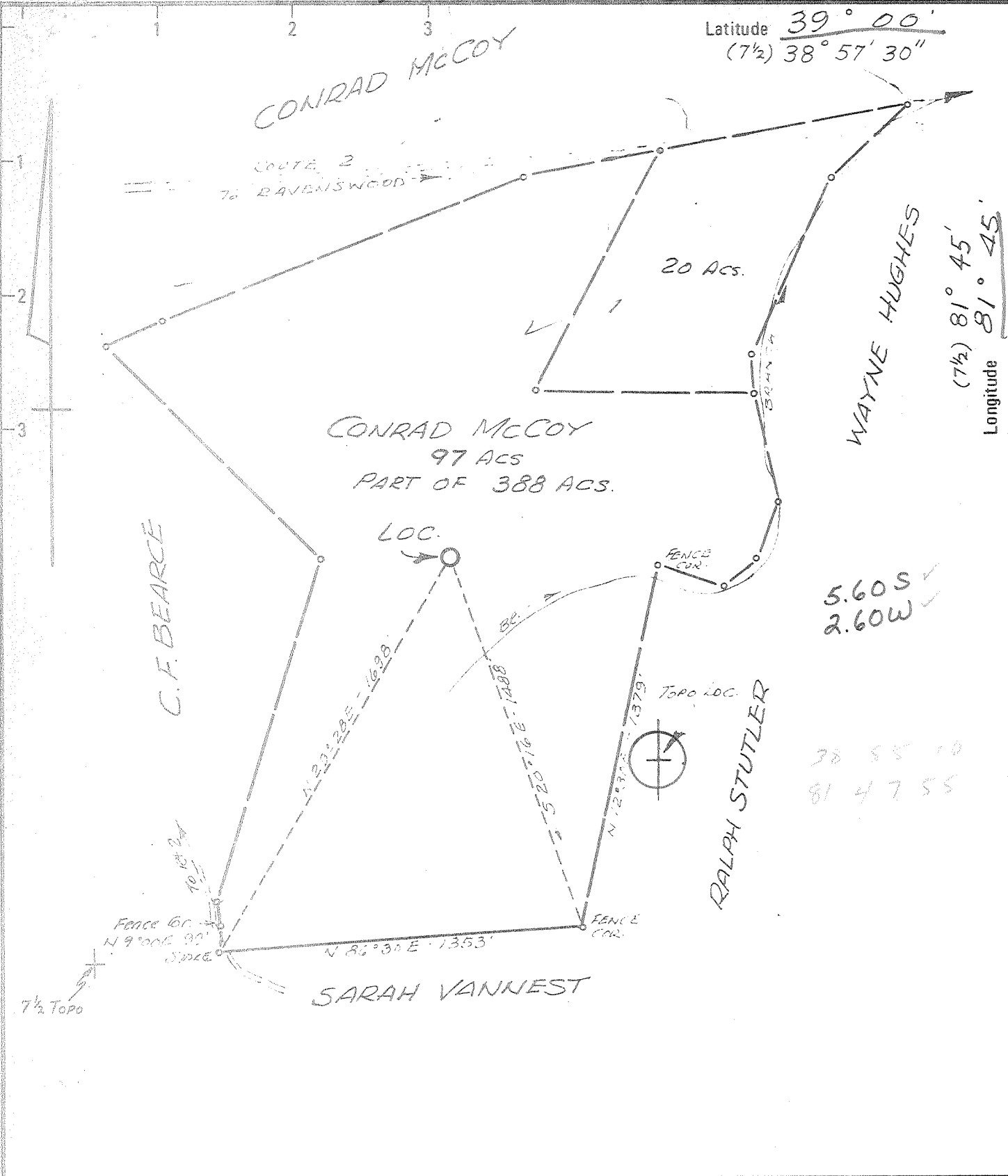


Latitude $39^{\circ} 00'$
(7½) $38^{\circ} 57' 30''$

Longitude $81^{\circ} 45'$
(7½) $81^{\circ} 45'$



5.60 S
2.60 W

38 55 10
81 47 55

- New Location
- Drill Deeper
- Abandonment

Minimum Error of Closure $1 \text{ IN } 200$
Source of Elevation $U.S.G.S. \text{ Elev. } 812 \text{ Road Intersection}$
SOUTHEAST OF LOC.

"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 COMPANY
 Address P.O. Box 98 RAVENSWOOD, WV 26164
 Farm CONRAD MCCOY
 Tract _____ Acres 97 Lease No. 2955
 Well (Farm) No. DEK #9 Serial No. _____
 Elevation (Spirit Level) 712.0
 Quadrangle RAVENSWOOD NE
 County JACKSON District UNION
 Engineer N. L. Lepton
 Engineer's Registration No. 1832
 File No. _____ Drawing No. _____
 Date 9-11-76 Scale 1" = 500'

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

WELL LOCATION MAP
FILE NO. JAC-1384

+ 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.

47-035



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD ¹⁷

Quadrangle Ravenswood
Permit No. JAC 1384 - W

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

Company Kaiser Exploration & Mining Co.
Address Box 98, Ravenswood, WV
Farm Conrad McCoy Acres 97
Location (waters) Ohio River
Well No. DEK #9 Elev. 712
District Union County Jackson
The surface of tract is owned in fee by _____
Conrad & Edra McCoy
Address Rt. 1, Ravenswood, W.Va.
Mineral rights are owned by Same as above
Address _____
Drilling Commenced December 4, 1976
Drilling Completed December 14, 1976
Initial open flow Show cu. ft. -0- bbls.
Final production 100 M cu. ft. per day _____ bbls.
Well open _____ hrs. before test 680 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	208	208	100 Sax
8 5/8			
7	2192	2192	75 Sax
5 1/2			
4 1/2	5843	5843	205 Sax
3			
2			
Liners Used			

Well treatment details: Attach copy of cementing record.
Perforated Clinton Sand 5670-5672, 5725-5729 & 5794-5798 with 4 shots/foot. Fractured Clinton with no result. Set permanent cast iron plug at 4414' with 20' cement plug on top. Perforated Oriskany Sand at 4351 with 8 shots, frac with 635 bbl water and 44,000# sand. Testing not complete. Test non-commercial after treatment. Perf. Br. Shale 3520- 3719 w/27 shots. Frac Br. Shale with 971 bbls. water & 15,000# sand.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water Hole wet at - Feet 5165
Producing Sand Brown Shale Depth 3520-3719

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Shales			0	140		
Sand			140	194		
Shales			194	255		
Sand			255	268		
Broken Sand			268	401		
Sand			401	453		
Red Rock			453	505		
Shale			505	568		
Sand			568	570		
Red Rock			570	634		
Shale			634	722		
Sand			722	729		
Red Rock			729	784		
Sand			784	799		
Red Rock			799	823		
Shale			823	872		
Sand			872	888		
Red Rock			888	932		
Shale			932	960		
Salt Sand			960	1042		
Shale			1042	1078		
Sand			1078	1087		
Shale			1087	1130		
Sand			1130	1165		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet ⁷ 44	Bottom Feet	Oil, Gas or Water	* Remarks
Broken Sand			1165	1221		
Sand			1221	1298		
Shale			1298	1469		
Sand			1469	1478		
Shale			1478	1587		
Sand			1587	1589		
Shale			1589	1600		
Big Lime			1600	1682		
Shale			1682	1813		
Injun Sand			1813	1826		
Shale			1826	2121		
Coffee Shale			2121	2136		
Shale			2136	3272		
Brown Shale			3272	3723		
Shale			3723	4124		
Marcellus Shale			4124	4253		
Onondaga L.S.			4253	4343		
Oriskany Sand			4343	4352		
Helderberg L.S.			4352	4462		
Salina Series			4462	5010		
Newburg Sand			5010	5016		
Lockport Dolomite			5016	5321		
Rochester Shale			5321	5541		
Packer Shell			5541	5552		
Clinton Iron Ore			5641	5644		
Clinton Sand			5668	5675		
Clinton Sand			5701	5735		
Clinton Sand			5788	5804		
Ordovician Queenstone Shales			5804	5899		
Log Total Depth				5899		

5899
5016
883 expln 47

Date October 10 19 77

APPROVED Ralph A. Pryce Owner
By Staff Petroleum Geologist
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

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OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD 14

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

Quadrangle Ravenswood

Permit No. JAC 1384

Company Kaiser Exploration & Mining Co.
Address Box 98, Ravenswood, WV
Farm Conrad McCoy Acres 97
Location (waters) Ohio River
Well No. DEK #9 Elev. 712
District Union County Jackson
The surface of tract is owned in fee by _____
Conrad & Edra McCoy
Address Rt. 1, Ravenswood, W.Va.
Mineral rights are owned by Same as above
Address _____
Drilling Commenced December 4, 1976
Drilling Completed December 14, 1976
Initial open flow Show cu. ft. -0- bbls.
Final production _____ 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	208	208	100 Sax
8 5/8			
7	2192	2192	75 Sax
5 1/2			
4 1/2	5843	5843	205 Sax
3			
2			
Liners Used			

Well treatment details: Attach copy of cementing record.
Perforated Clinton Sand 5670-5672, 5725-5729 & 5794-5798 with 4 shots/foot. Fractured Clinton with no result. Set permanent cast iron plug at 4414' with 20' cement plug on top. Perforated Oriskany Sand at 4351 with 8 shots, frac with 635 bbl water and 44,000# Sand. Testing not complete.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water Hole wet at - _____ Feet 5165
Producing Sand _____ Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Shales			0	140		
Sand			140	194		
Shales			194	255		
Sand			255	268		
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Red Rock			888	932		
Shale			932	960		
Salt Sand			960	1042		
Shale			1042	1078		
Sand			1078	1087		
Shale			1087	1130		
Sand			1130	1165		

OCT 21 1977

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet ¹⁴	Bottom Feet	Oil, Gas or Water	* Remarks
Broken Sand			1165	1221		
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Shale			1298	1469		
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Shale			1682	1813		
Injun Sand			1813	1826		
Shale			1826	2121		
Coffee Shale			2121	2136		
Shale			2136	3272		
Brown Shale			3272	3723		
Shale			3723	4124		
Marcellus Shale			4124	4253		
Onondaga L.S.			4253	4343		
Oriskany Sand			4343	4352		
Helderberg L.S.			4352	4462		
Salina Series			4462	5010		
Newburg Sand			5010	5016		
Lockport Dolomite			5016	5321		
Rochester Shale			5321	5541		
Packer Shell			5541	5552		
Clinton Iron Ore			5641	5644		
Clinton Sand			5668	5675		
Clinton Sand			5701	5735		
Clinton Sand			5788	5804		
Ordovician Queenstone Shales			5804	5899		
Log Total Depth JUNIATA				5899		

Date October 10 19 77

APPROVED Rudolph A. Poyner Owner

By Staff Petroleum Geologist
(Title)



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE November 22, 1976

Surface Owner Conrad & Edra McCoy
Address Rt. 1, Ravenswood, W. Va.

Company Kaiser Exploration & Mining Co.
Address Box 98, Ravenswood, W. Va.

Mineral Owner Same as above
Address _____

Farm Conrad McCoy Acres 97 acres

Location (waters) Ohio River

Coal Owner Same as above
Address _____

Well No. DEK #9 Elevation 712 Gr.

District Union County Jackson

Coal Operator Not Operated
Address _____

Quadrangle Ravenswood 15', Ravenswood 7 1/2'

THIS PERMIT MUST BE POSTED AT THE WELL SITE

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 3-29-77.

INSPECTOR
TO BE NOTIFIED Richard Morris

ADDRESS Grantsville, W. Va.

PHONE 354-7259

[Signature]
Deputy Director - Oil & Gas Division

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 Sept. 3 1976 by Conrad McCoy, et ux made to Devon Corp. & Eason Oil Co. and recorded on the 9th day of September 1976 in Jackson County, Book 141 Page 275

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 Co.
(Sign Name) [Signature]

D. H. Lovell, Resident Engineer
Box 98

Street
Ravenswood,

City or Town
West Virginia

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.

JAC-1384 PERMIT NUMBER

47-035

"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."

Signed by [Signature]

BLANKET BOARD

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 Co. NAME Bill W. Backus
 ADDRESS Box 448, Elkview, W. Va. ADDRESS Box 1433, Charleston, W. Va.
 TELEPHONE 965-3379 TELEPHONE 342-3171
 ESTIMATED DEPTH OF COMPLETED WELL: 5900 ROTARY XXX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Clinton
 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	200	200	100 Sax
8 - 5/8			
7	2200	2200	75 Sax
5 1/2			
4 1/2	5900	5900	150 Sax
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