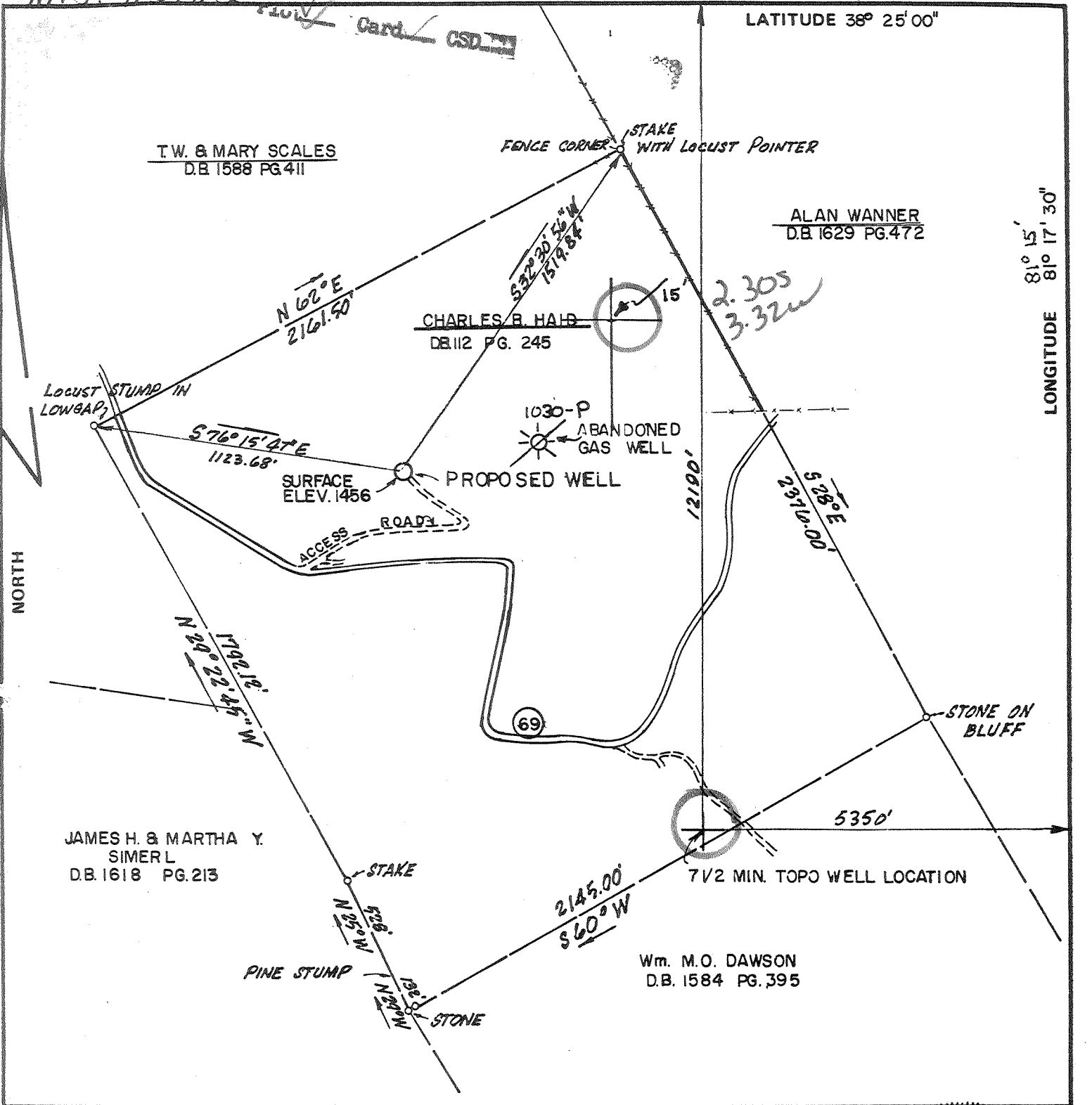


M.S. 9/2/82

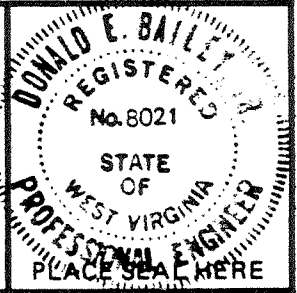
LATITUDE 38° 25' 00"

LONGITUDE 81° 15' 81° 17' 30"



FILE NO. 8229
 DRAWING NO. A
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:10000
 PROVEN SOURCE OF ELEVATION U.S.G.S. 1456

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) [Signature]
 R.P.E. 8021 L.L.S. [Signature]



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE June 21, 19 82
 OPERATOR'S WELL NO. Two
 API WELL NO. 47 - 039 - 3909
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 1456 WATER SHED Johnson Fork of Falling Rock Creek
 DISTRICT ELK COUNTY Kanawha
 QUADRANGLE Clendenin 7.5 min. N15' E
 SURFACE OWNER Charles B. Haids ACREAGE 118 Ac.
 OIL & GAS ROYALTY OWNER Kendall Heirs LEASE ACREAGE 118 Ac.
 LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Oriskany ESTIMATED DEPTH 5600' 35 Clendenin (220)
 WELL OPERATOR Rimrock Prod. Corp. DESIGNATED AGENT Robert L. Murdock
 ADDRESS 4424 B. Emerson Ave. Parkersburg, W. Va. 26101 ADDRESS 4472 B. Emerson Ave. Parkersburg, W. Va. 26101

IV-35
(Rev 8-81)

REC FEB 4 1983



OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date February 2, 1983
Operator's
Well No. Wanner #2
Farm Wanner
API No. 47 - 039 - 3909

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil X / Gas X / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production X / Underground Storage ___ / Deep X / Shallow ___ /)

LOCATION: Elevation: 1456' Watershed Johnson Fork of Falling Rock Creek
District: Elk County Kanawha Quadrangle Clendenin, WV

COMPANY Rimrock Production Corporation
ADDRESS 4424 "B" Emerson Ave., Parkersburg, WV
DESIGNATED AGENT Robert L. Murdock
ADDRESS 4424 "B" Emerson Ave., Parkersburg, WV
SURFACE OWNER Charles B. Haid Heirs
ADDRESS 527 Garrison Ave., Charleston, WV 25325
MINERAL RIGHTS OWNER Kendall & Wanner Heirs
ADDRESS c/o Frank Wanner-5312 Elk River Rd.
Elkview, WV 25071
OIL AND GAS INSPECTOR FOR THIS WORK Homer H.
Dougherty ADDRESS Linden Rt., Box 3-A
Looneyville, WV 25259
PERMIT ISSUED _____
DRILLING COMMENCED October 20, 1982
DRILLING COMPLETED October 28, 1982

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10 ^{1 1/2}	266	266	90 sks.
9 5/8			
8 5/8			
7	2132	2132	350 sks.
5 1/2			
4 1/2	6041	6041	335 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 2646-5857 feet
Depth of completed well 6041 feet Rotary X / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt _____ feet
Coal seam depths: _____ Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 2646-5857 feet
Gas: Initial open flow 220 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 103 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 24 hours
Static rock pressure 650 psig (surface measurement) after 24 hours shut in
(If applicable due to 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

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

- 1st. Stage - From ^{Angola → Marcellus} 5120'-5840' - 29 holes - 1,041,000 SCF N₂ - 500 gal. acid.
 2nd. Stage - From 4455'-4470' - 2 holes - loaded hole with H₂O and squeezed with 250sks. standard cement w/½ of 1% halyd 9 retarder.
 3rd. Stage - From ^{Marcellus} 4060'-4700' - 19 holes - 800,000 SCF N₂ - 250 gal. acid.
 4th. Stage - From ^{Vp. De V.} 3050'-3980' - 26 holes - 800,000 SCF N₂ - 250 gal. acid.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Soil			0	15	
Sandstone & Shale			15	100	
Sandstone & Siltstone			100	200	
Sandstone & Siltstone			200	300	
Sandstone & Shale			300	400	
Sandstone & Shale			400	500	
Sandstone & Shale			500	600	
Sandstone & Shale			600	700	
Sandy Siltstone & Shale			700	800	
Sandstone & Siltstone			800	900	
Sandstone & Shale			900	1000	
Siltstone			1000	1100	
Sandstone & Siltstone			1100	1200	
Sandstone & Siltstone			1200	1300	
Sandstone & Shale			1300	1400	
Sandstone & Shale			1400	1500	
Sandstone			1500	1600	
Sandstone & Shale			1600	1700	
Sandstone & Siltstone			1700	1800	
Siltstone			1800	1932	
Greenbrier Ls. Interval			1932	2220	
Shale			2220	2272	
Weir Sand			2272	2405	
Shale			2405	2645	
Berea			2645	2652	
Siltstone			2652	2700	
Siltstone			2700	2800	
Siltstone			2800	2900	
Siltstone & Sandy Siltstone			2900	3000	
Siltstone & Shale			3000	3500	
Siltstone & Shale			3500	4000	
Siltstone & Shale			4000	4500	
Shale			4500	5000	
Shale			5000	5500	
Shale			5500	5770	
Marcellus Shale			5770	5857	
Onondaga Lime			5857	5908	
Oriskany			5908	5973	Lime & Siltstone 5973 - 6042

6042
5750 ~ deepest field pay
292' expl. - ftg.

Marcellus - new pay

Helderburg @ T.D.

(Attach separate sheets as necessary)

RIMROCK PRODUCTION CORPORATION

Well Operator

By: Kary C. McElminnie - Agent

Date: February 2, 1983

Note: Regulation 2.02(i) 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."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil / Gas /
(If "Gas", Production / Underground storage / Deep / Shallow)
LOCATION: Elevation: 1456 Watershed: Johnson Fork of Falling Rock Creek
District: Elk County: Kanawha Quadrangle: Clendenin, WV

WELL OPERATOR Rimrock Production Corp.
Address 4424 "B" Emerson Avenue
Parkersburg, WV 26104

DESIGNATED AGENT Robert L. Murdock
Address 4424 "B" Emerson Avenue
Parkersburg, WV 26104

OIL & GAS ROYALTY OWNER Kendall Heirs/Wanner Heirs
Address c/o Frank Wanner
5312 Elk River Road
Elkview, WV 25071

COAL OPERATOR Union Carbide
Address Blue Creek Mines
32 Sanderson Road, Clendenin, WV
25045

ACREAGE 118
SURFACE OWNER Charles B. Haid Heirs
Address 527 Garrison Avenue
Charleston, WV
ACREAGE 118

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Union Carbide, Blue Creek Mines
Address 32 Sanderson Road
Clendenin, WV 25045

FIELD SALE (IF MADE) TO:
Address Unknown

Name
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Martin Nichols
Address P.O.Box 554
Clendenin, WV 25045

COAL LESSEE WITH DECLARATION ON RECORD:
Name Union Carbide, Blue Creek Mines,
Address 32 Sanderson Road
Clendenin, WV 25045

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease assignment other contract / dated May 28, 1982, to the undersigned well operator from S. M. Spencer

If said deed, lease, or other contract has been recorded:
Recorded on _____, 1982, in the office of the Clerk of the County Commission of Kanawha 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

RIMROCK PRODUCTION CORPORATION
Well Operator
By: Robert L. Murdock
Its: President

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

DRILLING CONTRACTOR (IF KNOWN) Unknown

Address _____

GEOLOGICAL TARGET FORMATION, Oriskany

Estimated depth of completed well, 5600 feet Rotary X / Cable tools _____ /

Approximate water strata depths: Fresh, 706 feet; salt, 856 feet.
549-554

Approximate coal seam depths: 585-588 Is coal being mined in the area? Yes X / 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		Kinds	Sizes
Conductor	11 3/4	CW	45	X		45	45	CTS		
Fresh Water	8 5/8	ERW	23	X		2100	2100	350 sks.		Baker
Coal										
Intermediate										
Production	4 1/2	ERW	11.6	X		0	5600	750 sks	Depths set	4500
Tubing	2 3/8	CW	4.7	X		0	4500	0		
Openers										
									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 Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,

ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY

APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE

IF OPERATIONS HAVE NOT COMMENCED BY 6-12-83

BY [Signature]

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.

WAIVER

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.

_____, 19____

By _____

Its _____