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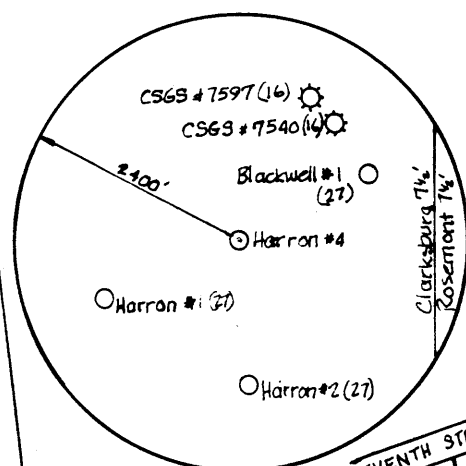
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PLOT

39 20

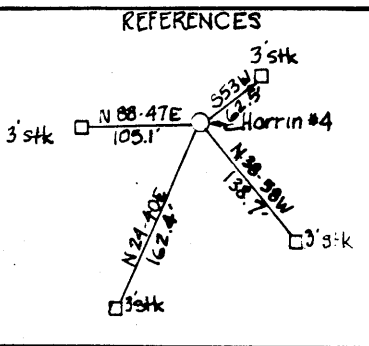
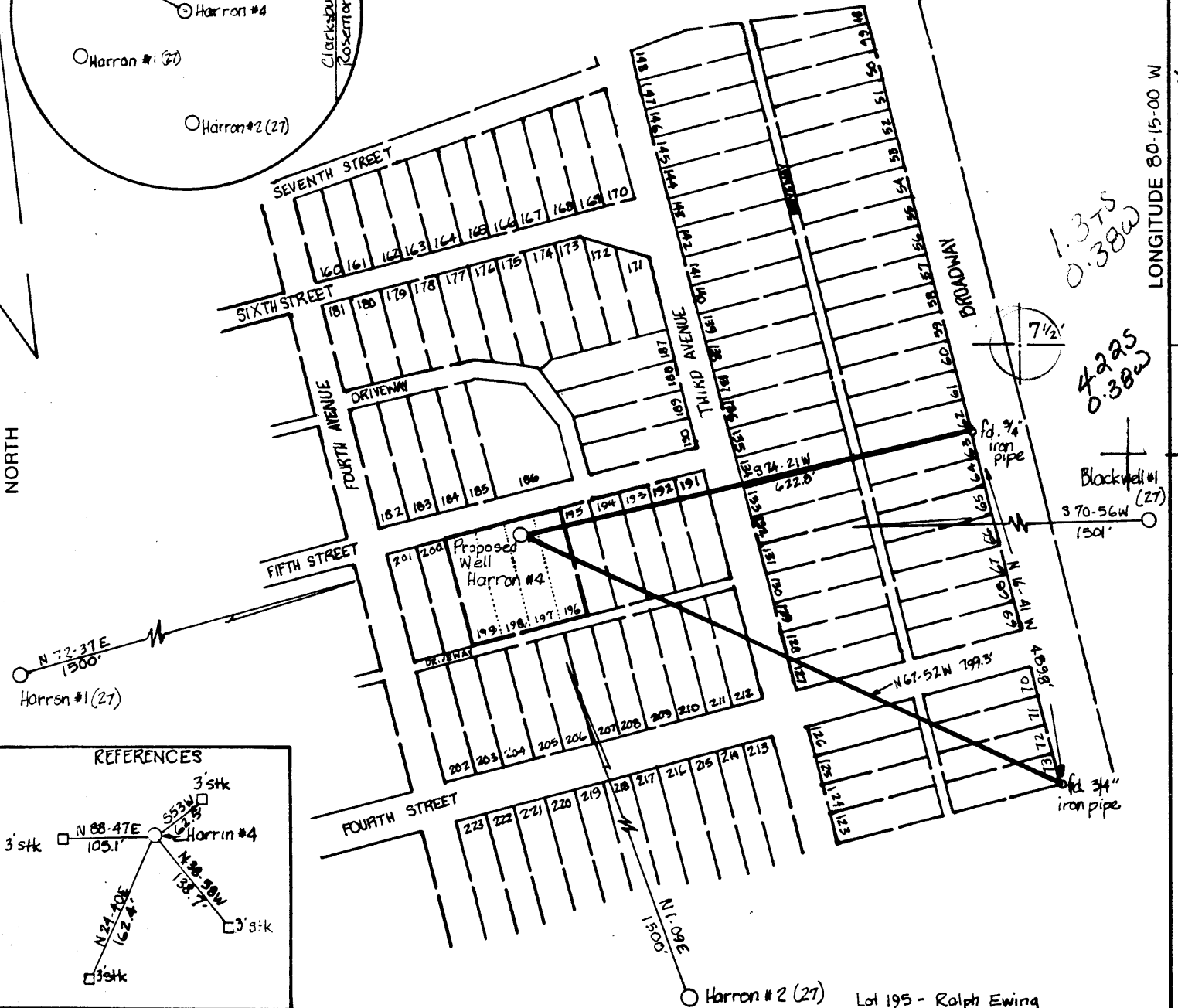
2020'

LATITUDE 39-17-30 N



NORTH

LONGITUDE 80-51-08 EQUINOCT



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

Lot 195 - Ralph Ewing
Lot 200 - William Gore, et al

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 200'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION B.M. 1500' NE of location; elev. 997

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) David Z. Jackson
 R.P.E. _____ C.L.S. 708



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
OIL AND GAS DIVISION



DATE FEBRUARY 6, 1985
 OPERATOR'S WELL NO. HARRON #4
 API WELL NO.

47-033-3163

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 1126 WATERSHED Davison Run

DISTRICT Simpson 8 COUNTY Harrison

QUADRANGLE Clarksburg 7 1/2 297 & 15' 027 SEg

SURFACE OWNER Ray A. Harron ACREAGE Residue of 156 ac

OIL & GAS ROYALTY OWNER Ray A. Harron LEASE ACREAGE Residue of 156 ac

LEASE NO. 379000

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 Berson ESTIMATED DEPTH 5000

WELL OPERATOR Petroleum Development Corporation DESIGNATED AGENT Steven Williams

ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

MAR 04 1985

COUNTY NAME PERMIT

FORM IV-6 (8-78) H.T. HALL

RECEIVED

JUL 9 - 1985

IV-35 (Rev 8-81) & GAS DIVISION DEPT. OF MINES



State of West Virginia Department of Mines Oil and Gas Division

Date 7/3/85 Operator's Well No. #4 Farm RAY HARRON API No. 47-033-3163

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

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

LOCATION: Elevation: 1126' Watershed Davisson Run District: Simpson County Harrison Quadrangle Clarksburg 7 1/2'

COMPANY PETROLEUM DEVELOPMENT CORPORATION ADDRESS PO BOX 26, BRIDGEPORT, WV 26330 DESIGNATED AGENT STEVEN R. WILLIAMS ADDRESS PO BOX 26, BRIDGEPORT, WV 26330 SURFACE OWNER RAY A. HARRON ADDRESS PO BOX 400, BRIDGEPORT, WV 26330 MINERAL RIGHTS OWNER RAY A. & CAROLYN HARRON ADDRESS PO BOX 400, BRIDGEPORT, WV 26330 OIL AND GAS INSPECTOR FOR THIS WORK STEPHEN CASEY ADDRESS RT 2, BOX 232-D JANE LEW, WV 26378 PERMIT ISSUED FEB. 27, 1985 DRILLING COMMENCED JUNE 17, 1985 DRILLING COMPLETED JUNE 22, 1985 IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Table with 4 columns: Casing & Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16, 13-10, 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION BENSON Depth 5000 feet Depth of completed well 4603 feet Rotary xx / Cable Tools Water strata depth: Fresh 68 feet; Salt n/a feet Coal seam depths: 69' Is coal being mined in the area? no

OPEN FLOW DATA Producing formation BENSON Pay zone depth 4369-89 feet Gas: Initial open flow no taken Mcf/d Oil: Initial open flow Bbl/d Final open flow 1100 Mcf/d Oil: Final open flow Bbl/d Time of open flow between initial and final tests hours Static rock pressure 1975 psig (surface measurement) after 72 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.

PERFORATED BENSON WITH 13 SHOTS (4369'-89'). STIMULATED ZONE USING A GELLED H2O FRAC WITH N2 ASSIST. USED 15,000# OF 80/100 SAND, 60,000# OF 20/40 SAND, AND 76,600 SCF OF N2.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
KB - GL			0	10	
sand, shale, RR			10	1218	1" stream H2O @ 68'
Little Lime			1218	1232	coal seam @ 69'
sand, shale			1232	1278	
Big Lime			1278	1392	
Big Injun			1392	1442	gas check @ 1440 6/10 1" H2O
sand, shale			1442	1733	gas check @ 1564 30/10 1" H2O
50 ft			1733	1827	
sand, shale			1827	1853	gas check @ 1841 20/10 1" H2O
30 ft			1853	1866	
sand, shale			1866	1944	
Gordon Stray			1944	1953	
sand, shale			1953	1959	
Gordon			1959	1982	
sand, shale			1982	2044	gas check @ 1994 120/10 2" H2O
3rd			2044	2053	
sand, shale			2053	2110	
4th			2110	2140	
sand, shale			2140	2168	
4th A			2168	2203	
sand, shale			2203	2302	gas check @ 2209 70/10 2" H2O
5th			2302	2338	
sand, shale			2338	2909	gas check @ 2209 70/10 2" H2O
Upper Speechley			2909	2930	
sand, shale			2930	3009	gas check @ 2209 70/10 2" H2O
Speechley			3009	3020	
sand, shale			3020	3144	
Balltown			3144	3401	gas check @ 3162 90/10 2" H2O
sand, shale			3401	3582	gas check @ 3500 50/10 2" H2O
Bradford			3582	3659	
sand, shale			3659	4142	gas check @ 3933 35/10 2" H2O
Riley			4142	4209	
sand, shale			4209	4361	gas check @ 4242 37/10 2" H2O
Benson			4361	4390	gas check @ 4427 55/10 2" H2O
sand, shale			4390	4520	Driller TD 50/10 2" H2O
				4513	Logger TD

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION

Well Operator

By:

[Signature]

Date:

JULY 8, 1985

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."



1) Date: _____, 19____
 2) Operator's Well No. Ray Harron #4
 3) API Well No. 47 - 033 - 3163
 State _____ County _____ Permit _____

RECEIVED

FEB 21 1985

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

- OIL & GAS DIVISION**
DEPT. OF MINES
- 4) WELL TYPE: Oil Gas Production Underground storage _____ Deep _____ Shallow
- 5) LOCATION: Elevation: 1126' Watershed: Davison Run
 District: Simpson County: Harrison Quadrangle: Clarksburg 7 1/2'
- 6) WELL OPERATOR PETROLEUM DEVELOPMENT CORPORATION 7) DESIGNATED AGENT STEVEN R. WILLIAMS
 Address PO BOX 26, 103 EAST MAIN STREET Address PO BOX 26, 103 EAST MAIN STREET
BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name STEPHEN CASEY 38200
 Address RT 2, BOX 232-D
JANE LEW, WV 26378
- 9) DRILLING CONTRACTOR: Name _____ Address _____
- 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate /
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, BENSON
- 12) Estimated depth of completed well, 5000 feet
- 13) Approximate trata depths: Fresh, 42 feet; salt, 1313 feet.
- 14) Approximate coal seam depths: 441 Is coal being mined in the area? Yes _____ / No
- 15) 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	1 3/4	H-40	42#	x		30			Kinds
Fresh water									
Coal									Sizes
Intermediate	8 5/8	J-55	20#	x		950	950	cement to surface (neat cement)	
Production	4 1/2	J-55	10.5#	x		5000	5000	400 sks	Depths set
Tubing									
Liners									Perforations: Top _____ Bottom _____

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-033-3163 Date February 27, 19 85

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.
 Permit expires February 27, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>116</u>	<u>GL</u>	<u>MU</u>	<u>MU</u>	<u>836440</u>

Margaret J. Lasse
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.