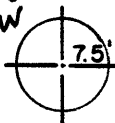
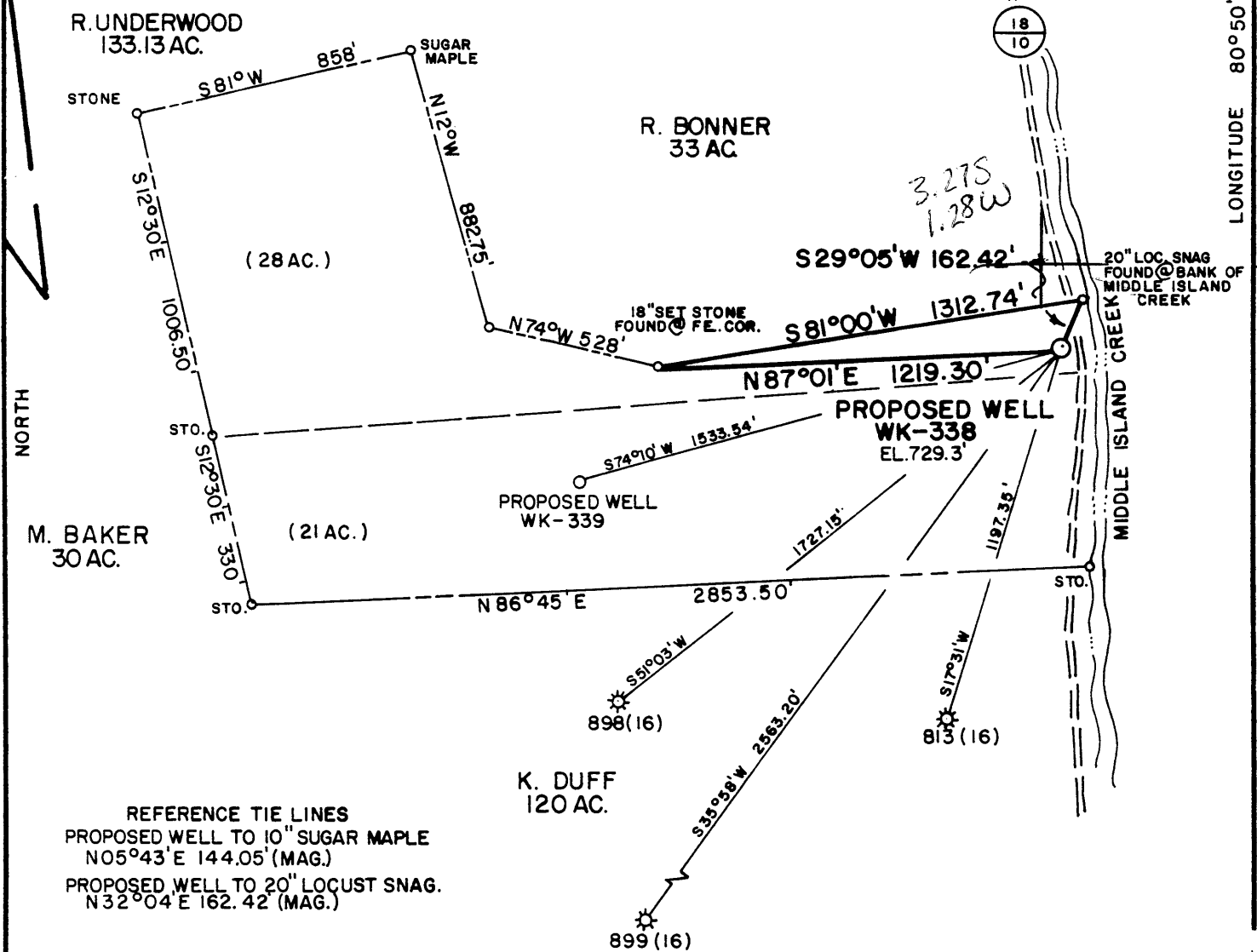


LATITUDE 39°22'30"
39°25'

0.395
1.28W



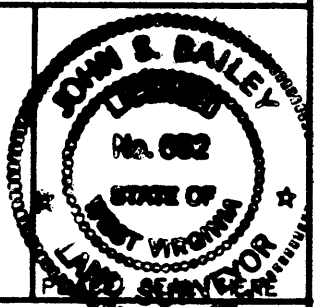
LONGITUDE 80°50'00"



REFERENCE TIE LINES
 PROPOSED WELL TO 10" SUGAR MAPLE
 N05°43'E 144.05' (MAG.)
 PROPOSED WELL TO 20" LOCUST SNAG.
 N32°04'E 162.42' (MAG.)

FILE NO. MSES 84-427
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION USGS DISK @ BRIDGE ON ROUTE 78 EL. 734'

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) John S. Bailey
 R. P. E. _____ L. L. S. 652



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)



Department of Mines
 Oil & Gas Division

DATE JUNE 27, 1984
 OPERATOR'S WELL NO. WK-338
 API WELL NO. 47-095-1086
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS", PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X)
 LOCATION: ELEVATION 729.30' WATER SHED MIDDLE ISLAND CREEK
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE WEST UNION 7.5' (1976) 671 WEST UNION 133 C5
 SURFACE OWNER THELMA FERGUSON ET AL. ACREAGE 49
 OIL & GAS ROYALTY OWNER THELMA FERGUSON ET AL. LEASE ACREAGE 49
 LEASE NO. KW-941
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ FEDRILL ___ 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 DEVONIAN SHALE ESTIMATED DEPTH 5995' **AUG 13 1984**
 WELL OPERATOR KEPCO, INC. 472 DESIGNATED AGENT E. L. STUART
 ADDRESS 436 BLVD. OF THE ALLIES PITTSBURGH, PA. 15219 ADDRESS P.O. BOX 1550 CLARKSBURG, W.V. 26301



IV-35
(Rev 8-81)

Date 10-12-84
Operator's
Well No. WK-338
Farm Ferguson No. 1
API No. 47 - 095 - 1086

State of West Virginia
Department of Mines
Oil and Gas Division

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

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

LOCATION: Elevation: 729.3 Watershed Middle Island Creek
District: Centerville County Tyler Quadrangle West Union 7.5

COMPANY Kepeco, Inc.
ADDRESS 436 Blvd. of Allies Pitts, PA 15219
DESIGNATED AGENT E. L. Stuart
ADDRESS Box 1550 Clarksburg, WV 26301
SURFACE OWNER Thelma Ferguson et. al
ADDRESS Rt. 2 Box 186 Pennsboro, WV 26415
MINERAL RIGHTS OWNER Thelma Ferguson et. al.
ADDRESS Rt. 2 Box 186 Pennsboro, WV 26415
OIL AND GAS INSPECTOR FOR THIS WORK Robert
Lowther General Delivery
ADDRESS Middlebourne, WV 26149
PERMIT ISSUED August 7, 1984
DRILLING COMMENCED September 7, 1984
DRILLING COMPLETED September 13, 1984
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	163	163	75 sks neat cmt
9 5/8			
8 5/8	1353	1353	310 sks neat cmt
7			
5 1/2			
4 1/2	5616	5616	400 sks pozmix
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Rhinestreet Shale Depth 5540 feet
Depth of completed well 5656 feet Rotary x / Cable Tools _____
Water strata depth: Fresh N/A feet; Salt N/A feet
Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Rhinestreet Shale, Riley Benson, 5549, 4635,
Pay zone depth 4231 feet
Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 582 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1500 psig (surface measurement) after 48 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

Typ. 1076

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

Perforate 9-20-84 Perfeo Wireline Co.
 4231 - 4263 Avg. Press 2550 psig, Avg. Rate 25 BPM
 4635 - 4640 Avg. Press 2350 psig, Avg. Rate 20 BPM
 5549 - 5609 Avg. Press 3000 psig, Avg. Rate 29 BPM

Riley
Benson
Rhinesteel

Fractured 9-20-84 Halliburton Services, Waterfrac with Nitrogen Assist
 1st stage - 17,500 lbs. 20/40 sand
 2nd stage - 30,000 lbs. 20/40 Sand
 3rd stage - 5,000 lbs. 80/100 Sand and 20,000 lbs. 20/40 Sand

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Clay			0	10	
Sand			10	20	
Shale and Red Rock			20	65	
Sand			65	80	
Shale			80	130	
Red Rock			130	145	
Sand			145	165	
Shale			165	175	
Sand			175	195	
Red Rock			195	215	
Sand			215	225	
Red Rock and Shale			225	235	
Sand			235	315	
Red Rock and Shale			315	473	
Sand and Shale			473	536	
Red Rock and Shale			536	570	
Sand and Shale			570	630	
Red Rock and Shale			630	710	
Sand			710	745	
Sand and Shale			745	975	
Sand			975	1010	
Sand and Shale			1010	1125	
Sand			1125	1160	
Shale			1160	1190	
Sand			1190	1220	
Shale			1220	1385	
Sand			1385	1402	
Sand and Shale			1402	1582	
Big Lime			1582	1602	
Big Injun			1602	1796	
Shale			1796	1956	
Weir Sand			1956	2066	
Shale			2066	2146	
Berea Sand			2146	2151	
Shale			2151	2574	
5th Sand			2574	2582	
Shale			2582	4231	

From Electric Log

(Attach separate sheets as necessary)

Kepeco, Inc.
Well Operator

By: _____ Chief Geologist
 Date: _____

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 ... encountered in the drilling of a well."

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

Pg 2, 095 1086

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Riley			4231	4263	
Shale			4263	4636	
Benson			4636	4644	
Shale			4644	5540	
Rhinestreet			5540	5656	
		TD		5656	

(Attach separate sheets as necessary)

Kepeco, Inc.
Well Operator

By: David B. Carson Chief Geologist

Date: _____

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 ..., encountered in the drilling of a well."

DEC 31 1984



1) Date: July 2, 19 84
 2) Operator's Well No. WK-338
 3) API Well No. 47 095 1086
 State County Permit

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

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil Gas
 B (If "Gas", Production Underground storage Deep Shallow)
 5) LOCATION: Elevation: 729.30 Watershed: XXXX Middle Island Creek (OSB)
 District: Centerville County: Tyler Quadrangle: West Union 7.5'
 6) WELL OPERATOR Kepeco, Inc.
 Address 436 Blvd. of the Allies
Pittsburgh, PA 15219
 7) DESIGNATED AGENT E. L. Stuart
 Address P. O. Box 1550
Clarksburg, WV 26301
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Robert Lowther
 Address General Delivery
Middlebourne, WV 26149
 9) DRILLING CONTRACTOR:
 Name Unknown
 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, Devonian Shale OIL & GAS DIVISION
 12) Estimated depth of completed well, 5995 feet DEPT. OF MINES
 13) Approximate trata depths: Fresh, 35, 110 feet; salt, _____ feet.
 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes / No

RECEIVED
 JUL 18 1984

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	11-3/4	H-40	42		X	20	20		Kinds <u>CTS by rule 15.05</u>
Fresh water						140'	140'		
Coal									Sizes <u>as req. by rule 15.01</u>
Intermediate	8-5/8	J-55	23	X		1354	1354	Circulate	
Production	4-1/2	J-55	10.5	X			5900		
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-095-1086 August 7 19 84

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 August 7, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

BLANKET	Agent: <input checked="" type="checkbox"/>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>3566</u>
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[Signature]
 Administrator, Office of Oil and Gas

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

See the reverse side of the APPLICANT'S COPY for instructions to the well operator. File