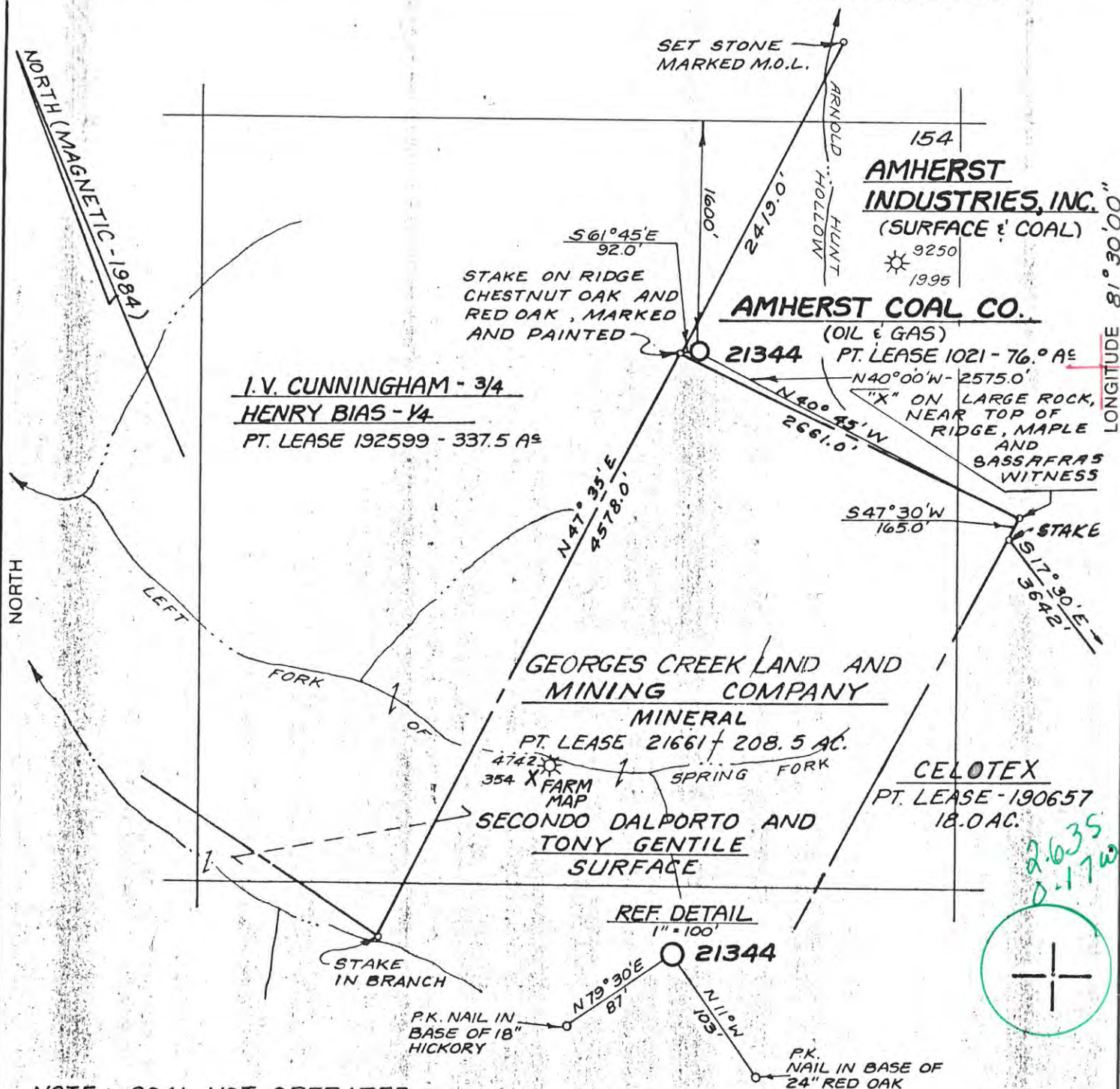


55

LATITUDE 38°20'00"



NOTE: COAL NOT OPERATED

REVISED 3/13/86-BOOK 432-A, PAGE 65 (L.D.R.)

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS BOOK 2478, PAGE-48 (J.B.R.)

FILE NO. 68-55
 DRAWING NO. 21344
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 Part In 200
 PROVEN SOURCE OF ELEVATION U.S. Gov't. Triang. Sta. (Hunt) Elev. 1625'

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 C. Hart*
 R.P.E. _____ L.L.S. 99

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE SEPTEMBER 11, 1984
 OPERATOR'S WELL NO. 21344
 API WELL NO. _____

LAT: 38°17'43" LONG: 81°30'13"
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 1352' WATERSHED LEFT FORK OF SPRING CREEK
 DISTRICT MALDEN 7 COUNTY KANAWHA
 QUADRANGLE CHARLESTON EAST, W.V. 289 024 SE9
 SURFACE OWNER AMHERST INDUSTRIES, INC. ACREAGE 5,000
 OIL & GAS ROYALTY OWNER AMHERST COAL COMPANY LEASE ACREAGE 640 Ac. UNIT
 LEASE NO. 1021

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 TUSCARORA ESTIMATED DEPTH 6,960'
 WELL OPERATOR COL. NATURAL RESOURCES, INC. DESIGNATED AGENT L.L. FRIEND
 ADDRESS P.O. BOX 1273 ADDRESS SAME b/b Indian Creek Pool (358)
 CHARLESTON, W.V. 25325 1013 deep well

OCT 20 1986

FORM IV-6 (8-78)

H.T. HALL

COUNTY NAME PERMIT

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

Open hole completion.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Loam			0	12	
Sand			12	59	
Coal			59	61	
Shale			61	100	
Sand			100	230	
Coal			230	233	
Sand			233	411	
Shale			411	425	
Sand			425	532	
Shale			532	700	
Sand & Shale			700	920	
Sand			920	965	
Sand & Shale			965	1115	Wet @ 1,005'
Sand			1115	1123	
Sand & Shale			1128	1146	
Sand			1146	1360	
Shale			1360	1378	
Sand & Shale			1378	1417	
Sand			1417	1437	
Sand & Shale			1437	1445	
Sand			1445	1686	
Sand & Shale			1686	1715	
Lime			1715	1910	
Injun Sand			1910	1950	
Shale			1950	2400	
Shale			2400	2884	
Sand & Shale			2884	3012	
Shale			3012	3637	
Sand & Shale			3637	4750	
Shale			4750	5170	
Lime			5170	5297	
Sand			5297	5350	
Dolomite			5350	6070	
Sand			6070	6100	
Dolomite			6100	6289	
Lime			6289	6290	
Sandstone			6290	6300	
Shale			6300	6590	
Sand			6590	6630	
Shale/Lime			6630	6720	
Tuscarora			6720	6783	
✓ Juniata Shale			6783	6793	
				6790	

RECEIVED
MAY 27 1987

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

6790 T.D. COLUMBIA NATURAL RESOURCES, INC.

Well Operator

By: James Campbell

Date: May 26, 1987

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."



1) Date: August 7, 1986
2) Operator's Well No. 21344
3) API Well No. 47 - 039 - 4353
State County Permit

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

RECEIVED
SEP 19 1986

- 4) WELL TYPE: A Oil / Gas /
B (If "Gas", Production / Underground storage / **DIVISION OF OIL & GAS DEPARTMENT OF ENERGY**)
- 5) LOCATION: Elevation: 1352' / Watershed: Left Fork of Spring Creek
District: Malden 10137 / County: Kanawha / Quadrangle: Charleston East 287
- 6) WELL OPERATOR Columbia Natural Resources, Inc. 7) DESIGNATED AGENT Joseph E. Campbell
Address P. O. Box 1273 10460 Address P. O. Box 1273
Charleston, WV 25325 Charleston, WV 25325
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Carlos W. Hively
Address 223 Pinch Ridge Road
Elkview, WV 25071
- 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, Tuscarora 575
- 12) Estimated depth of completed well, 6960 feet
- 13) Approximate strata depths: Fresh, 2791 feet; salt, 21102 feet.
- 14) Approximate coal seam depths: 600' 2791 Is coal being mined in the area? Yes / No

15) CASING AND TUBING PROGRAM **Permit # 477**

CASING OR TUBING TYPE	Size	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS		
		Grade	Weight per ft.	New	Used			For drilling	Left in well
Conductor	20"			X		40'	40'	To surface	Kinds
Fresh water									
Coal	13-3/8"			X		820 820	820 820	To surface	Size Per rule 15.0
Intermediate	9-5/8"			X		2430'	2430'	To surface	
Production	7"			X		5400'			Depths set
Tubing	4-1/2"			X		6960'			Perforations:
Lin.									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-039-4353 Date October 16, 1986

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 October 16, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <i>CHB</i>	Plat: <i>AS</i>	Casing: <i>AS</i>	Fee: 5010892 175	WPCP: <i>MM</i>	S&E: <i>MM</i>	Other:
---	-------------------	-----------------	-------------------	---------------------	-----------------	----------------	--------

NOTE: Keep one copy of this permit posted at the drilling location.
7284
See the reverse side of the APPLICANT'S COPY for instructions to the well operator.
Director, Division of Oil and Gas File