

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A PLAT DATED AUGUST 18, 2001 AS PREPARED FOR A.P.I. 47-047-01562 AND DEED BOOK 78 PAGE 242.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF McDOWELL COUNTY IN MAY, 2003.
4. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
5. DUE TO POOR DEED DESCRIPTION, SURFACE TRACTS CANNOT BE MAPPED WITH ANY CERTAINTY.

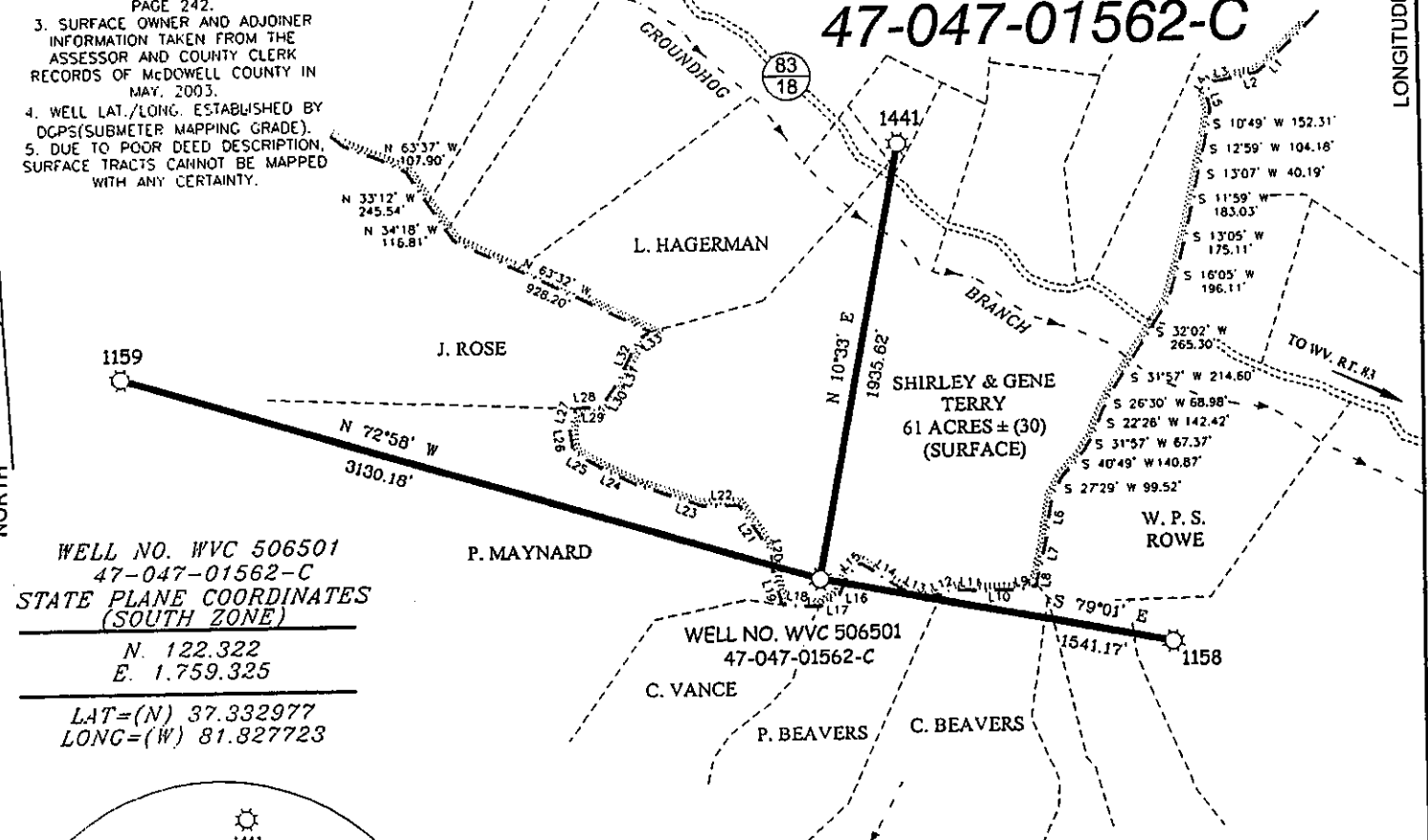
# GEORGIA PACIFIC LEASE

## 810.95 ACRES ±

### WELL NO. WVC 506501

### 47-047-01562-C

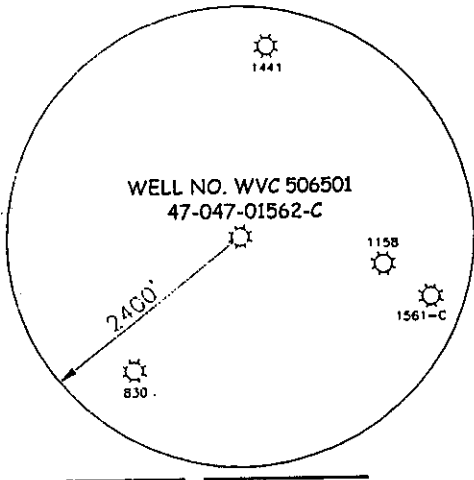
NORTH



WELL NO. WVC 506501  
47-047-01562-C  
STATE PLANE COORDINATES  
(SOUTH ZONE)

N. 122.322  
E. 1.759.325

LAT=(N) 37.332977  
LONG=(W) 81.827723



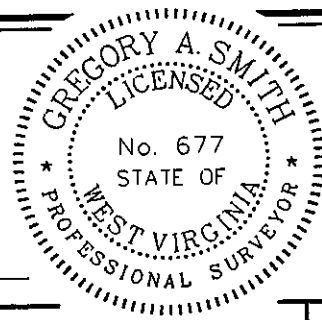
LINE	BEARING	DISTANCE
L1	S 48°50' W	92.65'
L2	S 78°27' W	95.61'
L3	S 79°55' W	109.37'
L4	S 27°23' W	52.80'
L5	S 14°29' E	70.36'
L6	S 08°14' W	210.75'
L7	S 12°50' W	160.63'
L8	S 06°09' W	25.47'
L9	S 82°31' W	124.40'
L10	S 89°31' W	117.64'
L11	N 86°31' W	123.90'
L12	S 70°59' W	126.35'
L13	N 62°29' W	125.99'
L14	N 55°49' W	188.94'
L15	S 49°47' W	73.00'

L16	S 22°17' W	93.53'
L17	S 57°55' W	95.50'
L18	N 86°25' W	169.20'
L19	N 15°58' W	127.84'
L20	N 05°32' W	107.50'
L21	N 33°09' W	244.90'
L22	N 89°29' W	165.09'
L23	N 70°39' W	297.71'
L24	N 62°28' W	177.20'
L25	N 58°39' W	130.00'
L26	N 06°33' W	102.03'
L27	N 17°36' E	88.02'
L28	N 87°19' E	63.80'
L29	N 89°49' E	41.68'
L30	N 36°24' E	124.20'
L31	N 24°32' E	132.70'
L32	N 25°14' E	79.10'
L33	N 56°20' E	65.18'



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. Gregory A. Smith  
677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JULY 30, 20 03  
OPERATORS WELL NO. WVC 506501  
API WELL NO. 47 - 047 - 01562-C  
STATE FRAC CANCELLED COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 5293P506501 (145-60)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 2,260' WATERSHED GROUNDHOG BRANCH  
DISTRICT SANDY RIVER COUNTY McDOWELL QUADRANGLE BRADSHAW 7.5'  
SURFACE OWNER SHIRLEY & GENE TERRY ACREAGE 61± (30)  
ROYALTY OWNER PLUM CREEK TIMBERLANDS, L.P. LEASE ACREAGE 810.95±  
PROPOSED WORK: LEASE NO. WV 497892  
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD   
FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
PHYSICAL CHANGE IN WELL (SPECIFY) RESTIMULATION TARGET FORMATION PENNSYLVANIAN COALS  
ESTIMATED DEPTH N/A

WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT STEPHEN G. PERDUE JUN 30 2006  
ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVENUE  
CHARLESTON, WV 25302 CHARLESTON, WV 25302

COUNTY NAME McDOWELL  
PERMIT 1562 CANC.

NOTES ON SURVEY

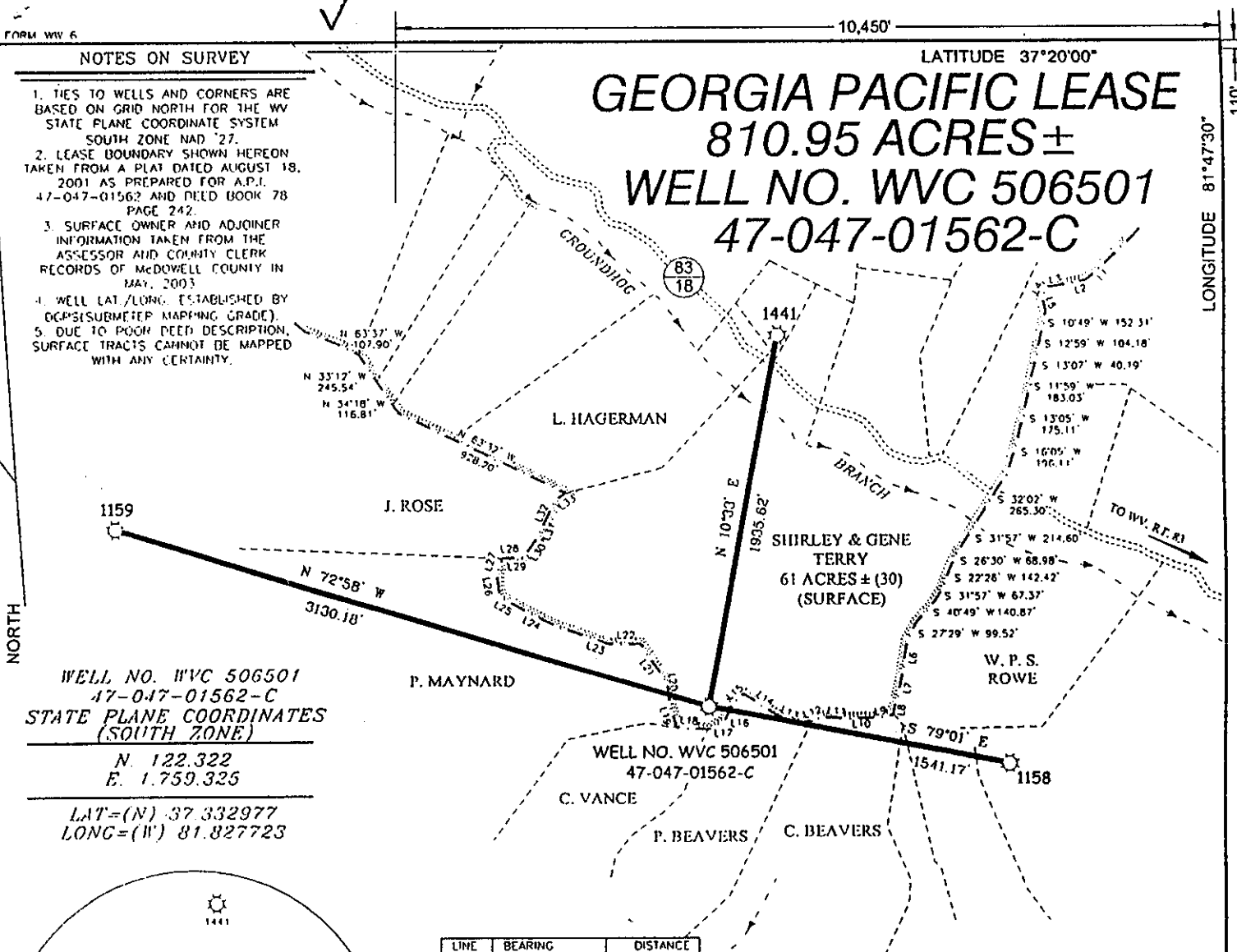
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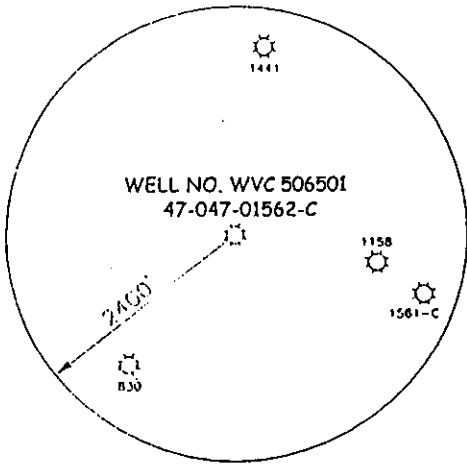
### 47-047-01562-C



WELL NO. WVC 506501  
47-047-01562-C  
STATE PLANE COORDINATES  
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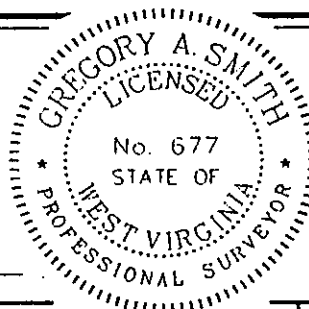
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P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JULY 30, 20 03  
OPERATORS WELL NO. WVC 506501  
API WELL NO. 47-047-01562-C  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 5293P506501 (145-60)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 2.260' WATERSHED GROUNDHOG BRANCH  
DISTRICT SANDY RIVER COUNTY McDOWELL QUADRANGLE BRADSHAW 7.5'

SURFACE OWNER SHIRLEY & GENE TERRY ACREAGE 61± (30)  
ROYALTY OWNER PLUM CREEK TIMBERLANDS, L.P. LEASE ACREAGE 810.95±  
PROPOSED WORK: LEASE NO. WV 497892

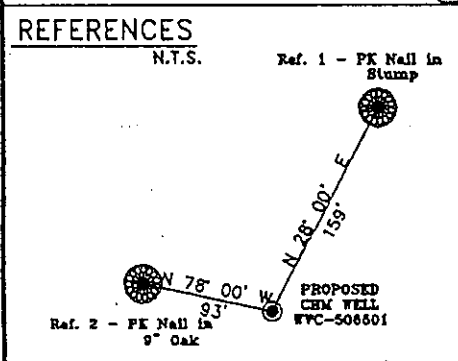
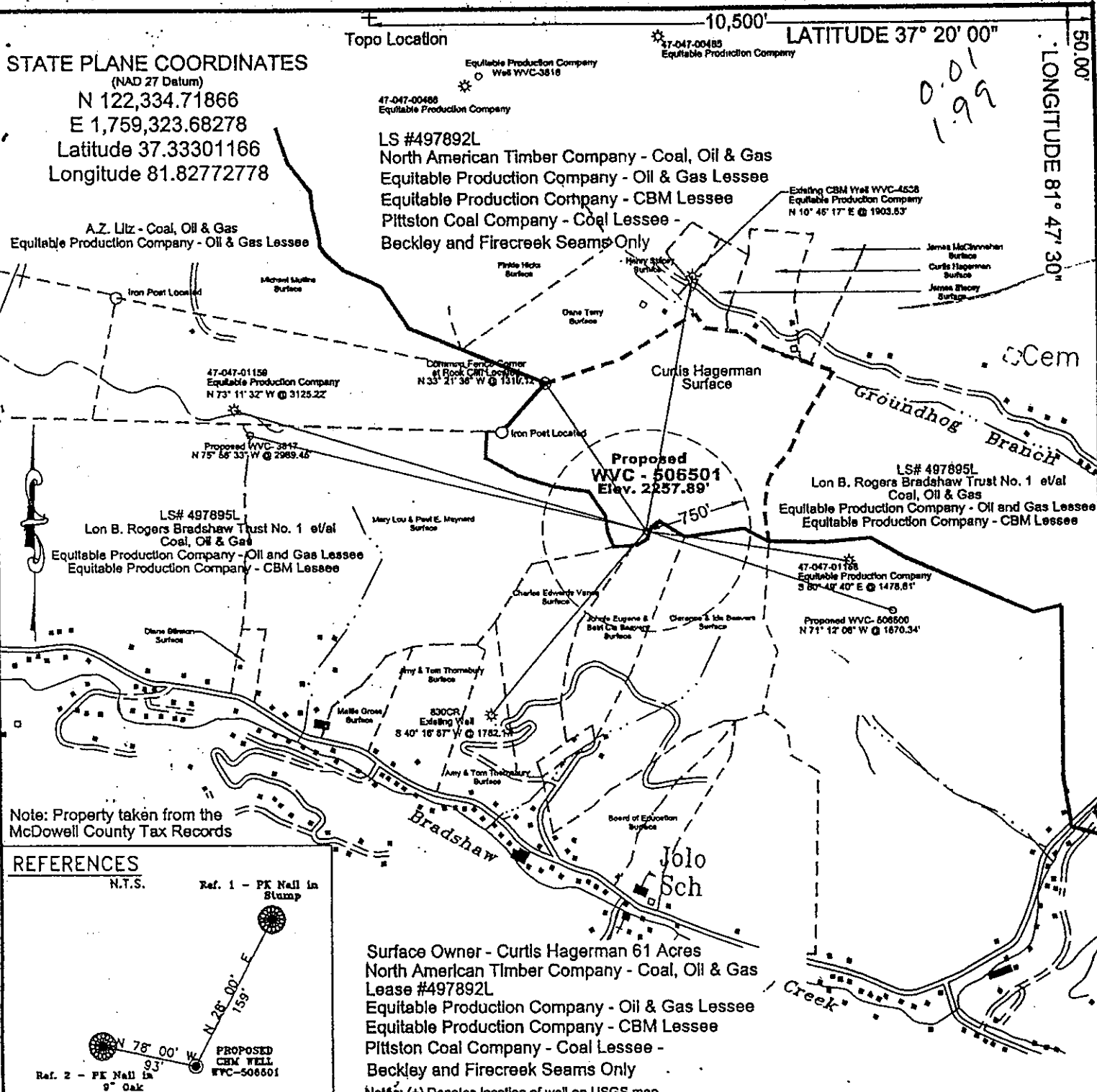
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD

FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) RESTIMULATION TARGET FORMATION PENNSYLVANIAN COALS  
ESTIMATED DEPTH N/A

WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT STEPHEN G. PERDUE  
ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVENUE  
CHARLESTON, WV 25302 CHARLESTON, WV 25302

McDOWELL COUNTY NAME PERMIT 1562 F



Surface Owner - Curtis Hagerman 61 Acres  
 North American Timber Company - Coal, Oil & Gas Lease #497892L  
 Equitable Production Company - Oil & Gas Lessee  
 Equitable Production Company - CBM Lessee  
 Pittston Coal Company - Coal Lessee - Beckley and Firecreek Seams Only

Note: (+) Denotes location of well on USGS map.

FILE No. 7-16-01-1KF  
 DRAWING NAME \506501\PLAT WVC 506501  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 : 2500  
 PROVEN SOURCE OF ELEVATION Global Positioning System (GPS)

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. 3091 R.P.S.



STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 NITRO, WV

DATE AUGUST 18 2001  
 OPERATOR'S WELL No. WVC-506501  
 API WELL No. 47 - 047 - 015620  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 2257.89 WATER SHED TRIBUTARY OF BRADSHAW CREEK OF DRY FORK  
 DISTRICT SANDY RIVER COUNTY McDOWELL  
 QUADRANGLE BRADSHAW, WV

SURFACE OWNER CURTIS HAGERMAN ACREAGE ± 61 TAX MAP 324 Parcel 3  
 CBM ROYALTY OWNER NORTH AMERICAN TIMBER CORPORATION LEASE ACREAGE 810.95  
 LEASE No. 497892L

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 PENNSYLVANIAN COALS ESTIMATED DEPTH SEP 14 2001  
 WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT STEPHEN PERDUE  
 ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVE.  
CHARLESTON, WV 25328 CHARLESTON, WV 25328

6-6 383

McDow 1562 C

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

*ARB*

Well Operator's Report of Well Work

Farm Name: Hagerman, Curtis Operator Well No.: 506501

LOCATION: Elevation: 2257.89' Quadrangle: Bradshaw

District: Sandy River County: McDowell

Latitude: 50' Feet South of 37 Deg. 20 Minutes 0 Seconds  
Longitude: 10,500' Feet West of 81 Deg. 47 30

Company: Equitable Production Company  
P.O. Box 2347, 1710 Pennsylvania Avenue  
Charleston, WV 25328

Agent: Stephen G. Perdue

Inspector: Ofie Helmick

Permit Issued: 9/13/01

Well work commenced: 09/21/01  
Well work completed: 11/14/01

Verbal Plugging

Permission granted on: \_\_\_\_\_

Rotary Rig  Cable Rig \_\_\_\_\_

Total Depth 2111 feet

Fresh water depths (ft) \_\_\_\_\_

Salt water depths (ft) \_\_\_\_\_

Is coal being mined in area? \_\_\_\_\_

Coal Depths (ft): 215'-218'; 290'-292'; 382'-384'; 410'-412'; 435'-438'; 473'-473'; 570'-573'; 880'-882'; 950'-953';  
990'-992'; 1100'-1102'; 1160'-1163'; 1300'-1302'; 1605'-1607'; 1650'-1653'; 1820'-1823'; 1900'-1902';  
1980'-1982'; 1985'-1987'

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
12 3/4"	15'	15'	grouted
9 5/8"	626'	626'	236.3 ft <sup>3</sup>
4 1/2"	2097'	2097'	412.8 ft <sup>3</sup>
2 3/8"		2041'	

RECEIVED  
Office of Oil & Gas  
Permitting  
JAN 24 2002  
WV Department of  
Environmental Protection

OPEN FLOW DATA

Producing formation Lower Coal Seams; Upper Coal Seams

Pay Zone Depth (ft): \_\_\_\_\_ See Attach for details

Gas: Initial open flow 0 MCF/d  
Final open flow: 21.06 MCF/d

Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow: \_\_\_\_\_

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock pressure 23 psig (surface pressure) after \_\_\_\_\_ Hours

Second producing formation \_\_\_\_\_

Pay Zone Depth (ft): \_\_\_\_\_

Gas: Initial open flow \_\_\_\_\_ MCF/d  
Final open flow: \_\_\_\_\_ MCF/d

Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow: \_\_\_\_\_

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

*Kathy L. Newmyer*  
For: Equitable Production Company

By: *John A. This*  
Date: 11/14/02

MAR 01 2002

FEB 08 2002

MCDOWELL

**EQUITABLE PRODUCTION COMPANY  
WR-35 COMPLETION REPORT - Attachment  
Well Treatment Summary**

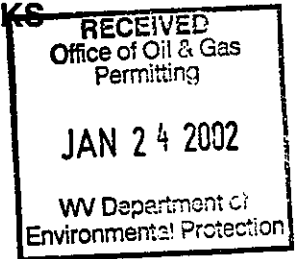
Well: WVC-506501

API# 47-047-01562

Date	10/18/01	10/18/01			
Type Frac Acid, N <sub>2</sub> , Foam, Water	70 Q Foam	70 Q Foam			
Zone Treated	Lower Coal Seams	Upper Coal Seams			
# Perfs From - To:	22 1554.75'- 1974.5	24 1010.75'- 1420.5			
BD Pressure @ psi	1890	1710			
ATP psi	3500	3167			
Avg. Rate, B=B/M, S= SCF/M	27 B (foam)	39 B (foam)			
Max. Treat Press psi	3970	3520			
ISIP psi	1140	870			
Frac Gradient	1.07	1.14			
10 min S-I Pressure		660 (5 min)			
Material Volume					
Sand-sks	10	189			
Water-bbl	185	559			
SCF N <sub>2</sub>	386,798	612,694			
Acid-gal	1020 gal 15%	1100 gal 15%			
NOTES:	Screened out stage incomplete				

TOP	BOTTOM	FORMATION
0	15'	
15'	70'	Sandy Shale
70'	160'	Sandstone
160'	215'	Sandy Shale
215'	218'	Coal
218'	290'	Sandstone
290'	292'	Coal
292'	382'	Sandy Shale
382'	384'	Coal
384'	410'	Sandy Shale
410'	412'	Coal
412'	435'	Sandy Shale
435'	438'	Coal
438'	470'	Sandy Shale
470'	473'	Coal
473'	570'	Sandstone
570'	573'	Coal
573'	675'	Sandy Shale
675'	880'	Sandstone
880'	882'	Coal
882'	900'	Sandy Shale
900'	950'	Sandstone
950'	953'	Coal
953'	990'	Sandstone
990'	992'	Coal
1004'	1012'	Sewell A

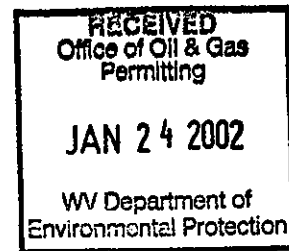
**REMARKS**



MAR 01 2002

1073'	1074.5'	Sewell B
1098'	1099'	Welch
1160.5'	1163'	Little Raleigh
1287.5'	1306.25'	Beckley
1418'	1421.75'	Fire Creek
1554.25'	1555'	Poca 8
1615'	1616.5'	Poca 7
1652'	1654'	Poca 6
1676.25'	1680'	Poca 5
1739.5'	1741.5'	Poca 4
1764.5'	1765.5'	Poca 4L
1815.5'	1818'	Poca 3
1869'	1873'	Poca 2
1911'	1912'	Poca 1
1973.75'	1975'	Squire Jim
	2111'	TD

GT @ TD = NS



FEB 08 2002

McDOW 1000