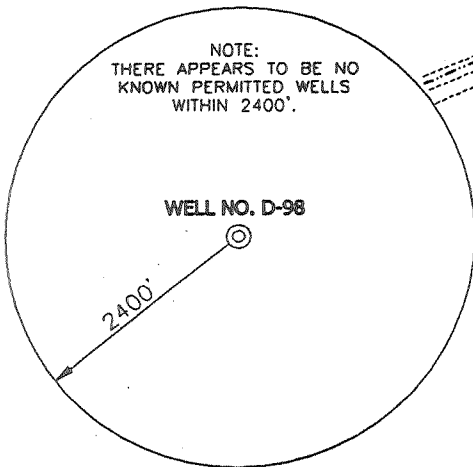
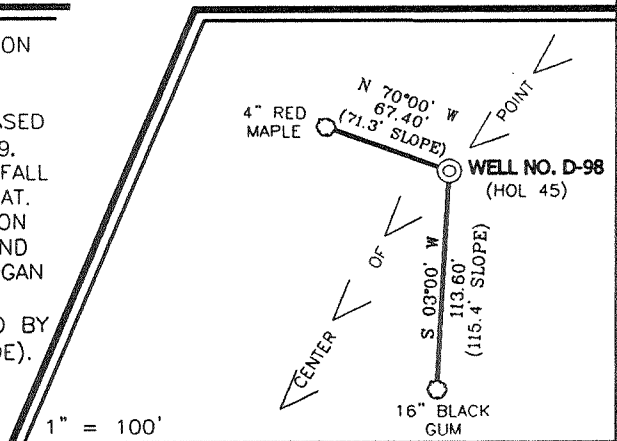


NOTES ON SURVEY

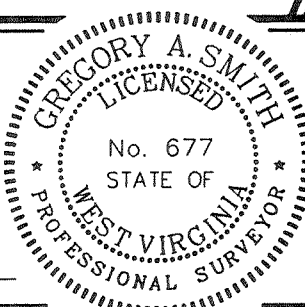
1. TIES TO WELLS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 3/17/99.
3. LEASE BOUNDARY DOES NOT FALL WITHIN THE SCOPE OF THIS PLAT.
4. SURFACE OWNER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF LOGAN COUNTY IN MARCH, 1999.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



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 ENERGY.


P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE MARCH 29, 19 99  
 OPERATORS WELL NO. ISLAND CREEK#D-98  
 API WELL NO. 47-045-01322  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 3890PD98 (76-34)  
 PROVEN SOURCE OF ELEVATION CABIN HILL TRIANGULATION STATION ELEV. 1844'  
 SCALE 1" = 2000'

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 1363' WATERSHED STONE HOLLOW OF TRACE FORK  
 DISTRICT ISLAND CREEK COUNTY LOGAN QUADRANGLE HOLDEN 7.5'  
 SURFACE OWNER FORESTLAND GROUP ACREAGE 24,580.82  
 ROYALTY OWNER ISLAND CREEK COAL COMPANY LEASE ACREAGE 34,953.47  
 PROPOSED WORK : LEASE NO. 80662  
 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) \_\_\_\_\_ TARGET FORMATION DEVONIAN SHALE  
 ESTIMATED DEPTH 4600'

WELL OPERATOR BLAZER ENERGY CORPORATION DESIGNATED AGENT RICHARD SMELTZER  
 ADDRESS P.O. BOX 2347 CHARLESTON, WV 25328 ADDRESS P.O. BOX 2347 CHARLESTON, WV 25328

DEEP WELL

6-6 274

COUNTY NAME 106 PERMIT 1322



**EASTERN STATES OIL & GAS, INC.**  
**WR-35 COMPLETION REPORT - Attachment**  
**Well Treatment Summary**

Well: Island Creek Coal D-98

API# 47-045-01306

Date	10/15/99	10/15/99	10/15/99			
Type Frac						
Acid, N <sub>2</sub> , Foam, Water	N <sup>2</sup>	N <sup>2</sup>	Acid/N <sup>2</sup>			
Zone Treated	L. Shale	U. Shale Berea	Big Lime			
# Perfs	14	27	20			
From - To:	4572-4924	2990-4448	2454-2635			
BD Pressure @ psi	3448	2598	512			
ATP psi	2566	2229	856			
Avg. Rate, B=B/M, S= SCF/M	46,500 S	52,530 S	7890 S			
Max. Treat Press psi	4172	2598	1449			
ISIP psi	2163	1150	1070			
Frac Gradient	.53	.35	.46			
10 min S-I Pressure	2047	1004	927			
Material Volume						
Sand-sks						
Water-bbl	36	1-1/2	6-1/2			
SCF N <sub>2</sub>	459,050	1,185,100	48,407			
Acid-gal	350 gal 7.5%	1239 gal 7.8%	2500 gal 16%			
NOTES:						

TOP	BASE	FORMATION	REMARKS
0	120	Sand Shale	
120	125	Coal	
125	362	Sand Shale	
362	366	Coal	
366	538	Sand Shale	Hole damp @ 517'
538	542	Coal	
542	634	Sand Shale	
634	642	Coal	
642	668	Sand Shale	
668	672	Coal	
672	782	Sand Shale	
782	792	Open Mine	
792		Sand Shale	
1160	1880	Salt Sand	Hole damp @ 1390' & 1400'
2127	2196	U. Maxton	GT @ 1938', 2173', 2313', 2413'=NS
2215	2266	L. Maxton	
2330	2378	L. Lime	
2378	2638	Big Lime	
2750	2725	Weir	GT @ 2650', 2868', 3243', 4237'=odor
3133	3165	Sunbury	
3165	3196	Berea	
3196	4148	U. Huron	
3310	3138	Gordon	
4148	4457	L. Huron	
4457	4573	Java	
4573	4776	Angola	
4776	4935	Rhinestreet	
4935		Onondoga	
4986		TD	

GT @ drill collars=15 mcf  
 After running 4-1/2" csg=22 mcf.