

12" WHITE OAK  
 16" BUCKEYE  
 PROPOSED PMC SOUTH  
 108-103-069

REFERENCES	SCALE 1"=100'
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WELL COORDINATES  
 WV STATE PLANE  
 SOUTH ZONE NAD 1927  
 N. 104940.72  
 E. 177220.53

**TEE Engineering Company, Inc.**  
 320 Cuthers Hill Court  
 Lexington, KY 40509  
 (859) 263-5350  
 Fax (859) 263-5345

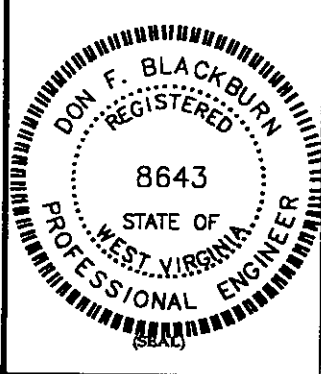
**GeoMet Operating Company, Inc.**  
 Well No. PMC South 108-103-069

FILE NO. 1883-08  
 DRAWING NO. WELL PMC 069 PLAT  
 SCALE: 1" = 2,000'  
 MIN. DEGREE OF ACCURACY 1:2,500  
 PROVEN SOURCE OF ELEVATION  
 GPS STATION TEC-1 (ELEV. 2406.60)

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.

*Don F. Blackburn*  
 (SIGNATURE)

R.P.E. 8643 R.P.S.



**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS

DATE DECEMBER 31, 2002  
 OPERATOR'S WELL NO. PMC SOUTH 108-103-069  
 API WELL NO. 47 STATE 047 COUNTY 01758C PERMIT

WELL TYPE: OIL  GAS X CBM  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 2,660.35' NORTHING 104,940.72 EASTING 1,772,220.53  
 DISTRICT BIG CREEK WATER SHED MUDLICK BR. OF LITTLE SLATE CREEK  
 QUADRANGLE BRADSHAW COUNTY McDOWELL  
 SURFACE OWNER POCAHONTAS MINING, LLC. ACREAGE 1,108  
 CBM ROYALTY OWNER POCAHONTAS MINING, LLC. LEASE ACREAGE 1,108  
 LEASE NO. RECORDING IN PROGRESS

PROPOSED WORK: DRILL  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 NEW RIVER AND POCAHONTAS COALS ESTIMATED DEPTH 2,250'  
 WELL OPERATOR GEOMET OPERATING COMPANY, INC. DESIGNATED AGENT GREGG CLEARY  
 ADDRESS 5336 STADIUM TRACE PARKWAY SUITE 3206 BIRMINGHAM, ALABAMA 35244  
 ADDRESS 1105 HEATHERWOOD ROAD BLUEFIELD, WV 24701

(Bradshaw 270)

MAR 14 2003

MCDOWELL 1758C

*MD*

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

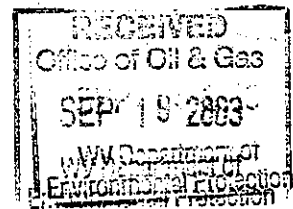
Well Operator's Report of Well Work

FARM NAME: Pocahontas Mining, LLC. OPERATOR WELL NO.: 108-103-069

LOCATION:

Elevation: 2,660.35' Quadrangle: Bradshaw

District: Big Creek County: McDowell  
Latitude: 9,563' Feet South of 37 Deg. 17 Min. 30 Sec.  
Longitude: 2230' Feet West of 81 Deg. 45 Min. 00 Sec.



Company: <u>GeoMet Operating Company</u>	Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. Ft.
Address: <u>5336 Stadium Trace Parkway, Suite 206 Birmingham, Alabama 35244</u>	<u>16"</u>	<u>36.75'</u>	<u>36.75'</u>	
Agent: <u>Gregg Cleary</u>				
Inspector: <u>Ronnie Scott</u>	<u>11-3/4"</u>	<u>331'</u>	<u>331'</u>	<u>199/Pumped 240</u>
Date Permit Issued: <u>March 13, 2003</u>				
Date Well Work Commenced: <u>April 15, 2003</u>	<u>8-5/8"</u>	<u>561'</u>	<u>561'</u>	<u>126/Pumped 210</u>
Date Well Work Completed: <u>May 6, 2003</u>				
Verbal Plugging:	<u>5-1/2"</u>	<u>2435'</u>	<u>2435'</u>	<u>422/ Pumped 481</u>
Date Permission granted on:				
Rotary <u>XXXX</u> Cable Rig				
Total Depth (feet): <u>2460'</u>				
Fresh Water Depth (feet): <u>Unknown</u>				
Salt Water Depth (feet): <u>Unknown</u>				
Is coal being mined in area (N/Y)? <u>No</u>				

Coal Depths (feet): 577, 583, 601, 602, 639, 641, 681, 685, 687, 1026, 1113, 1153, 1195, 1235, 1237, 1345, 1569, 1602, 1621, 1645, 1663, 1683, 1721, 1777, 1876, 1887, 1929, 1931, 1964, 2029, 2030, 2129, 2134, 2251, 2254, 2263 .

OPEN FLOW DATA

Producing formation All Zones Commingled Pay zone depth (ft) \_\_\_\_\_  
 Gas: Initial Open Flow N/A MCF/d Oil: Initial Open Flow \_\_\_\_\_ Bbl/d  
 Final Open Flow N/A MCF/d Final Open Flow \_\_\_\_\_ Bbl/d  
 Time of Open Flow between initial and final tests N/A Hours  
 Static Rock Pressure 26 psig (surface pressure) after 96 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.

SIGNED:

BY:

*Dundrea Smith*

DATE:

\_\_\_\_\_

OCT 17 2003

*McDow 1757*

**GeoMet Operating Company, Inc.**  
**Perforation and Frac Volume Specification**

Well Name PMC SOUTH 069

PBTD

2435'

**Zone and Perforation Table**

Frac Stage	Interval		Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 1	2252	2255				
N2 Scf	447,000		2200'		18,000	9,000
Acid	400					
Gel Volume	17,000					
ISIP	3,503					
ATP	3,898					
AIR	12	BPM				
Stage 2	2,078	2081				
N2 Scf	188,000		30 Balls on Plug @ 2000'			
Acid	200					
Gel Volume	8,200					
ISIP	1,466					
ATP	2,428					
AIR	22	BPM				
Stage 3	1,963	1966				
N2 Scf	162,000		1928' - 1931' 32 Balls on Plug - 1910'			
Acid	450					
Gel Volume	8,800					
ISIP	1,291					
ATP	1,930					
AIR	25	BPM				
Stage 4	1,874	1877				
N2 Scf	269,000		1886' - 1889' No Plug			
Acid	200					
Gel Volume	9,400					
ISIP	4,000					
ATP	3,582					
AIR	22	BPM				
Stage 5	1,720	1723				
N2 Scf			Would not break down 4200# No Plug			
Acid	20					
Gel Volume						
ISIP						
ATP						
AIR		BPM				

GEO-MET OPERATIONS  
HOLE #PMC-069  
PAGE 3

TOTAL DEPTH: 2460  
36.75' OF 16" CASING  
331' OF 11-3/4" CASING  
561' OF 8-5/8" CASING  
2435' OF 5-1/2" CASING

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OCT 17 2006

MCDOW 1758

# DRILL DATA HOLE - NOAH HORN WELL DRILLING, INC.

COMPANY : GEO-MET OPERATIONS      HOLE NO. PMC-069

LOCATION:    PEA PATCH                      DRILL: RIG 23

DATE STARTED: 04-23-03                      ELECTRIC LOGGED: YES

DATE COMPLETED: 04-29-03                      GROUTED: YES

DEPTH		THICKNESS	STRATA	REMARKS
FROM	TO	FT.	DESCRIPTION	VOIDS, ETC
0	34	34.00	OVERBURDEN/SOFT SAND	
34	37	3.00	SANDSTONE	36.75' OF 16" CASING
37	61	24.00	SANDSTONE/COAL STRKS/SANDSTONE	
61	92	31.00	SANDSTONE	
92	123	31.00	SANDSTONE/SHALE STRKS/SANDSTONE	
123	154	31.00	SANDSTONE/COAL STRKS/SANDY SHALE	
154	185	31.00	SANDSTONE	
185	215	30.00	SANDSTONE/COAL STRKS/SANDY SHALE	
215	245	30.00	SANDSTONE/COAL STRKS/SANDSTONE	
245	305	60.00	SANDSTONE	
305	335	30.00	SAND/SANDY SHALE STRKS	331' OF 11-3/4"
335	365	30.00	SANDSTONE	
365	395	30.00	SANDSTONE/COAL/SANDY SHALE	
395	425	30.00	SANDY SHALE/SANDSTONE	
425	455	30.00	SANDSTONE/COAL STRKS/SANDSTONE	
455	485	30.00	SANDSTONE/COAL - 2'	
485	515	30.00	COAL - 3'/SANDSTONE	
515	545	30.00	SANDSTONE	
545	570	25.00	SANDSTONE/SHALE	561' OF 8-5/8"
570	600	30.00	SANDY SHALE/SAND/COAL	
600	630	30.00	SANDSTONE/SANDY SHALE	
630	660	30.00	SANDY SHALE/COAL/SANDY SH/SANDST.	
660	690	30.00	SANDSTONE/SANDY SHALE/COAL	
690	720	30.00	SANDY SHALE/SANDSTONE	
720	750	30.00	SANDSTONE	
750	810	60.00	SANDSTONE/SANDY SHALE	
810	840	30.00	SANDY SHALE/COAL STRKS.	
840	870	30.00	SANDY SHALE/SANDSTONE STRKS.	
870	900	30.00	SANDY SHALE/COAL STRKS./SANDY SH.	
900	930	30.00	SANDY SHALE/SAND	
930	960	30.00	SAND/SANDY SHALE	
960	990	30.00	SANDY SHALE/COAL	
990	1020	30.00	SHALE/COAL/SHALE/SANDY SHALE	
1020	1050	30.00	SANDY SHALE/SAND/SHALE	
1050	1080	30.00	SANDY SHALE	
1080	1110	30.00	SANDY SHALE/SAND/SANDY SHALE/COAL	

Well Name PMC SOUTH 069

PBTD

2435'

**Zone and Perforation Table**

	1,644	1,646	Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 6 Interval						
N2 Scf						
Acid	20					
Gel Volume			1663' - 1665', 1683' - 1685'			
ISIP			Would not break No Plug			
ATP			No Plug 4200#			
AIR		BPM				
Stage 7 Interval	1,601	1,604			30,000	29,000
N2 Scf	226,000					
Acid	450					
Gel Volume	13,000		1620' - 1623'			
ISIP			No Plug			
ATP	2,392					
AIR	26	BPM				
Stage 8 Interval						
N2 Scf						
Acid						
Gel Volume						
ISIP						
ATP						
AIR		BPM				
Stage 9 Interval						
N2 Scf						
Acid						
Gel Volume						
ISIP						
ATP						
AIR		BPM				
Stage 10 Interval						
N2 Scf						
Acid						
Gel Volume						
ISIP						
ATP						
AIR						

M. Dow 1756