

7,580' LATITUDE 37° 20' 00"

LONGITUDE 81° 45' 00"

13316

18" DOUBLE WALNUT
 PROPOSED HARMAN
 109-105-098
 18" POPLAR

REFERENCES SCALE 1"=100'

WELL COORDINATES
 WV STATE PLANE
 SOUTH ZONE NAD 1927
 N. 109008.77
 E. 1774236.91

(+) DENOTES LOCATION OF WELL ON 7.5' TOPOGRAPHIC MAP

TEE Engineering Company, Inc.
 320 Culture Hill Court
 Lexington, KY 40509
 (606) 263-9299
 Fax (606) 263-5345

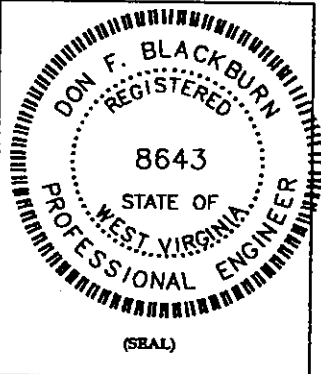
GeoMet Operating Company, Inc.
 Well No. HARMAN 109-105-098

FILE NO. 1883-08/2003 WELLS
 DRAWING NO. WELL HARMAN 98 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 MARCH 20, 2003
 OPERATOR'S WELL NO. HARMAN 109-105-098

API WELL NO. 47 STATE 047 COUNTY McDOWELL PERMIT 01783-C

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

LOCATION: ELEVATION 1,909.59' NORTHING 109008.77 EASTING 1774236.91
 DISTRICT BIG CREEK WATER SHED MUDLICK BR. OF LITTLE SLATE CREEK
 QUADRANGLE BRADSHAW COUNTY McDOWELL

SURFACE OWNER HOLLY LEE MULLINS ACREAGE 5
 CBM ROYALTY OWNER LETA DOTSON HARMAN LEASE ACREAGE 151
 LEASE NO. RECORDING IN PROGRESS

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
 STIMULATE PLUG OFF OLD FORMATION PEFORATE NEW
 FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION NEW RIVER AND POCAHONTAS COALS ESTIMATED DEPTH 2,099'
 WELL OPERATOR GEOMET OPERATING COMPANY, INC. DESIGNATED AGENT KERRY HILL
 ADDRESS 5336 STADIUM TRACE PARKWAY SUITE 3206 ADDRESS 330 HARPER PARK DRIVE SUITE A
BIRMINGHAM, ALABAMA 35244 BECKLEY, WV 25801

Mcdow 1783C

6-6005

MAY 18 2003

Latitude

Longitude

57 18

Topo Location

7.5' Loc. _____ 15' Loc. _____
(calc.) _____

Company Geo met

Farm Holly Lee Mullins

15' Quad _____
(sec.)

7.5' Quad Bradshaw

District Big CK.

WELL LOCATION PLAT

County 47 Permit 1783

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

Ar 93

Well Operator's Report of Well Work

FARM NAME: Holly Lee Mullins

OPERATOR WELL NO.: 109-105-098

LOCATION:

Elevation: 1.909.59'

Quadrangle: Bradshaw

District: Big Creek

County: McDowell

Latitude: 7.580' Feet South of 37 Deg. 20 Min. 00 Sec.

Longitude: 13.316' Feet West of 81 Deg. 45 Min. 00 Sec.

OCT 22 2003
WV Department of

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>13-3/8"</u>	<u>41'</u>	<u>41'</u>	
Agent: <u>Gregg Cleary</u>				
Inspector: <u>Ronnie Scott</u>	<u>8-5/8"</u>	<u>365'</u>	<u>365'</u>	<u>82/Pumped 120</u>
Date Permit Issued: <u>May 13, 2003</u>				
Date Well Work Commenced: <u>July 1, 2003</u>	<u>5-1/2"</u>	<u>1664'</u>	<u>1664'</u>	<u>289/Pumped 371</u>
Date Well Work Completed: <u>July 15, 2003</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <u>XXXX</u> Cable Rig				
Total Depth (feet): <u>1695'</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): 383, 385, 407, 455, 488, 547, 591, 670, 849, 851, 868, 909, 912, 929, 964, 1024, 1137, 1147, 1177, 1213, 1215, 1372, 1377, 1430, 1487, 1685.

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 11 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:

NOV 14 2003

McDow 1783

GeoMet Operating Company, Inc.
Perforation and Frac Volume Specification

Well Name Leta Harman 098

PBTD 1663

Zone and Perforation Table

Frac			Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
	Stage 1 Interval	1485				
N2 Scf	278,000		1350'		25,000	12,500
Acid	200	15%				
Gel Volume	9,200					
ISIP	3,104					
ATP	3,500					
AIR	20	BPM				
Stage 2 Interval	1,212	1215				
N2 Scf	420,000		1200'			
Acid	200	15%				
Gel Volume	11,000					
ISIP	2,381					
ATP	3,318					
AIR	25	BPM				
Stage 3 Interval	1,175	1178				
N2 Scf	303,000		1160'			
Acid	200	15%				
Gel Volume	8,800					
ISIP	1,218					
ATP	3,253					
AIR	25	BPM				
Stage 4 Interval	1,146	1149				
N2 Scf	332,000		1050'			
Acid	200	15%				
Gel Volume	9,500					
ISIP	1,482					
ATP	2,852					
AIR	22	BPM				
Stage 5 Interval	963	966				
N2 Scf	282,000		950'			
Acid	200	15%				
Gel Volume	7,200					
ISIP	2,040					
ATP	3,343					
AIR	240	BPM				

Well Name Leta Harman 098

PBTD

1663

Zone and Perforation Table

	Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 6 Interval	902	912		
N2 Scf	320,000		30,000	32,000
Acid	200	15%		
Gel Volume	10,000			
ISIP	1,473			
ATP	2,834			
AIR	26	BPM		
	Port Plug On 890'			
Stage 7 Interval	848	852	40,000	17,000
N2 Scf	295,000			
Acid	200			
Gel Volume	9,000			
ATP	1,485			
AIR	2,944			
AIR	3,800	BPM		
	No Plug			
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				

McDow 1783

NOV 14 2003

DRILL DATA HOLE - NOAH HORN WELL DRILLING, INC.

COMPANY: GEOMET OPERATING CO HOLE NO.: HARMAN 098

LOCATION: BUG HURLEY HOLLOW DRILL: RIG # 25

DATE STARTED: 07-01-2003 DATE COMPLETED: 07-03-2003

DEPTH		THICKNESS	STRATA	REMARKS
FROM	TO	FT.	DESCRIPTION	VOIDS, ETC
0	35	35	OVERBURDEN	
35	41	6	SANDSTONE / SANDY SHALE /	
			POSS. COAL STR	
41	61	20	SANDY SHALE / SANDSTONE	
			41.3' W/ 13 3/8" CASING	
61	92	31	SANDSTONE	
92	123	31	SANDSTONE / COAL / SANDSTONE	
123	154	31	SANDY SHALE / SANDSTONE STR	
154	185	31	SANDSTONE	
185	215	30	SANDSTONE / SANDY SHALE	
215	245	30	SANDY SHALE / SANDSTONE /	
			SANDY SHALE	
245	275	30	SANDY SHALE	
275	305	30	SANDY SHALE / SANDSTONE	
305	335	30	SANDSTONE / SANDY SHALE / SANDSTONE	
335	365	30	SANDSTONE / SANDY SHALE	
365	375	10	SANDSTONE 364.7' W/ 8 5/8" CASING	
375	390	15	SANDY SHALE 7 7/8" DRILLING	
390	420	30	SAND / SANDY SHALE / COAL STR /	
			SANDSTONE	
420	450	30	SANDSTONE	
450	480	30	SANDY SHALE / SAND / COAL STR	
480	490	10	SANDY SHALE / SAND	
490	495	5	COAL	
495	510	15	SANDY SHALE / SAND	
510	540	30	SAND / SANDY SHALE	
540	570	30	SANDSTONE / SANDY SHALE STR	
570	600	30	SANDSTONE / SANDY SHALE	
600	630	30	SANDY SHALE / SANDSTONE STR /	
			SANDY SHALE	
630	660	30	SANDSTONE / SANDY SHALE / SANDSTONE	
660	690	30	SANDY SHALE / SAND	
690	780	90	SANDY SHALE / COAL / SANDY SHALE	
780	810	30	SANDY SHALE / COAL	
810	870	60	SANDY SHALE / COAL / SHALE	
870	900	30	SANDY SHALE / SAND / SANDY SHALE	
900	930	30	SHALE / COAL / SHALE	
930	960	30	SHALE / COAL	
960	990	30	SAND	
990	1020	30	SAND / COAL	
1020	1050	30	SAND / SANDY SHALE	
1050	1080	30	SAND / COAL / SANDY SHALE	

PAGE 2
GEOMET OPERATING CO
HARMAN 098

FROM	TO	FT.	DESCRIPTION
1080	1140	60	SANDY SHALE / COAL / SANDY SHALE
1140	1170	30	SANDY SHALE / COAL
1170	1200	30	COAL / SANDY SHALE
1200	1230	30	SAND / SANDY SHALE
1230	1350	120	SANDY SHALE
1350	1410	60	SANDY SHALE / COAL / SANDY SHALE
1410	1440	30	SANDY SHALE
1440	1470	30	SANDSTONE / SANDY SHALE
1470	1500	30	SANDY SHALE / COAL STR / SANDSTONE
1500	1530	30	SANDSTONE / SANDY SHALE
1530	1560	30	SANDY SHALE / SANDSTONE
1560	1590	30	SANDSTONE / SANDY SHALE
1590	1620	30	SANDY SHALE / RED SHALE / SANDSTONE
1620	1650	30	SANDSTONE / SANDY SHALE / SANDSTONE
1650	1680	30	SANDSTONE / RED SHALE / SANDY SHALE
1680	1710	30	SANDY SHALE / RED SHALE / SANDY SHALE

TD 7 7/8" HOLE

1710.00 FT. TOTAL DEPTH
41.30 FT. OF 13 3/8" CASING
364.70 FT. OF 8 5/8" CASING

NOV 14 2003

Mc Dow 1783

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

Well Operator's Report of Well Work

FARM NAME: Holly Lee Mullins

OPERATOR WELL NO.: 119-105-098

LOCATION:

Elevation: 1,909.59'

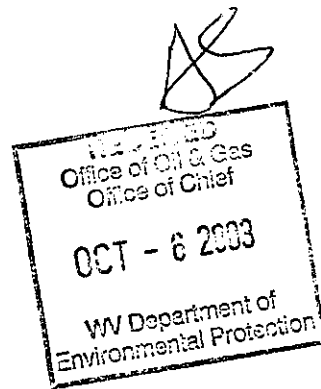
Quadrangle: Bradshaw

District: Big Creek

County: McDowell

Latitude: 7,580' Feet South of 37 Deg. 20 Min. 00 Sec.

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SIGNED:

BY:

Dundrea Smith

DATE:

OCT 10 2003

McDowell 1783

GeoMet Operating Company, Inc.
Perforation and Frac Volume Specification

Well Name Leta Harman 098

PBTD

1663

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Acid	200	15%				
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N2 Scf	303,000		1160'			
Acid	200	15%				
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AIR	25	BPM				
Stage 4 Interval	1,146	1149				
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AIR	22	BPM				
Stage 5 Interval	963	966				
N2 Scf	282,000		950'			
Acid	200	15%				
Gel Volume	7,200					
ISIP	2,040					
ATP	3,343					
AIR	240	BPM				

Well Name Leta Harman 098

PBTD

1663

Zone and Perforation Table

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N2 Scf	295,000			
Acid	200			
Gel Volume	9,000			
ATP	1,485			
AIR	2,944			
AIR	3,800	BPM		
	No Plug			
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				

OCT 19 2003

M. Dow 1183

DRILL DATA HOLE - NOAH HORN WELL DRILLING, INC.

COMPANY: GEOMET OPERATING CO HOLE NO.: HARMAN 098

LOCATION: BUG HURLEY HOLLOW DRILL: RIG # 25

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660	690	30	SANDY SHALE / SAND	
690	780	90	SANDY SHALE / COAL / SANDY SHALE	
780	810	30	SANDY SHALE / COAL	
810	870	60	SANDY SHALE / COAL / SHALE	
870	900	30	SANDY SHALE / SAND / SANDY SHALE	
900	930	30	SHALE / COAL / SHALE	
930	960	30	SHALE / COAL	
960	990	30	SAND	
990	1020	30	SAND / COAL	
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1350	1410	60	SANDY SHALE / COAL / SANDY SHALE
1410	1440	30	SANDY SHALE
1440	1470	30	SANDSTONE / SANDY SHALE
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1560	1590	30	SANDSTONE / SANDY SHALE
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TD 7 7/8" HOLE

1710.00 FT. TOTAL DEPTH
41.30 FT. OF 13 3/8" CASING
364.70 FT. OF 8 5/8" CASING

OCT 10 2003

MCDOW 1783