

**TEE Engineering Company, Inc.**  
 520 Cannon Hill Court  
 Lexington, KY 40509  
 (606) 263-5350  
 Fax: (606) 263-5345

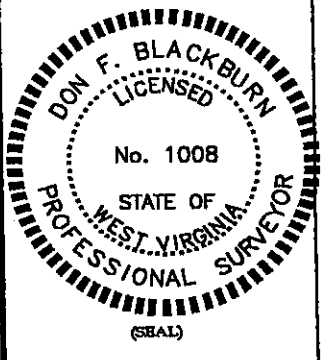
**GeoMet Operating Company, Inc.**  
 Well No. Hall North 108-106-140

FILE NO. 1883-08  
 DRAWING NO. HALL NORTH 140 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.

*(Signature)*  
 (SIGNATURE)

R.P.E. \_\_\_\_\_ R.P.S. 1008



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

DATE JULY 8, 2004  
 OPERATOR'S WELL NO. HALL NORTH 108-106-140  
 API WELL NO. 47 STATE 047 COUNTY McDOWELL PERMIT 01940-C

WELL TYPE: OIL \_\_\_\_\_ GAS X CBM \_\_\_\_\_ LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_  
 LOCATION: ELEVATION 2,372.37 NORTHING 111953.20 EASTING 1773245.20  
 DISTRICT SANDY RIVER WATER SHED HITE FORK OF BRADSHAW CREEK  
 QUADRANGLE BRADSHAW COUNTY McDOWELL

SURFACE OWNER HALL MINING COMPANY et al ACREAGE 370.12  
 CBM ROYALTY OWNER HALL MINING COMPANY et al LEASE ACREAGE 370.12

LEASE NO. \_\_\_\_\_ RECORDING IN PROGRESS \_\_\_\_\_  
 PROPOSED WORK: DRILL X CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR  
 STIMULATE X 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 2,126'  
 WELL OPERATOR GEOMET OPERATING COMPANY, INC. DESIGNATED AGENT KERRY HILL  
 ADDRESS 5336 STADIUM TRACE PARKWAY SUITE 206 ADDRESS 330 HARPER PARK DRIVE SUITE A  
BIRMINGHAM, ALABAMA 35244 BECKLEY, WV 25801

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6-6 BRADSHAW (270)

JUL 8 2004

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

✓  
*Ac 7*

Well Operator's Report of Well Work

FARM NAME: Hall Mining Company, et al OPERATOR WELL NO.: Hall Mining 108-106-140

LOCATION:

Elevation: 2,372.37' Quadrangle: Bradshaw

District: Sandy River County: McDowell  
Latitude: 78,596' Feet South of 37 Deg. 20 Min. 00 Sec.  
Longitude: 10,379' 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: 5336 Stadium Trace Parkway, Suite 206 Birmingham, Alabama 35244	13-3/8"	19'	19'	
Agent: <u>Gregg Cleary</u>				
Inspector: <u>Bill Hatfield</u>	8-5/8"	333'	333'	84/Pumped 120
Date Permit Issued: <u>July 30, 2004</u>				
Date Well Work Commenced: <u>August 12, 2004</u>	5-1/2"	2129'	2129'	369/Pumped 403
Date Well Work Completed: <u>September 28, 2004</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <u>XXXX</u> Cable <u>Rig</u>				
Total Depth (feet): <u>2143.83'</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>				

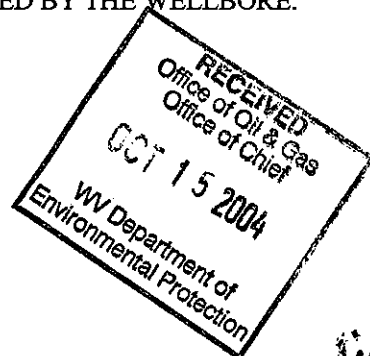
Coal Depths (feet): 370, 398, 443, 447, 470, 489, 492, 505, 772, 784, 847, 902, 915, 954, 978, 1040, 1084, 1342, 1359, 1412, 1460, 1488, 1522, 1595, 1628, 1648, 1693, 1780, 1842, 1844, 1887

OPEN FLOW DATA

Producing formation All Zones Commingled Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial Open Flow 40 MCF/d Oil: Initial Open Flow \_\_\_\_\_ Bbl/d  
Final Open Flow \_\_\_\_\_ MCF/d Final Open Flow \_\_\_\_\_ Bbl/d  
Time of Open Flow between initial and final tests \_\_\_\_\_ Hours  
Static Rock Pressure 100 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: Ramon Rife  
DATE: 10-6-04



McDOW 1940

JAN 14 2005

**DRILL DATA HOLE-NOAH HORN WELL DRILLING, INC**

COMPANY: GEOMET

HOLE #: HMN-140

LOCATION: BUG HURLEY

DRILL RIG #: 94

DATE STARTED: 08-11-04

DATED COMPLETED: 08-18-04

ELECTRIC LOGGED: YES

GROUTED: YES

DEPTH		THICKNESS	STRATA	REMARKS
FROM	TO	FT	DESCRIPTION, VOIDS ETC	
0	7	7		OVERBURDEN
7	20	13		SHALE / COAL / SANDY SHALE / SAND STONE 19.45' W/ 13 3/8" CASING
20	30	10		SAND STONE / COAL / SANDY SHALE / SAND STONE
30	61	31		SAND
61	92	31		SANDY SHALE / SAND
92	123	31		SAND / SANDY SHALE / SAND
123	154	31		SAND / SANDY SHALE / COAL / SAND
154	185	31		SAND / SANDY SHALE
185	245	60		SAND
245	275	30		SAND / SANDY SHALE / SAND
275	305	30		SAND / SANDY SHALE
305	335	30		SANDY SHALE
				332.5' W/ 8 5/8" CASING
335	345	10		SANDY SHALE / SAND
345	360	15		SAND STONE / SANDY SHALE STR
360	390	30		SAND STONE / COAL (2) / SAND STONE / SANDY SHALE
390	420	30		SANDY SHALE / COAL (2) / SAND STONE / SANDY SHALE
420	450	30		SANDY SHALE / COAL 1 / SAND STONE / SANDY SHALE
450	480	30		SANDY SHALE / SAND STONE / COAL STR / SAND STONE / SANDY SHALE
480	510	30		SANDY SHALE / COAL STR / SAND STONE
510	540	30		SAND STONE / SANDY SHALE
540	570	30		SANDY SHALE / COAL STR
570	600	30		SANDY SHALE / COAL STR / SANDY STONE STR
600	630	30		SAND STONE
630	660	30		SAND STONE / SANDY SHALE STR
660	690	30		SAND STONE / SANDY SHALE / POSS COAL STR
690	720	30		SAND STONE / SANDY SHALE
720	750	30		SANDY SHALE
750	780	30		SANDY SHALE / COAL STR
780	810	30		COAL STR / SANDY SHALE
810	840	30		SANDY SHALE

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 GEOMET OPERATING CO  
 HALL MINING NORTH 140

FROM	TO	FT.	DESCRIPTION
840	870	30	SANDY SHALE / (1) COAL STR / SAND STONE
870	900	30	SAND STONE / SANDY SHALE / (2) COAL STR / SAND STONE
900	930	30	SAND STONE / SANDY SHALE / POSS COAL STR
930	960	30	SANDY SHALE / COAL STR / SAND STONE
960	990	30	SAND STONE / SANDY SHALE W / COAL STR / SAND STONE
990	1020	30	SAND STONE / SANDY SHALE STR
1020	1050	30	SAND STONE / SANDY SHALE / SAND STONE
1050	1080	30	SANDY SHALE / COAL (2)
1080	1140	60	SANDY SHALE / COAL STR
1140	1170	30	SANDY SHALE / SAND STONE / SANDY SHALE
1170	1200	30	SANDY SHALE / POSS COAL STR / SAND STONE
1200	1230	30	SAND STONE / SANDY SHALE / 2 COAL STR
1230	1260	30	SANDY SHALE / SAND STONE / SANDY SHALE
1260	1290	30	SANDY SHALE / SAND STONE
1290	1320	30	SANDY SHALE / COAL / SAND STONE
1320	1350	30	SANDY SHALE / COAL (3) / SAND STONE STR
1350	1380	30	SANDY SHALE / COAL (2) / SAND STONE
1380	1410	30	SAND STONE / SANDY SHALE / COAL (2)
1410	1445	35	SANDY SHALE / SAND STONE / SANDY SHALE / COAL STR
1445	1475	30	SANDY SHALE / COAL (3) / SAND STONE STR
1475	1505	30	SAND STONE / SANDY SHALE STR
1505	1535	30	SAND STONE / COAL (2) / SAND SHALE / SAND STONE
1535	1565	30	SAND STONE / SANDY SHALE STRKS
1565	1595	30	SANDY SHALE / SAND STONE / COAL (3) / SAND SHALE
1595	1625	30	SANDY SHALE / SAND STONE / SANDY SHALE / COAL 2
1625	1655	30	SANDY SHALE / SAND STONE / COAL 3 / SAND SHALE / SAND STONE STR
1655	1685	30	SAND STONE / SANDY SHALE / COAL STR
1685	1715	30	SHALE / COAL 2 / SAND SHALE / SAND STONE / SANDY SHALE
1715	1745	30	SANDY SHALE / SAND STONE / SANDY SHALE

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FROM	TO	FT.	DESCRIPTION
1745	1775	30	SANDY SHALE / SAND STONE STR / COAL STR
1775	1805	30	SAND STONE / SANDY SHALE / SAND STONE STR
1805	1835	30	SANDY SHALE / SAND STONE / SANDY SHALE
1835	1865	30	SANDY SHALE / 3-COAL STR
1865	1895	30	SANDY SHALE / SAND STONE / COAL STR / SANDY SHALE
1895	1925	30	SANDY SHALE STR / SAND STONE
1925	1955	30	SAND STONE / SANDY SHALE / COAL (2) / SANDY SHALE
1955	1985	30	SANDY SHALE / COAL (3) / SAND STONE STR
1985	2015	30	SANDY SHALE / SAND STONE
2015	2075	60	SAND STONE / SHALE STRKS
2075	2135	60	SAND STONE / SHALE STRKS

2135.00 FT. TOTAL DEPTH  
 19.45 FT. OF 13 3/8" CASING  
 332.50 FT. OF 8 5/8" CASING  
 2128.75 FT. OF 5 1/2" CASING

2128.75' W/ 5 1/2" CASING  
 TD 8" HOLE

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

Well Name Hall Mining 140 PBDT 2126'

**Zone and Perforation Table**

Frac	1776	1778	Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 1 Interval	1,839	1841				
N2 Scf	10,000		No Plug		15,000	No Sand
Acid	200	15%				
Gel Volume	1,100	GAL				
ISIP	3,369					
ATP	4000					
AIR	4	BPM				
Stage 2 Interval	1,690	1692				
N2 Scf	322,000		24 Balls on Plug @ 1665'			
Acid	200	15%				
Gel Volume	6,656	GAL				
ISIP	1,455					
ATP	2,912					
AIR	29	BPM				
Stage 3 Interval	1,624	1626				
N2 Scf	348,000		1645' - 1647' B/O w/24 Perf Balls 1610'			
Acid	500	7.5%				
Gel Volume	8,811	GAL				
ISIP	1,711					
ATP	3,188					
AIR	32	BPM				
Stage 4 Interval	1,592	1594				
N2 Scf	334,000		36 Perf Balls on Plug @ 1550'			
Acid	200	15%				
Gel Volume	6,000	GAL				
ISIP	2,210					
ATP	3,345					
AIR	28	BPM				
Stage 5 Interval	1,460	1462				
N2 Scf	301,000		1484' - 1486'/1523' - 1526' B/O w/36 Perf Balls 1430'			
Acid	500	15%				SCREEN OUT
Gel Volume	7,130					
ISIP						
ATP	3,685					
AIR	22	BPM				

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Well Name Hall Mining 140

PBTD

2126'

**Zone and Perforation Table**

			Ball Out	Bridge Plug Set @	Est Sand Weight	Actual Sand Weight
Stage 6 Interval	1,409	1,412				
N2 Scf			No Frac Shot Zone; Sand came up T/1368' Sand Plug		20,000	
Acid		15%				
Gel Volume						
ISIP						Communicated
ATP						
AIR		BPM				
Stage 7 Interval	1,340	1,342				
N2 Scf	371,000		1357' - 1359' B/O w/24 Perf Balls (36 Perf Balls) Plug @ 1120'			
Acid	500					
Gel Volume	8,900					
ISIP	2,315					
ATP	3,335					
AIR	28	BPM				
Stage 8 Interval	950	952				
N2 Scf	290,000		1037' - 1039'/1081' - 1083' B/O w/36 Perf Balls No Plug			
Acid	500					
Gel Volume	8,110					
ISIP	908					
ATP	2,318					
AIR	34	BPM				
Stage 9 Interval						
N2 Scf						
Acid						
Gel Volume						
ISIP						
ATP						
AIR		BPM				
Stage 10 Interval						
N2 Scf						
Acid						
Gel Volume						
ISIP						
ATP						
AIR						