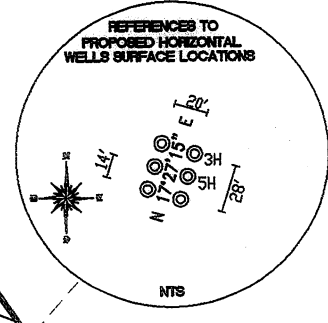
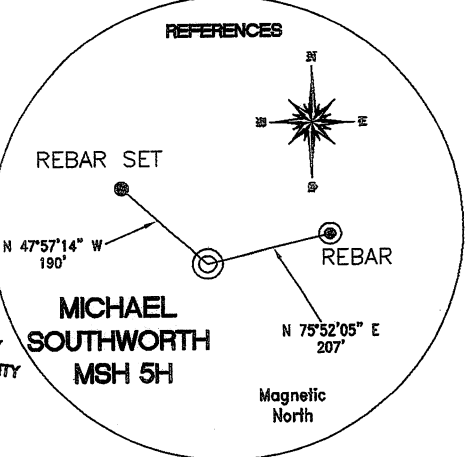


REFERENCE LINES	
RL #1	N 47°24'18" E 1047'

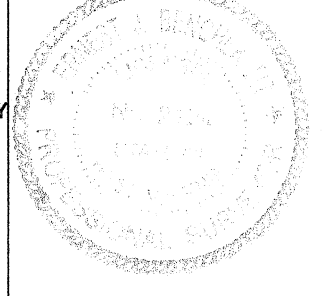


TOP HOLE (NAD 83)	KOP (NAD 83)
N) 552950.0 E) 1656255.2 LAT.) 40°00'46.0" LONG.) 80°36'53.2" DEC. LAT.) 40.012791 DEC. LONG.) 80.614788	N) 553205.0 E) 1657238.4 LAT.) 40°00'48.7" LONG.) 80°36'40.6" DEC. LAT.) 40.013527 DEC. LONG.) 80.611290
TOP HOLE (NAD 27)	KOP (NAD 27)
N) 552915.3 E) 1687690.1 LAT.) 40°00'45.8" LONG.) 80°36'54.0" DEC. LAT.) 40.012717 DEC. LONG.) 80.614990	N) 553169.2 E) 1688673.3 LAT.) 40°00'48.4" LONG.) 80°36'41.4" DEC. LAT.) 40.013453 DEC. LONG.) 80.611492
TP (NAD 83)	BOTTOM HOLE (NAD 83)
N) 553658.6 E) 1657025.9 LAT.) 40°00'53.1" LONG.) 80°36'43.4" DEC. LAT.) 40.014762 DEC. LONG.) 80.612069	N) 558863.0 E) 1654581.9 LAT.) 40°01'44.3" LONG.) 80°37'15.7" DEC. LAT.) 40.028965 DEC. LONG.) 80.621025
TP (NAD 27)	BOTTOM HOLE (NAD 27)
N) 553621.8 E) 1688460.8 LAT.) 40°00'52.9" LONG.) 80°36'44.2" DEC. LAT.) 40.014688 DEC. LONG.) 80.612271	N) 558826.2 E) 1688016.8 LAT.) 40°01'44.0" LONG.) 80°37'16.4" DEC. LAT.) 40.028991 DEC. LONG.) 80.621227

REFERENCE NOTES
Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Marshall County, West Virginia JUNE 2011
State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS
Drafted by: E.A.M.

FILE #: CHE 031
DRAWING #: 1521
SCALE: 1" = 1200'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE SUBMETER MAPPING
OF ELEVATION: GRADE 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 ENVIRONMENTAL PROTECTION.
Signed:
L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE: AUGUST 30, 2011
OPERATOR'S WELL #: MICHAEL SOUTHWORTH MSH 5H
API WELL #: 47 51 01510H
STATE COUNTY PERMIT

Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,270'
COUNTY/DISTRICT: MARSHALL / SANDHILL QUADRANGLE: VALLEY GROVE, WV.
SURFACE OWNER: MICHAEL S. SOUTHWORTH ACREAGE: 166.26 +/-
OIL & GAS ROYALTY OWNER: MICHAEL S. SOUTHWORTH ACREAGE: 491.02 +/-
LEASE NUMBERS:

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,395' TMD: 12,145'
WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC. DESIGNATED AGENT: ERIC GILLESPIE
ADDRESS: PO BOX 18496 ADDRESS: PO BOX 6070
CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

