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west virginia department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

## PERMIT MODIFICATION APPROVAL

December 29, 2014

MOUNTAINEER KEYSTONE, LLC  
6031 WALLACE ROAD EXTENSION - SUITE 300  
PITTSBURGH, PA 15090

Re: Permit Modification Approval for API Number 103323 , Well #: HOWDERSHELT 209  
**Relocate wellhead.**

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith  
Assistant Chief of Permitting  
Office of Oil and Gas

209  
001-03323  
MOD



July 23, 2014

Mr. Gene Smith  
Assistant Chief  
WVDEP - Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

RE: Howdershelt 201-212 MODIFICATION

Gene:

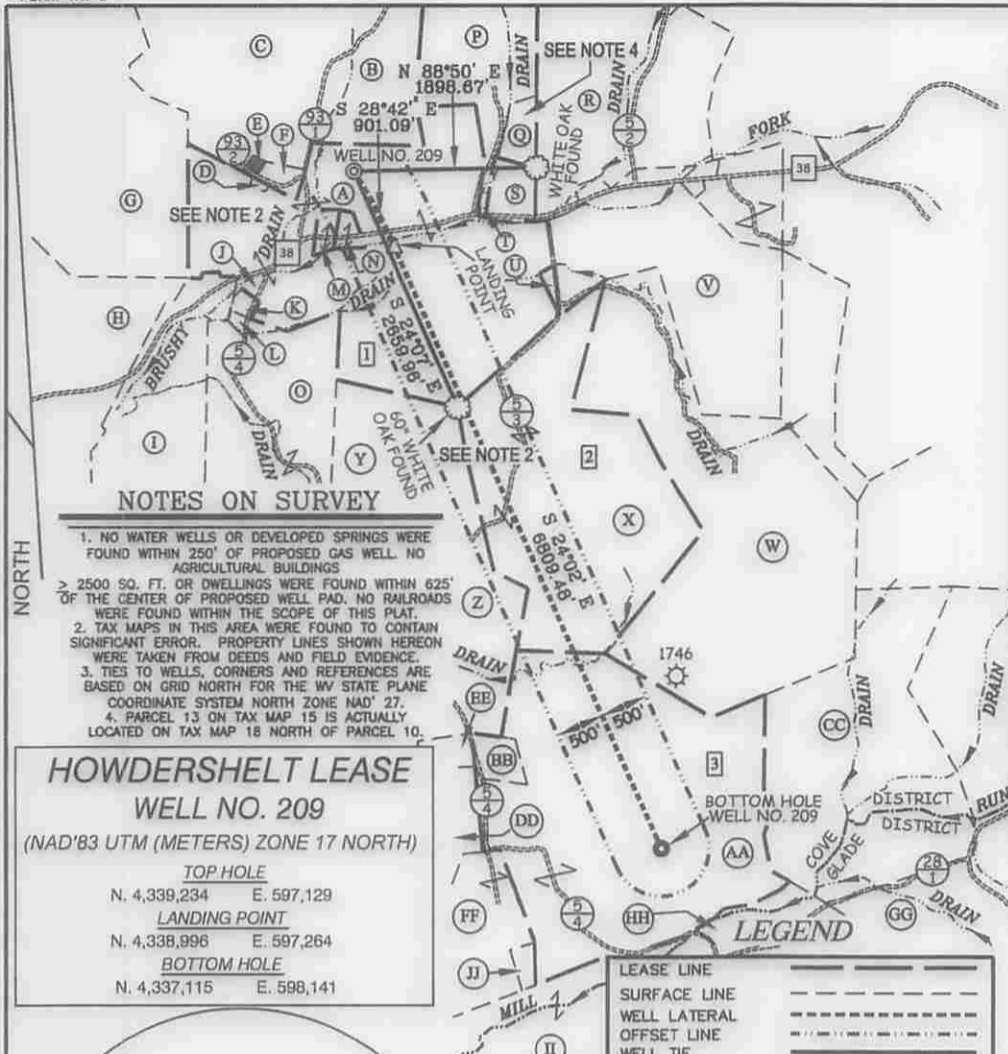
Enclosed please find new plats and WW-6A1 forms for the Howershelt 201-212 pad. We are requesting a change to the location of the wellheads from the originally permitted locations. We did not submit new construction drawings, due to the fact that the LODs will not change.

If you have any questions or require any further information, please feel free to contact me.

Sincerely,

Amy L. Miller  
Regulatory Compliance Specialist

RECEIVED  
Office of Oil and Gas  
JUL 28 2014  
WV Department of  
Environmental Protection



SURFACE OWNERS		
A	MELVIN AND RENEE HOWDERSHELT	TM 19 PAR. 41
B	MELVIN AND RENEE HOWDERSHELT	TM 19 PAR. 40
C	IRA G. AND CAROL HOVATTER	TM 19 PAR. 38
D	NEW HOPE VALLEY CHURCH	TM 19 PAR. 42
E	NEW HOPE VALLEY U.M. CHURCH	TM 19 PAR. 38.1
F	CHURCH LOT	
G	IRA G. AND CAROL HOVATTER	TM 19 PAR. 43
H	BETTY L. KELLEY ET AL	TM 19 PAR. 47
I	RONALD AUVIL	TM 19 PAR. 50
J	ELWOOD AND PENNY CANFIELD	TM 19 PAR. 41.5
K	ELWOOD CANFIELD	TM 19 PAR. 41.2
L	ERIC AND LISA EVIX	TM 19 PAR. 41.3
M	ERIC HOWDERSHELT	TM 19 PAR. 41.4
N	MELVIN AND RENEE HOWDERSHELT	TM 19 PAR. 41.1
O	LORETHA M. ANNON LEGACY TRUST ET AL	TM 19 PAR. 51
P	GLEN MOORE ET UX	TM 18 PAR. 08
Q	GLEN MOORE ET UX	TM 15 PAR. 13
R	DORSEY AND MAUDIE POLING ET AL	TM 18 PAR. 07
S	THOMAS W. OWENS	TM 18 PAR. 10
T	THOMAS W. OWENS	TM 18 PAR. 09
U	ELBERT McLEAN ET UX	TM 18 PAR. 39
V	MARK AND ELOISE HOLLEN	TM 18 PAR. 30
W	THOMAS AND RAMILE POLING	TM 18 PAR. 32
X	PAUL AND JOHN ADAMS	TM 18 PAR. 31
Y	JAMES B. ANCELL	TM 28 PAR. 01
Z	JAMES B. ANCELL	TM 28 PAR. 02
AA	ROMMELL FAMILY TRUST	TM 28 PAR. 05
BB	ROMMELL FAMILY TRUST	TM 28 PAR. 05.1
CC	KEVIN KLINGENSMITH ET AL	TM 28 PAR. 06
DD	JOHN SHAFFER ET UX	TM 26 PAR. 03.1
EE	HARRY T. SHAFFER ET AL	TM 28 PAR. 03
FF	GERTRUDE HALLER	TM 28 PAR. 04
GG	MARY MOCCIO	TM 04 PAR. 08
HH	MARY MOCCIO	TM 04 PAR. 05
II	BRIAN PURKEY ET AL	TM 04 PAR. 01
JJ	JERRY D. HALLER ET UX	TM 28 PAR. 4.1

NOTES ON SURVEY

1. NO WATER WELLS OR DEVELOPED SPRINGS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD. NO RAILROADS WERE FOUND WITHIN THE SCOPE OF THIS PLAT.
2. TAX MAPS IN THIS AREA WERE FOUND TO CONTAIN SIGNIFICANT ERROR. PROPERTY LINES SHOWN HEREON WERE TAKEN FROM DEEDS AND FIELD EVIDENCE.
3. TIES TO WELLS, CORNERS AND REFERENCES ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD 27.
4. PARCEL 13 ON TAX MAP 15 IS ACTUALLY LOCATED ON TAX MAP 18 NORTH OF PARCEL 10.

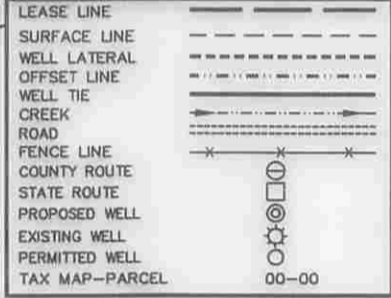
HOWDERSHELT LEASE WELL NO. 209

(NAD'83 UTM (METERS) ZONE 17 NORTH)

TOP HOLE  
N. 4,339,234 E. 597,129

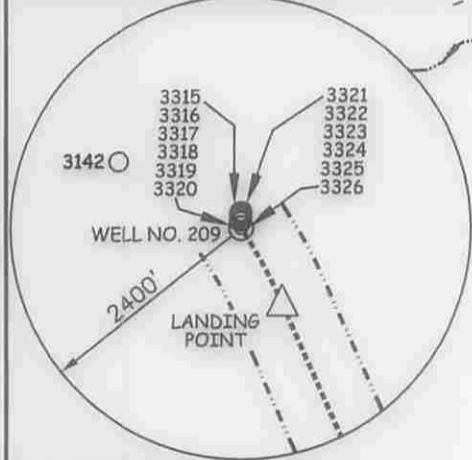
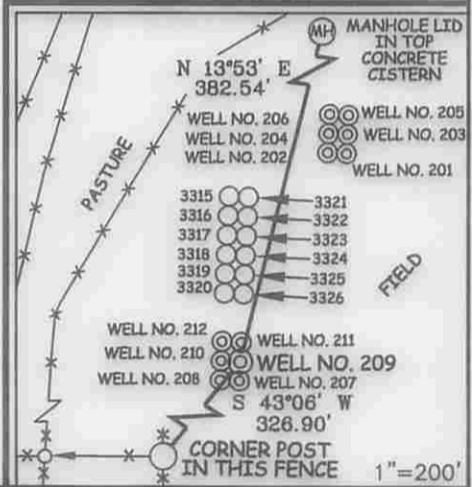
LANDING POINT  
N. 4,338,996 E. 597,264

BOTTOM HOLE  
N. 4,337,115 E. 598,141



LATERAL ROYALTY OWNERS		
1	MELVIN HOWDERSHELT ET UX	158.94 AC±
	PAUL ADAMS	
2	JOHN ADAMS ET UX	109 AC±
3	ROMMELL FAMILY TRUST	111 AC±

REFERENCES



**Professional Energy Consultants**  
A DIVISION OF SMITH LAND SURVEYING, INC.

**SLS** SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.

(304) 482-6634 WWW.SLSURVEYS.COM

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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE JULY 14, 20 14

REVISED \_\_\_\_\_, 20 \_\_\_\_\_

OPERATORS WELL NO. 209

API WELL NO. 47-001-03323 MOD

STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 7962P209R5

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

WELL TYPE: OIL  GAS  INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,566'(GROUND) 1,557'(PROPOSED) WATERSHED BRUSHY FORK OF TETER CREEK

DISTRICT COVE COUNTY BARBOUR QUADRANGLE NESTORVILLE 7.5'

SURFACE OWNER MELVIN AND RENEE HOWDERSHELT ACREAGE 158.94±

ROYALTY OWNER MELVIN AND RENEE HOWDERSHELT ACREAGE 158.94±

PROPOSED WORK: 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 MARCELLUS

ESTIMATED DEPTH TVD 7,845' / TMD 15,057'

WELL OPERATOR MOUNTAINEER KEYSTONE LLC DESIGNATED AGENT NATHAN SKEEN

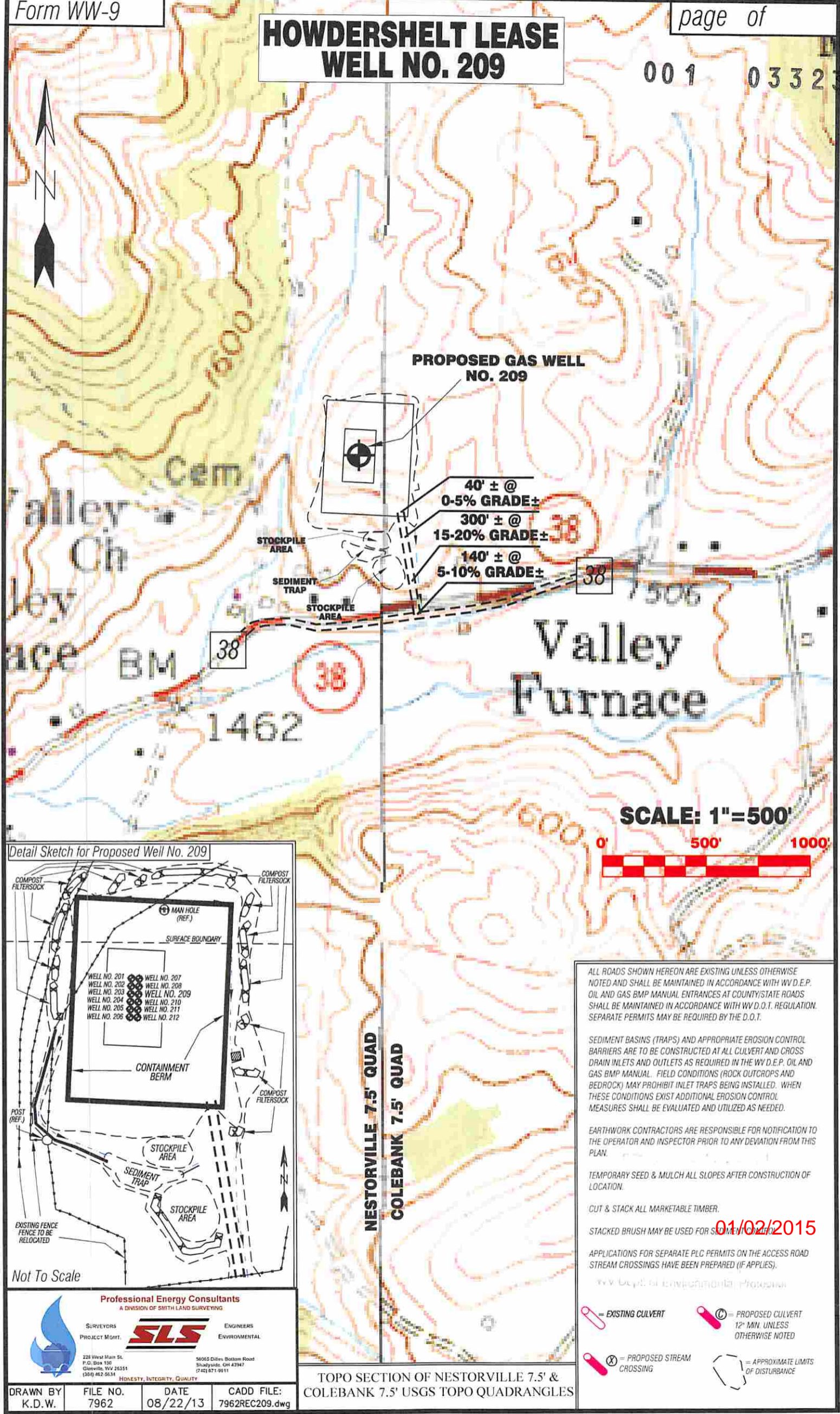
ADDRESS 1111 VAN VOORHIS ROAD, SUITE G MORGANTOWN, WV 26505 ADDRESS 1111 VAN VOORHIS ROAD, SUITE G MORGANTOWN, WV 26505

COUNTY NAME PERMIT

01/02/2015

# HOWDERSHILT LEASE WELL NO. 209

001 03323



**PROPOSED GAS WELL  
NO. 209**

40' ± @  
0-5% GRADE ±

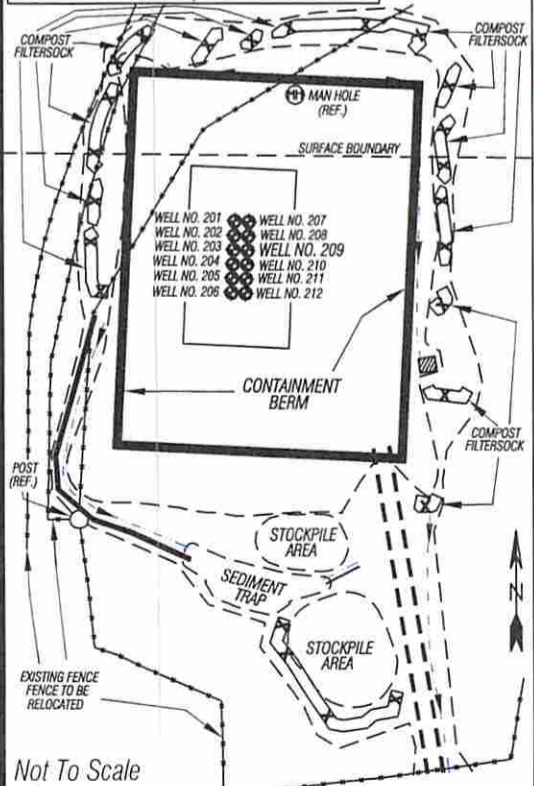
300' ± @  
15-20% GRADE ±

140' ± @  
5-10% GRADE ±

**SCALE: 1"=500'**



Detail Sketch for Proposed Well No. 209



Not To Scale

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SOIL STABILIZATION

01/02/2015

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

www.beyp.com/consulting/Professional

- = EXISTING CULVERT
- = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING
- = APPROXIMATE LIMITS OF DISTURBANCE

**Professional Energy Consultants**  
A DIVISION OF SMITH LAND SURVEYING

SURVEYORS PROJECT MGMT. **SLS** ENGINEERS ENVIRONMENTAL

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Glennville, WV 26031  
(304) 462-9634

56955 Diners Bottom Road  
Shady Side, OH 43947  
(740) 671-9911

HONESTY. INTEGRITY. QUALITY

DRAWN BY: K.D.W. FILE NO.: 7962 DATE: 08/22/13 CADD FILE: 7962REC209.dwg

TOPO SECTION OF NESTORVILLE 7.5' & COLEBANK 7.5' USGS TOPO QUADRANGLES