

8,639' B.H.

3,623' T.H.

**OLD CROW S LEASE  
WELL 14HM  
TUG HILL OPERATING**

T.H. LATITUDE 39°47'30"  
B.H. LATITUDE 39°47'30"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

|                   |                   |                    |
|-------------------|-------------------|--------------------|
| NAD'83 S.P.C.(FT) | N. 468,122.95     | E. 1,613,575.44    |
| NAD'83 GEO.       | LAT-(N) 39.778387 | LONG-(W) 80.762889 |
| NAD'83 UTM (M)    | N. 4,403,187.72   | E. 520,304.98      |

LANDING POINT

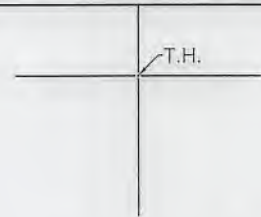
|                   |                   |                    |
|-------------------|-------------------|--------------------|
| NAD'83 S.P.C.(FT) | N. 470,949.3      | E. 1,616,099.7     |
| NAD'83 GEO.       | LAT-(N) 39.786243 | LONG-(W) 80.754049 |
| NAD'83 UTM (M)    | N. 4,404,061.6    | E. 521,059.6       |

BOTTOM HOLE

|                   |                   |                    |
|-------------------|-------------------|--------------------|
| NAD'83 S.P.C.(FT) | N. 463,637.7      | E. 1,620,208.3     |
| NAD'83 GEO.       | LAT-(N) 39.766328 | LONG-(W) 80.739068 |
| NAD'83 UTM (M)    | N. 4,401,855.0    | E. 522,348.9       |

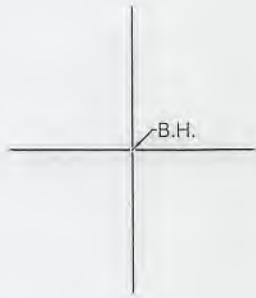
T.H. LONGITUDE 80°45'00"  
B.H. LONGITUDE 80°42'30"

| MAP/PARCEL | ADJOINING SURFACE OWNER LIST   | ACRES        |
|------------|--------------------------------|--------------|
| 5-10-5     | WILLIAM F. RULONG, ET AL       | 27.50        |
| 5-10-6     | WILLIAM F. RULONG, ET AL       | P/O ACRE     |
| 5-10-7     | WILLIAM F. RULONG, ET AL       | 22.872       |
| 5-10-8     | WILLIAM F. RULONG, ET AL       | 70.6672      |
| 5-10-11    | JOSEPH LEE CROW                | P/O PCL 5    |
| 5-10-13.1  | DAVID LEE QUIGLEY, JR.         | 2.88         |
| 5-10-19    | BRADLEY L. & CONNIE L. HUBBARD | 3.209        |
| 5-10-20    | LOUIS AULENBACHER              | 3.534        |
| 5-10-21    | LOUIS AULENBACHER              | 3.677        |
| 5-16-4     | JOHN SWIERKOS                  | 153 SQ. RODS |
| 5-17-1.6   | LOLA M. SLAUGHTER              | 6.347        |
| 5-17-3.1   | WILBUR L. RIDDLE, ET UX        | 10.148       |
| 5-17-16    | GLEN GUNTO                     | 9.702        |

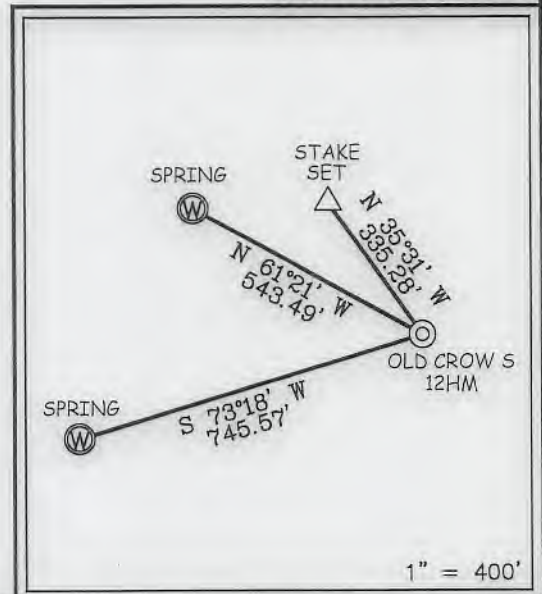


**NOTES ON SURVEY**

- NO WATER WELLS 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.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'

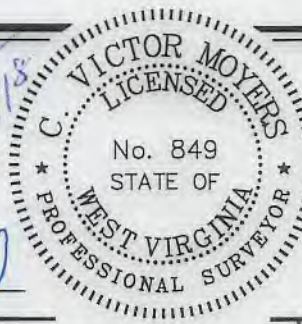


**REFERENCES**



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 JUNE 22, 20 18  
 REVISED OCTOBER 23, 20 18  
 OPERATORS WELL NO. OLD CROW S-14HM  
 API WELL NO. 47 - 051 - 02185  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P14HMR.dwg  
OLD CROW NORTH 14HM REV0  
 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  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION GROUND = 1,287.50' PROPOSED = 1,264.99' WATERSHED TRIBUTARY OF FISH CREEK (HUC-10)  
 DISTRICT FRANKLIN COUNTY MARSHALL QUADRANGLE POWHATAN POINT 7.5'

SURFACE OWNER DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO ACREAGE 71.205±  
 ROYALTY OWNER DONNA VIVIAN YOHO, ET AL ACREAGE 71.205±

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: 6,713' / TMD: 16,690'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER  
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS CT CORPORATION SYSTEM  
FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD  
CHARLESTON, WV 25313

COUNTY NAME  
PERMIT

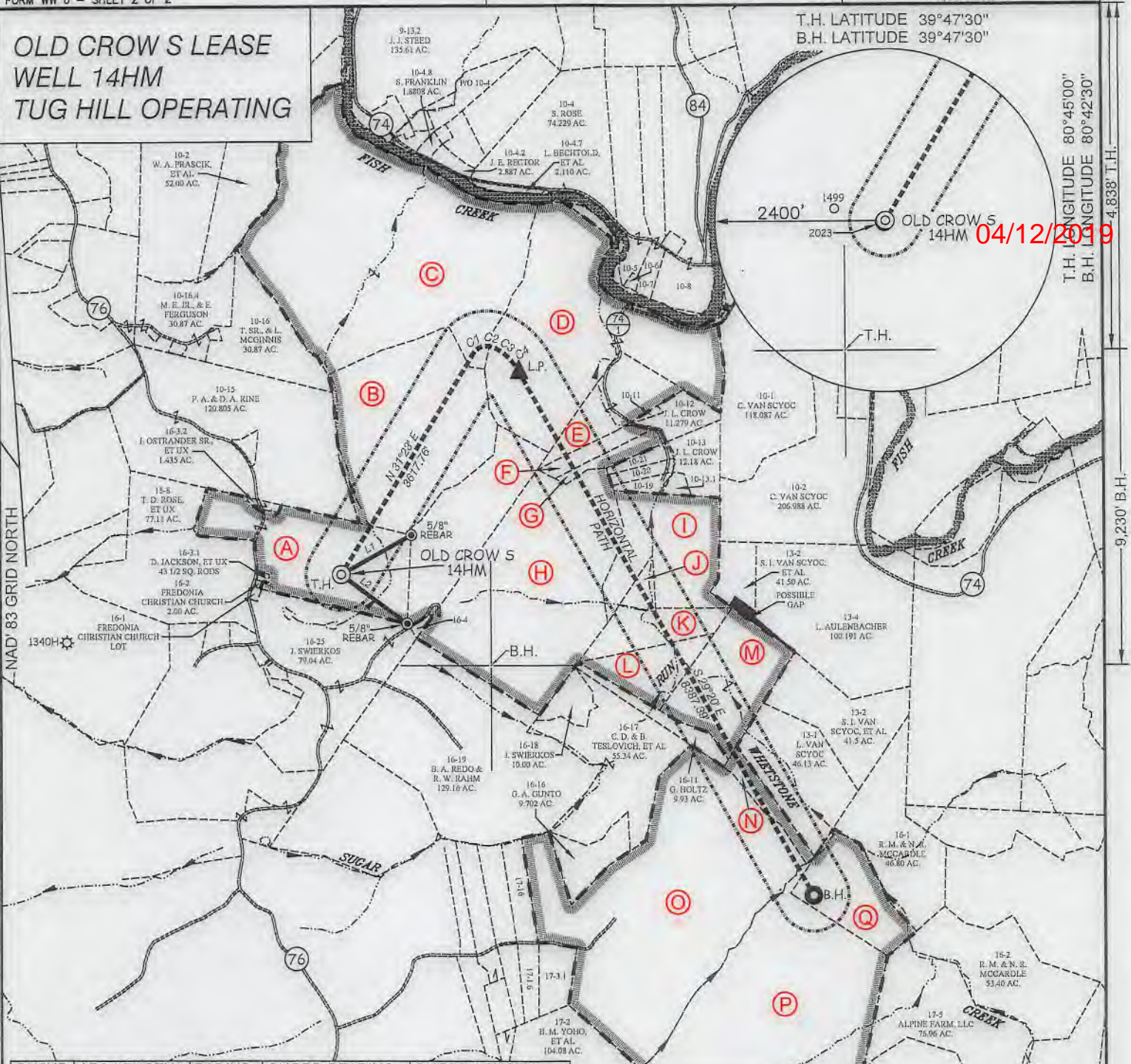


8,639' B.H.

3,623' T.H.

T.H. LATITUDE 39°47'30"  
B.H. LATITUDE 39°47'30"

**OLD CROW S LEASE  
WELL 14HM  
TUG HILL OPERATING**



T.H. LONGITUDE 80°45'00"  
B.H. LONGITUDE 80°42'30"  
4,838' T.H.  
9,230' B.H.

04/12/2019

| CURVE | ARC LENGTH | RADIUS  | CHORD BEARING | CHORD LENGTH |
|-------|------------|---------|---------------|--------------|
| C1    | 181.65'    | 208.67' | N 58°41' E    | 175.96'      |
| C2    | 173.36'    | 301.51' | S 79°17' E    | 170.98'      |
| C3    | 214.70'    | 640.66' | S 54°20' E    | 213.70'      |
| C4    | 247.69'    | 941.84' | S 36°58' E    | 246.97'      |

| TAG | SURFACE OWNER                           | PARCEL    | ACRES   |
|-----|---|-----------|---------|
| A   | DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO | 5-16-3    | 71.205  |
| B   | JOHN SWIERKOS                           | 5-10-14   | 100.00  |
| C   | HERBERT M. AULENBACHER, JR.             | 5-10-3    | 225.50  |
| D   | HERBERT M. AULENBACHER, JR.             | 5-10-9    | 141.43  |
| E   | LOUIS DELBERT VAN SCYOC                 | 5-10-10   | 24.50   |
| F   | JOHN PAUL SMITH, JR., ET AL             | 5-10-12.1 | 8.86    |
| G   | LOUIS AULENBACHER                       | 5-10-22   | 6-4.61  |
| H   | JOHN SWIERKOS                           | 5-16-6    | 134.05  |
| I   | LOUIS AULENBACHER                       | 5-16-7    | 50.00   |
| J   | FRANK P. LAUTER EST.                    | 5-16-10   | 5.00    |
| K   | LOUIS AULENBACHER                       | 5-16-8    | 21.00   |
| L   | LOUIS AULENBACHER                       | 5-16-9    | 20.00   |
| M   | LOUIS VAN SCYOC                         | 9-13-3    | 52.40   |
| N   | LOUIS VAN SCYOC                         | 5-16-12   | 10.80   |
| O   | SOUTHERN COUNTRY FARMS, INC.            | 5-17-3    | 190.132 |
| P   | ALPINE FARM LLC                         | 5-17-4    | 212.00  |
| Q   | DAVID ALAN RUBCICH, ET AL               | 5-16-13   | 33.31   |

| LINE | BEARING    | DISTANCE |
|------|------------|----------|
| L1   | N 60°34' E | 1134.62' |
| L2   | S 53°05' E | 1156.27' |

**SLS**  
Land & Energy Development  
Solutions from the ground up.  
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634  
www.slsurveys.com



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

P.S. 849 *C. Victor Moyers*

**LEGEND**

|                           |  |
|---------------------------|--|
| LEASE LINE                |  |
| SURFACE LINE              |  |
| WELL LATERAL              |  |
| OFFSET LINE               |  |
| TIE LINE                  |  |
| CREEK                     |  |
| ROAD                      |  |
| COUNTY ROUTE              |  |
| PROPOSED WELL             |  |
| EXISTING WELL             |  |
| PERMITTED WELL            |  |
| TAX MAP-PARCEL            |  |
| SURFACE OWNER (SEE TABLE) |  |
| LEASE # (SEE WW-6A1)      |  |

SCALE 1" = 2000' FILE NO. 8796P14HMR.dwg  
OLD CROW NORTH 14HM REV0  
DATE JUNE 22, 2018  
REVISED OCTOBER 23, 2018  
OPERATORS WELL NO. OLD CROW S-14HM  
API WELL NO. 47-051-02185  
STATE COUNTY PERMIT

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

WELL OPERATOR TUG HILL OPERATING, LLC ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107  
DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME PERMIT