

## Results of Directional Survey

|             |                     |           |                                    |
|-------------|---------------------|-----------|------------------------------------|
| API number: | <b>30-025-39840</b> |           |                                    |
| OGRID:      |                     | Operator: | <b>MARSHALL &amp; WINSTON, INC</b> |
|             |                     | Property: | <b>CROSSROADS 22 STATE</b> # 3H    |

|         |        |          |           |                |                 |
|---------|--------|----------|-----------|----------------|-----------------|
| surface | ULSTR: | <b>C</b> | <b>22</b> | <b>T 09S</b>   | <b>R 33E</b>    |
|         |        |          |           | <b>400 FNL</b> | <b>1980 FWL</b> |

|              |           |               |            |                 |                 |
|--------------|-----------|---------------|------------|-----------------|-----------------|
| BH Loc       | ULSTR:    | <b>K</b>      | <b>22</b>  | <b>T 09S</b>    | <b>R 33E</b>    |
| <b>10878</b> | <b>MD</b> | <b>8718.6</b> | <b>TVD</b> | <b>2729 FNL</b> | <b>1984 FWL</b> |

|             |           |               |            |                |                 |
|-------------|-----------|---------------|------------|----------------|-----------------|
| Top Perf/OH | ULSTR:    | <b>C</b>      | <b>22</b>  | <b>T 09S</b>   | <b>R 33E</b>    |
| <b>8925</b> | <b>MD</b> | <b>8719.8</b> | <b>TVD</b> | <b>778 FNL</b> | <b>1926 FWL</b> |

|              |           |               |            |                 |                 |
|--------------|-----------|---------------|------------|-----------------|-----------------|
| Bot Perf/OH  | ULSTR:    | <b>F</b>      | <b>22</b>  | <b>T 09S</b>    | <b>R 33E</b>    |
| <b>10770</b> | <b>MD</b> | <b>8720.1</b> | <b>TVD</b> | <b>2621 FNL</b> | <b>1982 FWL</b> |

|              |              |          |        |         |
|--------------|--------------|----------|--------|---------|
|              | MD           | N/S      | E/W    | VD      |
|              | 8921         | -374.45  | -54.05 | 8719.23 |
| TOP PERFS/OH | <b>8925</b>  | -378.40  | -54.08 | 8719.82 |
|              | 8952         | -405.10  | -54.29 | 8723.81 |
|              | 10055        | -1506.81 | -15.72 | 8730.12 |
| BOT PERFS/OH | <b>10770</b> | -2221.45 | 1.80   | 8720.11 |
|              | 10095        | -1546.79 | -14.74 | 8729.56 |

|              |              |          |        |         |
|--------------|--------------|----------|--------|---------|
| NEXT TO LAST | 10055        | -1506.81 | -15.72 | 8730.12 |
| LAST READING | 10095        | -1546.79 | -14.74 | 8729.56 |
| TD           | <b>10878</b> | -2329.40 | 4.44   | 8718.60 |

|                  |      |    |      |    |
|------------------|------|----|------|----|
| Surface Location | 400  | FN | 1980 | FW |
| Projected BHL    | 2729 | FN | 1984 | FW |
| Location of      |      |    |      |    |
| Top Perfs/OH     | 778  | FN | 1926 | FW |
| Bottom Perfs/OH  | 2621 | FN | 1982 | FW |

### SUMMARY of Subsurface Locations

|                  |              |      |    |      |    |             |
|------------------|--------------|------|----|------|----|-------------|
| Surface Location | C-22-09S-33E | 400  | FN | 1980 | FW | Vert. Depth |
| Top Perfs/OH     | C-22-09S-33E | 778  | FN | 1926 | FW | 8719.82     |
| Bottom Perfs/OH  | F-22-09S-33E | 2621 | FN | 1982 | FW | 8720.11     |
| Projected TD     | K-22-09S-33E | 2729 | FN | 1984 | FW | 8718.60     |