

# R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266.0745

November 19, 2015

Ms. Heather Patterson  
NMOCD District 2  
811 S. First Street  
Artesia, New Mexico 88210  
Via Email and US Mail

RE: Murchison – Polar Bear St. Com #4H Release, initial C-141 form  
Unit H, Section 1, T17S, R28E, Eddy County, API# 30-015-40130

Dear Ms. Patterson:

On behalf of Murchison Oil and Gas, R.T Hicks Consultants submits the attached initial C-141 form for the above-referenced release. At 10:00 am on November 11, a leak was discovered in a hose on a circulating pump (shown in adjacent photograph) at the above-referenced battery. Approximately 66 barrels of oil were released into the bermed secondary containment. Fluid escaped the secondary containment via a breach of the liner at the base of the berm, affecting approximately 290 ft<sup>2</sup> of the facility location outside the berm. A vacuum truck was immediately dispatched and recovered 42 barrels of fluid the same day and then returned the next day and recovered 3 barrels more that settled from the gravel inside the berms.

The hose has been replaced and the affected gravel in the berms has been removed to expose the breach in the plastic liner so it can be repaired or replaced. After standing fluid was removed from the affected surface of the location, staining was observed to penetrate a maximum depth of 2 inches. This material was removed from the site on November 13. Chloride field tests were conducted on samples from two areas of the affected surface where fluid accumulated during the release. Both samples were from 2 inches below the pad surface and yielded 221 and 68 mg/kg concentrations, confirming that affected materials do not remain below the excavation.



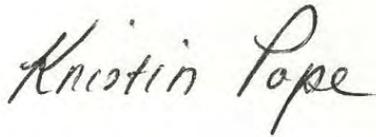
**11/11/2015 Oil in secondary containment**

Hicks Consultants submitted an application for a temporary pit at this location which was approved by the District on May 10, 2012. The application included comprehensive data on area water wells, groundwater, and surface water. Field observations confirm that no new wells were observed in the vicinity.

A final C-141 form will be submitted to the District with documentation of the final deposition of the excavated material from this release along with current photographs. Please contact me with any questions regarding this submission.

Regards,

R.T. Hicks Consultants



Kristin Pope

Copy: Murchison Oil & Gas, State Land Office (Amber Groves)

Enclosure: initial C-141 form, figures (April 2012)



11/12/2015 Affected surface of location, outside of berms; sample locations

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

|                 |  |               |                      |
|-----------------|--|---------------|----------------------|
| Name of Company | Murchison Oil & Gas, Inc.                        | Contact       | Greg Boans           |
| Address         | 7250 Dallas Parkway, Suite 1400, Plano, TX 75024 | Telephone No. | (575) 628-3932       |
| Facility Name   | Polar Bear St. Com #4H                           | Facility Type | Production Battery   |
| Surface Owner   | State of New Mexico                              | Mineral Owner | API No. 30-015-40130 |

**LOCATION OF RELEASE**

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| H           | 1       | 17S      | 28E   | 2260          | North            | 150           | East           | Eddy   |

Latitude 32°51'58.50"N Longitude 104° 7'19.60"W

**NATURE OF RELEASE**

|                             |   |   |                             |                            |                     |
|-----------------------------|---|---|-----------------------------|----------------------------|---------------------|
| Type of Release             | Oil   | Volume of Release                                 | 66 bbls                     | Volume Recovered           | 45 bbls             |
| Source of Release           | Hose on circulating pump  | Date and Hour of Occurrence                       | 11/11/2015, before 10:00 am | Date and Hour of Discovery | 11/11/2015 10:00 am |
| Was Immediate Notice Given? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?<br>Heather Patterson (voicemail) |                             |                            |                     |
| By Whom?                    | Kristin Pope  | Date and Hour                                     | 11/12/2015 10:00 am         |                            |                     |
| Was a Watercourse Reached?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                       | If YES, Volume Impacting the Watercourse.         |                             |                            |                     |

If a Watercourse was Impacted, Describe Fully.\*  
n/a

Describe Cause of Problem and Remedial Action Taken.\*

Oil was lost from a tank due to a failure of a hose on the circulating pump. A vacuum truck removed standing fluid. A breach in the secondary containment liner material was exposed. The hose has been replaced.

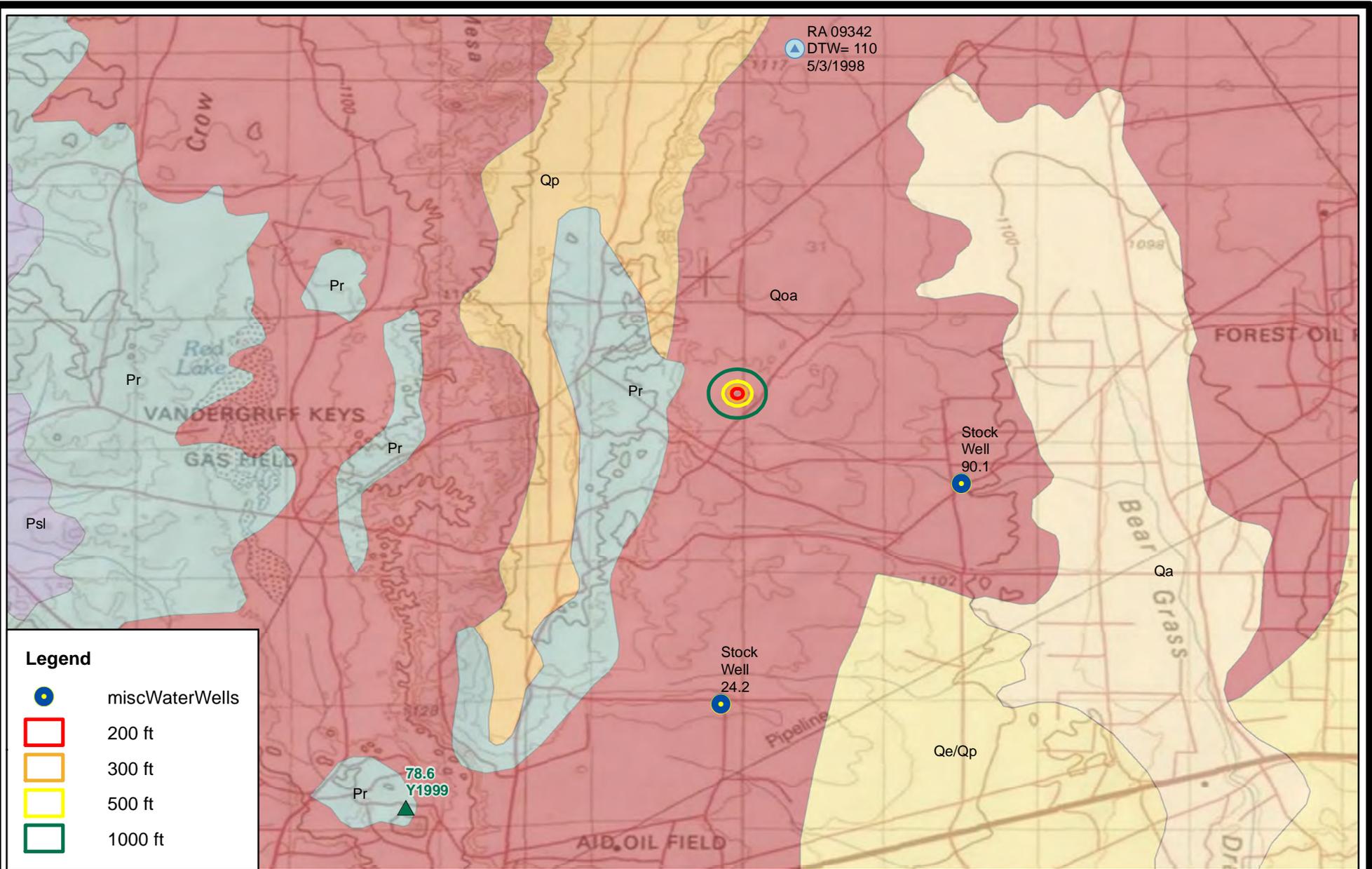
Describe Area Affected and Cleanup Action Taken.\*

Oil was released into the bermed secondary containment surrounding the tanks (1,120 ft<sup>2</sup>) and onto approximately 290 ft<sup>2</sup> of the location pad. Soil moisture indicated that penetration was less than 2 inches deep, chloride field tests on 2-in-deep samples confirm. The affected material from the surface of the location and the gravel in the secondary containment was removed and replaced. The secondary containment liner will be repaired or replaced.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

|  |                                       |                  |                                   |
|--|---------------------------------------|------------------|-----------------------------------|
| Signature:  | <b>OIL CONSERVATION DIVISION</b>      |                  |                                   |
| Printed Name: Greg Boans   | Approved by Environmental Specialist: |                  |                                   |
| Title: Production Superintendent   | Approval Date:                        | Expiration Date: |                                   |
| E-mail Address: gboans@jdmii.com   | Conditions of Approval:               |                  | Attached <input type="checkbox"/> |
| Date: 11/19/2015   | Phone: (575) 628-3932                 |                  |                                   |

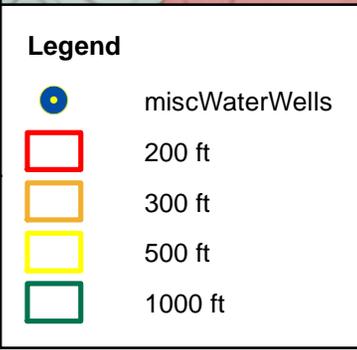
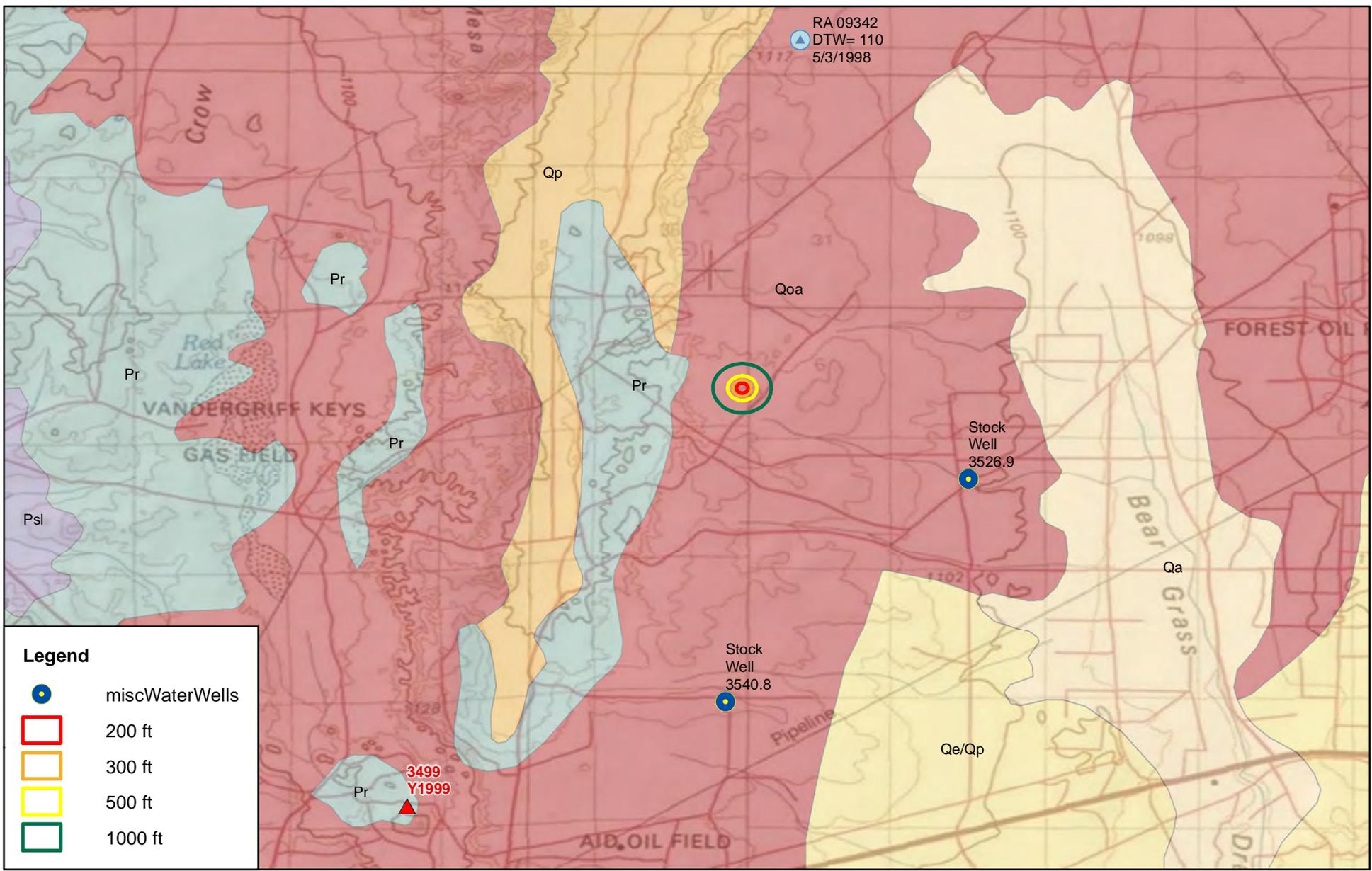
\* Attach Additional Sheets If Necessary



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Geology and Depth to Groundwater  
 Murchison Oil & Gas - Polar Bear State Com 2H

Figure 1a  
 April 2012



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Geology and Groundwater Elevation

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Murchison Oil & Gas - Polar Bear State Com 2H

Figure 1b

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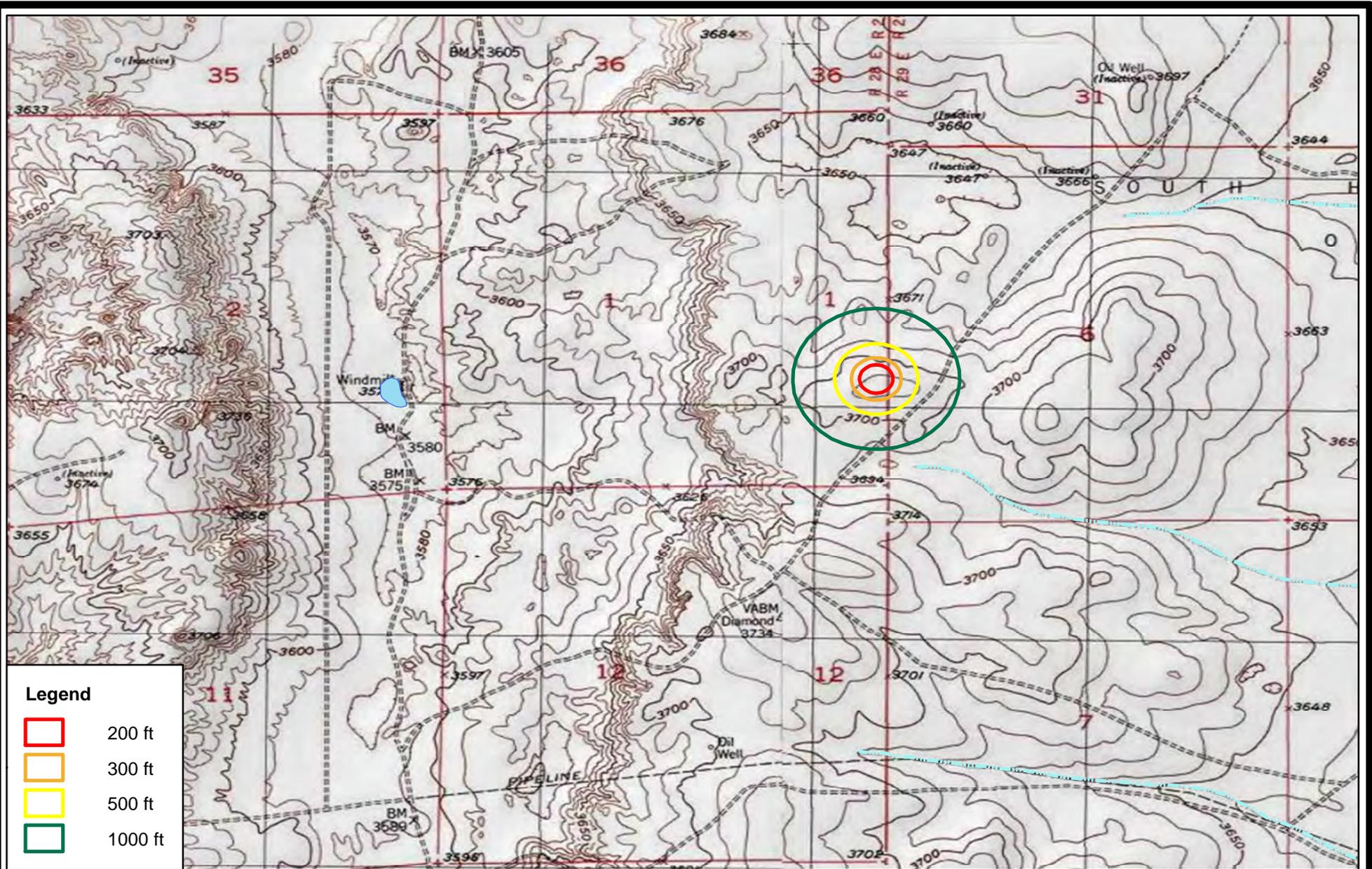
April 2012



Section 1 T17S R28E outlined in red

Source NMBMMR Open File Report 95

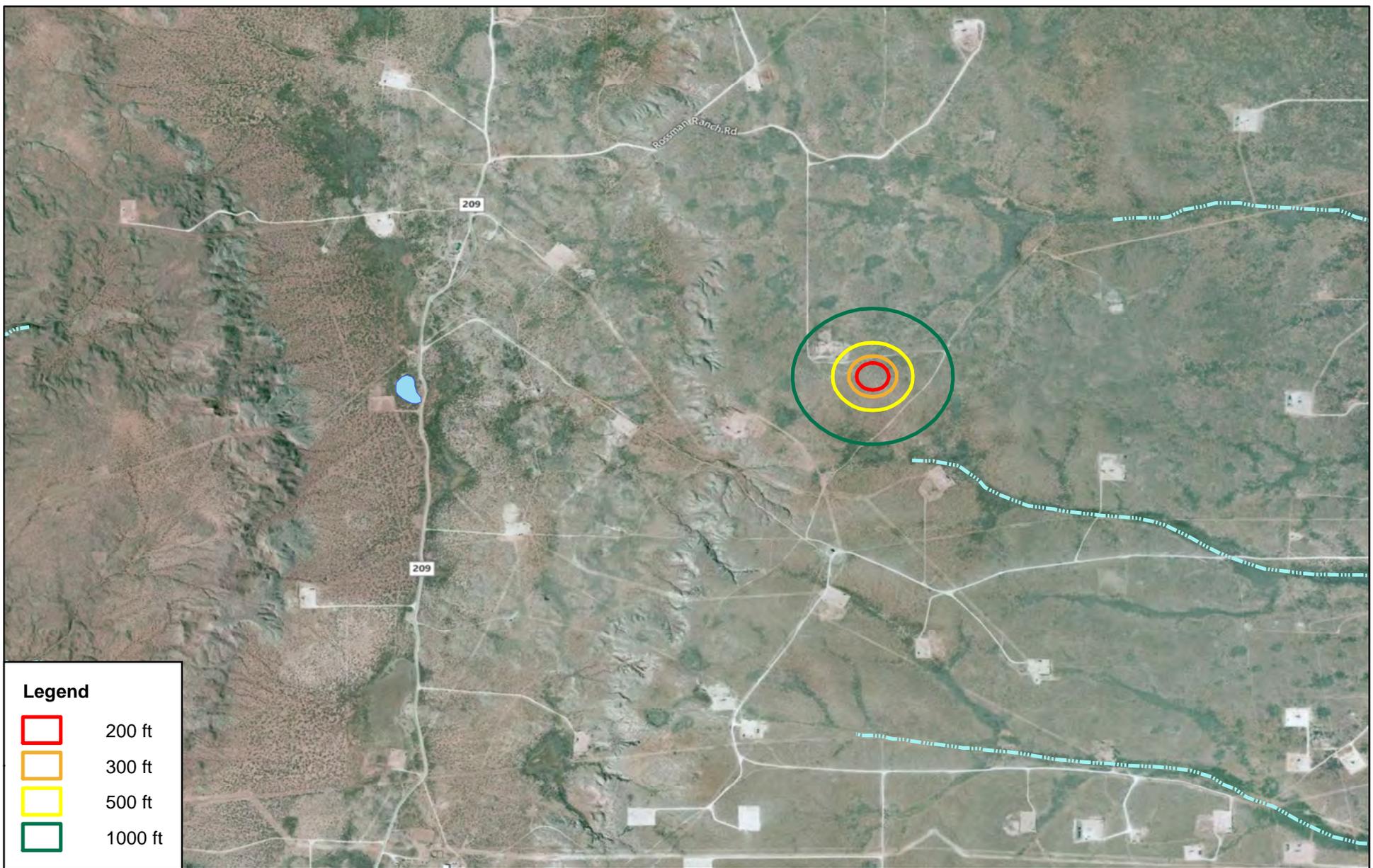
|   |   |            |
|---|---|------------|
| R.T. Hicks Consultants<br>Albuquerque, NM | Groundwater Elevation Map                     | Figure 1c  |
|   | Murchison Oil & Gas - Polar Bear State Com 2H | April 2012 |



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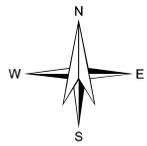
Topography and Surface Water  
 Murchison Oil & Gas - Polar Bear State Com 2H

Figure 2  
 April 2012



**Legend**

-  200 ft
-  300 ft
-  500 ft
-  1000 ft



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Recent Air Photograph and Surface Water

Murchison Oil & Gas - Polar Bear State Com 2H

Figure 3

April 2012