1R - 326

REPORTS

DATE:

2001

MAXIM TECHNOLOGIES INC

10601 Lomas NE, Suite 106
Albuquerque, NM 87112
(505) 237-8440

September 28, 2001

Mr. Wayne Price
NM Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Subject: **Request for Full Closure**
Grama Ridge # 1 Site
Lea County, New Mexico
Maxim Project No. 1690034

Dear Mr. Price:

On behalf of Conoco CG&P, this letter is to request full closure of the Grama Ridge #1 compressor facility site located in Lea County, New Mexico. Maxim Technologies, Inc. (Maxim) was retained by Conoco to conduct a site investigation on the property as part of a due diligence effort during acquisition of the Grama Ridge facility. Based on the findings, it is our conclusion that the property is in compliance with the guidelines of the New Mexico Oil Conservation Division (OCD). This letter provides a summary of the work conducted to date by Maxim, an analysis of the potential contamination pathways and receptors, a discussion of the recommended remediation action level, and a recommendation for closure.

The information contained in this letter is based on the findings of the due diligence investigation conducted during September 2000. In addition, a Preliminary Exposure Pathway Assessment (PEPA) was conducted during June 2001and is attached to this letter for your information.

Physical Setting

The Grama Ridge #1 facility is located at an elevation of approximately 3,630 feet above mean sea level and is found on the San Simon Ranch, New Mexico, U.S.G.S. 7.5 minute topographic map. The site is located in an area of northwest–southeast trending ridges and valleys with a general topographic slope downward from the northwest to the southeast. Rainfall in Carlsbad, New Mexico, located 20 miles from the site, is approximately 15.5 inches per year (Carlsbad Chamber of Commerce and Visitors Guide Website). There are seven water wells in the vicinity but all are greater 1,000 feet from the facility (Maxim PEPA, 2001). There are no permanent surface water bodies within 1,000 feet of the facility, based on a review of the topographic map.

Previous Work

The due diligence investigation was conducted on this site in September 2000. The investigation consisted of advancing seven borings ranging in depth from 30 to 100 feet below ground surface (bgs).

Temporary monitoring wells were installed in three of the borings (B1, B2 and B6). Groundwater levels in the wells ranged from 70.14 to 71.65 feet bgs. Based on water levels in these three wells, the groundwater flow direction was interpreted to be to the southeast.

Soil samples collected at approximately five-foot intervals were tested using a PID. The PID values from B1 were as follows:

Depth (feet)	Concentration (ppm)
5	14.9
10	91.5
15	27.2
20	10.4

All of the other PID values in B1 and in the other borings were below 10 ppm.

Selected samples from each of the seven borings were sent to Severn Trent Laboratories for analysis of benzene, toluene, ethyl benzene and xylenes (BTEX), glycols (where appropriate) and total petroleum hydrocarbons (TPH). The ten-foot sample from B1 contained 1104.4 ppm TPH. All other sample results were below the analytical detection limits.

Recommended Remediation Action Level

The analytical results were compared with OCD action levels for soil as provided in *Guidelines for Remediation of Leaks, Spills, and Releases, August 13, 1993*. These guidelines use a risk-based approach to yield a ranking score based on the depth to groundwater, the distance from a water source such as a domestic water well, and the distance to a surface water body. This score in turn was used to set the recommended remediation action level. The scores for each of the ranking criteria are as follows:

Ranking Criteria	Data	Ranking Score
Depth to Groundwater	50 – 99 feet bgs	10
Wellhead Protection Area	Not <1,000 feet from a water source and not <200 feet from a private domestic water source	0
Distance to Surface Water Body	>1,000 horizontal feet	0
Total Score		**10**

Based on the above ranking score of 10, the Recommended Remediation Action Level for TPH in soil is 1,000 ppm.

Discussion of Action Level

At this particular location, the only basis for the ranking score of 10 is that the depth to groundwater is between 50 and 99 feet bgs. The depth to groundwater of approximately 72 feet is in the center of the range for this criteria. There is zero ranking weight for the wellhead protection (water source and domestic well) and distance to the surface water body. As suggested by the zero ranking, there are essentially no human or environmental receptors near the site. The wells nearest the site (greater than 0.75 mile from the site) are actually in a side-gradient location, assuming a southeasterly groundwater flow direction (Maxim PEPA, 2001).

The depth to groundwater criteria raises the question of the potential for the hydrocarbon contamination at 10 feet bgs to migrate downward some 62 feet in order to impact the groundwater. This migration is unlikely since there is no continuing source (leak or spill) to create downward mobility of the hydrocarbon. Further, natural processes such as microbial degradation of the hydrocarbon may decrease the concentration over time, as suggested by the decreasing PID values at 15 and 20 feet bgs (27.2 ppm and 10.4 ppm, respectively).

Request for Closure

Maxim respectfully requests a variance of the Recommended Remediation Action Level from the 1,000 ppm level to the 5,000 level. As presented above, the ranking score of 10 is only one unit away from a score of 9, which would place the action level at 5,000 ppm. However, the TPH concentration of 1,104 ppm is 3,896 ppm lower than 5,000 ppm. Furthermore, the 62 feet of soil between the hydrocarbon-impacted soil and groundwater seems to be a safe margin, considering the location of the site and the distance to the nearest water supply well. As mentioned above, the nearest water production well (CP597 DCL) is a stock well located greater than 0.75 mile south-southwest of the site in a side-gradient position.

We understand that the Remediation Action Levels for hydrocarbons are "guidance" and that the OCD has the discretion and authority to adjust the action levels in certain instances. We believe that the Grama Ridge #1 site poses little risk to human health or the environment (Maxim PEPA, 2001) and that full site closure without soil removal would be an acceptable outcome for the site.

If the OCD agrees with the findings presented above, please provide a site closure letter to Mr. Neal Goates of Conoco and a copy to Maxim at the address on this letterhead. We appreciate your consideration of this request and look forward to your reply. If you have any questions, please contact me or Clyde Yancey at (505) 237-8440.

Sincerely,

Robert M. Sengebush, R.G.
Senior Project Manager

Cc: Neal Goates, Conoco RT, Houston, Texas
Mark Bishop, Conoco CG&P, Hobbs, Texas
Joyce Miley, Conoco CG&P, Houston, Texas

MAXIM
TECHNOLOGIES INC®

July 10, 2001

Mr. Neal Goates, Project Manager
Conoco Inc.
600 North Dairy Ashford
Houston, TX 77079

Re: Preliminary Exposure Pathway Assessment: Grama Ridge #1 and #4, Township 22 South Range 34 East Sections 3 and 4 Lea County, NM Maxim Project No. 1690026

Dear Mr. Goates,

Maxim Technologies, Inc. (Maxim) has conducted a Preliminary Exposure Pathway Assessment (PEPA) for the above-referenced sites, following the preferred practice presented in Conoco's *Preliminary Exposure Pathways Assessment (PEPA) Guidance Document*. The purpose of the PEPA is to identify site-specific exposure pathways and receptors with the overall aim of protecting human health and the environment.

Conoco defines "exposure pathways" as circuits through which a constituent of concern (COC) may migrate and potentially expose people, impact the environment or affect land use. Exposure pathways can include man-made structures such as domestic wells, public wells, basements, building crawl spaces, utility corridors, sumps, trenches, and conduits. Receptors include natural features such as lakes, rivers, springs, seeps, and land, plus the natural biota that inhabits them.

Conoco's Grama Ridge complex consists of Grama Ridge#1, #2, #3, #4, and the Getty 2 State Dehydration Unit. The subsurface of all five facilities were investigated by Maxim during September 2000. According to Maxim's report of subsurface investigation results (Oct. 10, 2000), one soil sample collected at 10 feet below ground surface (bgs) at Grama Ridge #1 contained COCs in concentrations slightly above state action levels. At Grama Ridge #4 one soil sample collected at five feet bgs also contained COCs in concentrations slightly above state action levels. Analysis of samples collected at Grama Ridge #2 and #3 resulted in non-detections of COCs. Analysis of samples collected at the Getty 2 State Dehydration Unit resulted in detections of COCs below state action levels.

Although this PEPA was originally scoped to encompass only Grama Ridge #1, Grama Ridge #4 has been included to avoid potential redundancy of effort should a PEPA for that facility be required in the future.

To complete the PEPA, Maxim obtained publicly accessible regulatory database information, and visited and inspected the site on June 29, 2001, accompanied by Mr. John Flowers of Conoco. During the visit, Maxim filled out Conoco's standard PEPA checklist

(shown in Appendix A-1) and took photographs (shown in Appendix A-2). Features described below are located on the Site Vicinity Map (Figure 1), the map of Land Use and Nearby Features (Figure 2), and the Vicinity Orthophoto Map (Figure 3). Publicly accessible regulatory data were collected for a two-mile radius around the mid-point between Grama Ridge #1 and Grama Ridge #4, providing an effective radius of 1.65 miles from each facility. Well data were obtained from the New Mexico Office of the State Engineer (NMOSE) WATERS database and the USGS Groundwater Site Inventory database (GWSI). Findings from database searches are listed in Table 1.

1. Federal and State Database Information Review

The purpose of the database information review is to obtain and review reasonably accessible records that will help identify recognized environmental conditions in connection with or in proximity to the subject sites. For this purpose, records were sought from Environmental Data Resources, Inc. (EDR), the NMOSE WATERS on-line well database, and the USGS GWSI database. Wells located within 1.15 miles of Grama Ridge #1 and Grama Ridge #4 are shown on all figures. Slight internal inconsistencies of well location data in the GWSI data set were corrected to GWSI township-range-quarter sections (TRQS) by Maxim and were plotted according to TRQS location data on all figures.

The subject sites were not listed in any of the databases searched by EDR. EDR did not locate or map any other sites within the searched-area. However, twenty-five facilities were listed by EDR that were not mapped due to inadequate address information (hereafter these unmapped sites are called "orphans", following EDR's terminology). Using the limited naming and location information tabulated by EDR, locations for the other orphan sites were investigated during the site visit. None were found to be located near the subject site.

The USGS GWSI database lists three wells within the searched area, one of which was also located by EDR. Four NMOSE WATERS wells are also listed within the searched area. Available data retrieved in both database searches are provided in Table 1 and discussed in Section 6.

2. Soils Information

EDR reports that soil in the area of the subject site is classified as fine sand. EDR further notes that surface soils to 84 inches of depth are comprised of poorly graded sand to silty sand (SP-SM). This finding is consistent with Maxim's soil descriptions obtained during the September 2000 subsurface investigation (Maxim, 2000). According to EDR, this soil type is well- to excessively-well drained, and displays a high infiltration rate and a low water-holding capacity.

3. Groundwater Information

Maxim reported that the Ogallala aquifer underlies the Grama Ridge complex; site-specific depths to groundwater in September 2000 ranged from approximately 60 to 77 feet bgs; groundwater flow direction at Grama Ridge #1 was inferred to be toward the southeast and at Grama Ridge #4 toward the southwest (Maxim, 2000). The nearest permanent well to the facility is CP00744, as determined from our database search. This well is located on a non-Conoco property, which Maxim did not enter during the site visit. Although this and more distant wells are described herein for the purpose of completeness, we note that due to their large distances from the subject site, none are likely pathways for COC migration from the subject site.

4. Determination of Surrounding Land Use

During the site visit, Maxim observed that the area surrounding the subject site supports industrial, agricultural, and recreational uses. Specific industrial uses observed were related to gas field activities. Agricultural uses observed include livestock grazing and watering. The area also supports wildlife habitat. Visual observations of the facilities surrounding the Grama Ridge #1 facility indicated:

To the North: Vacant (see Photograph #1); known to contain pipeline corridors and maintenance roads; also used for livestock grazing. The Getty 2 State Dehydration Unit is located approximately 200 feet to the northwest.

To the East: Vacant (see Photograph #2); known to contain pipeline corridors and maintenance roads; also used for livestock grazing. A pipeline corridor/maintenance road was under construction during Maxim's site visit, approximately located greater than 1000 feet to the east of Grama Ridge #1.

To the South: Generally vacant (see Photographs #3 and #5); known to contain pipeline corridors and maintenance roads; also used for livestock grazing. The nearest dwellings in the site vicinity are located at the San Simon Ranch, approximately two miles southeast of Grama Ridge #1 and thus outside of the area of interest of this PEPA.

To the West: Livestock grazing, pipeline corridors and maintenance roads, otherwise vacant (see Photograph #4).

Visual observations of the facilities surrounding the Grama Ridge #4 facility indicated:

To the North: Vacant (see Photograph #7); known to contain pipeline corridors and maintenance roads; also supports livestock grazing.

To the East: Vacant (see Photograph #8); known to contain pipeline corridors and maintenance roads; also used for livestock grazing

To the South: Vacant (see Photograph #9); known to contain pipeline corridors and maintenance roads; also used for livestock grazing.

To the West: Vacant; known to support livestock grazing and pipeline corridors and maintenance roads (see Photograph #10).

Land ownership was investigated using the Jal 1:100,000 U.S. Department of the Interior Bureau of Land Management (BLM) Surface and Mineral Management Status map (Jal Land Use Map) (US Dept. Int., BLM, 1981). The portion of the Jal Land Use Map depicting land ownership and usage near the subject site is shown in Figure 2. According to this map, Grama Ridge #1 is sited on New Mexico State Lands and Grama Ridge #4 is sited on BLM land. The nearest patented (private) land to the subject site is located approximately 0.4 miles to the north of Grama Ridge #1.

5. Survey of Basements, Crawl Spaces, Sumps, Trenches, Conduits, and Utility Corridors Near the Site

During Maxim's site visit no buildings with crawl spaces or basements, conduits, or utility corridors were observed. The absence of utility corridors at and nearby Grama Ridge #1 and Grama Ridge #4 was confirmed by Mr. Flowers of Conoco.

Several pipelines are routed through the site, due its function as a natural gas collection, storage and distribution facility. Known pipeline locations are shown in EDR's Overview Map (see Attachment B). The Grama Ridge #1 facility contains several sumps that are approximately 5 feet by 8 feet in area, concrete-lined and covered with grates. According to Mr. Flowers, the sumps are never entered by workers, in compliance with safety rules. Additionally, deep natural gas wells and other gas facility fixtures are located at both Grama Ridge #1 and Grama Ridge #4 and are connected to a variety of subsurface piping.

6. Survey of Water Use

According to Mr. Flowers, drinking water is hauled to the Grama Ridge Facility. No drinking water wells are present at the Grama Ridge complex.

EDR located Well 322556103282401approximately one mile from the subject sites. Maxim found this well on the GWSI database and correlated it with a stock-water well (Photograph #12). A nearby well, ID 322556103282401, was also listed on the GWSI, but was not located during the Maxim site visit; however, the presence of disused piping was

noted in its expected location. A third GWSI well, 322422103291501, was tentatively correlated to a windmill-driven stock-water well (see Photograph #13).

Four NMOSE wells were located within the area of interest, as listed on the WATERS database on July 5, 2001. Of these four listings, the wells represented by listings CP588DCL and CP589DCL may actually represent the nearby-GWSI wells, as posted using the truncated coordinate system provided by NMOSE. Of these four listings, it is notable that none describe wells located within one-half mile of the subject site, and only one listing contains any well completion information. These wells are located in Figure 1 and listing data are summarized in Table 1.

7. Potentially-Affected Surface Waters

The presence of nearby surface waters, including lakes, rivers, ponds, irrigation canals, seeps and springs, was investigated during the PEPA site inspection and also by inspection of the USGS San Simon Ranch NM 7.5 minute topographic map and the Jal Land Use Map. According to these sources, the area of interest contains no perennial surface water bodies. Although low-lying areas are known to collect drainage water following precipitation events, none contained water during the PEPA site visit.

The level of detail presented in this document conforms to Maxim's understanding of the preferred practice presented in Conoco's *Preliminary Exposure Pathways Assessment Guidance Document*. As noted within the document, information used to develop figures, tables, and accompanying text was derived from personal interviews, database search results, and was validated by short-term field reconnaissance.

We appreciate this opportunity to respond to your environmental consulting needs.

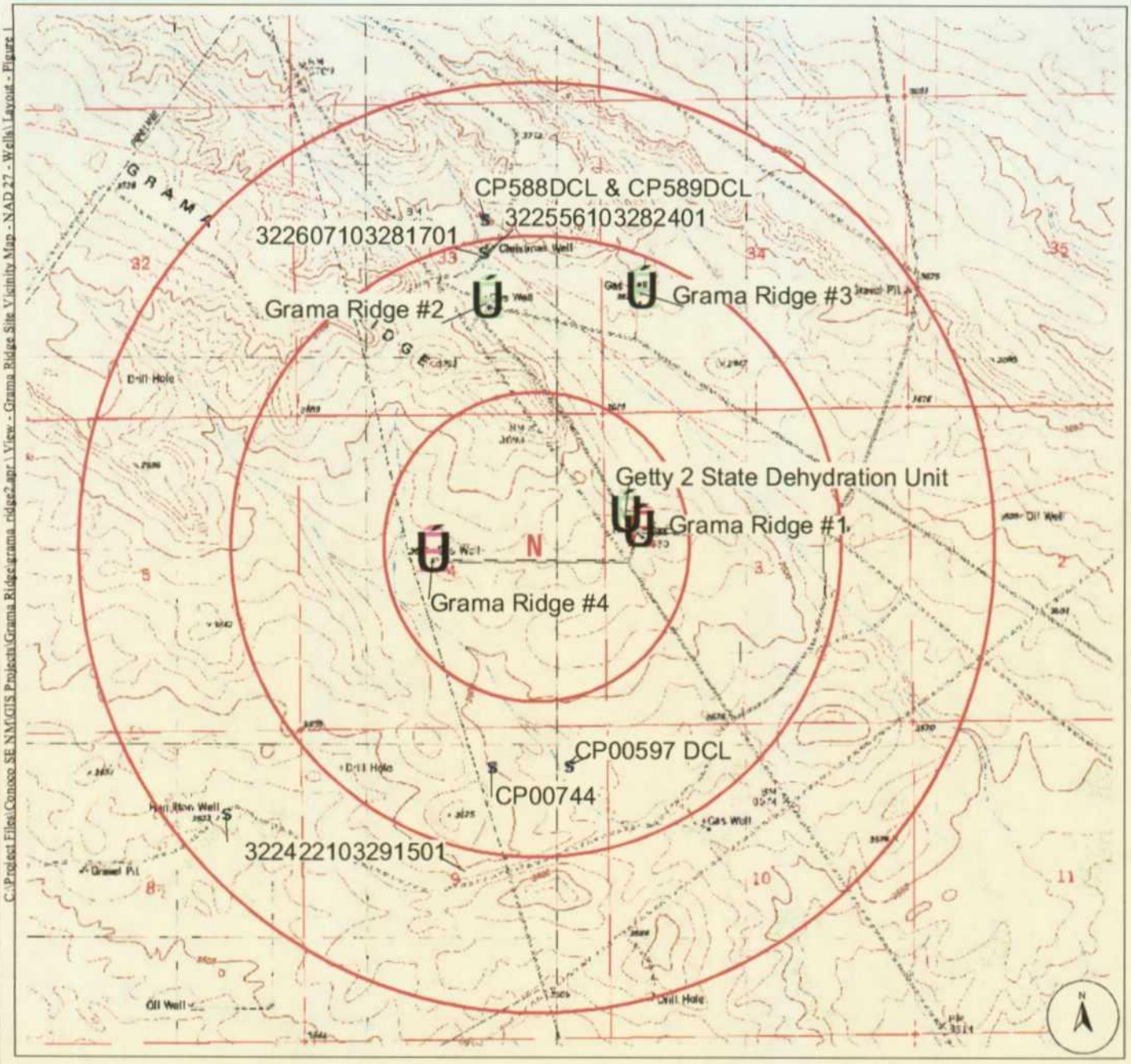
Sincerely,

Anne Stewart, Hydrogeologist

Attachments:
Figure 1: Site Vicinity Map
Figure 2: Land Use and Nearby Features
Figure 3: Vicinity Aerial Orthophoto
Table 1: Data Related to Hydrologic Receptors

Appendices:
Appendix A1: PEPA Checklist
Appendix A2: Site Photographs
Appendix B: EDR Report

ATTACHMENTS



C:\Project Files\Conoco SE NM\GIS Projects\Grama Ridge\grama_ridge2.apr \ View - Grama Ridge Site Vicinity Map - NAD 27 - Wells \ Layout - Figure 1

LEGEND

- N Midpoint, EDR Site Location
- Grama Ridge #1
- Grama Ridge #4
- Associated Facilities
- s USGS GWSI Wells (locations corrected)
- s NMOSE Wells

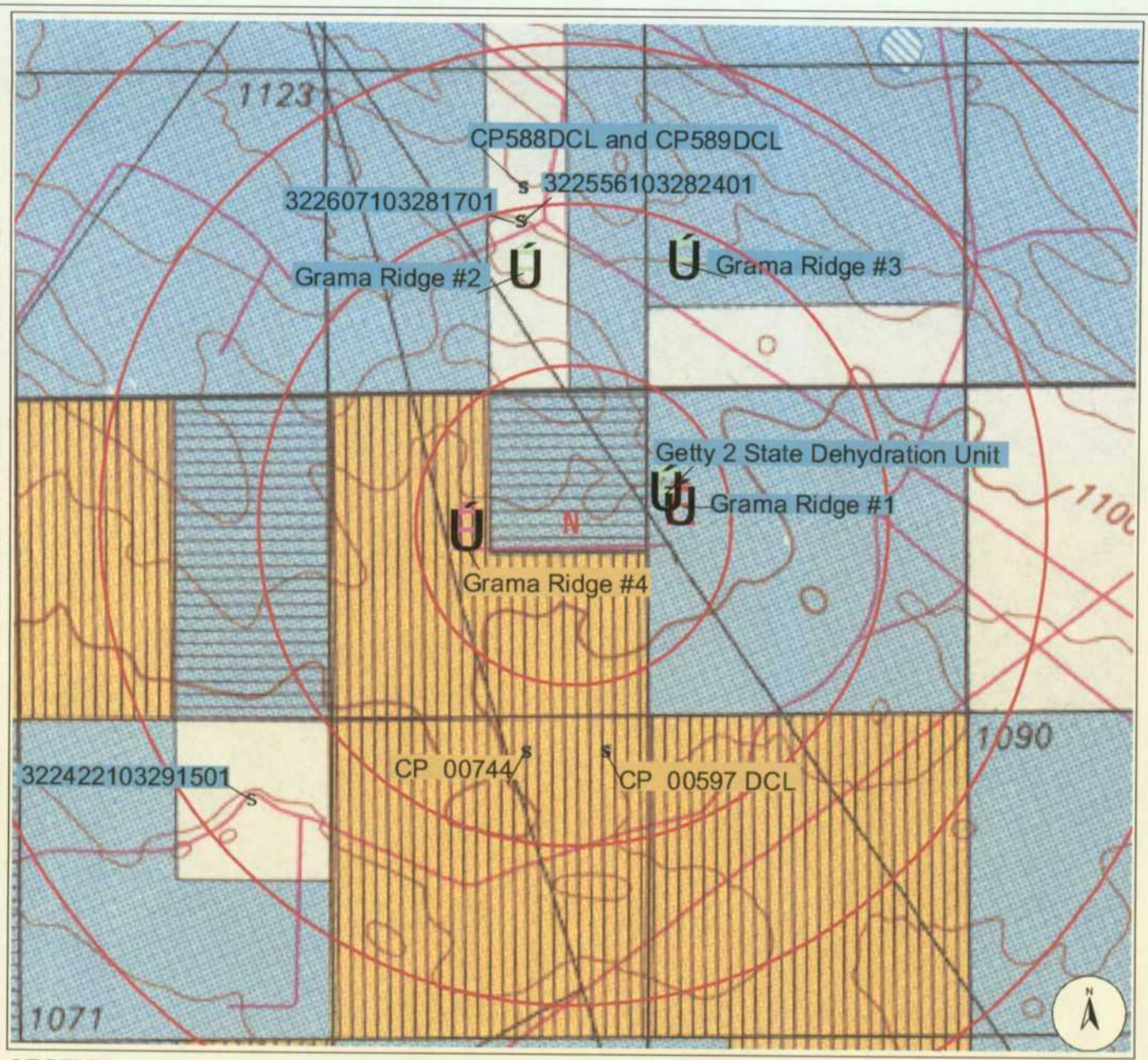
SOURCES and NOTES:
USGS, San Simon Ranch N. Mex. 7.5 Minute Quadrangle (1984)
NMOSE, WATERS database, searched 7/5/2001
USGS GWSI database, data retrieved April, 2001
Radial distances are spaced in 1/2 mile increments.

0.2 0 0.2 0.4 0.6 0.8 1 Miles

TARGET PROPERTY:	**Grama Ridge #1 and #4**
ADDRESS:	**T22S R34E, Sections 3 and 4**
CITY/STATE/ZIP:	**Hobbs, Lea County, NM**
LAT/LONG:	**32.42 x 103.46**

MAXIM TECHNOLOGIES INC
Project Number: 169026.100

SITE VICINITY MAP | **FIGURE 1**



C:\Project Files\Conoco SE NM\GIS Projects\Grama Ridge\grama_ridge2.apr \ View - Land Use Map - NAD27\Layout - Figure 2

LEGEND

- Midpoint, EDR Site Location
- Grama Ridge #1
- Grama Ridge #4
- Associated Facilities
- USGS GWSI Wells (locations corrected)
- NMOSE Wells
- Administered by BLM, Minerals Owned by Federal Govt.
- Administered by NM State Lands Dept. Mineral Ownership Other, not Federal
- Patented Lands (Gas Plant Area), Minerals Owned by Fed. Govt.

SOURCES and NOTES:

BLM, Jal NM - TX Land Status Map, 1:100,000 (1981)

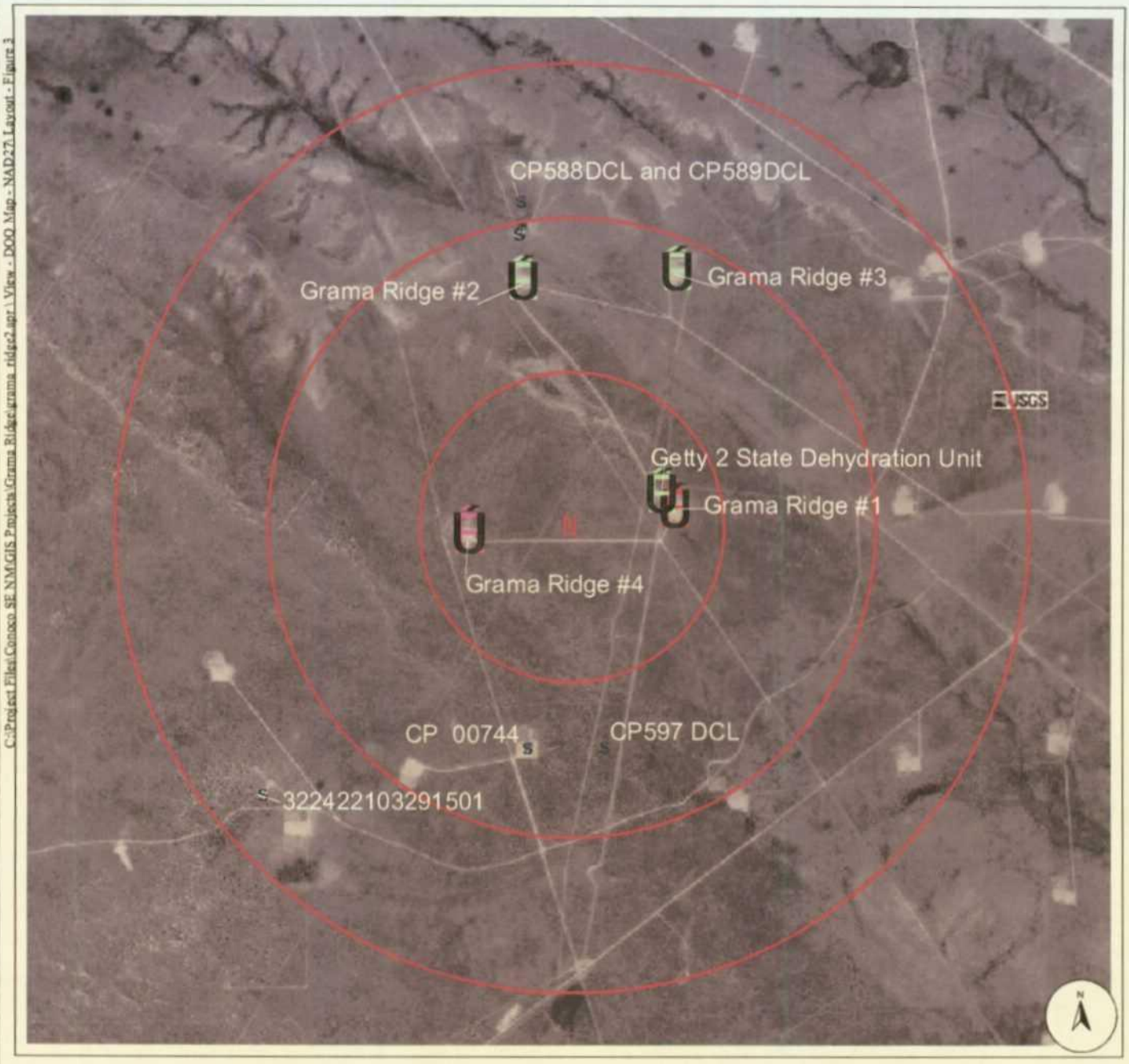
(Plate units of benchmarks are in meters above mean sea level)

USGS, San Simon Ranch N. Mex. 7.5 Minute Quadrangle 1:24,000 (1984)

Radial distances are spaced in 1/2 mile increments.

0.2 0 0.2 0.4 0.6 0.8 1 Miles

TARGET PROPERTY:	**Grama Ridge #1 and #4**	MAXIM TECHNOLOGIES INC	
ADDRESS:	**T22S R34E, Sections 3 and 4**		
CITY/STATE/ZIP:	**Hobbs, Lea County, NM**	**Project Number: 169026.100**	
LAT/LONG:	**32.42 x 103.46**	**LAND USE AND NEARBY FEATURES**	**FIGURE 2**



LEGEND

- N Midpoint, EDR Site Location
- Grama Ridge #1
- Grama Ridge #4
- Associated Facilities
- s USGS GWSI Wells (locations corrected)
- s NMOSE Wells

SOURCES and NOTES:
USGS, Microsoft Terraserver DOQ, Sept. 9, 1996
http://terraserver.homeadvisor.msn.com
USGS, San Simon Ranch N. Mex. 7.5 Minute Quadrangle (1984)
Radial distances are spaced in 1/2 mile increments.

0.2 0 0.2 0.4 0.6 0.8 1 Miles

TARGET PROPERTY:	**Grama Ridge #1 and #4**	MAXIM TECHNOLOGIES INC
ADDRESS:	**T22S R34E, Sections 3 and 4**	**Project Number: 169026.100**
CITY/STATE/ZIP:	**Hobbs, Lea County, NM**	
LAT/LONG:	**32.42 x 103.46**	**VICINITY AERIAL ORTHOPHOTO** / **FIGURE 3**

TABLE 1
DATA RELATED TO HYDROLOGIC RECEPTORS

Grama Ridge #1 and #4
Lea County, New Mexico

Feature	Direction	Distance	Comments
WATERS Well CP00597DCL	South	Approximately 0.8 miles from both GR#1 and GR#4	Listed Owner: The Merchant Livestock Co. Use: Stock No additional completion data available
WATERS Well CP00744DCL	South	Approximately 0.9 miles from GR#1 and approximately 0.7 miles from GR#4	Listed Owner: Oryx Energy Total Depth: 460 feet Use: Production No additional completion data available
WATERS Well CP588DCL	North	> 1.0 mile from GR#1 and GR#4	Listed Owner: The Merchant Livestock Co. Use: Stock No additional completion data available
WATERS Well CP589DCL	North	> 1.0 mile from GR#1 and GR#4	Listed Owner: The Merchant Livestock Co. Use: Stock No additional completion data available
GWSI Well 32242210291501	Southwest	>1.0 mile from GR#1 and GR#4	Total Depth: 35 feet Depth to Water: approximately 29 - 32 feet
GWSI Well 322607103281701	North	Approximately 1.0 mile from GR#1 and GR#4	Total Depth: 80 feet Depth to Water: approximately 67 feet Last measured 6/6/1955 – may have been abandoned
GWSI Well 322556103282401	North	Approximately 1.0 mile from GR#1 and GR#4	Total Depth: 92 feet Depth to Water: approximately 63 feet

Appendix A1: PEPA Checklist

PRELIMINARY EXPOSURE PATHWAY ASSESSMENT

Introduction

The objectives of the preliminary exposure pathway assessment are to identify potential exposure pathways for the purposes of protecting human health and the environment and to identify land usage at and around Conoco-specified sites. The information gathered during the assessment can be used to provide early risk assessment information, identify possible interim remedial measures, and focus the preliminary site investigation strategy. In this regard, it is acknowledged that the preliminary exposure pathway assessment is of limited scope and is not intended to provide a complete, comprehensive site risk assessment.

The scope of work outlined below describes key activities required to complete a preliminary exposure pathway assessment. Generally, record searches and database reviews will be conducted for a _____-mile radius of the site, while field reconnaissance will be conducted for a _____-foot radius of the site. These distances may be modified based on individual site circumstances and/or applicable state regulatory agency requirements.

Scope of Work

A. *Determine land usage*

Land usage should be identified through a review of readily available materials, such as USGS topographic maps, aerial photographs, zoning maps, Sanborne maps, and local property tax maps and then validated by field reconnaissance. Land use designations include undeveloped, rural, agricultural, commercial, industrial, residential, schools, hospitals, and parks or recreational areas.

Where there are other potential sources present that may contribute to area impacts (e.g., gasoline stations, pipelines, wastewater treatment plants, etc.), these facilities and their locations should also be documented.

B. *Document basements, crawl spaces, sumps, trenches, conduits, and utility corridors*

Location of basements, crawl spaces, sumps, trenches, conduits, and subsurface utility corridors should be identified based on a review of available construction drawings, contact with the appropriate utility companies, and then validated by field reconnaissance. Depth of subsurface utilities should be documented when this information can be obtained from available records.

C. *Document groundwater usage*

Groundwater usage should be determined by a search of state well records, contact with the applicable municipal water utility company and city/county health departments. The source of the municipal water supply within the specified site area should also be determined.

If municipal water supply and/or private water wells are found, the following should be documented based on available data: usage (e.g., residential drinking water, irrigation, municipal drinking water, etc.), owner's name and address, well depth, screened interval, and current status.

Field validation of the database searches and interviews should be conducted to verify key water well and water supply locations and identify any other wells not listed in the public records.

D. *Identify nearby surface waters*

Surface water bodies should be identified through a review of available materials, such as USGS topographic maps and aerial photographs. The field reconnaissance should validate known and document unknown nearby lakes, rivers, ponds, seeps and springs.

E Document preliminary exposure pathway assessment information

At the conclusion of the preliminary exposure pathway assessment, a brief report summarizing the information should be prepared for submittal to Conoco.

Procedures

A. Data Review

This may include, but not be limited to the following: water-well records, tax assessor information and local property tax maps, land use records, permits, zoning maps, utility corridor maps, public and/or private water supplies databases, and appropriate city directory listings. Generally, record searches and database reviews will be conducted for a _____-mile radius of the site. This distance may be modified based on individual site circumstances and/or applicable state regulatory agency requirements.

B. Site Reconnaissance

This shall include a visit to the specified site to validate information discovered during data review and to complete the attached preliminary exposure pathway assessment survey. The survey outlines specific items to document and/or photograph while in the field. Generally, field reconnaissance will be conducted for a _____-foot radius of the site. This distance may be modified based on individual site circumstances and/or applicable state regulatory agency requirements.

C. Reporting

At the conclusion of the preliminary exposure pathway assessment, a brief report should be prepared which summarizes the following information:

- Land usage and site features, including location of basements, crawl spaces, sumps, trenches, utility corridors, subways, and tunnels
- Local water supply and usage, including locations of municipal and private water supply wells, local water supply sources, and surface water bodies

The report should contain, at a minimum, the following:

- A brief narrative of databases and resources utilized and personnel and agencies interviewed
- Maps depicting land usage, water wells, surface water bodies, and all other relevant data documented during the assessment
- Tabulated data summarizing land usage and ownership and water-well and water supply information
- The completed preliminary exposure pathway assessment survey
- Appendices of all database search information

PRELIMINARY EXPOSURE PATHWAY ASSESSMENT SURVEY

A. LAND USAGE

1. Site Map

Verify and/or update the following information, to the extent available, on the site map:

- Site Property Lines
- Onsite Buildings
- Adjacent Properties
- Street Names
- UST's
- Existing UST Observation Wells — many oil wells, natural gas wells 2mi buffer zone of this area is not drilled, this area used to inject & store gas
- Existing Monitoring Wells
- Water Supply Wells
- Subway/Tunnel
- Storm Sewers
- Utility Corridors
- Downhill Slope Direction

2. Site Photo Documentation

Take pictures of at least two areas of the site. One picture should generally cover the front of the site and the other picture should cover the rear of the site. Take additional photos as needed in the following sections to document key features of the site and adjacent land usage.

All pictures should be clearly labeled as to location, direction, and subject.

3. Topography

Is the land surrounding the site relatively flat? **Yes** ___ **No** ___

If "NO" then indicate downhill direction from site. SE to SW, dips off of Grama Ridge

Stand over the underground storage tanks at the site and take one picture in the downhill direction. If the land surrounding the site is relatively flat, then this picture is not necessary.

N/A

B. SUBSURFACE STRUCTURES AND UTILITY CORRIDORS

1. Buildings with Basements None

Do any of the buildings within the specified radius of the site have basements? **Yes** ___ **No** ___

If **"YES"** then complete the following information for the **nearest three** basements. Document buildings on the site map.

Building # _____:

Type: **Commercial** ____ **Residential** ____ **Other (describe)** _____

Distance from Site (in feet): _____

Direction from Site: _____

Comments:

Building # _____:

Type: **Commercial** ____ **Residential** ____ **Other (describe)** _____

Distance from Site (in feet): _____

Direction from Site: _____

Comments:

Building # _____:

Type: **Commercial** ____ **Residential** ____ **Other (describe)** _____

Distance from Site (in feet): _____

Direction from Site: _____

Comments:

2. **Utility Corridors**

Are there any utility corridors located on or immediately adjacent to the site? Yes ___ No X

If "YES" then complete the following information for each corridor. Take pictures of any utility corridors and document locations on the site map.

Corridor #____

Type of Corridor: Electric OE (No Land Line) Telephone ___ Gas ___ Water (haul in sgal buckets)
Sanitary Sewer (portalet) ___ Storm Sewer N Unknown ___

Near Which Site Property Boundary: N___ E ___ S ___ W ___

Depth of Corridor: _____Feet ___ Unknown

Comments

Corridor #____

Type of Corridor: Electric ___ Telephone ___ Gas ___ Water ___
Sanitary Sewer ___ Storm Sewer___ Unknown ___

Near Which Site Property Boundary: N ___ E ___ S ___ W ___

Depth of Corridor: _____Feet ___ Unknown

Comments:

Corridor #____

Type of Corridor: Electric ___ Telephone ___ Gas ___ Water ___
Sanitary Sewer ___ Storm Sewer___ Unknown ___

Near Which Site Property Boundary: N ___ E ___ S ___ W ___

Depth of Corridor: _____Feet ___ Unknown

Comments:

3. **Subways and Tunnels** None

Is there a subsurface mass transit system or tunnel walkway located within the specified radius of the site? **Yes** ___ **No** ___

If **"YES"** then complete the following information. Document the subway or tunnel location on the site map.

Name:_____

Minimum Distance between Site and Subway/Tunnel (in feet):_____

Direction from Site to Subway/Tunnel:_____

C. **GROUNDWATER USAGE** None

1. **Municipal Water Supply Wells**

Based on a review of available public, record all municipal wells within the specified radius of the site. Field validate the location of the **closest three** municipal water supply wells.

Municipal Water Supply Well No. ______

Is the location correct? **Yes**___ **No**___

If not, explain the discrepancies:

Distance from Site to Well (in feet):____________________

Direction from Site to Well____________________

Is the well being used? **Yes**___ **No**___ **Unknown**___

Comments:

Municipal Water Supply Well No. ______

Is the location correct? **Yes**___ **No**___

If not, explain the discrepancies:

Distance from Site to Well (in feet):____________________

Direction from Site to Well____________________

Is the well being used? **Yes**___ **No**___ **Unknown**___

Comments:

Municipal Water Supply Well No. ______

Is the location correct? **Yes**___ **No**___

If not, explain the discrepancies:

Distance from Site to Well (in feet):____________________

Direction from Site to Well____________________

Is the well being used? **Yes**___ **No**___ **Unknown**___

Comments:

2. **Private Water Wells**

Based on a review of available public records, list all private water wells within the specified radius of the site. Are there any other private water wells visible within the specified radius? Yes___ No X

Is there a private water well located on the retail site? **Yes**___ **No** X

If **"YES"** on any of the above questions, then complete the following information for the <u>three closest</u> private water wells.

Private Water Well No. ______

Is the location correct? **Yes**___ **No**___

If not, explain the discrepancies:______________________________

Distance from Site to Well (in feet): ______________________________

Direction from Site to Well: ______________________________

Is the well being used? **Yes**___ **No**___ **Unknown**___

Comments:

Private Water Well No. ______

Is the location correct? **Yes**___ **No**___

If not, explain the discrepancies:______________________________

Distance from Site to Well (in feet): ______________________________

Direction from Site to Well: ______________________________

Is the well being used? **Yes**___ **No**___ **Unknown**___

Comments:

Private Water Well No. ______

Is the location correct? **Yes**___ **No**___

If not, explain the discrepancies:______________________________

Distance from Site to Well (in feet): ______________________________

Direction from Site to Well: ______________________________

Is the well being used? **Yes**___ **No**___ **Unknown**___

Comments:

3. **Aquifer Information**

Aquifer Classification: Ogallala

Is this a sole source aquifer? **Yes**___ **No**___

List the depth to the aquifer: aprox 60 feet

List the number of observation and monitoring wells, if any, on the site. none

Plot well locations and groundwater gradient, if known, on site map.

D. **WATER SUPPLY**

Describe the type and source of local water supply in the area. N/A

Type: **Surface Water**____ **Well**____ **Spring**____ **Other (describe)**____

Public____ **Private** X Water hauled in

Suppliers' Name:_____

Suppliers' Source:_____

Source Distance and Direction from Site:_____

Comments:

Neighboring San Simon Ranch has a private well for domestic use & windmills for filling stock water tanks. Wells are 7.2 mi SE of Grama Ridge #1

E. SURFACE WATERS

Is there a surface body of water located within the specified radius of the site? **Yes**___ **No** X

If "**YES**" then complete the following information. Document surface water bodies on the site map. If there is a surface body of water that is visible from the site, then stand on the site and take a picture of the body of water.

Type: **Lake**____ **River**____ **Creek**____ **Pond**____ **Flood Control Ditch**_____

Other (describe)_____

Name: _____

Closest Distance between Site and Water (in feet):_____

Direction From Site to Water:_____

Is this topographically down hill from the site? **Yes**___ **No**___

Comments:

Type: **Lake**____ **River**____ **Creek**____ **Pond**____ **Flood Control Ditch**_____

Other (describe)_____

Name: _____

Closest Distance between Site and Water (in feet):_____

Direction From Site to Water:_____

Is this topographically down hill from the site? **Yes**___ **No**___

Comments:

Preliminary Exposure Pathwey Assessment Survey information provided by:

Name: Anne Stewart

Company: Maxim Tech Inc

Date: 6/29/01

Appendix A2: Site Photographs

Date:
June 29, 2001

Direction:
Facing north

Photographer:
A. Stewart

1. From inside Grama Ridge #1 compound, shows vacant area to the north

Date:
June 29, 2001

Direction:
Facing east

Photographer:
A. Stewart

2. From east fence line at Grama Ridge #1 compound, shows vacant area to the east

Site Name:	Site Address:	Task Order:	
Grama Ridge	T22S R34E Sections 3 and 4	1690026.100	MAXIM Technologies, Inc.

Date:
June 29, 2001

Direction:
Facing south

Photographer:
A. Stewart

3. From south fence line at Grama Ridge #1, showing vacant land to the south

Date:
June 29, 2001

Direction:
Facing west

Photographer:
A. Stewart

4. From west fence line at Grama Ridge #1, showing vacant land to the west

Site Name:	Site Address:	Task Order:	
Grama Ridge	T22S R34E Sections 3 and 4	1690026.100	MAXIM Technologies, Inc.

Date:
June 29, 2001

Direction:
Facing south-west

Photographer:
A. Stewart

5. From Grama Ridge #1 in downhill direction, shows vacant land, livestock grazing

Date:
June 29, 2001

Direction:
Facing north north-west

Photographer:
A. Stewart

6. From Grama Ridge #1 showing Getty 2 State Dehydration Unit to the northwest

Site Name:	Site Address:	Task Order:	MAXIM Technologies, Inc.
Grama Ridge	T22S R34E Sections 3 and 4	1690026.100	

Date:
June 29, 2001

Direction:
Facing north

Photographer:
A. Stewart

7. From southern portion of Grama Ridge #4, shows yard and vacant land to north

Date:
June 29, 2001

Direction:
Facing east

Photographer:
A. Stewart

8. From Grama Ridge #4, shows yard, metering shed and tank, and vacant land to east

Site Name:	Site Address:	Task Order:	
Grama Ridge	T22S R34E Sections 3 and 4	1690026.100	MAXIM Technologies, Inc.

Date:
June 29, 2001

Direction:
Facing south southwest

Photographer:
A. Stewart

9. From northeast of condensate tanks at Grama Ridge #4, shows vacant land to south

Date:
June 29, 2001

Direction:
Facing west

Photographer:
A. Stewart

10. From west of condensate tanks at Grama Ridge #4, shows vacant land to west

Site Name:	Site Address:	Task Order:	MAXIM Technologies, Inc.
Grama Ridge	T22S R34E Sections 3 and 4	1690026.100	

Date:
June 29, 2001

Direction:
Facing south

Photographer:
A. Stewart

11. From southern portion of Grama Ridge #4, shows downhill direction

Date:
June 29, 2001

Direction:
Facing north

Photographer:
A. Stewart

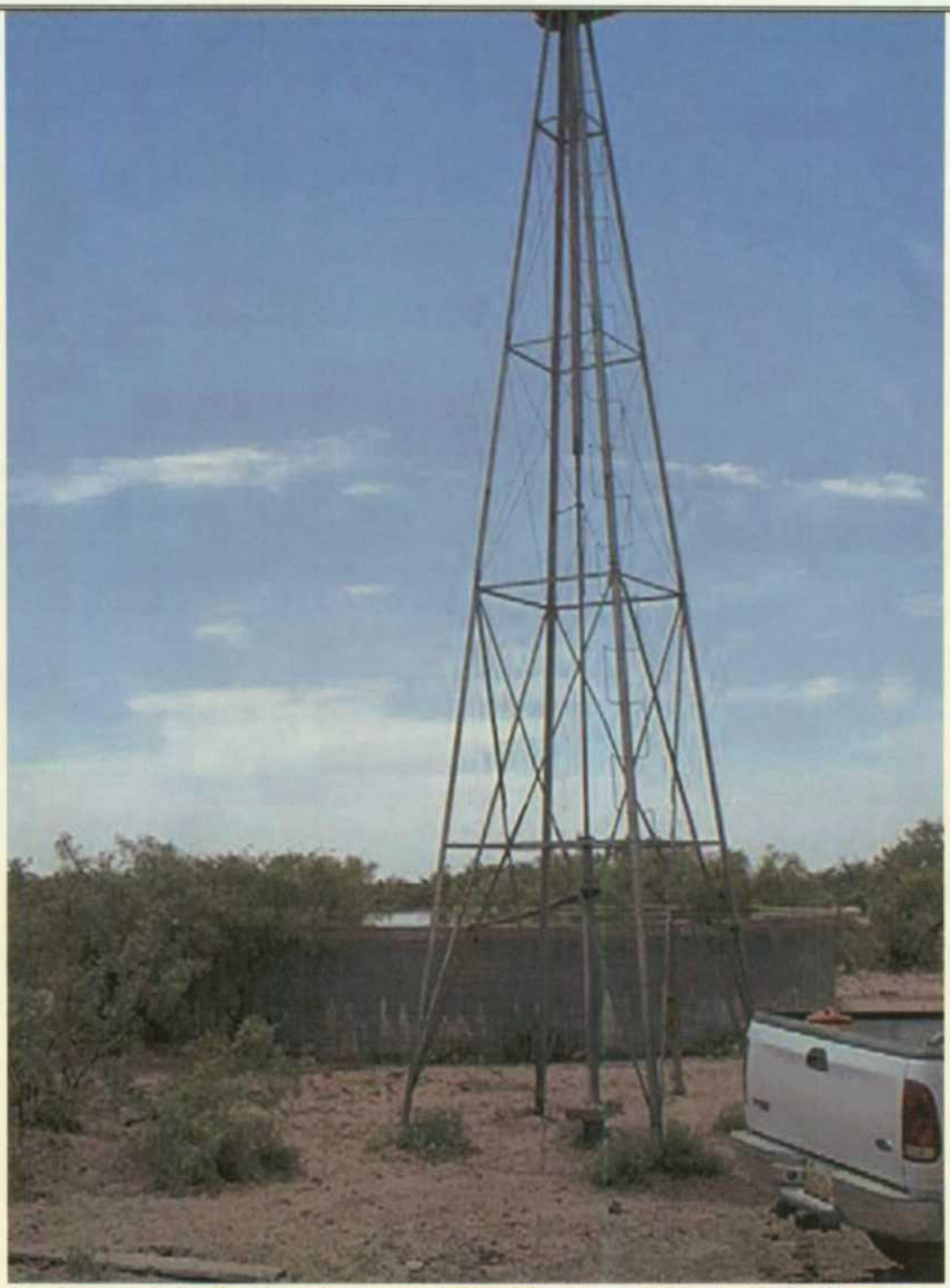
12. Shows windmill and stock watering area north of Grama Ridge #2

Site Name:	Site Address:	Task Order:	MAXIM Technologies, Inc.
Grama Ridge	T22S R34E Sections 3 and 4	1690026.100	

Date:
June 29, 2001

Direction:
Facing southeast

Photographer:
A. Stewart



13. Shows windmill and stock-water tank SE of facility, correlated with GWSI Well at Site ID 322422103291501

Site Name:	Site Address:	Task Order:	MAXIM Technologies, Inc.
Grama Ridge	T22S R34E Sections 3 and 4	1690026.100	

Appendix B: EDR Report

The EDR Radius Map
with GeoCheck®

Grama Ridge #1
T22S R34E S3 NWQ
Eunice, NM 88252

Inquiry Number: 652012.1s

July 03, 2001

Environmental Data Resources, Inc.

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-TUB

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

T22S R34E S3 NWQ
EUNICE, NM 88252

COORDINATES

Latitude (North):	32.422000 - 32° 25' 19.2"
Longitude (West):	103.470900 - 103° 28' 15.2"
Universal Tranverse Mercator:	Zone 13
UTM X (Meters):	643776.6
UTM Y (Meters):	3588052.5

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	2432103-D4 SAN SIMON RANCH, NM
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
RCRIS-LQG..... Resource Conservation and Recovery Information System
RCRIS-SQG..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list.
SWF/LF..... Solid Waste Facilities
LUST..... Leaking Underground Storage Tank Priorization Database
UST..... Listing of Underground Storage Tanks

EXECUTIVE SUMMARY

FEDERAL ASTM SUPPLEMENTAL

CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
Delisted NPL	National Priority List Deletions
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
HMIRS	Hazardous Materials Information Reporting System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
NPL Liens	Federal Superfund Liens
PADS	PCB Activity Database System
RAATS	RCRA Administrative Action Tracking System
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST	Aboveground Storage Tanks List

SURROUNDING SITES: SEARCH RESULTS

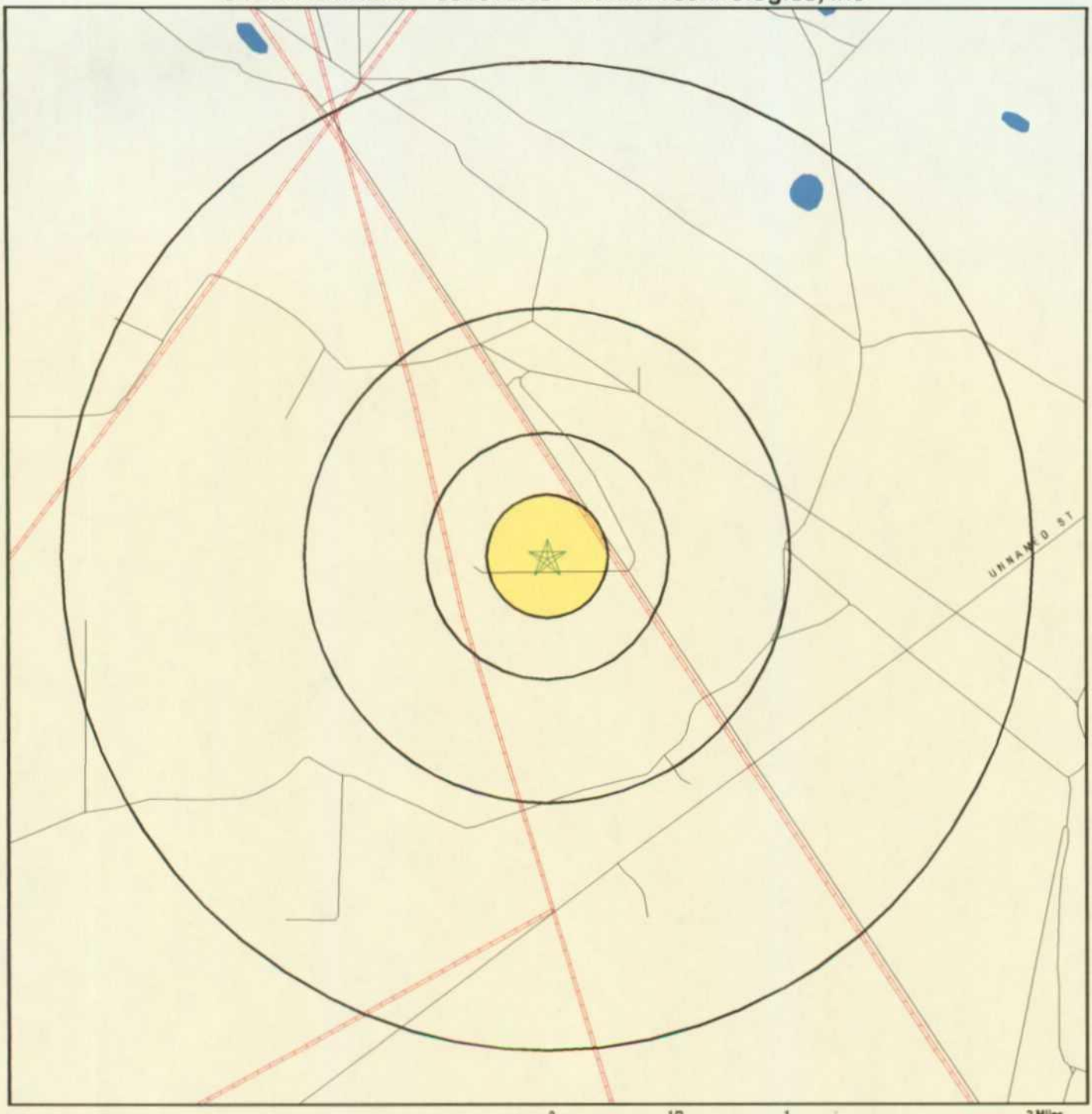
Surrounding sites were not identified.

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
RESOURCE PROTECTION INC	RCRIS-SQG, FINDS, RCRIS-TSD, CORRACTS
HIGHWAY 18 SOLVENTS	CERCLIS
SNYDER STREET PCE	CERCLIS
BLM-KERR-MCGEE POTASH CO.	TSCA, CERC-NFRAP
BLM-KERR-MCGEE LAGUNA TOSTON SITE	CERC-NFRAP
CARDINAL SURVEYS CO	CERC-NFRAP
TARON FLYING SERVICES	UST
BLOCKER OIL	UST
OXY USA INC	UST
POOL CO	UST
SNYDER RANCHES	UST
BELL GAS #628	UST
HALLIBURTON SERVICES 1	UST
BJ TITAN SERVICES A	UST
HERRING DISTRIBUTING CO	UST
NM JUNIOR COLLEGE	UST
OTIS ENGINEERING CO	UST
HOBBS YARD	UST
HANLAD STATE 1	UST
HOBBS GATHERING 4	UST
HOBBS PLANT	UST
HOBBS PLANT 6	UST
NOWSCO WELL SERVICE INC	RCRIS-SQG, FINDS
NALCO EXXON CHEMICAL CO	RCRIS-SQG, FINDS
BJ TITAN HOBBS STA	RCRIS-SQG, FINDS

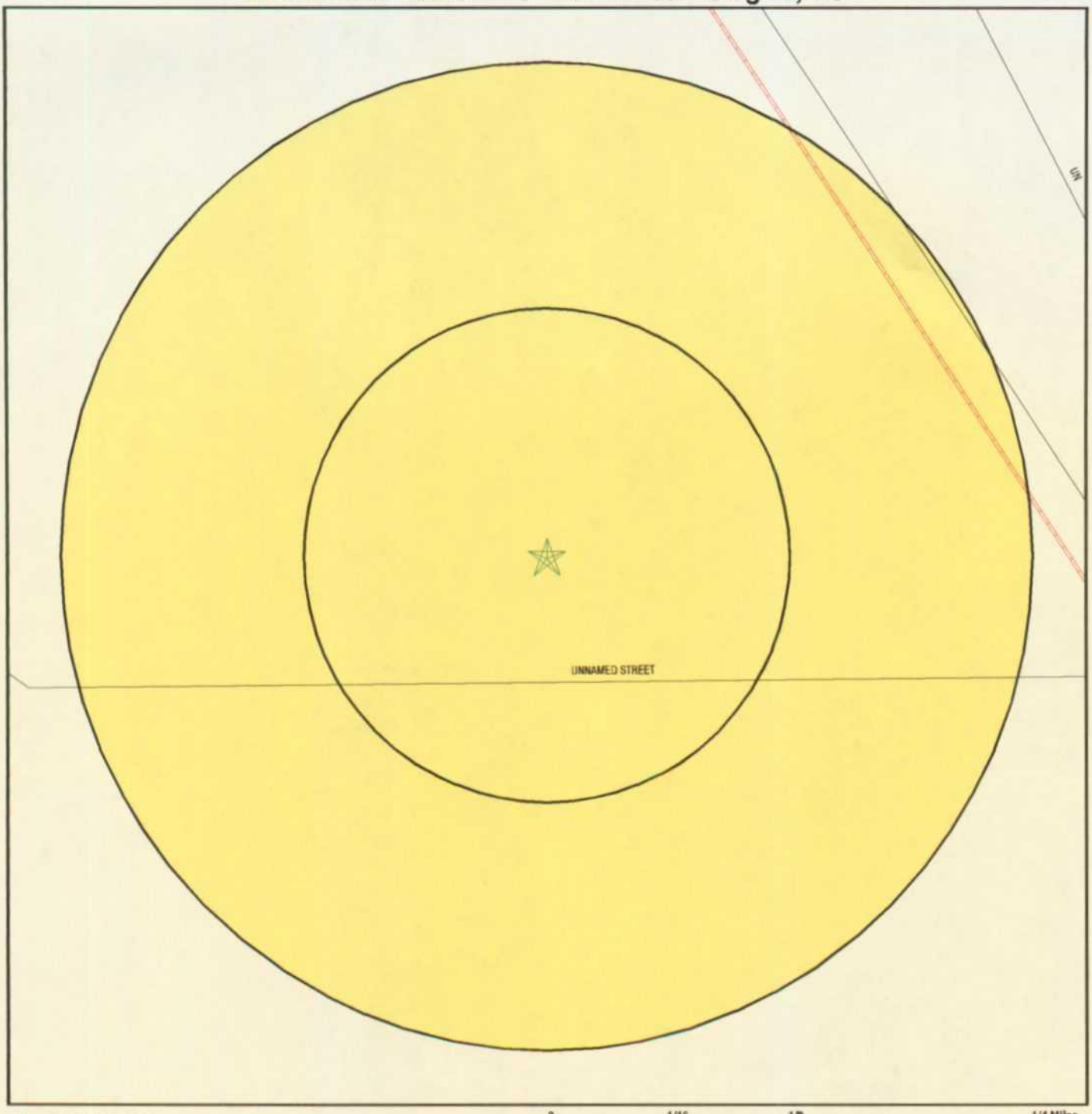
OVERVIEW MAP - 652012.1s - Maxim Technologies, Inc



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites (if requested)
- National Priority List Sites
- Landfill Sites
- Power transmission lines
- Oil & Gas pipelines

TARGET PROPERTY:	Grama Ridge #1	CUSTOMER:	Maxim Technologies, Inc
ADDRESS:	T22S R34E S3 NWQ	CONTACT:	Anne Stewart
CITY/STATE/ZIP:	Eunice NM 88252	INQUIRY #:	652012.1s
LAT/LONG:	32.4220 / 103.4709	DATE:	July 03, 2001 12:12 pm

DETAIL MAP - 652012.1s - Maxim Technologies, Inc



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites (if requested)
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Power transmission lines
- Oil & Gas pipelines

TARGET PROPERTY:	Grama Ridge #1	CUSTOMER:	Maxim Technologies, Inc
ADDRESS:	T22S R34E S3 NWQ	CONTACT:	Anne Stewart
CITY/STATE/ZIP:	Eunice NM 88252	INQUIRY #:	652012.1s
LAT/LONG:	32.4220 / 103.4709	DATE:	July 03, 2001 12:12 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		0.750	0	0	0	0	NR	0
ERNS		0.500	0	0	0	NR	NR	0
STATE ASTM STANDARD								
State Haz. Waste		N/A	N/A	N/A	N/A	N/A	N/A	N/A
State Landfill		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	0	0	NR	0
UST		0.750	0	0	0	0	NR	0
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		TP	NR	NR	NR	NR	NR	0

EDR PROPRIETARY DATABASES

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID
Direction
Distance
Distance (ft.)
Elevation | Site | MAP FINDINGS | Database(s) | EDR ID Number EPA ID Number

Coal Gas Site Search: EDR does not presently have coal gas site information available in this state.

NO SITES FOUND

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
HOBBS	1000183109	NOWSCO WELL SERVICE INC	5514 CARLSBAD HWY	88240	RCRIS-SQG, FINDS	
HOBBS	1000352200	BLM-KERR-MCGEE POTASH CO.	CARLSBAD HWY	88240	TSCA, CERC-NFRAP	
HOBBS	1001222067	NALCO EXXON CHEMICAL CO	6520 CARLSBAD HWY	88240	RCRIS-SQG, FINDS	
HOBBS	U001892135	TARON FLYING SERVICES	6601 CARLSBAD HIGHWAY	88240	UST	31014
HOBBS	U003191509	BLOCKER OIL	CARLSBAD HIGHWAY	88240	UST	977
HOBBS	U003191609	OXY USA INC	CARLSBAD HIGHWAY	88240	UST	29823
HOBBS	U003191620	POOL CO	CARLSBAD HIGHWAY 1 MILE WEST	88240	UST	1675
HOBBS	U003191635	SNYDER RANCHES	CARLSBAD HIGHWAY	88240	UST	30658
HOBBS	1000455327	RESOURCE PROTECTION INC	CTY RD 29 1M W HWY 62 180	88240	RCRIS-SQG, FINDS, RCRIS-TSD, CORRACTS	
HOBBS	U001244734	BELL GAS #628	1823 GILA/STATE LINE	88240	UST	0008405
HOBBS	U003191551	HALLIBURTON SERVICES 1	HOBBS INDUSTRIAL PARK	88240	UST	28451
HOBBS	1000352203	BLM-KERR-MCGEE LAGUNA TOSTON SITE	JCT HWY 62 & 180	88240	CERC-NFRAP	
HOBBS	1001404223	HIGHWAY 18 SOLVENTS	JOE HARVEY BLVD	88240	CERCLIS	
HOBBS	1000189382	CARDINAL SURVEYS CO	LOVINGTON HWY	88240	CERC-NFRAP	
HOBBS	1000413928	BJ TITAN HOBBS STA	LOVINGTON HIGHWAY	88240	RCRIS-SQG, FINDS	
HOBBS	U001891667	BJ TITAN SERVICES A	LOVINGTON HWY	88240	UST	26959
HOBBS	U003543593	HERRING DISTRIBUTING CO	LOVINGTON HIGHWAY	88240	UST	28515
HOBBS	U003543598	NM JUNIOR COLLEGE	LOVINGTON HIGHWAY	88240	UST	29626
HOBBS	U003543599	OTIS ENGINEERING CO	LOVINGTON HIGHWAY	88240	UST	1566
HOBBS	U003191565	HOBBS YARD	3 MILES OF HOBBS ON HWY 18	88240	UST	28563
HOBBS	1001404221	SNYDER STREET PCE	SNYDER STREET	88240	CERCLIS	
HOBBS	U003191553	HANLAD STATE 1	STAR ROUTE A	88240	UST	28459
HOBBS	U003191557	HOBBS GATHERING 4	STAR ROUTE A	88240	UST	28550
HOBBS	U003711631	HOBBS PLANT	STAR ROUTE A	88240	UST	28556
HOBBS	U003723639	HOBBS PLANT 6	STAR ROUTE A	88240	UST	28558

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC).

Date of Government Version: 01/23/01
Date Made Active at EDR: 02/16/01
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 02/05/01
Elapsed ASTM days: 11
Date of Last EDR Contact: 05/07/01

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 01/23/01
Date Made Active at EDR: 02/16/01
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 02/05/01
Elapsed ASTM days: 11
Date of Last EDR Contact: 05/07/01

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/16/01
Date Made Active at EDR: 04/30/01
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/26/01
Elapsed ASTM days: 35
Date of Last EDR Contact: 03/26/01

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 03/16/01
Date Made Active at EDR: 04/30/01
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 03/26/01
Elapsed ASTM days: 35
Date of Last EDR Contact: 03/26/01

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/20/00
Date Made Active at EDR: 08/01/00
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/12/00
Elapsed ASTM days: 50
Date of Last EDR Contact: 06/12/01

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 06/21/00
Date Made Active at EDR: 07/31/00
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 07/10/00
Elapsed ASTM days: 21
Date of Last EDR Contact: 05/29/01

ERNS: Emergency Response Notification System
Source: EPA/NTIS
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 08/08/00
Date Made Active at EDR: 09/06/00
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 08/11/00
Elapsed ASTM days: 26
Date of Last EDR Contact: 04/19/01

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/97
Database Release Frequency: Biennially

Date of Last EDR Contact: 03/19/01
Date of Next Scheduled EDR Contact: 06/18/01

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision
Source: NTIS
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 09/30/99
Database Release Frequency: Annually

Date of Last EDR Contact: 04/10/01
Date of Next Scheduled EDR Contact: 07/09/01

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/23/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/07/01
Date of Next Scheduled EDR Contact: 08/06/01

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/07/00
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/09/01
Date of Next Scheduled EDR Contact: 07/09/01

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4526
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 11/30/00
Database Release Frequency: Annually

Date of Last EDR Contact: 04/24/01
Date of Next Scheduled EDR Contact: 07/23/01

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/30/01
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/09/01
Date of Next Scheduled EDR Contact: 07/09/01

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 08/01/98
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/02/01
Date of Next Scheduled EDR Contact: 07/02/01

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 205-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/01
Date of Next Scheduled EDR Contact: 08/20/01

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-260-3936
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/11/00
Database Release Frequency: Annually

Date of Last EDR Contact: 05/18/01
Date of Next Scheduled EDR Contact: 08/13/01

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/11/01
Date of Next Scheduled EDR Contact: 09/10/01

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-260-1531
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/98
Database Release Frequency: Annually
Date of Last EDR Contact: 03/26/01
Date of Next Scheduled EDR Contact: 06/25/01

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-1444
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/98
Database Release Frequency: Every 4 Years
Date of Last EDR Contact: 04/24/01
Date of Next Scheduled EDR Contact: 07/23/01

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/00
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/26/01
Date of Next Scheduled EDR Contact: 06/25/01

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 08/10/00
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/26/01
Date of Next Scheduled EDR Contact: 06/25/01

STATE OF NEW MEXICO ASTM STANDARD RECORDS

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list.
Source: EPA
Telephone: 703-413-0223
State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Made Active at EDR: N/A
Database Release Frequency: N/A

Date of Data Arrival at EDR: N/A
Elapsed ASTM days: N/A
Date of Last EDR Contact: 05/01/01

SWF/LF: Solid Waste Facilities
Source: New Mexico Environment Department
Telephone: 505-827-0347
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/01/01
Date Made Active at EDR: 03/30/01
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 02/23/01
Elapsed ASTM days: 35
Date of Last EDR Contact: 06/11/01

LUST: *Leaking Underground Storage Tank Priorization Database*
Source: New Mexico Environment Department
Telephone: 505-827-0188
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/26/01
Date Made Active at EDR: 03/06/01
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 02/05/01
Elapsed ASTM days: 29
Date of Last EDR Contact: 05/09/01

UST: Listing of Underground Storage Tanks
Source: New Mexico Environment Department
Telephone: 505-827-0199
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 01/26/01
Date Made Active at EDR: 03/02/01
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 02/05/01
Elapsed ASTM days: 25
Date of Last EDR Contact: 05/09/01

STATE OF NEW MEXICO ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Storage Tanks List
Source: State Fire Marshal
Telephone: 505-827-3550
Aboveground tanks that have been inspected by the State Fire Marshal.

Date of Government Version: 02/01/00
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/06/01
Date of Next Scheduled EDR Contact: 07/02/01

EDR PROPRIETARY DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HISTORICAL AND OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 1999 from the U.S. Fish and Wildlife Service.

GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

GRAMA RIDGE #1
T22S R34E S3 NWQ
EUNICE, NM 88252

TARGET PROPERTY COORDINATES

Latitude (North):	32.422001 - 32° 25' 19.2"
Longitude (West):	103.470901 - 103° 28' 15.2"
Universal Tranverse Mercator:	Zone 13
UTM X (Meters):	643776.6
UTM Y (Meters):	3588052.5

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2432103-D4 SAN SIMON RANCH, NM
Source: USGS 7.5 min quad index

GENERAL TOPOGRAPHIC GRADIENT AT TARGET PROPERTY

Target Property: General SSE

Source: General Topographic Gradient has been determined from the USGS 1 Degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Q3 Flood Data Electronic Coverage
LEA, NM	NO

Flood Plain Panel at Target Property: Not Reported
Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Coverage
SAN SIMON RANCH	NO

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Site-Specific Hydrogeological Data*:
Search Radius: 2.0 miles
Status: Not found

AQUIFLOW®

Search Radius: 2.000 Miles.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

GEOLOGIC AGE IDENTIFICATION

Geologic Code:	Qp
Era:	Cenozoic
System:	Quaternary
Series:	Pleistocene

ROCK STRATIGRAPHIC UNIT

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Component Name: KERMIT

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively. Soils have very high and high hydraulic conductivity and low water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

Soil Layer Information

	Boundary			Classification			
Layer	**Upper**	**Lower**	**Soil Texture Class**	**AASHTO Group**	**Unified Soil**	**Permeability Rate (in/hr)**	**Soil Reaction (pH)**
1	0 inches	12 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	SP-SM	Max: 20.00 Min: 20.00	Max: 8.40 Min: 6.60
2	12 inches	84 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	SP-SM	Max: 20.00 Min: 20.00	Max: 8.40 Min: 6.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: gravelly - fine sandy loam
gravelly - loam
loamy fine sand
fine sandy loam
loam

Surficial Soil Types: gravelly - fine sandy loam
gravelly - loam
loamy fine sand
fine sandy loam
loam

Shallow Soil Types: sandy clay loam
fine sandy loam
clay loam

Deeper Soil Types: indurated

loamy fine sand
very gravelly - loam
sandy loam
gravelly - loam
loamy sand
clay loam
fine sandy loam
gravelly - loamy fine sand
very fine sandy loam

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile

FEDERAL USGS WELL INFORMATION

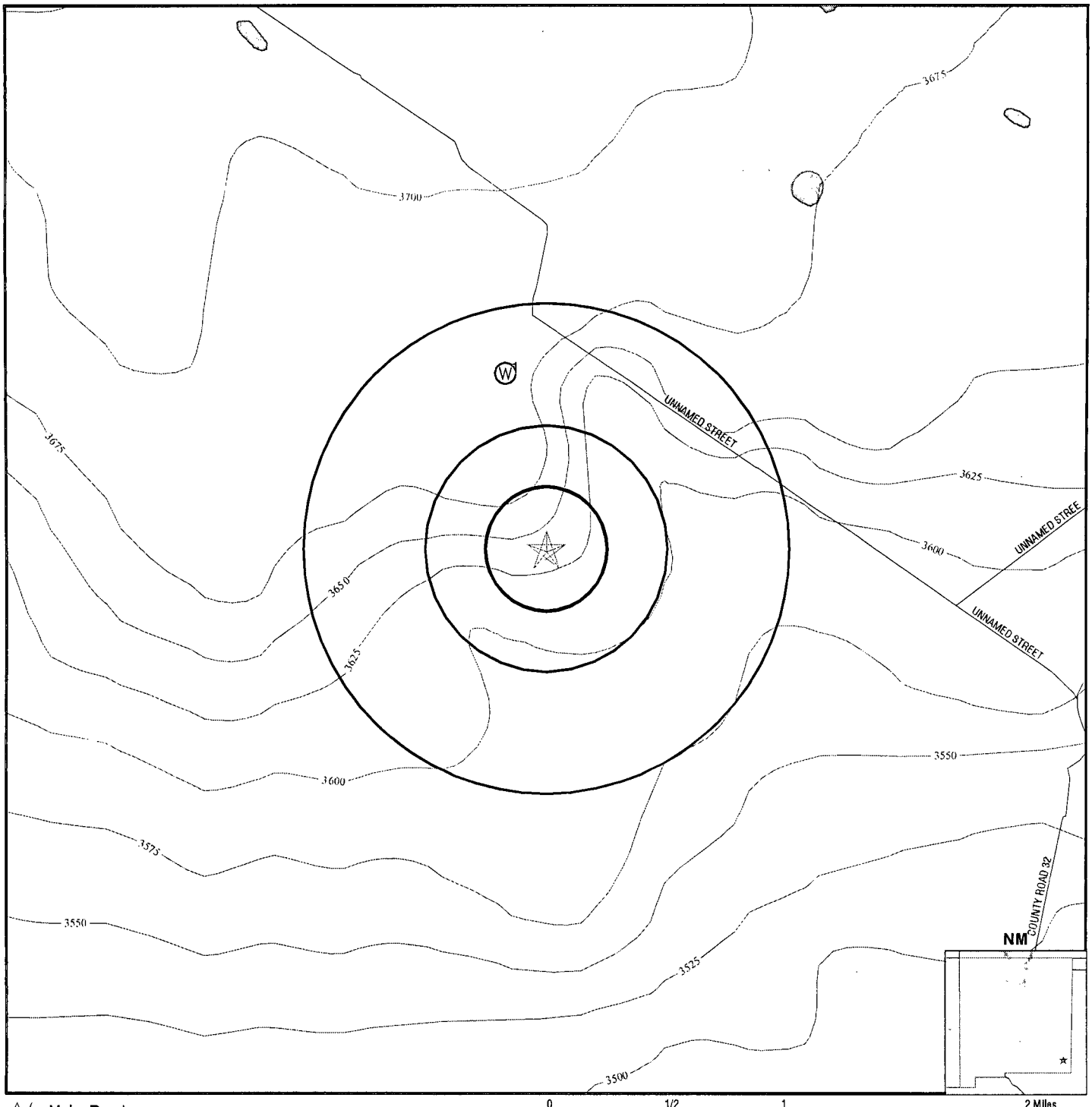
MAP ID	WELL ID	LOCATION FROM TP
1	322556103282401	1/2 - 1 Mile NNW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

PHYSICAL SETTING SOURCE MAP - 652012.1s



- Major Roads
- Contour Lines
- Water Wells
- Public Water Supply Wells
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Cluster of Multiple Icons
- Earthquake epicenter, Richter 5 or greater
- Closest Hydrogeological Data

TARGET PROPERTY:	Grama Ridge #1	CUSTOMER:	Maxim Technologies, Inc
ADDRESS:	T22S R34E S3 NWQ	CONTACT:	Anne Stewart
CITY/STATE/ZIP:	Eunice NM 88252	INQUIRY #:	652012.1s
LAT/LONG:	32.4220 / 103.4709	DATE:	July 03, 2001 12:12 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
1 **NNW** **1/2 - 1 Mile** **Higher**	**FED USGS**	**322556103282401**

BASIC WELL DATA

Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	Not Reported	County:	Lea
Altitude:	3641.00 ft.	State:	New Mexico
Well Depth:	Not Reported	Topographic Setting:	Not Reported
Depth to Water Table:	Not Reported	Prim. Use of Site:	Not Reported
Date Measured:	Not Reported	Prim. Use of Water:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for LEA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Zip Code: 88252

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.000 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 1999 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the national Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-260-2805

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-260-2805

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

RADON

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones: Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration