UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

VIA FEDEX

REPLY TO THE ATTENTION OF:

November 19, 2007

Mr. Peter Ferron
Environmental Specialist II
Ohio Department of Health
Bureau of Environmental Health
246 North High Street - 5th Floor
Columbus, Ohio 43215

RE: United States Environmental Protection Agency Comments on "Brown Cover" Draft Public Health Assessment
South Dayton Dump and Landfill Site, Moraine, Ohio

Dear Mr. Ferron:

The United States Environmental Protection Agency (U.S. EPA) appreciates the opportunity to review the "Brown Cover" draft Public Health Assessment for the South Dayton Dump and Landfill (SDDL) Site in Moraine, Ohio.

U.S. EPA's comments on the draft Public Health Assessment and supporting documents are attached. The majority of U.S. EPA's comments are based on data in the following SDDL reports:

- U.S. EPA's 1991 Screening Site Inspection Report
- Ohio Environmental Protection Agency's 1996 Site Team Evaluation Prioritization Report
- 2000 TCA Environmental Valley Asphalt Drum Removal Report
- 2002 Payne Firm Environmental Data Summaries Report and Payne Firm 2004 and 2005 sampling results.

U.S. EPA has also been investigating the frequency of flooding at the Site and has additional comments based on air photos and stream gauging data.

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If you have any questions or would like to discuss U.S EPA's comments further please feel free to contact me at (312) 886-1843 or via email at cibulskis.karen@epa.gov.

Sincerely,

Karen Cibulskis
Remedial Project Manager

Cc: Matt Justice, OEPA (U.S. EPA Comments w/o Attachments)
Mark Case, Public Health – Dayton and Montgomery County (U.S. EPA Comments w/o Attachments)

United States Environmental Protection Agency Comments on September 28, 2007 "Brown Cover" Draft Public Health Assessment South Dayton Dump and Landfill Site November 19, 2007

1. Page 2, Summary, Paragraph 2: Internal memoranda from Delco Moraine in 1975 and 1976 indicate asbestos waste was disposed at the Site without adequate cover. Handwritten notes believed to be in the landfill operator's handwriting (Alcine Grillot) on an undated tax map from Montgomery Health Department files from the 1960s also indicate "brake lining dust" was disposed at the Site although it is not clear whether or not this is asbestos waste. A copy of the map and memos are in Attachment 1.

2. Page 2, Summary, Paragraph 3: Soil sample S08 (OEPA) collected from 0.2-0.3 feet below ground surface in 1996 contains elevated levels of lead (652 mg/Kg) and copper (1,830 mg/Kg) as well as antimony (278 mg/Kg), arsenic (141 mg/Kg) and polynuclear aromatic hydrocarbons (PAHs) including 820 ug/Kg benzo(a)pyrene [see Ohio Environmental Protection Agency (OEPA) 1996 Site Team Evaluation Prioritization Report]. Sample S08 (OEPA) was collected from the embankment leading down to the Great Miami River (GMR) on Miami Conservancy District (MCD) property (Lot 3278) and indicates landfill contaminants are leaving the South Dayton Dump and Landfill (SDDL) and/or the landfill extends into off-Site areas. Conestoga Rovers Associates (CRA), the consultant for the SDDL potentially responsible parties (PRPs) reports the embankment is constructed of fill material including slag, ash and foundry sand and metal and glass shards. Sample S10 (EPA) collected from the embankment on MCD property north of S08 (OEPA) (Lot 3058) also contained 1,200 ug/Kg benzo(a)pyrene (see Draft RI/FS Work Plan Pages 5, 18, 76, and 78; Figure 2.1 (site features/inspection); Figure 2.20 (soil sample locations); and Table 2.2 (soil sample results) in Attachment 2. NOTE: "Direct Contact Presumptive Remedy Area" in Figure 2.1 and Figure 2.20 is not approved; please disregard.

3. Page 2, Summary, Paragraph 3: Sediment samples S17 (OEPA) and S19 (OEPA) collected in the GMR adjacent to the Site contain PAHs above consensus-based probable effects concentrations for ecological effects (Table 1) (see *Prediction of Sediment Toxicity Using Consensus-Based Freshwater Sediment Quality Guidelines*, EPA 905/R-00/007, June 2000). NOTE: When the samples were collected OEPA did not realize S19 was adjacent to the Site - not upstream (see Draft RI/FS Work Plan Figure 2.20 and Table 2.3 in Attachment 2). NOTE: "Direct Contact Presumptive Remedy Area" in Figure 2.20 is not approved; please disregard.

CRA's site inspection indicates the embankment appears to be constructed of fill material including foundry sand, slag, ash and other debris (Attachment 2 - Draft RI/FS Work Plan Pages 5, 18, 76 and 78).

These chemicals were also detected at much higher concentrations on Site. About 10 percent of the landfill is in the 100 year floodway and about 60 percent of the landfill is in the 100 year floodplain (Draft RI/FS Work Plan Figure 2.6 in Attachment 2). About 50 percent of the landfill is below the 10 year flood elevation which ranges from 729 feet north of Dryden Road to 726 feet south of the Quarry Pond (see Draft RI/FS Work Plan Page 32 in Attachment 2 and Payne Firm Survey in Attachment 3).

Draft RI/FS Work Plan Figure D-5 shows the extent of Site flooding during a 1959 flood (Attachment 2, Appendix D). The 1959 flood was between a 20 to 50 year flood event and is estimated as a 40-year flood with a maximum daily average discharge of 57,100 cubic feet per second (cfs) at the nearest upstream gauging station (USGS Dayton 03270500) (Attachment 4).

An air photo from April 14, 1973 (Attachment 2, Draft RI/FS Work Plan Appendix D, Figure D-9) shows flooding along the MCD recreational trail to the embankment of the landfill in some Site areas. United States Geological Survey (USGS) records indicate the maximum daily average discharge on April 14, 1973 was 7,190 cfs with a maximum daily average discharge for the event of 8,220 cfs on April 13, 1973 (Attachment 4).

USGS records indicate that during the past 10 years (1997-2007), the Dayton gauging station had a daily average discharge of 8,220 cfs or higher on 270 days (Table 2 and Attachment 4). On 47 days, the daily average discharge was between 2 to 3 times greater than the 1973 event (16,440 cfs to < 24,660 cfs) and on 20 days the daily average discharge was between 3 to 4 times greater than the 1973 event (24,660 cfs to < 32,880 cfs). Four days during the past 10 years had a daily average discharge greater than 4 times the 1973 event (32,880 cfs to < 41,100 cfs). Two 2 days during the past 10 years had a daily average discharge greater than 5 times the 1973 event (greater than 41,100 cfs). The maximum daily average discharge reported during the 10 year period was 42,000 cfs in January 2005.

4. Page 2, Summary, Paragraph 3: Valley Asphalts's consultants for the 2000 drum removal (2000 TCA Environmental Remediation Report Page 1, Section 3, Item 5) and CRA report the Valley Asphalt well as a drinking water well/potable well supply (see also Draft RI/FS Work Plan Pages 73 and 77 in Attachment 2).

5. Page 2, Summary, Paragraph 4: There are at least 7 wells 500-1,500 feet in the general downgradient direction of the Site (Draft RI/FS Work Plan Figure 2.14 and 2.15 and Apendix C, Figure C-1 and well logs). NOTE: The "Direct Contact Presumptive Remedy Area" in Figure 2.14 and Figure 2.15 is not approved; please disregard. The Well ID Numbers are:

   - 966158, Miller Valentine
   - 493091, Steve Tomsky
   - 536349, Mosier Tree
   - 158881, Moraine Corporation
   - 557902 and 557903, Mid-States Development
   - 499062, Rock Processing

   Well 966158 was installed in 2005. How did ATSDR confirm none of these wells are used for drinking water? Could any of these wells be used for industrial purposes with supply lines run to offices for drinking water/potable use?

6. Summary, Page 2, Paragraph 5 and Page 3: These paragraphs state "there are no...data that indicate that...occurred." Since there is no data wouldn't it be more accurate to state "...there are no...data to indicate whether...occurred/is occurring, etc.."?

7. Page 4, Site Location, Paragraph 2: The mobile home park is approximately 150 feet from the Site boundary and the nearest mobile home appears to be approximately 250 feet from the Site boundary, not ¼ mile from the Site. See Draft RI/FS Work Plan Figure 2.1 in Attachment 2. NOTE: The "Direct Contact Presumptive Remedy Area" in Figure 2.1 is not approved; please disregard.

8. Pages 5 and 6, Site History: See Comment No. 1 re: asbestos.

9. Regional Hydrogeology and Groundwater Resources, Page 7, Paragraph 3: See Comment No. 5 re: wells near Site.

10. Regional Hydrogeology and Groundwater Resources, Page 8, Paragraph 2: See Comment No. 3 re: flooding. Also, there is not a levee between the Site and the river. There is an embankment constructed of fill material including slag, ash and foundry sand, along with metal and glass shards. Sample S08 (OEPA), S10 (EPA) and S07(OEPA) collected from the embankment on MCD property in the 100 year floodway of the GMR contains contaminants above ATSDR Comparison Values. See 1996 OEPA Site Team Evaluation Prioritization Report and 1999 United States Environmental Protection Agency (U.S. EPA) Screening Site Inspection

Report. The data is also summarized in Draft RI/FS Work Plan Table 2.2 in Attachment 2:

- S08 (OEPA): 141 mg/Kg arsenic; 652 mg/Kg lead and 820 ug/Kg benzo(a)pyrene
- S05 (OEPA): 12.2 mg/Kg arsenic
- S10 (EPA): 8.1 mg/Kg arsenic; 1,200 ug/Kg benzo(a)pyrene

11. Page 9, 1996 Site Team Evaluation Prioritization, Paragraph 2: See Comment No. 3 above re: SVOCs in GMR sediment and S19 not being a "background sample".

12. Page 10, Landowners Investigations: The maximum concentration of TCE was 260 ug/L in 1999. See 2002 Payne Firm Report and subsequent figures. The data is also summarized in Draft RI/FS Work Plan Table 2.5 in Attachment 2.

13. Page 10, Landowners Investigations: Arsenic was also detected above the MCL in the following samples (see 2002 Payne Firm Report and subsequent figures). The data are also summarized in Draft RI/FS Work Table 2.5 in Attachment 2. Monitoring well locations are in Draft RI/FS Work Plan Figure 2.21 in Attachment 2.

    - MW-203: 19 ug/L 1998; 27 ug/L 1999. No other samples collected.
    - MW-207: 12 ug/L 1999. No other samples collected.
    - MW-209: 32ug/L 1999. No other samples collected.
    - MW-204: 33 ug/L 1998; 28 ug/L 1999. No other samples collected.

    NOTE: The "Direct Contact Presumptive Area" in Figure 2.21 is not approved; please disregard:

14. Page 10, Landowners Investigations: Lead was also detected above the MCL action level in MW-209 at a concentration of 100 ug/L in 1999. No other samples were collected from MW-209 for lead analysis. See 2002 Payne Firm Report. The data is also summarized in Draft RI/FS Work Plan Table 2.5 in Attachment 2.

15. Page 11, Exposure Pathways, General: See Comment No. 1 re: asbestos. See Comment Nos. 13 and 14 re: arsenic and lead in groundwater. See Comment No. 3 re: PAHs in sediment samples.

16. Page 11, Exposure Pathways, Paragraph 1: Isn't there also a potential for the VOCs in the groundwater to move as a gas into Valley Asphalt

buildings and the other on-Site buildings along Dryden Road? U.S. EPA does not know whether any of these buildings have basements. See Comment No. 23 below re: extent of landfill.

17. Exposure Pathways, Page 12, Paragraph 4 and Table 1: Some sample results were significantly higher in the 1991 U.S. EPA samples. See 1991 U.S. EPA Screening Site Inspection Report. The data are also summarized in Draft RI/FS Work Plan Table 2.2 in Attachment 2. In 1991 maximum concentrations were:

    - Phenanthrene: 18,000 ug/Kg, S3 (EPA)
    - Fluoranthene: 21,000 ug/Kg, S6 (EPA)
    - Pyrene: 13,000 ug/Kg, S6 (EPA)
    - Benzo(a)anthracene: 8,500 ug/Kg, S3 (EPA)
    - Chrysene: 6,400 ug/Kg, S6 (EPA)
    - Benzo(b)fluoranthene: 9,500 ug/Kg, S3 (EPA)
    - Benzo(k)fluoranthene: 6,400 ug/Kg, S3 (EPA)
    - Benzo(a)pyrene: 5,700 ug/Kg, S3 (EPA)
    - Indeno(1,2,3-cd)pyrene: 5,000 ug/Kg, S3 (EPA)
    - Dibenz(a,h)anthracene: 1,600 ug/Kg, S6 (EPA)
    - Aroclor-1248: 4,200 ug/Kg S2 (EPA)
    - Aroclor-1260: 2,800 ug/Kg S2 (EPA)

18. Page 13, Fishing: See Comment No. 3 re: S19 not being a background location and Site flooding. Significant levels of PAHs were found in S17 (OEPA) and S19 (OEPA). Metals and low levels of pesticides were also detected in these samples and in sediment sample S18 (OEPA). U.S. EPA has not evaluated whether any of the chemicals detected in the GMR sediments adjacent to the Site would pose a risk through fish ingestion. Perhaps the current fishing advisory for mercury and PCBs in the GMR is already expected to be protective?

19. Page 13, Fishing: The health assessment does not address fishing in the on-Site Quarry Pond, part of which is owned by the MCD (Lot 3274). See Comment No. 3 re: sediment concentrations above ecological criteria and sample results for S15 (OEPA) and S17 (OEPA) for complete analytical results. Metals and pesticides were also detected in the sediment. However, U.S. EPA has not evaluated whether any of the chemicals detected in the Quarry Pond are at concentrations high enough to pose a risk through fish ingestion.

20. Page 13, Current Exposures: The total PAHs detected in 1991 are more than 6,400 ug/Kg. See Comment No. 17.

21. Direct Contact with On-Site Soils, Page 14, Paragraph 1: The copper concentration of 191,000 mg/Kg is above the ATSDR Adult EMEG. The significance of benzo(a)pyrene at a maximum concentration of 5,700 ug/Kg in soil sample S3 (EPA) which is 57 times greater than the ATSDR Comparison Value of 100 ug/Kg (CREG B2) is not discussed. The significance of arsenic at a maximum concentration of 141 mg/Kg in off-Site soil sample S08 (OEPA) which is 282 times greater than the ATSDR Comparison Value of 0.5 mg/Kg (CREG A) is not discussed. See 1991 U.S. EPA Screening Site Inspection Report and 1996 OEPA Site Team Evaluation Prioritization Report). The data and sampling locations are also summarized in Draft RI/FS Work Plan Table 2.2 and Figure 2.20 in Attachment 2. NOTE: The "Direct Contact Presumptive Remedy Area" in Figure 2.20 is not approved; please disregard.

22. Direct Contact with On-Site Soils, Page 14, Paragraph 1: See Comment No. 10 re: embankment and contamination on MCD property.

23. Direct Contact with On-Site Soils, Page 14, Paragraph 1: The businesses just west of Dryden Road are over the reported landfilled area (see marked-up tax map in Attachment 1). Landfilled material was detected at soil borings near these businesses at locations MW-208 (10 feet of fill), MW-202 (5 feet of fill) and MW-210 (8 feet of fill) (see Draft RI/FS Work Plan Figure 2.21 and Appendix B, Soil Boring Logs in Attachment 2). However, soil samples were not collected from these locations for laboratory analysis. NOTE: The "Direct Contact Presumptive Remedy Area" in Figure 2.21 is not approved; please disregard.

    Underground Storage Tank Removal Reports for Dayton Recycling and Custom Deliveries also indicate the landfill extends into these areas (Draft RI/FS Work Plan Figure 2.22 in Attachment 2). NOTE: The "Direct Contact Presumptive Remedy Area" in Figure 2.22 is not approved; please disregard.

    Page 5 of the logbook for the Dayton Recycling closure states (Attachment 5):

    "*These tanks had been installed into a landfill type excavation. Visual signs of foundry sand, brick, bottles, etc., were exposed during removal process.*"

    Page 3 of the closure assessment report for Custom Deliveries states (Attachment 6):

    "*During excavation and removal of the UST black-gray fine sand and trash were found to exist along the walls of the excavation. Commingled in the*

fill material were paint cans, multi-colored soil, newspaper, steel pipe and incinerator ash. The fill material was encountered on all sides of the tank pit and extended to a depth of approximately twelve (12) feet below the ground surface. Underlying the fill material was a natural, brown silty sand and gravel. Groundwater was not encountered during the excavation of the UST."

24. Direct Contact with On-Site Soils, Page 14, Paragraph 1: See Comment No. 10 re: arsenic, lead and benzo(a)pyrene in off-Site soil on MCD property.

25. Page 14, Off-Site Aquatic Food-Chain Pathway: See Comment No. 18 re: GMR sediment contamination adjacent to the Site. See Comment No. 19 re: fishing in on-Site Quarry Pond, part of which is owned by MCD.

26. Page 14, Drinking Water Pathway: See Comment Nos. 4 and 5 re: Valley Asphalt well and other wells 500-1,500 feet generally downgradient of Site. See Comment Nos. 13 and 14 re: arsenic and lead in groundwater.

27. Page 15, Vapor Intrusion Pathway: See Comment No. 16 re: potential vapor intrusion to on-Site businesses.

28. Conclusions: See previous comments.

TABLE 1
CHEMICAL CONCENTRATIONS IN QUARRY POND AND GREAT MIAMI RIVER SEDIMENT ABOVE CONSENSUS-BASED PROBABLE EFFECTS CONCENTRATIONS
SOUTH DAYTON DUMP AND LANDFILL

Chemical	Consensus-Based Probable Effects Concentration (PEC) (ug/Kg)	Quarry Pond Sediment Above PEC (ug/Kg)	Concentrations in GMR Sediment Above PEC (ug/Kg)	Maximum Concentrations On-Site	Other Soil Sample Concentrations Above Sediment PECs
Benzo(a)anthracene	1,050	1,500 S16	2,200 S17 1,300 S19	8,500 S3 (EPA) 6,900 S6 (EPA) F	1,100 S7 (EPA) 1,100 S08 (OEPA) F
Benzo(a)pyrene	1,450	1,800 S16	2,100 S17	5,700 S3 (EPA) 4,800 S6 (EPA) F	
Chrysene	1,290	1,500 S16	2,500 S17 1,500 S19	5,700 S3 (EPA) 6,400 S6 (EPA) F	
Fluoranthene	2,230	2,600 S16	2,200 S19 (under PEC)	12,000 S3 (EPA) 21,000 S6 (EPA) F	2,500 S10 (EPA) F 2,800 S7 (EPA)
Phenanthrene	1,170	1,500 S16	1,900 S19	18,000 S3 (EPA) 14,000 S6 (EPA) F	1,800 S10 (EPA) F 1,700 S08 (OEPA) F
Pyrene	1,520	3,000 S16	4,700 S17 2,700 S19	8,100 S3 (EPA) 13,000 S6 (EPA) F	1,900 S7 (EPA) 3,400 S10 (EPA) F 1,900 S08 (OEPA) F 1,600 S11 (OEPA)
PCBs	676	660 S16 (under PEC)		7,000 S2 (EPA)	1,400 S7 (EPA) 2,030 S09 (OEPA) F

NOTES:

F: Sample collected from embankment within 100 year floodway and at approximate elevation below 10-year flood elevation (729 feet north of Dryden Road to 726 feet south of Quarry Pond).

TABLE 2
FREQUENCY OF APRIL 14, 1973 FLOOD EVENT TO LANDFILL EMBANKMENT
(Maximum 8,220 cfs at Dayton) 1997-2007
SOUTH DAYTON DUMP AND LANDFILL

Year	Average Daily Discharge Days > 8,220 cfs (total)	Average Daily Discharge Days 16,440 cfs to < 24,660 cfs	Average Daily Discharge Days 24,660 cfs to < 32,880 cfs	Average Daily Discharge Days 32,880 cfs < 41,100	Average Daily Discharge Days > 41,400 cfs
1997	21	3	2	-	-
1998	24	4	-	-	-
1999	16	3	1	-	-
2000	7	2	-	-	-
2001	23	3	1	-	-
2002	25	5	-	-	-
2003	37	7	4	1	-
2004	19	3	2	-	-
2005	43	8	5	2	2
2006	20	4	1	-	-
2007 (October)	35	5	4	1	-
TOTAL	**270**	**47**	**20**	**4**	**2**

ATTACHMENT 1

DELCO MORAINE MEMORANDA
HEALTH DEPARTMENT MAP

Delco Moraine

Inter-Organization

Subject: Asbestos Waste Disposal

From: R. D. Parker

Date: February 11, 1976

Attention: R. E. Brumfiel

cc: R. Hanes
S. J. Lovas

Plant Engineering recommends that Delco Moraine immediately change its asbestos waste disposal site to:

Sanitary Landfill Company
1855 Cardington Road

Delco Moraine presently disposes of its asbestos waste material at the South Dayton Dump and Landfill. After random visits last year and subsequent visits these past two (2) weeks it has been determined by Plant Engineering that South Dayton Dump is not adhering to the attached EPA National Emission Standards for Asbestos. Large quantities of uncovered asbestos dust has been seen by Plant Engineering on each of the above mentioned visits. A waiver of compliance from the National Emission Standards will be required should we continue to use the South Dayton Dump.

Sanitary Landfill Company complies to the National Emission Standards by immediately covering asbestos with non-contaminated trash and fill dirt. This was observed by Plant Engineering on February 9, 1976.

Ronald D. Parker

Ronald D. Parker
Plant Engineering

A L Boyce

Arnold L. Boyce
Superintendent Plant
Engineering & Layout

/sh
Attachment

Delco Moraine

Inter-Organization

Subject: ASBESTOS WASTE

From: R. E. Brumfiel

Date: February 26, 1976

Attention: J. D. Roush

cc: T. E. Miller
A. L. Boyce
M. W. Smith, Jr.
R. W. Border
G. T. Allen
H. W. Peters
R. D. Parker
R. Hanes

In accordance to the recommendations of the Plant Engineering letter dated February 11, 1976 Purchasing has issued a purchase order #MN-15301 to Sanitary Landfill Company, 1855 Cardington Road, for the disposal of all Delco Moraine waste containing asbestos.

Effective immediately no asbestos waste should be taken to the South Dayton Dump and Landfill at 1975 Springboro.

R. E. Brumfiel,
Manager
Non-Product Purchasing

REB/fj

Copy attached:
Purchase Order
Letter
Federal Register

South Dayton Dump & Land Fill
1975 Springboro Pk. Moraine 45439 Ohio
Property owned by Cyril J. Grillet & Horace Boesch
operated by Alcine Grillet & Kenneth Grillet

Finish Grade —

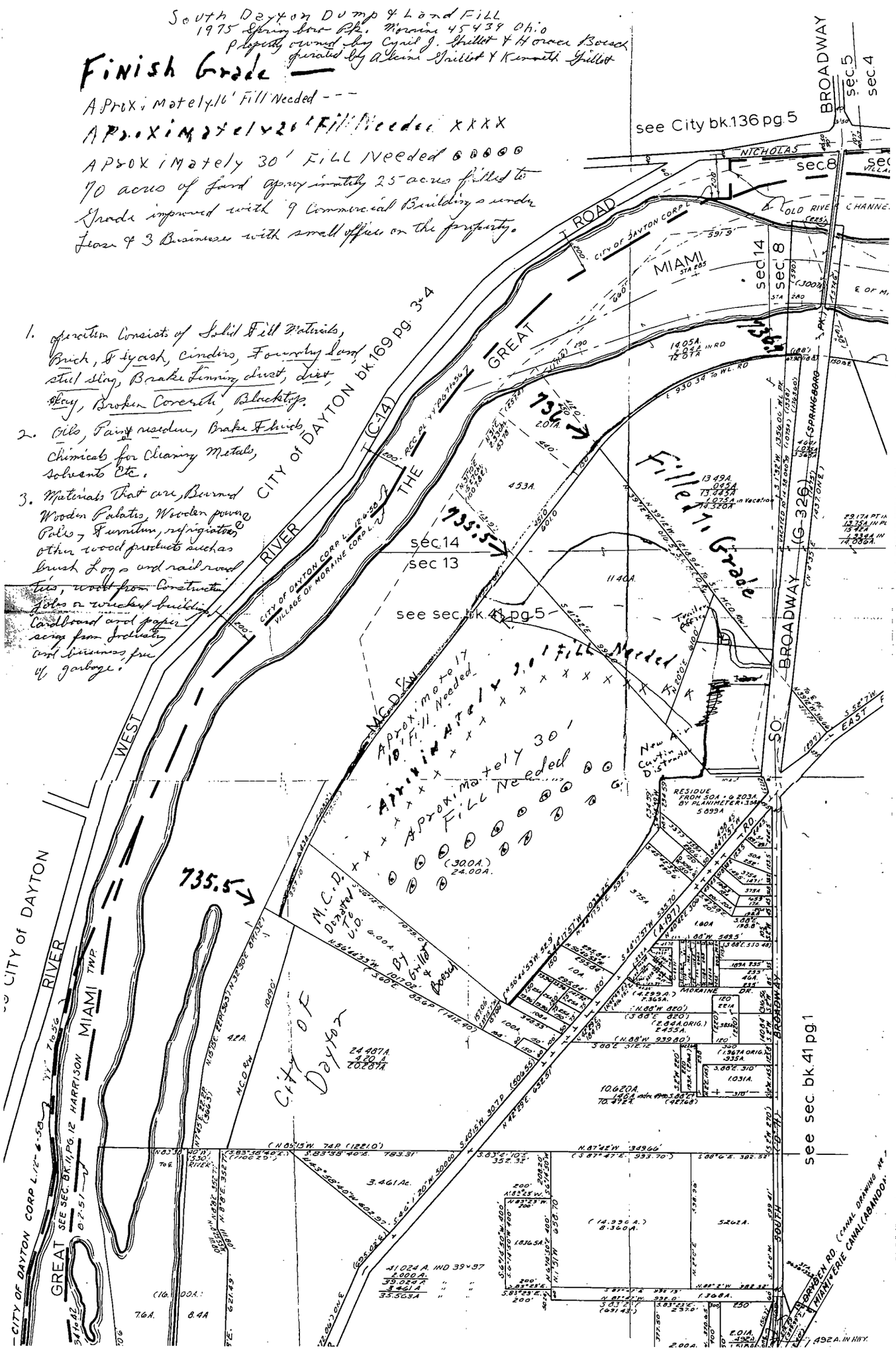
Aproximately 10' Fill Needed - - -

Aproximately 20' Fill Needed XXXX

Aproximately 30' Fill Needed ⊙⊙⊙⊙⊙

70 acres of land aproximately 25 acres filled to Grade improved with 9 Commercial Buildings under Lease & 3 Businesses with small offices on the property.

1. operation Consists of Solid Fill Materials, Brick, Flyash, cinders, Foundry Sand, steel slag, Brake Linning dust, dirt, clay, Broken Concrete, Blacktop.
2. Oils, Paint residue, Brake Fluids, Chemicals for Cleaning Metals, solvents Etc.
3. Materials That are, Burned Wooden Palates, Wooden power Poles, Furniture, refrigiators other wood products such as brush Logs and rail road ties, wood from Construction Jobs or wrecked buildings, Cardboard and paper scrap from Industry and business, free of garbage.



ATTACHMENT 2

DRAFT RI/FS WORK PLAN (EXCERPTS)

DRAFT

REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN

SOUTH DAYTON DUMP AND LANDFILL SITE
MORAINE, OHIO

Prepared by:
Conestoga-Rovers & Associates

651 Colby Drive
Waterloo, Ontario
Canada N2V 1C2

Office: 519•884•0510
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JANUARY 2007
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2.0 SITE BACKGROUND AND PHYSICAL SETTING

This section presents known existing conditions based on available data. This section includes a physical description, Site location, history, ownership, operations, regional geology, and regional hydrogeology, as well as a review of previous investigations undertaken at the Site. In addition, this section includes an evaluation and interpretation of analytical data collected as part of historical investigations conducted at the Site. The evaluation of existing data allows for the identification of known conditions at the Site along with unknown conditions (or data gaps) at the Site.

2.1 PHYSICAL SETTING

The physical setting section presents a description of current Site conditions. Figure 2.1 presents Site features.

2.1.1 SITE DESCRIPTION

The Site is located at 1901 through 2153 Dryden Road and 2225 East River Road in Moraine, Ohio. The Site is bounded to the north and west by the MCD, by the MCD floodway, the Great Miami River Recreational Trail and the GMR beyond, on the east by Dryden Road and light industrial facilities beyond, to the south east with residential and commercial properties with River Road and a residential trailer park beyond, and to the south by undeveloped land with industrial facilities beyond. The Site has been defined in the SOW as an area of approximately 80 acres, including the Valley Asphalt plant in the northern most portion of the Site, an auto salvage yard in the southeast and a gravel pit/Quarry Pond to the south. The central 40 acres (described as 23 acres in some documents) of the Site was referred to as the South Dayton Dump and Landfill.

Figures 2.2 and 2.3 present Site conditions for the northern and southern parts of the Site, respectively. Existing Site fencing is also presented on Figures 2.2 and 2.3.

A heavily vegetated man-made embankment constructed of fill materials forms the northern and western boundary of the northern (Parcel 5054) and central (Parcel 5177) portions of the Site along the GMR. The grassy area between the Site and the GMR is part of the 100-year floodway and is owned by the MCD. The topography of the Site is fairly variable, with a depression area in the west-central portion of the Site, several mounded areas of fill, a ravine along the south-central part of the Site, and a low-lying area along the entire southern portion of the Site. An unpaved access road oriented

east-west extends from the undeveloped City of Moraine Road Allowance through the center of the Site. Portions of the Site are within the 100-year floodway with the majority of the Site south of the Valley Asphalt property also within the 100-year flood plain. Historic accounts from the landfill operator indicate that portions of the Site have flooded. The extent of flooding is not known. Additional information regarding flooding, including Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), is presented in Section 2.3.1, below.

The Site has a fence around the majority of the central 40 acres (Parcel 5177) while separate fencing encompasses most of the northern and southern parcels that are within the Site boundary. The southeastern portion of the Quarry Pond is not fenced.

With the exception of Lot 3274, the entire Site is zoned 'M-2 General Industrial'. Lot 3274 is owned by MCD and is zoned 'C- Conservation'. Properties located adjacent to the Site, including the MCD property between the Site and GMR and the properties located between the Site and East River are also zoned 'M-2 General Industrial'. Properties located to the east of the Site, East of Dryden Road, are zoned 'M-2 General Industrial', while properties south east of East River Road, including the trailer park, are zoned 'M-1 Light Industrial'.

Figure 2.4 presents the zoning information for the Site.

The property to the south of the Site, Lot 3264, is located adjacent and to the south of Lot 3274. Lot 3264 is divided into three sections. The two portions of Lot 3264 that are immediately adjacent to Lot 3274 are owned by Montgomery Board of County Commissioners. These two portions are zoned 'C- Conservation' and are used for a sewer lift station and a sewer right-of-way. The third portion of Lot 3274, approximately 19 acres in area, is owned by the City of Moraine, is zoned 'M-2, General Industrial' and is wooded and undeveloped.

2.1.2 LAND USE

A summary of the local land use in the vicinity of the Site was obtained from reviewing the 1991 Dayton South, Ohio 7.5-minute United States Geologic Service (USGS) topographic quadrangle map and was updated based on visual observations made during the Site inspections in November 2005 and September 2006. Local land uses have been verified in part through visits to the Site and surrounding areas. Local land use in the one square mile that encompasses the Site consists of a mixture of residential, commercial, industrial, recreational, and transportation uses.

on a relatively flat parcel which has experienced considerable grading and filling associated with prior gravel mining and landfill activities.

2.3.1 TOPOGRAPHY

The following surface features are noted at and in the vicinity of the Site:

- The surface elevation for the central portion (between the Large Pond and Valley Asphalt operated portion) of the Site is approximately 730 feet above mean sea level (AMSL), with a gentle slope downward from northeast to southwest;
- The commercial buildings along Dryden Road have a general surface elevation between 738 feet AMSL at the northern end (near the bridge that crosses GMR) and 732 feet AMSL near the intersection of East River Road;
- During CRA's November 2005 Site inspection, the Large Pond, with an average surface elevation of 712 feet AMSL was located on the central portion of Parcel 5177 and the Quarry Pond was located on Parcels 5178 and 3274. The Quarry Pond has an average surface elevation of approximately 708 feet AMSL. Locations of the surface water bodies are shown on Figures 2.2 and 2.3;
- Previous investigations have identified an intermittent stream located that originates near the back of a building located at 2075 Dryden Road that then proceeds through a ravine and into the Small Pond. Neither the ravine nor the intermittent stream and the Small Pond were visible at the time of the Site Inspection, but their historic locations are shown on Figure 2.2;
- The Valley Asphalt portion of the Site (Parcel 5054), with an average surface elevation of 738 feet above AMSL contains several 45-foot high aggregate piles, a hot-mix asphalt plant, storage tanks and related facilities;
- The north-western side of the Valley Asphalt portion of the Site is bounded with a steep embankment that has an upper elevation near 740 feet AMSL that drops to the lower level elevation of approximately 725 feet AMSL at the north end to approximately 715 feet AMSL at the southern end;
- The south east portion of the Site – east of the Quarry Pond is fairly flat and has an average surface elevation that varies from 725 feet AMSL along East River Road and then gently slopes towards 722 feet AMSL at the top of the embankment that forms the east side of the Quarry Pond;
- Along the west side of the central portion of the Site, a man-made embankment, with an average top height of 726 feet AMSL bounds the west side of the Site from the paved recreational trail located on the MCD property;

- The paved recreational trail on the MCD property along the GMR varies in elevation from approximately 725 feet AMSL north of Valley Asphalt and then drops to 715 feet AMSL south of MW-207;
- Commercial, industrial, and residential structures bound the eastern part of the Site along Dryden Road and southeast along River Road;
- The GMR flows in an overall southerly direction along the western side of the Site and has an average pool elevation of approximately 710 feet AMSL; and
- No other drainage features are shown on the topographic map for the Site and its vicinity.

A heavily vegetated man-made embankment constructed of fill materials forms the northern and western boundary of the northern (Parcel 5054) and central (Parcel 5177) portions of the Site along the GMR. The grassy area between the Site and the GMR is part of the 100-year floodway and is owned by the MCD. The topography of the Site is includes a depression area in the west-central portion of the Site (Parcel 5177), several mounded areas of fill, a ravine along the south-central part of the Site (Parcels 5175 to 5177), and a low-lying area along the entire southern portion of the Site (Parcels 5178 to 3274). An unpaved access road oriented east-west extends from the undeveloped City of Moraine Road Allowance through the center of the Site (Parcel 5177). Portions of the Site are within the 100-year floodway with the majority of the Site south of the Valley Asphalt property (Parcel 5054) also within the 100-year flood plain. The floodway and flood plain map for the Site are presented on Figure 2.6. Historic accounts from the landfill operator indicate that portions of the Site had flooded.

2.3.2 SOILS

CRA developed a summary of the soil type at the Site from the Soil Survey of Montgomery County Ohio (US Department of Agriculture - Natural Resources Conservation Service, Web Soil Survey 2006). Soil designations at the Site were identified as Fox-Urban Land Complex Gently Sloping (FuB), Made land (Mb), and Gravel pits (Gp). The results of this survey are presented on Figure 2.7. Characteristics of each soil type are summarized below.

Fox-Urban Land Complex, Gently Sloping

- Nearly level, gently sloping, and occupying stream terraces.
- Disturbed or buried by filling or earth moving operations.

The GMR is located to the north and west of the Site and flows in a general southwesterly direction. A 200 to 400- foot wide flood plain is located between the river and the Site. Water levels recorded for the GMR in the vicinity of the Site indicates a seasonal average of 709 ft AMSL. According to hydraulic modeling conducted by Terran Corporation for the MCD (Terran, 2005), the water elevations for the GMR corresponding to normal to 100-year floods at the Site were:

Flood Stage	*Elevation South of Quarry Pond (ft AMSL)*	*Elevation North of Dryden Road (ft AMSL)*
normal pool	709	713
10 year flood	726	729
50 year flood	729	732
100 year flood	730	733

The modeling also showed that a corresponding increase in groundwater elevations would be expected for steady state flooding conditions. It should be noted that subsurface structures and utilities may affect surface water, hydrology and hydrogeology and provide preferential pathways for contaminant transport. The UST closure report for Conway Fence at 2089 Dryden Road states that the presence of field drainage tile was present on this property.

2.4 NATURE AND EXTENT OF CONTAMINATION

This section of the Work Plan describes the nature and extent of known contaminants present at the Site.

2.4.1 DESCRIPTION OF POTENTIAL SOURCES

Potential source areas of contaminants at the Site include: the waste and fill materials that were placed both inside and outside the DC-PR Area; USTs that reportedly had leaked at the Site (Dayton Recycle, Custom Deliveries) and adjacent to the Site (DP&L); and the area where buried drums were found during a pipeline installation at Valley Asphalt in 2000. Known contamination in soil, groundwater and sediment is described in the following sub-sections.

1. MW-201 samples - reducing conditions evident and indicator byproducts present;
2. MW-204 samples - reducing conditions evident and indicator byproducts present; and
3. MW-210 samples - reducing conditions evident, different quality than recharge water, elevated sulfate and chloride.

These data support the conclusion that natural degradation of the chlorinated VOCs is occurring. This phenomenon, which is common in landfills, will be evaluated further in the RI.

PFI also collected sediment and surface water samples from the Quarry Pond. These data are also presented in Tables 2.3 and 2.6, respectively. PFI noted two of the three sediment samples contained TOC (although the presence of TOC may or may not be evidence of impact) and none of the surface water or sediment samples contained detectable concentrations of VOCs.

Notwithstanding the above discussion, PFI noted that seasonal fluctuations in water table depth can cause variations in groundwater flow direction(s) and hence may affect groundwater quality at a given monitoring well location. Repeated sampling events, scheduled to coincide with the variations in flow direction, would be required to confirm the reduction in concentration of chlorinated VOCs is not related to seasonal flow direction variation.

2.9.1.8 SUMMARY - 2000 TCA ENVIRONMENTAL REPORT - VALLEY ASPHALT

As was discussed in Section 2.7.1, Valley Asphalt retained TCA to oversee the removal of contaminated soil and drummed waste identified on the Valley Asphalt property. Analytical results for the composite waste sample collected include:

- 75 mg/Kg Aroclor 1254;
- 7 mg/Kg benzene;
- 2.5 mg/Kg 2-butanone;
- 1.7 mg/Kg chlorobenzene;
- 84 mg/Kg ethylbenzene;

- 18 mg/Kg 4-methyl-2-pentanone;
- 530 mg/Kg toluene;
- 64 mg/Kg trichloroethene; and
- 340 mg/Kg xylenes.

It appears that five drums containing a solid material were removed, characterized as a characteristic hazardous waste (lead and cadmium) with PCBs, and disposed of at the Clean Harbors facility in Cincinnati, Ohio. A total of 2,217 tons of non-hazardous impacted soil containing VOCs was disposed at Waste Management's Stony Hollow Landfill in Dayton, Ohio.

TCA identified a drinking water well and production well located in the vicinity of the excavation area. TCA collected groundwater samples from these wells. No VOCs were detected in the samples collected from either well. The TCA report did not indicate whether the wells were subsequently abandoned.

The TCA report does not describe the condition of the excavation prior to being backfilled. However, CRA spoke with Dale Farmer, Ohio EPA's On Scene Coordinator on December 15, 2006 who advised that the drums encountered had been crushed prior to being excavated, and that there was a corner of a drum and other debris visible in the side wall of the excavation. The excavation was backfilled without any further investigation conducted. Mr. Farmer stated that no intact drums or complete drum carcasses were excavated nor were any complete drum carcasses observed in the sidewalls of the excavation.

In January 2006, Ohio EPA visited the Valley Asphalt property to determine the status of the two water wells that were reported by TCA in their 2000 Environmental Report. The report stated that TCA sampled the wells, but did not detect any VOCs in the water samples. One of these two wells was identified on a sketch in the TCA report. This well, situated approximately 50 feet southwest of the drum excavation, was located by Ohio EPA on January 20, 2006, next to what appears to be a truck-wash area. Its location suggests it is potentially down gradient of the 2000 excavation. Ohio EPA meeting notes with TCA dated May 31, 2000 state that this well was used minimally for sanitary purposes, however during reconnaissance on January 20, 2006, Mr. Hutch Rogge, project manager of John R. Jurgensen Co. (owner of Valley Asphalt), stated that he thought the well provided drinking water to the main office.

Upon inspecting the well, Ohio EPA noted that the well lacked a protective cover or sealing cap. The well casing was covered with a plastic bag. A large diameter concrete

pipe surrounded the protective casing. The annular space was filled with trash, including a spray can. The employees were not familiar with any other wells located on the property.

2.10 SITE INSPECTIONS

This section presents the information gathered during two inspections of the Site conducted by CRA. CRA conducted Site reconnaissance between November 17 and 18, 2005, and on September 5, 2006.

2.10.1 SITE INSPECTION - CENTRAL AND SOUTHERN PORTION OF SITE

CRA completed a Site reconnaissance on November 17 and 18, 2005. CRA inspected the Site, with the exception of the Valley Asphalt operations, which are separately fenced. Observations from this Site inspection are included on Figure 2.1.

The one business that was observed to be operating within the central portion of the Site CRA inspected was B&B Pallet, located at the entrance of the Site at the intersection of Dryden Road and East River Road. Businesses operating at the Site include Valley Asphalt in the northern portion of the Site, several small shops along the west side of Dryden Road, and various businesses along East River Road.

The on-Site business are identified below:

Parcel	*Business Name*	*Description*
5054	Valley Asphalt	Asphalt batch plant
	Titus Construction	Warehouse
5171	Murphey's Plumbing	Used plumbing fixture retail
	B&G Equipment & Truck Repair	Truck repair shop
	Dayton Tractor and Crane	Heavy equipment rentals
5172	Dayton Waterjet	Office
	S&J Precision	Commercial
	Evans Air Filter	Commercial
	Overstreet Painting and Drywall	Office
5173	Sim Trainer	Office/ warehouse
5174	vacant	office / warehouse
5175	Alliance Equipment and Supply	Office/ warehouse

Parcel	*Business Name*	*Description*
5176	Sealer and Other Stuff	Parking lot with propane and Asphalt ASTs
5176	Busy B's Pallet	Pallet processing/ storage
4610, 4423, & 3753	Jim City Auto Salvage	Automotive garages, junk cars

Nearby and adjacent businesses are as follows:

Parcel	*Business Name*	*Description*
3061	Dayton Power and Light	Electric Utility Service Yard and repair shops
3207	Globe Kitchen Supply	Manufacturing/ Office
3254	Unidentified truck Repair	repair garage
3255	Century Propane	Propane distribution
3256	Jim City Salvage	Automotive repair

There are also residences in a trailer park (Parcel 2943) to the southeast across Dryden Road, as well as six residences (Parcels 3253, 3255, 3257, 3258, 3262, and 3263) adjacent to the Site along East River Road, as well as another residence (Parcel 3251) on the southeast side of East River Road.

The entrance to the Site was partially obstructed at the time of CRA's November 17 and 18, 2005, inspections with pallets and scrap wood used in Busy B's Pallet operation. A significant amount of surficial debris was also observed near the Site entrance, including numerous tanks, drums, tires, scrap metal, and other trash. Several of the drums were lying on their side and appeared to be empty. A pile of debris, consisting of scrap wood, shingles, refuse, and other garbage (potentially from Busy B's Pallet operation) was located along the access road near monitoring well MW-101A.

An access road through the center of the Site (below the power lines) was accessible by vehicle, but other areas were too overgrown with vegetation for vehicle access. The central and northern portions of the Site, south of the separately fenced Valley Asphalt operations, were fairly heavily vegetated with small to medium-sized trees and significant brush. The topography of the area that was formerly used for auto salvage north of the ACD as well as the area utilized by Jim City Salvage east of the Quarry

Pond was observed to be fairly level. The topography of the central portion of the Site is uneven, with significant mounding at some areas, depressions at others, and slopes indicative of waste filling boundaries. A significant amount of surficial hard fill was present, consisting primarily of concrete debris that was dumped in discrete piles. CRA also observed a large amount of slag along the ground surface throughout the central parts of the Site.

A pond within the west-central part of the Site (referred to as the "Large Pond") was located within a depression that was approximately a few hundred feet square. An embankment of approximately 10 to 15 feet in height exists along the western, northern, and eastern sides of the depression, with fill material clearly evident on the banks due to limited soil cover.

Several drum remnants were present along the surface of, and partially buried within, the north embankment. Some municipal waste was also observed directly adjacent to the ACD to the northwest of the depression. The topography in this area suggests that during the periods of filling, waste haulers drove along the perimeter haul roads around the west-central portion of the Site and dumped loads from the edge of the road into the depression. Piles of concrete debris were scattered throughout to the south of the depression.

The topography drops sharply from the access road along the power lines toward the southern part of the Site. The southern part of the Site is generally flat with little or no vegetation, except along the western and southern boundary of the Quarry Pond. The far northeastern portion of the southern area of the Site is elevated above the remainder of the southern area by approximately 15 to 20 feet. Concrete debris and other hard fill is visible along the steep down-slope in this area. The remainder of the northeastern portion of the southern Site area is generally flat, although elevated slightly above the surface of the Quarry Pond. Fill, including concrete, asphalt, slag, and gravel is visible along the slope to the Quarry Pond. Four drums that appeared to be empty were observed partially submerged in the water in the southeastern part of the Quarry Pond.

The man-made embankment along the western boundary of the Site is heavily vegetated with small to medium-sized trees. Slag and metal debris was evident across the western surface of the levee slope and discrete piles of trash appeared to have been dumped at a few locations. The paved bike path and the grassy surface by the monitoring wells, located in the floodway, were dry at the time of the Site inspection, but appears to have recently been partially flooded.

In general, the central Site has an undulating surface that would require grading to ensure positive drainage and to minimize erosion. There are steep slopes along embankment areas and Site areas in the 100-year floodway and 100-year floodplain that would have to be managed to ensure their long-term stability.

In addition, due to the relative ease of access to the Site at the Busy B Pallet operation, it appears that recent dumping of trash has occurred. This dumping has been limited to construction and demolition debris with minor amounts of refuse.

2.10.2 SITE INSPECTION - NORTHERN AND WESTERN PORTION OF THE SITE

On September 5, 2006, CRA conducted an inspection of the Valley Asphalt operations and MCD properties. CRA was accompanied by Dan Crago of Valley Asphalt. It operates a hot-mix batch asphalt plant that includes aggregate storage, stockpiles of recycled asphalt, above ground storage tanks containing asphalt binders and fuel along with storage facilities for construction materials. Observations from this Site inspection are included on Figure 2.22.

Mr. Crago identified the two water wells located on the property - both are adjacent to the bulk tanker water loading station. One of the wells provides water to the office, while the second well provides water to the bulk tanker loading station as well as for general use at the batch plant operation. Well installation details, including depth and construction were not available from Site personnel. Well logs for these two wells were obtained from Ohio Department of Natural Resources and indicate that the first well was installed in 1956 to a depth of 74 feet and the second was installed in 1969 to a depth of 108 feet. A copy of these logs is provided in Appendix B. Additional investigation will be required in the RI to determine if the water quality of the wells has been impacted by Site activities.

Mr. Crago identified the approximate location of the drum removal operation conducted in 2000. The drums were discovered during the trenching excavation for a new water supply line that was to be installed along the east side of the property that would provide municipal water to the facility. Except for the last 50 feet or so of the trench excavation closest to the office building, Mr. Crago advised that the trench was excavated in what appeared to be clean, natural soils. According to Mr. Crago, there was formerly an auto salvage yard on the southern portion of the Valley Asphalt property. Mr. Crago was not aware of Site conditions prior to the presence of the auto salvage yard.

Titus Construction, a division of Valley Asphalt uses the former Ottoson Solvents building (barrel shaped roof) for dry storage of construction materials in the northeast portion of the property. The south end of the Valley Asphalt property is separated from the remainder of the Site by a chain link fence that contains an unlocked vehicle gate.

The west side of the Valley Asphalt property is essentially a steep and overgrown embankment that forms part of the flood protection levee system for the GMR. CRA inspected several locations along the west side embankment. At each location, there is visible evidence of past fill placement included the presence of debris, slag, ash and similar materials. The north side of the property is characterized by a grass-covered embankment that also forms part of the levee system for the GMR. Along the western end of the north side, a small berm exists on top of the embankment. The berm appears to be constructed from fill materials including slag, ash, and foundry sand, along with metal and glass shards.

The MCD properties inspected include Parcels 3056, 3057, 3058, 3274, and 3278. With the exception of Parcel 3274, the MCD properties are consistent in that they are bisected with the paved recreational trail, are bordered to the north and west by the GMR, are all located in the floodway and are bounded to the south and east by a vegetated steep embankment that forms the edge of the Site. Vegetation along the east side of Parcels 3057, 3058, and 3275 consists of large caliper trees and scrub growth. Refuse, slag, debris and foundry sand is visible along the height of the embankment. Parcel 3274 is comprised partly of the Quarry Pond as well as the south bank of the Quarry Pond.

TABLES

TABLE 2.2
HISTORIC SOIL ANALYTICAL DATA

Sample Matrix:		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Sample Location:		S1(EPA)	S2(EPA)	S3(EPA)	S4(EPA)	S5(EPA)	S6(EPA)	S7(EPA)	S8(EPA)	S9(EPA)	S10(EPA)	S11(EPA)	S01(OEPA)	S02(OEPA)	S03(OEPA)	S03(OEPA)	S04(OEPA)	S05(OEPA)	S06(OEPA)	S07(OEPA)	S08(OEPA)	S09(OEPA)	S10(OEPA)	S11(OEPA)
Sample ID:		S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	96-DV-03-S01	96-DV-03-S02	96-DV-03-S03	96-DV-03-D03	96-DV-03-S04	96-DV-03-S05	96-DV-03-S06	96-DV-03-S07	96-DV-03-S08	96-DV-03-S09	96-DV-03-S10	96-DV-03-S11
Sample Date:		10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/8/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996
Sample Depth:		0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	1 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	4-4.5 ft BGS	0-0.5 ft BGS	1.5-2 ft BGS	1.5-2 ft BGS Duplicate	1.5-2 ft BGS	5 ft BGS	1.5-1.5 ft BGS	0-0.2 ft BGS	0.2-0.3 ft BGS	0.3-0.5 ft BGS	0-0.3 ft BGS	0.2-0.3 ft BGS
Sampling Company:		EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA
Parameter	**Units**																							
Volatile Organics																								
1,1,1-Trichloroethane	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,1,2,2-Tetrachloroethane	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,1-Dichloroethane	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,2-Dichloroethane	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
1,2-Dichloroethene (total)	ug/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	200	5 U	5 U	5 U	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
2-Butanone (Methyl Ethyl Ketone)	ug/kg	2 J	10 U	10 U	10 U	1 J	10 U	10 U	10 U	10 U	10 U	10 U	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	10 U	10 U	10 U	10 U	10 U	36 J	10 U	10 U	10 U	10 U	10 U	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Acetone	ug/kg	5 U	5 U	5 U	5 U	5 U	25 J	5 U	5 U	5 U	5 U	5 U	12 U	10 U	17 U	3 J	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Benzene	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Bromoform	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Chlorobenzene	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Chloroethane	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Ethylbenzene	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Methylene chloride	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 BU	16 BU	12 BU	12 BU	16 BU	12 BU	16 BU	11 BU	16	11 BU	12 BU	17 BU
Styrene	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Tetrachloroethene	ug/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	11	5 U	5 U	5 U	59	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Toluene	ug/kg	3 J	5 U	5 U	5 U	7	9 J	4 J	2 J	5 U	5 U	5 U	12 U	10 U	7 J	5 J	16 U	12 U	16 U	11 U	10 J	11 U	4 J	7 J
Trichloroethene	ug/kg	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4 J	5 U	5 U	5 U	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Vinyl chloride	ug/kg	-	-	-	-	-	-	-	-	-	-	-	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Xylene (total)	ug/kg	5 U	5 U	5 U	5 U	5 U	3 J	5 U	5 U	5 U	5 U	5 U	12 U	10 U	12 U	12 U	16 U	12 U	16 U	11 U	11 U	11 U	12 U	11 U
Semi-Volatile Organics																								
1,4-Dichlorobenzene	ug/kg	-	-	-	-	-	-	-	-	-	-	-	140 J	340 U	410 U	410 U	520 U	360 U	530 U	380 U	370 U	350 U	400 U	360 U
2-Methylnaphthalene	ug/kg	1800	250 J	500 J	330 U	920	130 J	750 J	190 J	330 U	330 U	740 J	410 U	340 U	410 U	410 U	77 J	360 U	530 U	380 U	390	49 J	46 J	74 J
Acenaphthene	ug/kg	330 U	330 U	680 J	330 U	330 U	1200	95 J	330 U	330 U	110 J	330 U	410 U	340 U	410 U	410 U	33 J	360 U	530 U	380 U	91 J	350 U	400 U	26 J
Acenaphthylene	ug/kg	-	-	-	-	-	-	-	-	-	-	-	410 U	340 U	410 U	410 U	520 U	360 U	530 U	380 U	370 U	350 U	400 U	50 J
Anthracene	ug/kg	120 J	330 U	2900	330 U	330 U	3000	300 J	330 U	330 U	340 J	330 U	410 U	340 U	410 U	410 U	29 J	360 U	530 U	380 U	290 J	26 J	400 U	97 J
Benzo(a)anthracene	ug/kg	310 J	74 J	8500	330 U	170 J	6900	1100	330 U	330 U	1600	430 J	410 U	340 U	410 U	410 U	41 J	360 U	530 U	38 J	1100	180 J	51 J	950
Benzo(a)pyrene	ug/kg	320 J	140 J	5700	330 U	150 J	4800	1100	150 J	330 U	1200	220 J	410 U	340 U	410 U	410 U	520 U	360 U	530 U	62 J	820	110 J	400 U	1000
Benzo(b)fluoranthene	ug/kg	330 J	280 J	9500	330 U	330 J	7800	2900	230 J	150 J	2500	630 J	410 U	340 U	410 U	410 U	520 U	360 U	530 U	380 U	1000	320 J	79 J	1300
Benzo(g,h,i)perylene	ug/kg	150 J	330 U	4700	330 U	250 J	3400	910	170 J	330 U	990	310 J	410 U	340 U	410 U	410 U	520 U	360 U	530 U	380 U	160 J	350 U	400 U	310 J
Benzo(k)fluoranthene	ug/kg	430 J	330 U	6400	330 U	330 U	5500	330 U	300 J	330 U	400 J	330 U	410 U	340 U	410 U	410 U	520 U	360 U	530 U	380 U	950	300 J	73 J	920
bis(2-Ethylhexyl)phthalate	ug/kg	330 U	330 U	360 J	330 U	330 U	330 U	330 U	330 U	330 U	330 U	330 U	24 J	33 J	410 U	410 U	540	360 U	530 U	32 J	230 J	2100	72 J	120 J
Butyl benzylphthalate	ug/kg	330 U	330 U	330 U	330 U	330 U	330 U	950	330 U	330 U	96 J	330 U	410 U	25 J	410 U	33 J	520 U	380 U	530 U	26 J	370 U	18000 E	61 J	360 U
Carbazole	ug/kg	-	-	-	-	-	-	-	-	-	-	-	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 J	280 J	350 U	400 U	38 J
Chrysene	ug/kg	380 J	190 J	5700 J	330 U	300 J	6400 J	1100 J	180 J	330 U	330 U	610 J	410 U	340 U	21 J	23 J	56 J	27 J	530 U	83 J	1200	320 J	93 J	1000
Dibenz(a,h)anthracene	ug/kg	330 U	330 U	1200	330 U	330 U	1600	220 J	330 U	330 U	110 J	330 U	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	310 J	350 U	400 U	450
Dibenzofuran	ug/kg	370 J	330 U	830 J	330 U	290 J	780 J	200 J	330 U	330 U	330 U	330 U	410 U	340 U	410 U	410 U	28 J	380 U	530 U	380 U	160 J	350 U	400 U	29 J
Diethyl phthalate	ug/kg	-	-	-	-	-	-	-	-	-	-	-	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	370 U	350 U	400 U	360 U
Di-n-butylphthalate	ug/kg	330 U	330 U	330 U	330 U	330 U	330 U	110 J	330 U	330 U	330 U	330 U	410 U	18 J	410 U	27 J	28 J	360 U	51 J	28 J	370 U	1500	35 J	360 U
Di-n-octyl phthalate	ug/kg	-	-	-	-	-	-	-	-	-	-	-	410 U	23 J	410 U	410 U	520 U	360 U	530 U	380 U	19 J	350 U	400 U	360 U
Fluoranthene	ug/kg	680 J	140 J	12000	330 U	370 J	21000 D	2800	360 J	210 J	2500	980 J	410 U	21 J	410 U	410 U	140 J	31 J	530 U	110 J	2000	340 J	100 J	1300
Fluorene	ug/kg	330 U	330 U	1500	330 U	330 U	1200	82 J	330 U	330 U	120 J	330 U	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	87 J	350 U	400 U	38 J
Indeno(1,2,3-cd)pyrene	ug/kg	96 J	330 U	5000	330 U	150 J	4100	910	160 J	330 U	970	270 J	410 U	340 U	410 U	410 U	520 U	380 U	530 U	48 J	480	120 J	400 U	910
Naphthalene	ug/kg	1100	150	590 J	330 U	300 J	360 J	450 J	330 U	330 U	330 U	190 J	410 U	20 J	410 U	418 U	58 J	380 U	530 U	380 U	220 J	35 J	26 J	59 J
N-Nitrosodiphenylamine	ug/kg	330 U	330 U	450 J	330 U	330 U	330 U	330 U	330 U	330 U	330 U	330 U	410 U	340 U	410 U	410 U	520 U	380 U	530 U	380 U	27 J	350 U	400 U	360 U
Phenanthrene	ug/kg	850 J	200 J	16000 D	330 U	980	14000	1500	170 J	210 J	1800	540 J	410 U	340 U	33 J	34 J	170 J	21 J	530 U	63 J	1700	180 J	100 J	570
Phenol	ug/kg	-	-	-	-	-	-	-	-	-	-	-	410 U	340 U	410 U	418 U	520 U	380 U	530 U	380 U	370 U	64 J	400 U	360 U
Pyrene	ug/kg	580 J	150 J	8100	330 U	300 J	13000	1900	290 J	180 J	3400	710 J	410 U	20 J	410 U	410 U	160 J	30 J	1300 U	130 J	1900	320 J	120 J	1600
TIC Semi-Volatile Organics																								
1-Methylnaphthalene A	ug/kg	1000 J	U	U	U	1000 J	U	700 J	U	U	U	U	-	-	-	-	-	-	-	-	-	-	-	-
5H-Indeno(1,2-b)pyridine A	ug/kg	U	U	U	U	U	700 J	U	U	U	U	U	-	-	-	-	-	-	-	-	-	-	-	-
7H-Benz(de)anthracen-7-one A	ug/kg	U	U	U	U	U	3000 J	U	U	U	U	U	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(j)fluoranthene A	ug/kg	U	U	3000 J	U	U	U	1000 J	U	U	800 J	U	-	-	-	-	-	-	-	-	-	-	-	-
Metals																								
Aluminum	ug/kg	5730000	3800000	4740000	3360000	1990000	4620000	2970000	5350000	11100000	10600000	8460000	3470000	10400000	1910000	1140000	5190000	9920000	6210000	6890000	14300000	4970000	8080000	3290000
Antimony	ug/kg	2400 U	2400 U	31600	2400 U	2400 U	2400 U	13200 B	2400 U	2100 B	2400 U	18200 B	750 U	700 B	740 U	900 U	1500 B	3300 B	1000 U	680 U	27800	2900 B	8400 B	2100 B
Arsenic	ug/kg	23900	6800	8300	12600	10300	11100	8900	11600	49300	8100	20100	20700	77200	1600 B	1200 U	27000	12200	49900	6000	141000	36000	15400	6600
Barium	ug/kg	991000	23280	157000	117000	81000	167000	130000	150000	190000	1250000	365000	183000	272000	12200 B	7300 B	222000	366000	320000	113000	130000000	824000	318000	93800
Beryllium	ug/kg	720 B	1000 U	700 B	1700	470 B	2000	720 B	1400 B	5500	350 B	2500	2000	5800	250 U	300 U	3100	660 B	3300	620 B	770 B	2600	1900	1100 B
Cadmium	ug/kg	1300	1000 U	14000	1000 U	1000 B	1000 U	5900	8600	1000 U	1000 U	8400	470 B	6600	430 B	300 U	380 B	230 U	330 U	570 B	690 B	3900	16300	1400
Calcium	ug/kg	33820000	13300000	4790000	1260000	1710000	2650000	4460000	6810000	10000000	83700000	34900000	4060000	5650000	995000 B	979000 B	16400000	25500000	2280000	12900000	5410000	19800000	46800000	98000000
Chromium Total	ug/kg	18500	16900	91700	6300	11000	8600	20600	43000	23200	27600	30400	5500	23600	17600	8200	14000	12600	16500	17300	62000	50700	43200	18700
Cobalt	ug/kg	3700 B	10000 U	5600 B	8800 B	5000 B	8300 B	5200 B	6200 B	22100	4700 B	10900 B	6000 B	16200	2000 B	1400 B	9600 B	2900 B	8700 B	6400 B	17500	11200	13800	4300 B
Copper	ug/kg	66800	48900 EJ	2720000 EJ	56700 EJ	74100 EJ	47400 EJ	316000 EJ	2200000 EJ	76600 EJ	37600 EJ	796000 EJ	26400	91800	134000	96900	73000	18300	41500	22500	1830000	1680000	191000000	405000
Cyanide (total)	ug/kg	-	-	-	-	-	-	-	-	-	270 B	260 B	190 U	220 U	340 B	170 U	290 B	300 B	2300	3700	600 B	580		
Iron	ug/kg	15900000 EJ	18000000	77000000	2840000	4230000	5630000	14800000	48300000	11100000	16300000	25500000	3260000	9430000	24200000	13900000	3890000	19200000	3130000	13200000	59500000	13800000	92300000	16000000
Lead	ug/kg	64100	43000	3300000	10400	59300	15900	474000	1590000	49700	94800	811000	29900	110000	15400	7200	97000	16800	18200	31500	652000	1990000	12100000	242000
Magnesium	ug/kg	6270000	7790000	2660000	294000 B	439000 B	537000 B	2580000	2230000	3720000	28000000	15500000	1010000 B	1480000	563000 B	560000 B	8070000	13200000	596000 B	6100000	2480000	18700000	8860000	36200000
Manganese	ug/kg	309000	344000	437000	7200	55200	27000	130000	272000	162000	446000	294000	98200	99100	427000	265000	72800	671000	45200	681000	614000	236000	693000	344000
Mercury	ug/kg	8 U	8 U	310	8 U	8 U	8 U	8 U	8 U	300	8 U	8 U	120 U	480	120 U	150 U	140 U	120 U	170 U	180	110 U	210	130 U	110 U
Nickel	ug/kg	28900	13900	262000	13600	17700	17200	94700	402000	56600	23100	65500	10400	34600	18700	11300 B	20000	15100	16600	12900	78300	85000	139000	24300
Potassium	ug/kg	729000 B	308000 B	369000 B	364000 B	329000 B	429000 B	232000 B	1030000 B	1630000 B	1190000 B	915000 B	611000 B	1390000	126000 B	86000 B	810000 B	1010000 B	1230000 B	886000 B	1400000	685000 B	763000 B	599000 B
Selenium	ug/kg	2200	1200 BW	910 B	1600	2200	1700	2400	1100 BW	4600	2600	3700	1300	8800	990 U	1200 U	6500	930 U	8600	900 U	2100	2800	3600	930 B
Silver	ug/kg	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	1150 B	2000 U	250 U	210 U	250 U	300 U	280 U	330 U	330 U	450 B	230 B	900 B	7600	220 U
Sodium	ug/kg	157000 B	123000 B	114000 B	118000 B	43700 B	81000 B	64400 B	338000 B	272000 B	136000 B	239000 B	276000 B	364000 B	327000 B	318000 B	448000 B	364000 B	406000 B	207000 B	254000 B	279000 B	809000 B	368000 B
Thallium	ug/kg	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	730 B	1000 U	1800 B	2100 B	1300 B	1700 B	2400	1300 U	2200 B	4000	1500 B	4500	1300 B
Vanadium	ug/kg	18200	7300 B	33900	27900	11500 B	28100	16000	27400	69600	24300	35500	18300	92600	1200 B	620 B	47700	24000	61900	17400	18500	33600	28100	15600
Zinc	ug/kg	112000	590000	2350000	9200	57600	14400	2210000	1490000	75100	126000	480000	33700	39400	41700	22300	231000	60900	48000	76900	286000	291000	11500000	159000
PCBs																								
Aroclor-1248 (PCB-1248)	ug/kg	360 X	4200 X	80 U	80 U	540 X	80 U	80 U	80 U	80 U	1400 X	80 U	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	35 U	40 U	36 U
Aroclor-1254 (PCB-1254)	ug/kg	-	-	-	-	-	-	-	-	-	-	-	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	830	170 P	36 U
Aroclor-1260 (PCB-1260)	ug/kg	300 JX	2800 X	580 JX	160 U	110 JX	160 U	1400 X	160 U	160 U	410 X	460 JX	41 U	34 U	41 U	41 U	52 U	38 U	53 U	38 U	37 U	1200	40 U	36 U

TABLE 2.2
HISTORIC SOIL ANALYTICAL DATA

Sample Matrix:		SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Sample Location:		S1(EPA)	S2(EPA)	S3(EPA)	S4(EPA)	S5(EPA)	S6(EPA)	S7(EPA)	S8(EPA)	S9(EPA)	S10(EPA)	S11(EPA)	S01(OEPA)	S02(OEPA)	S03(OEPA)	S03(OEPA)	S04(OEPA)	S05(OEPA)	S06(OEPA)	S07(OEPA)	S08(OEPA)	S09(OEPA)	S10(OEPA)	S11(OEPA)
Sample ID:		S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	96-DV-03-S01	96-DV-03-S02	96-DV-03-S03	96-DV-03-D03	96-DV-03-S04	96-DV-03-S05	96-DV-03-S06	96-DV-03-S07	96-DV-03-S08	96-DV-03-S09	96-DV-03-S10	96-DV-03-S11
Sample Date:		10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	10/23/1990	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996
Sample Depth:		0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	1 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	0 ft BGS	4-4.6 ft BGS	0-0.1 ft BGS	1.5-1 ft BGS	1.5-1 ft BGS	1.5-1 ft BGS	5 ft BGS	1.5-1.5 ft BGS	0-0.2 ft BGS	0.2-0.3 ft BGS	0.3-0.5 ft BGS	0-0.3 ft BGS	0.3-0.5 ft BGS
																Duplicate								
Sampling Company:		EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	EPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	OEPA
Parameter	Units																							
Pesticides																								
4,4'-DDD	ug/kg	-	-	-	-	-	-	-	-	-	-	-	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	0.65 J	3.7 U	3.5 U	4 U	4.4
4,4'-DDE	ug/kg	-	-	-	-	-	-	-	-	-	-	-	4.1 U	3.4 U	4.1 U	4.1 U	2.6 J	0.44 PJ	5.3 U	3.8 U	2.4 PJ	3.5 U	4 U	3.6 U
4,4'-DDT	ug/kg	-	-	-	-	-	-	-	-	-	-	-	0.6 PJ	3.4 U	4.1 U	4.1 U	5.2 U	0.71 PJ	5.3 U	1.6 PJ	8.8 P	3.5 U	4 U	3.6 U
Aldrin	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
alpha-BHC	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2 U	2.7 U	1.9 U	0.71 PJ	1.8 U	2.1 U	1.8 U
alpha-Chlordane	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	2.1 U	5.4 P	2 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
delta-BHC	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
Dieldrin	ug/kg	-	-	-	-	-	-	-	-	-	-	-	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4 U	3.6 U
Endosulfan I	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2 U	2.7 U	0.42 PJ	1.9 U	1.8 U	2.1 U	1.8 U
Endosulfan II	ug/kg	-	-	-	-	-	-	-	-	-	-	-	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	1.4 J	5.4	3.5 U	4 U	3.6 U
Endosulfan sulfate	ug/kg	-	-	-	-	-	-	-	-	-	-	-	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4 U	3.6 U
Endrin	ug/kg	-	-	-	-	-	-	-	-	-	-	-	1.4 PJ	3.4 U	2.3 PJ	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4 U	3.6 U
Endrin aldehyde	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.2 PJ	3.4 U	6.6	6.6 P	5.2 U	4 P	5.3 U	6.4 P	3.7 U	3.5 U	4 U	3.6 U
Endrin ketone	ug/kg	-	-	-	-	-	-	-	-	-	-	-	4.1 U	3.4 U	4.1 U	4.1 U	5.2 U	3.8 U	5.3 U	3.8 U	3.7 U	3.5 U	4 U	7.5 P
gamma-BHC (Lindane)	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	2.1 U	2.6 U	2 U	2.7 U	1.9 U	1.8 J	1.8 U	0.77 PJ	0.42 J
gamma-Chlordane	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	0.35 PJ	2.1 U	0.96 PJ	4.3	2 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	2.3 P
Heptachlor	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	7.1 U	2.6 U	2 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
Heptachlor epoxide	ug/kg	-	-	-	-	-	-	-	-	-	-	-	2.1 U	1.8 U	2.1 U	0.49 PJ	0.78 PJ	2 U	2.7 U	1.9 U	1.9 U	1.8 U	2.1 U	1.8 U
Methoxychlor	ug/kg	-	-	-	-	-	-	-	-	-	-	-	21 U	18 U	1.8 PJ	21 U	26 U	0.94 PJ	27 U	19 U	19 U	18 U	21 U	18 U

Notes:

B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

D - Compounds at secondary dilution factor.

E - Estimated or not reported due to interference. (Inorganics)

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument. (Organics)

J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected.

W - Post-digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.

X - Denotes manually entered data. This always occurs on multi-component quantitations and sometimes occurs on individual pesticides when the analyst had to correct the integration of a peak.

-- Not applicable.

TABLE 2.3
HISTORIC SEDIMENT ANALYTICAL DATA

Sample Matrix:		SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Location:		S15(OEPA)	S16(OEPA)	S17(OEPA)	S17(OEPA)	S18(OEPA)	S19(OEPA)	SED-1	SED-2	SED-3	SEDIMENT-1	SEDIMENT-2	SEDIMENT-3
Sample ID:		96-DV-03-S15	96-DV-03-S16	96-DV-03-S17	96-DV-03-D17	96-DV-03-S18	96-DV-03-S19	SED-1	SED-2	SED-3	SEDIMENT-1	SEDIMENT-2	SEDIMENT-3
Sample Date:		7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	5/12/2000	5/12/2000	5/12/2000	4/16/1999	4/16/1999	4/16/1999
Sample Depth:		15-18 ft BGS	15-18 ft BGS	0-0.5 ft BGS	0-0.5 ft BGS Duplicate	0-0.5 ft BGS	0-0.5 ft BGS	-	-	-	-	-	-
Sampling Company:		OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units												
Volatile Organics													
1,1,1-Trichloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone (Methyl Ethyl Ketone)	ug/kg	26 U	10 J	15 U	14 U	5 J	18 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	20 U	20 U	20 U	20 U	20 U	20 U
Acetone	ug/kg	47	43	15 U	14 U	33	19	20 U	20 U	37	20 U	20 U	20 U
Benzene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/kg	26 BJU	29 BJU	15 BJU	14 BJU	18 BJU	18 BJU	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/kg	26 U	29 U	15 U	14 U	18 U	1 J	5 U	5 U	14	5 U	5 U	5 U
Trichloroethene	ug/kg	0.8 J	29 U	0.7 J	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	10 U	10 U	10 U	10 U	10 U	10 U
Xylene (total)	ug/kg	26 U	29 U	15 U	14 U	18 U	18 U	5 U	5 U	5 U	5 U	5 U	5 U
Semi-Volatile Organics													
1,4-Dichlorobenzene	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U	-	-	-	-	-	-
2-Methylnaphthalene	ug/kg	120 J	75 J	23 J	19 J	16 J	31 J	-	-	-	-	-	-
Acenaphthene	ug/kg	59 J	92 J	21 J	15 J	40 J	89 J	-	-	-	-	-	-
Acenaphthylene	ug/kg	850 U	61 J	160 J	150 J	14 J	22 J	-	-	-	-	-	-
Anthracene	ug/kg	110 J	230 J	400 J	390 J	75 J	170 J	-	-	-	-	-	-
Benzo(a)anthracene	ug/kg	490 J	1300	2200	2100	600	1300	-	-	-	-	-	-
Benzo(a)pyrene	ug/kg	460 J	1800	2100	2100	580	1100	-	-	-	-	-	-
Benzo(b)fluoranthene	ug/kg	800 J	2500	2700	2300	1000	1800	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/kg	490 J	2000	2200	1600	660	1400	-	-	-	-	-	-
Benzo(k)fluoranthene	ug/kg	300 J	950	930	930	410 J	690	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ug/kg	850 U	470 J	500 U	84 J	330 J	360 J	-	-	-	-	-	-
Butyl benzylphthalate	ug/kg	850 U	940 U	500 U	460 U	580 U	84 J	-	-	-	-	-	-
Carbazole	ug/kg	83 J	110 J	39 J	15 J	84 J	190 J	-	-	-	-	-	-
Chrysene	ug/kg	550 J	1500	2200	2100	710	1500	-	-	-	-	-	-
Dibenz(a,h)anthracene	ug/kg	120 J	480 J	430 J	320 J	150 J	310 J	-	-	-	-	-	-
Dibenzofuran	ug/kg	70 J	95 J	11 J	7 J	34 J	100 J	-	-	-	-	-	-
Diethyl phthalate	ug/kg	850 U	39 J	24 J	27 J	51 J	33 J	-	-	-	-	-	-
Di-n-butylphthalate	ug/kg	850 BJU	940 BJU	500 BJU	460 BJU	580 BJU	600 BJU	-	-	-	-	-	-
Di-n-octyl phthalate	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U	-	-	-	-	-	-
Fluoranthene	ug/kg	1100	2600	2000	2000	1400	2200	-	-	-	-	-	-
Fluorene	ug/kg	78 J	160 J	53 J	43 J	60 J	130 J	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/kg	460 J	1900	1900	1400	650	1400	-	-	-	-	-	-
Naphthalene	ug/kg	70 J	77 J	31 J	25 J	18 J	63 J	-	-	-	-	-	-
N-Nitrosodiphenylamine	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U	-	-	-	-	-	-
Phenanthrene	ug/kg	890	1500	700	610	830	1900	-	-	-	-	-	-
Phenol	ug/kg	850 U	940 U	500 U	460 U	580 U	600 U	-	-	-	-	-	-
Pyrene	ug/kg	1300	3000	4700 E	3700 E	1400	3700	-	-	-	-	-	-
Metals													
Aluminum	ug/kg	2750000	6590000	9750000	8450000	8940000	8600000	-	-	-	-	-	-
Antimony	ug/kg	9100 U	13500 U	7900 U	8100 U	10000 U	10100 U	-	-	-	-	-	-
Arsenic	ug/kg	10300	12600	9200	9200	6000	9000	-	-	-	-	-	-
Barium	ug/kg	73000	137000	128000	125000	117000	130000	-	-	-	-	-	-
Beryllium	ug/kg	280 B	350 B	540 B	480 B	500 B	470 B	-	-	-	-	-	-
Cadmium	ug/kg	1000 U	1500 U	890 U	910 U	1100 U	1100 U	-	-	-	-	-	-
Calcium	ug/kg	53600000	11800000	61700000	58100000	81900000	74900000	-	-	-	-	-	-
Chromium Total	ug/kg	23100	17200	14900	13700	18000	22300	-	-	-	-	-	-
Cobalt	ug/kg	3700 B	6700 B	6600 B	6200 B	6500 B	7300 B	-	-	-	-	-	-
Copper	ug/kg	29300	24700	29300	29000	26000	33500	-	-	-	-	-	-
Cyanide (total)	ug/kg	270 B	170 U	190 B	210 B	230 B	320 B	-	-	-	-	-	-
Iron	ug/kg	11500000	13300000	16400000	13500000	15000000	15800000	-	-	-	-	-	-
Lead	ug/kg	33700	42000	51600	47200	30500	47900	-	-	-	-	-	-
Magnesium	ug/kg	13600000	21600000	17200000	16100000	24200000	20600000	-	-	-	-	-	-
Manganese	ug/kg	255000	545000	299000	356000	330000	420000	-	-	-	-	-	-
Mercury	ug/kg	80 U	120 U	630	680	90 U	130 B	-	-	-	-	-	-
Nickel	ug/kg	13400	18700 B	16200	17900	19900	23700	-	-	-	-	-	-
Potassium	ug/kg	297000 B	736000 B	812000 B	709000 B	1090000 B	991000 B	-	-	-	-	-	-
Selenium	ug/kg	1100 B	590 B	400 B	590 B	730 B	590 B	-	-	-	-	-	-
Silver	ug/kg	1400 U	2100 U	1200 U	1200 U	1500 U	1500 U	-	-	-	-	-	-
Sodium	ug/kg	165000 B	206000 B	144000 B	131000 B	191000 B	183000 B	-	-	-	-	-	-
Thallium	ug/kg	680 B	980 U	1000 B	660 B	840 B	900 B	-	-	-	-	-	-
Vanadium	ug/kg	9600 B	16800 B	21800	19200	20200	20000	-	-	-	-	-	-
Zinc	ug/kg	80700	143000	93600 B	80400	114000	132000	-	-	-	-	-	-
PCBs													
Aroclor-1248 (PCB-1248)	ug/kg	87 U	94 U	50 U	46 U	58 U	60 U	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	ug/kg	660	94 U	50 U	46 U	58 U	60 U	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	ug/kg	87 U	94 U	50 U	46 U	58 U	60 U	-	-	-	-	-	-

TABLE 2.3
HISTORIC SEDIMENT ANALYTICAL DATA

Sample Matrix:		SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
Sample Location:		S15(OEPA)	S16(OEPA)	S17(OEPA)	S17(OEPA)	S18(OEPA)	S19(OEPA)	SED-1	SED-2	SED-3	SEDIMENT-1	SEDIMENT-2	SEDIMENT-3
Sample ID:		96-DV-03-S15	96-DV-03-S16	96-DV-03-S17	96-DV-03-D17	96-DV-03-S18	96-DV-03-S19	SED-1	SED-2	SED-3	SEDIMENT-1	SEDIMENT-2	SEDIMENT-3
Sample Date:		7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	7/9/1996	5/12/2000	5/12/2000	5/12/2000	4/16/1999	4/16/1999	4/16/1999
Sample Depth:		15-18 ft BGS	15-18 ft BGS	0-0.5 ft BGS	0-0.5 ft BGS Duplicate	0-0.5 ft BGS	0-0.5 ft BGS	-	-	-	-	-	-
Sampling Company:		OEPA	OEPA	OEPA	OEPA	OEPA	OEPA	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	*Units*												
Pesticides													
4,4'-DDD	ug/kg	1.7 JP	9.4 U	2.2 JP	4.9	3.4 JP	3.6 JP	-	-	-	-	-	-
4,4'-DDE	ug/kg	8.7 U	2.2 JP	5 U	4.6 U	2.6 JP	2.4 JP	-	-	-	-	-	-
4,4'-DDT	ug/kg	4.4 JP	2.4 JP	2.1 JP	2.2 JP	2.7 JP	2.3 JP	-	-	-	-	-	-
Aldrin	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3 U	1.3 JP	-	-	-	-	-	-
alpha-BHC	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3 U	3.1 U	-	-	-	-	-	-
alpha-Chlordane	ug/kg	12	1.8 JP	0.72 JP	2.4 U	7 P	6.6 P	-	-	-	-	-	-
delta-BHC	ug/kg	4.5 U	4.9 U	1.4 JP	1.3 JP	3 U	3.1 U	-	-	-	-	-	-
Dieldrin	ug/kg	9.6 P	2.6 JP	0.86 JP	4.6 U	2.3 JP	4 JP	-	-	-	-	-	-
Endosulfan I	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3 U	3.1 U	-	-	-	-	-	-
Endosulfan II	ug/kg	8.7 U	9.4 U	5 U	4.6 U	5.8 U	6 U	-	-	-	-	-	-
Endosulfan sulfate	ug/kg	3.7 JP	9.4 U	5 U	4.6 U	3 JP	6 U	-	-	-	-	-	-
Endrin	ug/kg	34	9.4 U	3.4 JP	4.8 P	2.4 JP	6 U	-	-	-	-	-	-
Endrin aldehyde	ug/kg	7.9 JP	9.4 U	5 U	4.6 U	5.8 U	6 U	-	-	-	-	-	-
Endrin ketone	ug/kg	8.7 U	4.9 J	3.2 JP	4 JP	5.8 U	2.5 JP	-	-	-	-	-	-
gamma-BHC (Lindane)	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3 U	3.1 U	-	-	-	-	-	-
gamma-Chlordane	ug/kg	4.9 P	3.2 J	1.4 J	2.4 U	6.9	5.6 P	-	-	-	-	-	-
Heptachlor	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3 U	3.1 U	-	-	-	-	-	-
Heptachlor epoxide	ug/kg	4.5 U	4.9 U	2.6 U	2.4 U	3 U	3.1 U	-	-	-	-	-	-
Methoxychlor	ug/kg	18 J	17 JP	50	65	8.9 JP	12 JP	-	-	-	-	-	-
General Chemistry													
Percent Moisture	%	-	-	-	-	-	-	15	13	32	13.5	15.0	20.3
Total Organic Carbon (TOC)	ug/kg	-	-	-	-	-	-	-	-	-	390000	550000	100000 U

Notes:

B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.

J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected.

- - Not applicable.

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:			MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
Sample ID:			96-DV-03-S23	96-DV-03-D23	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	96-DV-03-S25	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW102
Sample Date:			7/9/1996	7/9/1996	1/5/1998	5/28/1998	2/19/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/15/2004	6/4/2005	7/9/1996	1/5/1998	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	6/2/2005
Sample Depth:			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:			OEPA	Deplicate OEPA	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	OEPA	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units	Region 9 EPA - Tap Water																								
Volatile Organics																										
1,1,1-Trichloroethane	ug/L	3200 NC	10 U	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ug/L	0.055 CA	10 U	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ug/L	810 NC	13	13	16	20000	14	U	32	31	39	8.7	9.6	6.2	10 U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	ug/L	12 NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	0.12 CA*	10 U	10 U	U	U	34	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	ug/L	-	150	140	150	270	200	U	410	400	480	41	92	57	10 U	U	U	U	U	U	U	U	U	U	U
2 Butanone (Methyl Ethyl Ketone)	ug/L	7000 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	2000 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	5500 NC	30	29	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
Benzene	ug/L	0.35 CA*	10 U	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
Bromoform	ug/L	8.5 CA*	10 U	10 U	U	0.6 J	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	ug/L	110 NC	10 U	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
Chloroethane	ug/L	4.6 CA	2 J	10 U	U	U	U	U	U	U	U	U	U	U	22	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	ug/L	61 NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	1300 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/L	4.3 CA	10 U	4 J	U	U	1.4 JB	5 B	U	U	U	U	U	U	6 J	U	U	3.3 J	U	U	U	U	U	U	U
o-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	1600 NC	10 U	10 U	U	0.78 J	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	ug/L	0.1 CA	10 U	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	1.6 J	U	U	U	U	U	U	U
Toluene	ug/L	720 NC	10 U	1 J	U	7.2 J	5.1 J	U	U	U	U	U	U	U	15	U	6.9	0.9 J	U	U	U	U	U	U	U
Trichloroethene	ug/L	0.028 CA*	10 U	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	0.66 J	0.7 J	U	U	U	U	U	U	U
Vinyl chloride	ug/L	0.02 CA	4 J	4 J	32	88	48	U	150	140	180	14	20	12	10 U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	ug/L	210 NC	10 U	10 U	U	U	U	U	U	U	U	U	U	U	4 J	U	U	U	U	U	U	U	U	U	U
Semi-Volatile Organics																										
1,4-Dichlorobenzene	ug/L	0.5 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	ug/L	-	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Acenaphthene	ug/L	370 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	ug/L	-	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Anthracene	ug/L	1800 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	ug/L	0.092 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	ug/L	0.0092 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	ug/L	0.092 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/L	-	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	ug/L	0.92 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ug/L	4.8 CA	2 J	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	ug/L	7300 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Chrysene	ug/L	9.2 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	ug/L	0.0092 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	ug/L	12 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	ug/L	29000 NC	10 JBU	10 JBU	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	ug/L	3600 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	ug/L	1500 NC	1 J	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Fluoranthene	ug/L	1500 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Fluorene	ug/L	240 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/L	0.092 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Naphthalene	ug/L	6.2 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	ug/L	14 CA	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Phenanthrene	ug/L	-	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Phenol	ug/L	11000 NC	130 EB	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Pyrene	ug/L	180 NC	10 U	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-
Metals																										
Aluminum	ug/L	36000 NC	10000	361	-	-	-	-	-	-	-	-	-	-	183 B	-	-	-	-	-	-	-	-	-	-
Antimony	ug/L	15 NC	3 U	3 U	-	-	-	-	-	-	-	-	-	-	3 U	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	0.045 CA	9.6 B	4 U	U	U	U	-	-	-	-	-	-	-	4 U	U	U	U	-	-	-	-	-	-	-
Barium	ug/L	2600 NC	330	347	U	U	240	-	-	-	-	-	-	-	84.4 B	U	U	U	-	-	-	-	-	-	-
Beryllium	ug/L	73 NC	1 U	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-
Cadmium	ug/L	18 NC	1 U	1 U	U	U	U	-	-	-	-	-	-	-	1 U	U	U	U	-	-	-	-	-	-	-
Calcium	ug/L	-	224000	81700	-	-	-	-	-	-	-	-	-	-	87000	-	-	-	-	-	-	-	-	-	-
Chromium Total	ug/L	-	17.4	1.2 B	12	U	26	-	-	-	-	-	-	-	1 U	69	U	24	-	-	-	-	-	-	-
Cobalt	ug/L	730 NC	12.3 B	2 B	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-
Copper	ug/L	1500 NC	30.8	4.9 B	-	-	-	-	-	-	-	-	-	-	3.1 B	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	ug/L	6.2 NC	3 U	3 U	-	-	-	-	-	-	-	-	-	-	3 U	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	11000 NC	20600	720	-	-	-	-	-	-	-	-	-	-	332	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L	11000 NC	-	-	-	1000	1600	-	-	-	-	-	-	-	-	-	320	640	-	-	-	-	-	-	-
Lead	ug/L	-	21.5	8.7	U	U	U	-	-	-	-	-	-	-	1.1 B	U	U	U	-	-	-	-	-	-	-
Magnesium	ug/L	-	76800	12600	-	-	-	-	-	-	-	-	-	-	25000	-	-	-	-	-	-	-	-	-	-
Manganese	ug/L	880 NC	1000	86.7	-	-	-	-	-	-	-	-	-	-	107	-	-	-	-	-	-	-	-	-	-
Mercury	ug/L	11 NC	0.2 U	0.2 U	U	U	-	-	-	-	-	-	-	-	0.2 U	U	U	-	-	-	-	-	-	-	-
Nickel	ug/L	730 NC	29.7 B	14.2 B	-	-	-	-	-	-	-	-	-	-	2.2 B	-	-	-	-	-	-	-	-	-	-
Potassium	ug/L	-	39600	114000	-	-	-	-	-	-	-	-	-	-	3390 B	-	-	-	-	-	-	-	-	-	-
Selenium	ug/L	180 NC	4 U	4 U	U	U	-	-	-	-	-	-	-	-	4 U	U	U	-	-	-	-	-	-	-	-
Silver	ug/L	180 NC	1 U	1 U	U	U	-	-	-	-	-	-	-	-	1 U	U	U	-	-	-	-	-	-	-	-
Sodium	ug/L	-	46200	98700	-	-	-	-	-	-	-	-	-	-	12400	-	-	-	-	-	-	-	-	-	-
Thallium	ug/L	2.4	4.4 B	4 U	-	-	-	-	-	-	-	-	-	-	4 U	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/L	36 NC	20.9 B	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-
Zinc	ug/L	11000 NC	77.7	10 B	-	-	-	-	-	-	-	-	-	-	9.5 B	-	-	-	-	-	-	-	-	-	-
PCBs																										
Aroclor-1248 (PCB-1248)	ug/L	0.034 CA	1 U	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	ug/L	0.034 CA*	1 U	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	ug/L	0.034 CA	1 U	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:			MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-101A	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
Sample ID:			96-DV-02-S23	96-DV-03-D23	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	MW101A	96-DV-03-S15	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW102
Sample Date:			7/9/1996	7/9/1996	1/6/1998	5/28/1998	2/10/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/7/2004	10/15/2004	8/4/2005	7/9/1996	1/6/1998	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/7/2004	10/14/2004	8/2/2005
Sample Depth:			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:			OEPA	Duplicate OEPA	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	OEPA	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units	Region 9 EPA - Tap Water																							
Pesticides																									
4,4'-DDD	ug/L	0.28 CA	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	ug/L	0.2 CA	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	ug/L	0.2 CA*	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
Aldrin	ug/L	0.004 CA	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
alpha-BHC	ug/L	0.011 CA	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	ug/L	-	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
delta-BHC	ug/L	-	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
Dieldrin	ug/L	0.0042 CA	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
Endosulfan I	ug/L	-	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
Endosulfan II	ug/L	-	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	ug/L	-	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
Endrin	ug/L	11 NC	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	ug/L	-	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
Endrin ketone	ug/L	-	0.1 U	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	ug/L	0.052 CA	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	ug/L	-	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
Heptachlor	ug/L	0.015 CA	0.021 PJ	0.0082 PJ	-	-	-	-	-	-	-	-	-	-	0.0093 PJ	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	ug/L	0.0074 CA*	0.05 U	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-
Methoxychlor	ug/L	180 NC	0.5 U	0.5 U	-	-	-	-	-	-	-	-	-	-	0.5 U	-	-	-	-	-	-	-	-	-	-
Gases																									
Ethane	ug/L	-	-	-	-	5600	5.3	-	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	4000	6.7	-	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	830 D/770 E	690 D/750 E	-	-	-	-	-	-	-	-	-	U	0.7	-	-	-	-	-	-	-
Wet																									
Alkalinity, Total (As CaCO3)	ug/L	-	-	-	-	530000	450000	-	-	-	-	-	-	-	-	-	350000	280000	-	-	-	-	-	-	-
Ammonia-n	ug/L	-	-	-	-	900	600	-	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Chloride	ug/L	-	-	-	-	16200	14700	-	-	-	-	-	-	-	-	-	27100	40800	-	-	-	-	-	-	-
Nitrate (as N)	ug/L	10000 NC	-	-	-	U	U	-	-	-	-	-	-	-	-	-	4300	7100	-	-	-	-	-	-	-
Sulfate	ug/L	-	-	-	-	31100	30700	-	-	-	-	-	-	-	-	-	44800	50100	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	ug/L	-	-	-	-	3000	4000	-	-	-	-	-	-	-	-	-	U	1000	-	-	-	-	-	-	-

Notes:

B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

D - Result was obtained from the analysis of a dilution.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.

J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected.

- - Not applicable.

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:		MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-104	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-201	MW-202	MW-202	MW-202
Sample ID:		96-DV-03-S24	MW103	MW103	MW103	MW103	MW103	MW103	MW103	MW103	MW103	MW103	96-DV-03-S22	MW201	MW201	MW201	MW201	MW201	MW201	MW201	MW201	MW201	MW202	MW202	MW202
Sample Date:		7/9/1996	1/6/1998	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/2/2005	7/9/1996	5/28/1998	2/16/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/15/2004	8/2/2005	5/28/1998	2/17/1999	11/11/1999
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		OEPA	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	OEPA	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units																								
Volatile Organics																									
1,1,1-Trichloroethane	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	7.3	6	8.4	6.9	6.9	5.2	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ug/L	10 U	U	1 J	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	2.6 J	U	U
1,2-Dichloroethene (total)	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	3	U
2 Butanone (Methyl Ethyl Ketone)	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Bromoform	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/L	10 U	U	U	2.2 J	U	U	U	U	U	U	U	10 U	U	3 J	U	U	U	U	U	U	U	3 J	U	U
o-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	ug/L	10 U	U	U	0.5 J	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ug/L	10 U	0.36 J	4.7	0.7 J	U	U	U	U	U	U	U	10 U	3.5 J	2 J	U	U	U	U	U	U	U	8.3	9	U
Trichloroethene	ug/L	10 U	3.2	5.1	4	8	5	U	U	U	U	U	10 U	18	17	21	22	21	17	3.9	8	5.7	38	39	39
Vinyl chloride	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	ug/L	10 U	U	U	U	U	U	U	U	U	U	U	10 U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatile Organics																									
1,4-Dichlorobenzene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ug/L	2 J	-	-	-	-	-	-	-	-	-	-	1 J	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 JBU	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	3 J	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	ug/L	10 U	-	-	-	-	-	-	-	-	-	-	10 U	-	-	-	-	-	-	-	-	-	-	-	-
Metals																									
Aluminum	ug/L	98.4 B	-	-	-	-	-	-	-	-	-	-	5730	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	ug/L	3 U	-	-	-	-	-	-	-	-	-	-	3 U	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	4 U	U	U	U	-	-	-	-	-	-	-	547	U	U	-	-	-	-	-	-	-	U	U	-
Barium	ug/L	92.3 B	U	U	U	-	-	-	-	-	-	-	2530	200	U	-	-	-	-	-	-	-	U	U	-
Beryllium	ug/L	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	ug/L	1 U	U	U	U	-	-	-	-	-	-	-	1 U	U	U	-	-	-	-	-	-	-	U	U	-
Calcium	ug/L	78500	-	-	-	-	-	-	-	-	-	-	190000	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	ug/L	7.6 B	17	11	55	-	-	-	-	-	-	-	17.3	U	U	-	-	-	-	-	-	-	U	10	-
Cobalt	ug/L	1 U	-	-	-	-	-	-	-	-	-	-	24.6 B	-	-	-	-	-	-	-	-	-	-	-	-
Copper	ug/L	3.2 B	-	-	-	-	-	-	-	-	-	-	27.8	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	ug/L	3 U	-	-	-	-	-	-	-	-	-	-	9.2 B	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	180	-	-	-	-	-	-	-	-	-	-	38000	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L	-	-	1000	1900	-	-	-	-	-	-	-	-	1000	690	-	-	-	-	-	-	-	1100	840	-
Lead	ug/L	2.8 B	U	U	U	-	-	-	-	-	-	-	13.4	U	U	-	-	-	-	-	-	-	U	U	-
Magnesium	ug/L	23100	-	-	-	-	-	-	-	-	-	-	75400	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	ug/L	46.3	-	-	-	-	-	-	-	-	-	-	1000	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	ug/L	0.2 U	U	U	-	-	-	-	-	-	-	-	0.2 U	U	-	-	-	-	-	-	-	-	U	-	-
Nickel	ug/L	1.1 B	-	-	-	-	-	-	-	-	-	-	17.3 B	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	ug/L	2720 B	-	-	-	-	-	-	-	-	-	-	9570	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	ug/L	4 U	U	U	-	-	-	-	-	-	-	-	8.3	U	-	-	-	-	-	-	-	-	15	-	-
Silver	ug/L	1 U	U	U	-	-	-	-	-	-	-	-	1 U	U	-	-	-	-	-	-	-	-	U	-	-
Sodium	ug/L	13400	-	-	-	-	-	-	-	-	-	-	81800	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	ug/L	4 U	-	-	-	-	-	-	-	-	-	-	4.6 B	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/L	1 U	-	-	-	-	-	-	-	-	-	-	14.8 B	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	ug/L	7.2 B	-	-	-	-	-	-	-	-	-	-	89.7	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																									
Aroclor-1248 (PCB-1248)	ug/L	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	ug/L	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	ug/L	1 U	-	-	-	-	-	-	-	-	-	-	1 U	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*
Sample Location:		*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-103*	*MW-104*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-201*	*MW-202*	*MW-202*	*MW-202*
Sample ID:		*96-DV-03-S24*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*MW103*	*96-DV-03-S22*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW201*	*MW202*	*MW202*	*MW202*
Sample Date:		*7/9/1996*	*1/6/1998*	*5/28/1998*	*2/17/1999*	*11/11/1999*	*5/18/2000*	*6/6/2001*	*6/14/2002*	*7/12/2004*	*10/14/2004*	*8/2/2005*	*7/9/1996*	*5/28/1998*	*2/16/1999*	*11/11/1999*	*5/18/2000*	*6/6/2001*	*6/14/2002*	*7/12/2004*	*10/15/2004*	*8/2/2005*	*5/28/1998*	*2/17/1999*	*11/11/1999*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		*OEPA*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*OEPA*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*
Parameter	*Units*																								
Pesticides																									
4,4'-DDD	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	ug/L	0.1 U	-	-	-	-	-	-	-	-	-	-	0.1 U	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	ug/L	0.0095 PJ	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	ug/L	0.05 U	-	-	-	-	-	-	-	-	-	-	0.05 U	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	ug/L	0.5 U	-	-	-	-	-	-	-	-	-	-	0.5 U	-	-	-	-	-	-	-	-	-	-	-	-
Gases																									
Ethane	ug/L	-	-	U	U	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	U	U	-
Ethene	ug/L	-	-	U	U	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	U	U	-
Methane	ug/L	-	-	U	0.6	-	-	-	-	-	-	-	-	1.4	0.6	-	-	-	-	-	-	-	0.5	4	-
Wet																									
Alkalinity, Total (As CaCO3)	ug/L	-	-	290000	220000	-	-	-	-	-	-	-	-	460000	310000	-	-	-	-	-	-	-	380000	270000	-
Ammonia-n	ug/L	-	-	U	U	-	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	U	U	-
Chloride	ug/L	-	-	32000	32700	-	-	-	-	-	-	-	-	95100	80500	-	-	-	-	-	-	-	145000	121000	-
Nitrate (as N)	ug/L	-	-	4600	8900	-	-	-	-	-	-	-	-	650	1100	-	-	-	-	-	-	-	2100	2300	-
Sulfate	ug/L	-	-	41900	45400	-	-	-	-	-	-	-	-	50200	47000	-	-	-	-	-	-	-	72200	66300	-
Total Organic Carbon (TOC)	ug/L	-	-	U	2000	-	-	-	-	-	-	-	-	U	1000	-	-	-	-	-	-	-	U	2000	-

Notes.

B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

D - Result was obtained from the analysis of a dilution.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.

J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected.

- - Not applicable.

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:		MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
Sample ID:		MW202	MW202	MW202	MW202	MW203	MW202	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW204	MW204	MW204	MW204	MW204	MW204	MW204	MW204	MW204
Sample Date:		5/10/2000	6/6/2001	6/14/2002	7/2/2004	10/15/2004	8/3/2005	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/6/2005	5/28/1998	2/17/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units																								
Volatile Organics																									
1,1,1-Trichloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ug/L	U	U	U	U	U	U	U	1 J	13	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	U	U	U	U	U	U	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	ug/L	U	U	U	U	U	U	U	6	25	U	U	U	14	21	11	U	U	U	U	U	U	U	U	U
2-Butanone (Methyl Ethyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ug/L	U	U	U	U	U	U	U	0.7	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromoform	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	ug/L	U	U	U	U	U	U	26	24	19	27	29	29	12	12	9.9	U	U	U	U	U	U	U	U	U
Chloroethane	ug/L	U	U	U	U	U	U	U	3 J	U	U	U	U	U	U	U	2.9 J	2 J	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/L	U	U	U	U	U	U	U	3 J	U	U	U	U	U	U	U	U	2 J	3.8 B	U	U	U	U	U	U
o-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ug/L	6.2	U	U	U	U	U	4.9 J	5	8.4	U	U	U	U	U	U	4.3 J	6	U	U	U	U	U	U	U
Trichloroethene	ug/L	33	41	31	11	12	8.1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Vinyl chloride	ug/L	U	U	U	U	U	U	U	2 J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatile Organics																									
1,4-Dichlorobenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																									
Aluminum	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	-	-	-	-	-	-	19	27	-	-	-	-	-	-	-	33	28	-	-	-	-	-	-	-
Barium	ug/L	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	850	700	-	-	-	-	-	-	-
Beryllium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	ug/L	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Calcium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	ug/L	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Cobalt	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L	-	-	-	-	-	-	2100	4200	-	-	-	-	-	-	-	3100	3100	-	-	-	-	-	-	-
Lead	ug/L	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	4.9	U	-	-	-	-	-	-	-
Magnesium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	ug/L	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Nickel	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	ug/L	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Silver	ug/L	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	-
Sodium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																									
Aroclor-1248 (PCB-1248)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:		MW-202	MW-202	MW-202	MW-202	MW-202	MW-202	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-203	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204	MW-204
Sample ID:		MW202	MW202	MW202	MW202	MW202	MW202	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW203	MW204	MW204	MW204	MW204	MW204	MW204	MW204	MW204	MW204
Sample Date:		5/10/2000	6/8/2001	6/14/2002	7/2/2004	10/15/2004	8/3/2005	5/28/1998	2/17/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/4/2005	5/28/1998	2/17/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units																								
Pesticides																									
4,4'-DDD	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																									
Ethane	ug/L	-	-	-	-	-	-	20 E/18 D	23	-	-	-	-	-	-	-	16	21	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	0.58	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	280 E/910 E	330 E/1500 D	-	-	-	-	-	-	-	37 E/5700 D	540 E/2200 D	-	-	-	-	-	-	-
Wet																									
Alkalinity, Total (As CaCO3)	ug/L	-	-	-	-	-	-	540000	430000	-	-	-	-	-	-	-	800000	470000	-	-	-	-	-	-	-
Ammonia-n	ug/L	-	-	-	-	-	-	3300	2900	-	-	-	-	-	-	-	5400	4400	-	-	-	-	-	-	-
Chloride	ug/L	-	-	-	-	-	-	75500	67100	-	-	-	-	-	-	-	56200	59200	-	-	-	-	-	-	-
Nitrate (as N)	ug/L	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-	U	U	-	-	-	-	-	-	-
Sulfate	ug/L	-	-	-	-	-	-	34500	33600	-	-	-	-	-	-	-	1300	1500	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	ug/L	-	-	-	-	-	-	7000	11000	-	-	-	-	-	-	-	8000	9000	-	-	-	-	-	-	-

Notes:

B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

D - Result was obtained from the analysis of a dilution.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.

J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected

- - Not applicable.

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:		MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-207	MW-207	MW-207	MW-207	MW-207	MW-207	MW-207	MW-207	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208
Sample ID:		MW206	MW206	MW206	MW206	MW206	MW206	MW206	MW206	MW207	MW207	MW207	MW207	MW207	MW207	MW207	MW207	MW208	MW208	MW208	MW208	MW208	MW208	MW208	MW208
Sample Date:		2/18/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/2/2005	2/18/1999	11/11/1999	5/8/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/2/2005	2/18/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units																								
Volatile Organics																									
1,1,1-Trichloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2 J	U	U	U	U	U	U	U
2-Butanone (Methyl Ethyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl isobutyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromoform	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/L	0.5 J	U	U	U	U	U	U	U	3 J	U	U	U	U	U	U	U	0.8 J	U	U	U	U	U	U	U
o-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ug/L	0.6 J	U	U	U	U	U	U	U	4 J	U	U	U	U	U	U	U	2 J	U	U	U	U	U	U	U
Trichloroethene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2 J	U	U	U	U	U	U	U
Vinyl chloride	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1 J	U	U	U	U	U	U	U
Xylene (total)	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatile Organics																									
1,4-Dichlorobenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																									
Aluminum	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	U	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Barium	ug/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	230	-	-	-	-	-	-	-
Beryllium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	ug/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Calcium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	ug/L	24	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Cobalt	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L	2500	-	-	-	-	-	-	-	2500	-	-	-	-	-	-	-	1300	-	-	-	-	-	-	-
Lead	ug/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Magnesium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																									
Aroclor-1248 (PCB-1248)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:		MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-206	MW-207	MW-207	MW-207	MW-207	MW-207	MW-207	MW-207	MW-207	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208	MW-208
Sample ID:		MW206	MW206	MW206	MW206	MW206	MW206	MW206	MW206	MW207	MW207	MW207	MW207	MW207	MW207	MW207	MW207	MW208	MW208	MW208	MW208	MW208	MW208	MW208
Sample Date:		2/18/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/2/2005	2/18/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/2/2005	2/18/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/1/2004	10/14/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units																								
Pesticides																									
4,4'-DDD	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																									
Ethane	ug/L	U	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Ethene	ug/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Methane	ug/L	1.8	-	-	-	-	-	-	-	4.7	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-
Wet																									
Alkalinity, Total (As CaCO3)	ug/L	350000	-	-	-	-	-	-	-	350000	-	-	-	-	-	-	-	500000	-	-	-	-	-	-	-
Ammonia-n	ug/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-
Chloride	ug/L	78000	-	-	-	-	-	-	-	19500	-	-	-	-	-	-	-	111000	-	-	-	-	-	-	-
Nitrate (as N)	ug/L	10000	-	-	-	-	-	-	-	8400	-	-	-	-	-	-	-	300	-	-	-	-	-	-	-
Sulfate	ug/L	54400	-	-	-	-	-	-	-	46100	-	-	-	-	-	-	-	59600	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	ug/L	2000	-	-	-	-	-	-	-	5000	-	-	-	-	-	-	-	3000	-	-	-	-	-	-	-

Notes.

B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

D - Result was obtained from the analysis of a dilution.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.

J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected.

- - Not applicable.

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Location:		MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-209	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-210	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212	MW-212
Sample ID:		MW209	MW209	MW209	MW209	MW209	MW209	MW209	MW209	MW210	MW210	MW210	MW210	MW210	MW210	MW210	MW210	MW212	MW212	MW212	MW212	MW212	MW212	MW212	MW212
Sample Date:		2/22/1999	11/11/1999	5/9/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/3/2005	2/18/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/1/2004	10/15/2004	8/4/2005	2/18/1999	11/11/1999	5/10/2000	6/6/2001	6/14/2002	7/2/2004	10/14/2004	8/3/2005
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne	Payne
Parameter	Units																								
Volatile Organics																									
1,1,1-Trichloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	ug/L	U	U	U	U	U	U	U	U	16	45	14	U	13	41	45	33	U	U	U	U	U	U	U	U
2-Butanone (Methyl Ethyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Benzene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromoform	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chlorobenzene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Chloroethane	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m&p-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/L	8 B	51 B	U	U	U	U	U	U	0.7 J	14 B	U	U	U	U	U	U	U	5.4 B	U	U	U	U	U	U
o-Xylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	ug/L	7	U	U	U	U	U	U	U	1.7 J	U	U	U	U	U	U	U	2 J	3.8	6.6	U	U	U	U	U
Trichloroethene	ug/L	U	U	U	U	U	U	U	U	87	260	58	30	76	170	250	190	U	U	U	U	U	U	U	U
Vinyl chloride	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Xylene (total)	ug/L	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Semi-Volatile Organics																									
1,4-Dichlorobenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																									
Aluminum	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	32	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Barium	ug/L	630	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Beryllium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	ug/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Calcium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium Total	ug/L	65	-	-	-	-	-	-	-	36	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-
Cobalt	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (total)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L	3000	-	-	-	-	-	-	-	2700	-	-	-	-	-	-	-	1200	-	-	-	-	-	-	-
Lead	ug/L	100	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Magnesium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																									
Aroclor-1248 (PCB-1248)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*
Sample Location:		*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-209*	*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-210*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*	*MW-212*
Sample ID:		*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW209*	*MW210*	*MW210*	*MW210*	*MW210*	*MW210*	*MW210*	*MW210*	*MW210*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*	*MW212*
Sample Date:		*2/22/1999*	*11/11/1999*	*5/9/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/1/2004*	*10/15/2004*	*8/4/2005*	*2/18/1999*	*11/11/1999*	*5/10/2000*	*6/6/2001*	*6/14/2002*	*7/2/2004*	*10/14/2004*	*8/3/2005*
Sample Depth:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sampling Company:		*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*	*Payne*
Parameter	*Units*																								
Pesticides																									
4,4'-DDD	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDE	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,4'-DDT	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-BHC	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
alpha-Chlordane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
delta-BHC	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
gamma-Chlordane	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gases																									
Ethane	ug/L	4	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Ethene	ug/L	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Methane	ug/L	590 D/280 E	-	-	-	-	-	-	-	88 E/82 D	-	-	-	-	-	-	-	1300 D/320 E	-	-	-	-	-	-	-
Wet																									
Alkalinity, Total (As CaCO3)	ug/L	340000	-	-	-	-	-	-	-	510000	-	-	-	-	-	-	-	270000	-	-	-	-	-	-	-
Ammonia-n	ug/L	1000	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-	1700	-	-	-	-	-	-	-
Chloride	ug/L	39100	-	-	-	-	-	-	-	195000	-	-	-	-	-	-	-	96300	-	-	-	-	-	-	-
Nitrate (as N)	ug/L	U	-	-	-	-	-	-	-	900	-	-	-	-	-	-	-	U	-	-	-	-	-	-	-
Sulfate	ug/L	78000	-	-	-	-	-	-	-	58900	-	-	-	-	-	-	-	94500	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	ug/L	4000	-	-	-	-	-	-	-	2000	-	-	-	-	-	-	-	4000	-	-	-	-	-	-	-

Notes:

B - Value is real, but above instrument detection limit and below contract-required detection limit (Inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

D - Result was obtained from the analysis of a dilution.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.

J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected.

- - Not applicable.

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*
Sample Location:		*SD001*	*SD001*	*SD002*	*SD002*	*SD004A*	*SD004A*	*SD004A*	*SD005*	*SD005*
Sample ID:		*SDGW001*	*SDGW004*	*SDGW002*	*SDGW003*	*SDGW005*	*SDGW006*	*SDGW007*	*SDGW008*	*SDGW009*
Sample Date:		*2/15/1996*	*2/21/1996*	*2/20/1996*	*2/20/1996*	*2/23/1996*	*2/23/1996*	*2/23/1996*	*2/24/1996*	*2/26/1996*
Sample Depth:		*19 ft BGS*	*34 ft BGS*	*22 ft BGS*	*32 ft BGS*	*23 ft BGS*	*28 ft BGS*	*28 ft BGS*	*28 ft BGS*	*43 ft BGS*
								Duplicate		
Sampling Company:		*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
Parameter	*Units*									
Volatile Organics										
1,1,1-Trichloroethane	ug/L	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	ug/L	0.5	0.8	1.2	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trimethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5
1,2-Dichloroethane	ug/L	0.5 U	0.9	0.5	0.5 U	0.9	0.5 U	0.8	0.5 U	0.5 U
1,2-Dichloroethene (total)	ug/L	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	-	-	-	-	-	-	-	-	-
Acetone	ug/L	-	-	-	-	-	-	-	-	-
Benzene	ug/L	1.2	0.9	0.8	1.9	0.8	0.6	0.5	0.7	1.6
Bromoform	ug/L	-	-	-	-	-	-	-	-	-
Chlorobenzene	ug/L	-	-	-	-	-	-	-	-	-
Chloroethane	ug/L	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	ug/L	0.5 U	0.5 U	0.9	1.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.6	0.7
m&p-Xylene	ug/L	0.05 U	0.5 U	0.6	0.5 U	1.2	0.7	0.7	0.9	0.9
Methylene chloride	ug/L	-	-	-	-	-	-	-	-	-
o-Xylene	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.7
Styrene	ug/L	-	-	-	-	-	-	-	-	-
Tetrachloroethene	ug/L	-	-	-	-	-	-	-	-	-
Toluene	ug/L	1.5	1.5	1.9	2.3	2.4	1.5	1.5	2.1	2.9
Trichloroethene	ug/L	4.6	2.8	0.5 U	0.5 U	1.5	2	2.2	0.5 U	2.4
Vinyl chloride	ug/L	0.5 U	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	ug/L	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics										
1,4-Dichlorobenzene	ug/L	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	ug/L	-	-	-	-	-	-	-	-	-
Acenaphthene	ug/L	-	-	-	-	-	-	-	-	-
Acenaphthylene	ug/L	-	-	-	-	-	-	-	-	-
Anthracene	ug/L	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	ug/L	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	ug/L	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	ug/L	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	ug/L	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ug/L	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	ug/L	-	-	-	-	-	-	-	-	-
Chrysene	ug/L	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	ug/L	-	-	-	-	-	-	-	-	-
Dibenzofuran	ug/L	-	-	-	-	-	-	-	-	-
Diethyl phthalate	ug/L	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	ug/L	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	ug/L	-	-	-	-	-	-	-	-	-
Fluoranthene	ug/L	-	-	-	-	-	-	-	-	-
Fluorene	ug/L	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	ug/L	-	-	-	-	-	-	-	-	-
Naphthalene	ug/L	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	ug/L	-	-	-	-	-	-	-	-	-
Phenanthrene	ug/L	-	-	-	-	-	-	-	-	-
Phenol	ug/L	-	-	-	-	-	-	-	-	-
Pyrene	ug/L	-	-	-	-	-	-	-	-	-
Metals										
Aluminum	ug/L	-	-	-	-	-	-	-	-	-
Antimony	ug/L	-	-	-	-	-	-	-	-	-
Arsenic	ug/L	-	-	-	-	-	-	-	-	-
Barium	ug/L	-	-	-	-	-	-	-	-	-
Beryllium	ug/L	-	-	-	-	-	-	-	-	-
Cadmium	ug/L	-	-	-	-	-	-	-	-	-
Calcium	ug/L	-	-	-	-	-	-	-	-	-
Chromium Total	ug/L	-	-	-	-	-	-	-	-	-
Cobalt	ug/L	-	-	-	-	-	-	-	-	-
Copper	ug/L	-	-	-	-	-	-	-	-	-
Cyanide (total)	ug/L	-	-	-	-	-	-	-	-	-
Iron	ug/L	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	ug/L	-	-	-	-	-	-	-	-	-
Lead	ug/L	-	-	-	-	-	-	-	-	-
Magnesium	ug/L	-	-	-	-	-	-	-	-	-
Manganese	ug/L	-	-	-	-	-	-	-	-	-
Mercury	ug/L	-	-	-	-	-	-	-	-	-
Nickel	ug/L	-	-	-	-	-	-	-	-	-
Potassium	ug/L	-	-	-	-	-	-	-	-	-
Selenium	ug/L	-	-	-	-	-	-	-	-	-
Silver	ug/L	-	-	-	-	-	-	-	-	-
Sodium	ug/L	-	-	-	-	-	-	-	-	-
Thallium	ug/L	-	-	-	-	-	-	-	-	-
Vanadium	ug/L	-	-	-	-	-	-	-	-	-
Zinc	ug/L	-	-	-	-	-	-	-	-	-
PCBs										
Aroclor-1248 (PCB-1248)	ug/L	-	-	-	-	-	-	-	-	-
Aroclor-1254 (PCB-1254)	ug/L	-	-	-	-	-	-	-	-	-
Aroclor-1260 (PCB-1260)	ug/L	-	-	-	-	-	-	-	-	-

TABLE 2.5
GROUNDWATER ANALYTICAL RESULTS

Sample Matrix:		*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*	*Groundwater*
Sample Location:		*SD001*	*SD003*	*SD002*	*SD002*	*SD004A*	*SD004A*	*SD004A*	*SD005*	*SD005*
Sample ID:		*SDGW001*	*SDGW004*	*SDGW001*	*SDGW003*	*SDGW005*	*SDGW006*	*SDGW007*	*SDGW008*	*SDGW009*
Sample Date:		*2/19/1996*	*2/21/1996*	*2/20/1996*	*2/20/1996*	*2/23/1996*	*2/23/1996*	*2/23/1996*	*2/24/1996*	*2/24/1996*
Sample Depth:		*19 ft BGS*	*34 ft BGS*	*22 ft BGS*	*32 ft BGS*	*23 ft BGS*	*28 ft BGS*	*28 ft BGS*	*28 ft BGS*	*43 ft BGS*
								Duplicate		
Sampling Company:		*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*	*PSARA*
Parameter	*Units*									
Pesticides										
4,4'-DDD	ug/L	-	-	-	-	-	-	-	-	-
4,4'-DDE	ug/L	-	-	-	-	-	-	-	-	-
4,4'-DDT	ug/L	-	-	-	-	-	-	-	-	-
Aldrin	ug/L	-	-	-	-	-	-	-	-	-
alpha-BHC	ug/L	-	-	-	-	-	-	-	-	-
alpha-Chlordane	ug/L	-	-	-	-	-	-	-	-	-
delta-BHC	ug/L	-	-	-	-	-	-	-	-	-
Dieldrin	ug/L	-	-	-	-	-	-	-	-	-
Endosulfan I	ug/L	-	-	-	-	-	-	-	-	-
Endosulfan II	ug/L	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	ug/L	-	-	-	-	-	-	-	-	-
Endrin	ug/L	-	-	-	-	-	-	-	-	-
Endrin aldehyde	ug/L	-	-	-	-	-	-	-	-	-
Endrin ketone	ug/L	-	-	-	-	-	-	-	-	-
gamma-BHC (Lindane)	ug/L	-	-	-	-	-	-	-	-	-
gamma-Chlordane	ug/L	-	-	-	-	-	-	-	-	-
Heptachlor	ug/L	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	ug/L	-	-	-	-	-	-	-	-	-
Methoxychlor	ug/L	-	-	-	-	-	-	-	-	-
Gases										
Ethane	ug/L	-	-	-	-	-	-	-	-	-
Ethene	ug/L	-	-	-	-	-	-	-	-	-
Methane	ug/L	-	-	-	-	-	-	-	-	-
Wet										
Alkalinity, Total (As CaCO3)	ug/L	-	-	-	-	-	-	-	-	-
Ammonia-n	ug/L	-	-	-	-	-	-	-	-	-
Chloride	ug/L	-	-	-	-	-	-	-	-	-
Nitrate (as N)	ug/L	-	-	-	-	-	-	-	-	-
Sulfate	ug/L	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	ug/L	-	-	-	-	-	-	-	-	-

Notes:

B - Value is real, but above instrument detection limit and below contract-required detection limit (inorganics).

B - Compound is found in the associated blank as well as in the sample (Organics).

D - Result was obtained from the analysis of a dilution.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument.

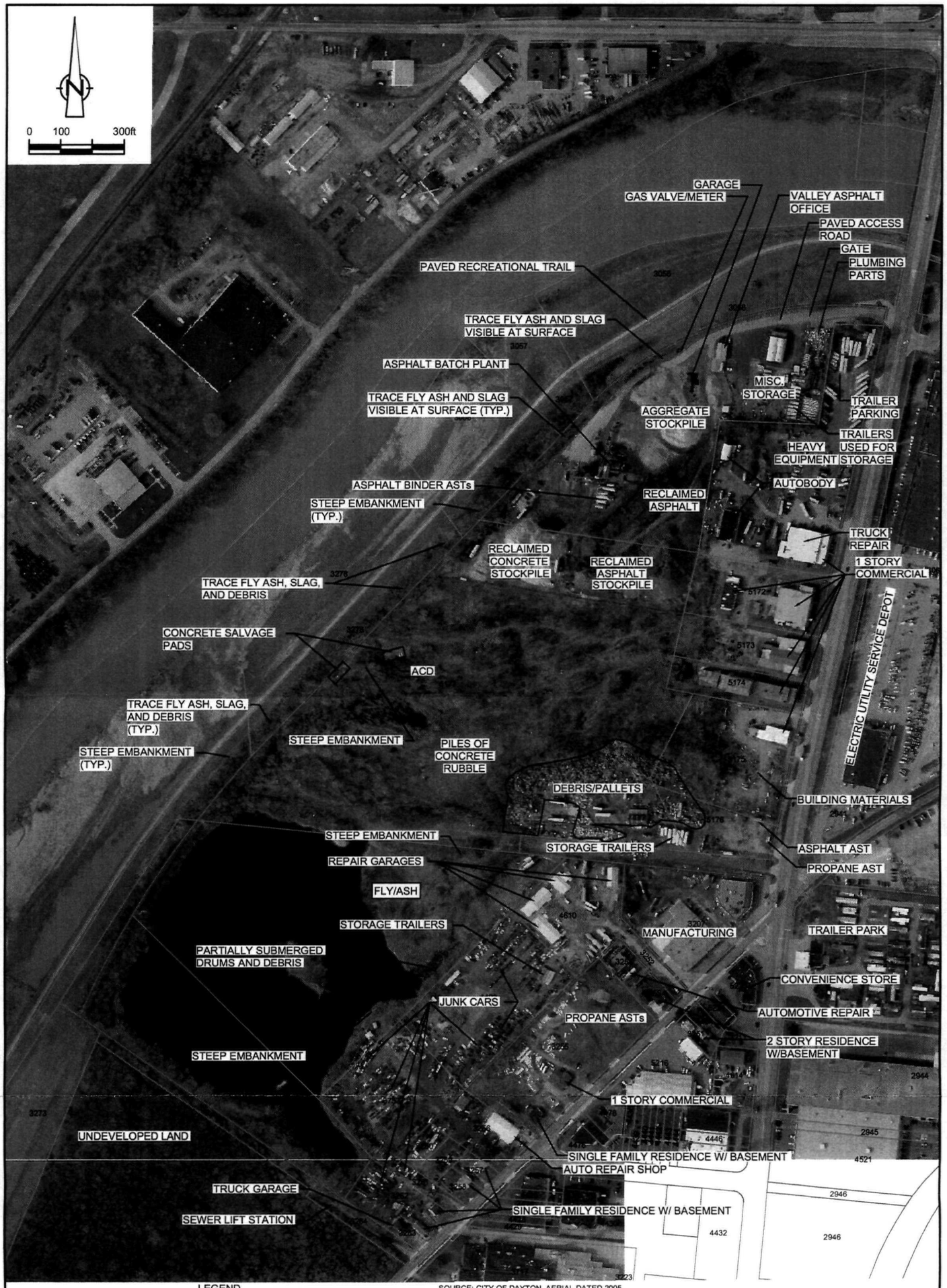
J - Indicates an estimated value.

P - Indicates there is a greater than 25% difference for detected concentrations between two GC columns. The lower of the two values is reported.

U - Compound was analyzed for but not detected.

- - Not applicable.

FIGURES



LEGEND

- SITE BOUNDARY (SOW 2006)
- PRELIMINARY DIRECT CONTACT RISK PRESUMPTIVE REMEDY AREA
- PARCEL BOUNDARY
- 3264 LOT NUMBER

SOURCE: CITY OF DAYTON, AERIAL DATED 2005.

figure 2.1

SITE FEATURES/SITE INSPECTION
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(004)GN-WA020 JAN 03/2007

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the National Geodetic Vertical Datum of 1929

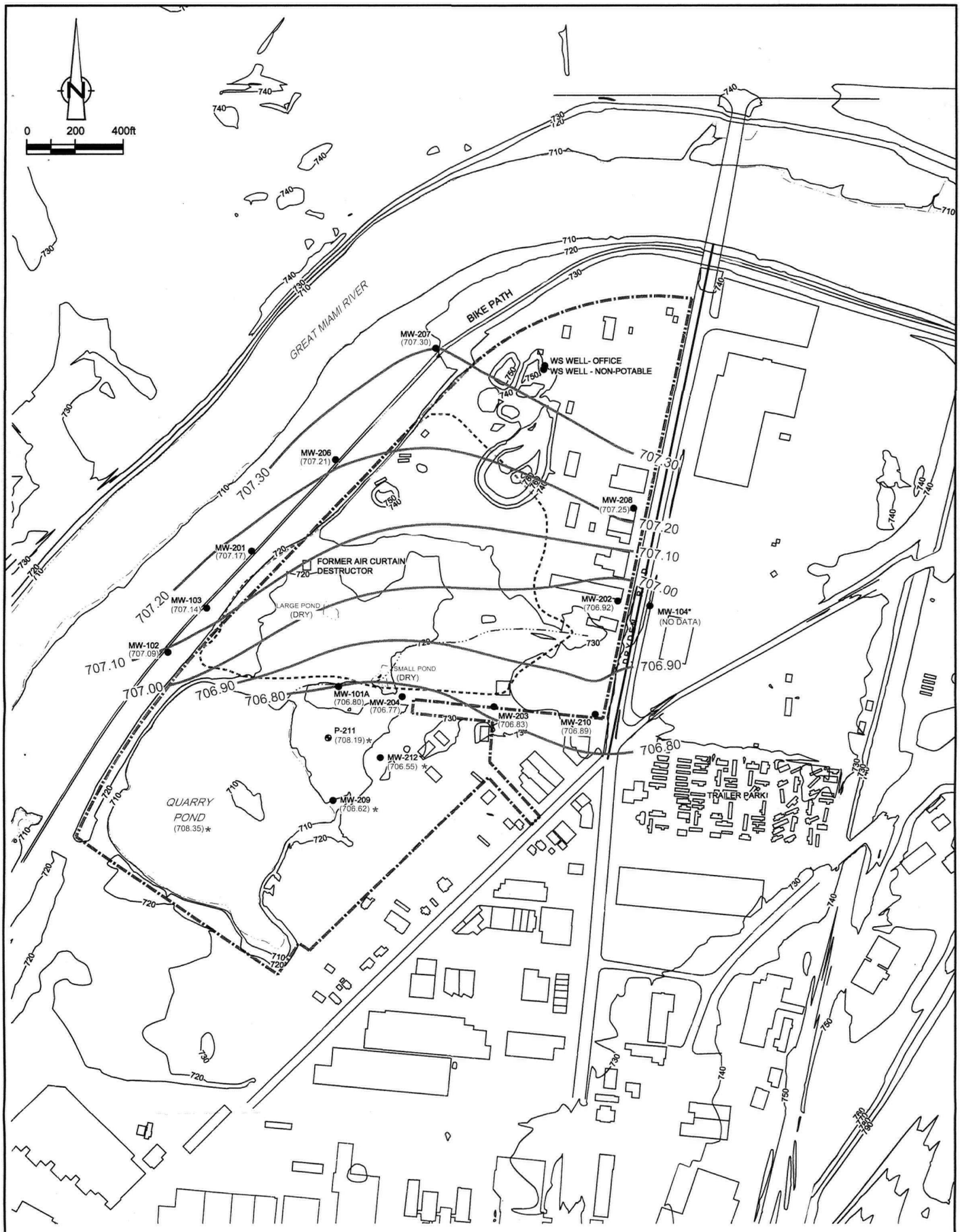
A — A	Cross section line
23 - - - 23	Transect line
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
4989000 FT	5000-foot grid ticks: Ohio State Plane coordinate system, South zone (FIPS Zone 3402), Transverse Mercator
4989 000m N	1000-meter Universal Transverse Mercator grid values, zone 17
DX5510 X	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile
	SITE BOUNDARY (SOW 2006)

0 400 800ft

SOURCE: FEMA FLOOD INSURANCE RATE MAP, PANELS 251, 252, AND 253, JANUARY 6, 2005.

figure 2.6

FLOODWAY AND FLOOD PLAIN MAP
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio



LEGEND

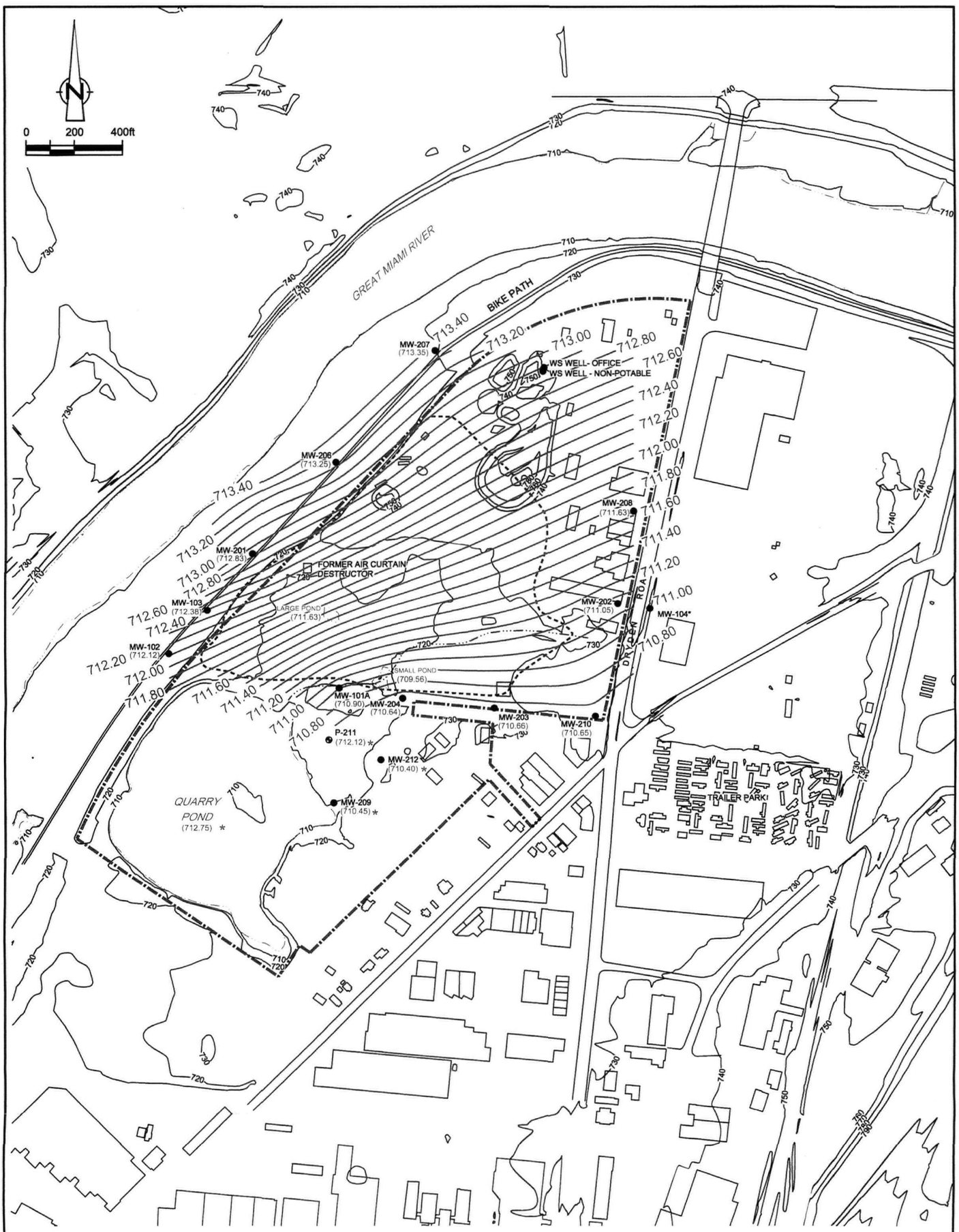
	SITE BOUNDARY (SOW 2006)	(710.10)	GROUNDWATER ELEVATION (ft. AMSL) MEASURED ON SEPTEMBER 7, 1999
	PRELIMINARY DIRECT CONTACT RISK PRESUMPTIVE REMEDY AREA	—707.10—	GROUNDWATER CONTOUR (ft. AMSL) FOR SEPTEMBER 7, 1999
—730—	EXISTING GROUND CONTOUR (2 FT CONTOUR INTERVAL)	*	NOT USED FOR CONTOURING (SEE TEXT)
	EDGE OF WATER		
MW-206 ●	INTERMEDIATE ZONE MONITORING WELL LOCATION		
P-211 ⊙	PIEZOMETER LOCATION		

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.

figure 2.14

WATER LEVEL CONTOURS (SEPTEMBER 7, 1999)
RI/FS WORK PLAN
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(004)GN-WA023 DEC 19/2006



LEGEND

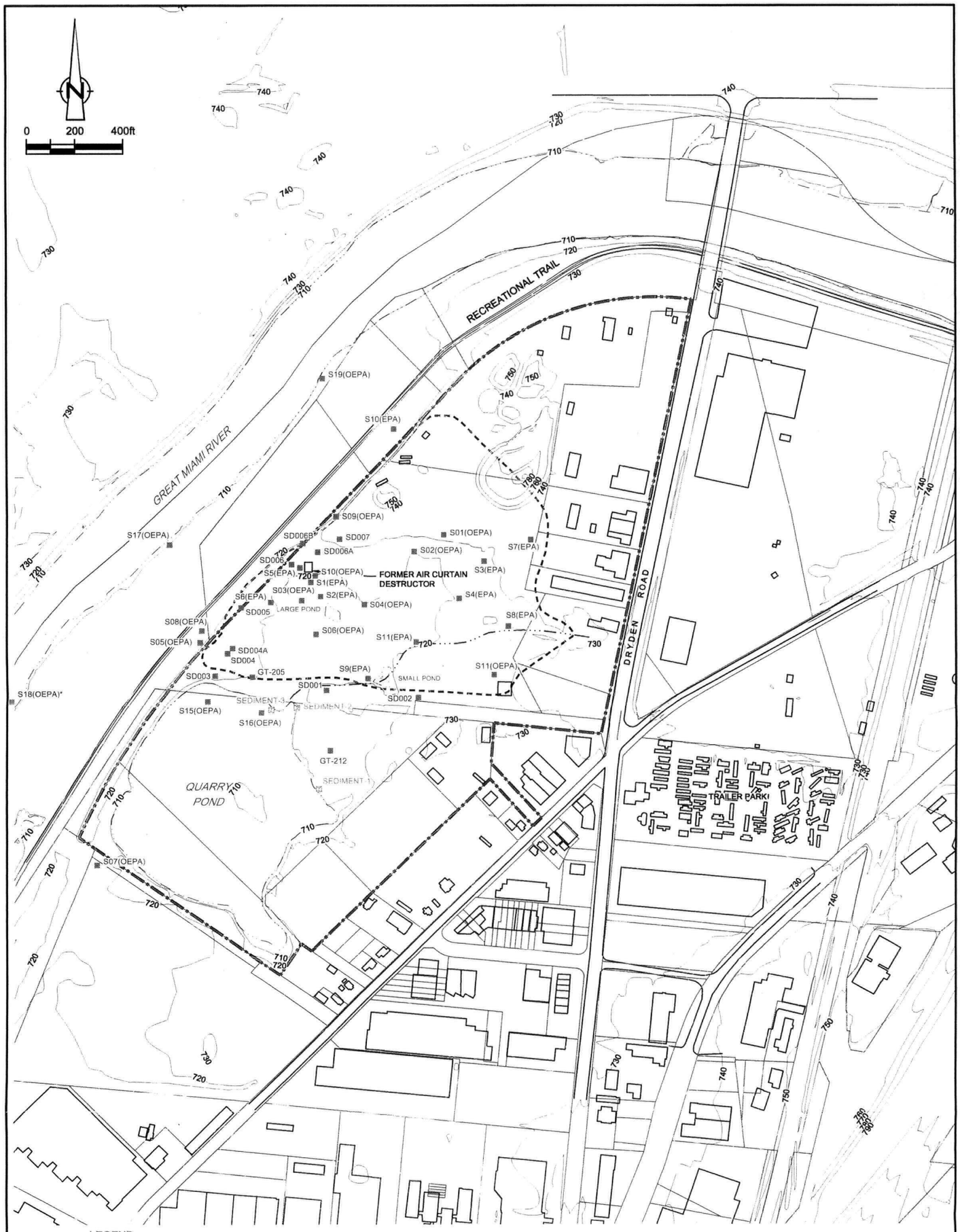
	SITE BOUNDARY (SOW 2006)	(713.35)	GROUNDWATER ELEVATION (ft. AMSL) MEASURED ON MARCH 1, 1999
	PRELIMINARY DIRECT CONTACT RISK PRESUMPTIVE REMEDY AREA	—707.10—	GROUNDWATER CONTOUR (ft. AMSL) FOR MARCH 1, 1999
—730—	EXISTING GROUND CONTOUR (2 FT CONTOUR INTERVAL)	*	NOT USED FOR CONTOURING (SEE TEXT)
	EDGE OF WATER		
MW-206 ●	INTERMEDIATE ZONE MONITORING WELL LOCATION		
P-211 ⊕	PIEZOMETER LOCATION		

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.

figure 2.15

WATER LEVEL CONTOURS (MARCH 1, 1999)
RI/FS WORK PLAN
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(004)GN-WA022 DEC 19/2006



LEGEND

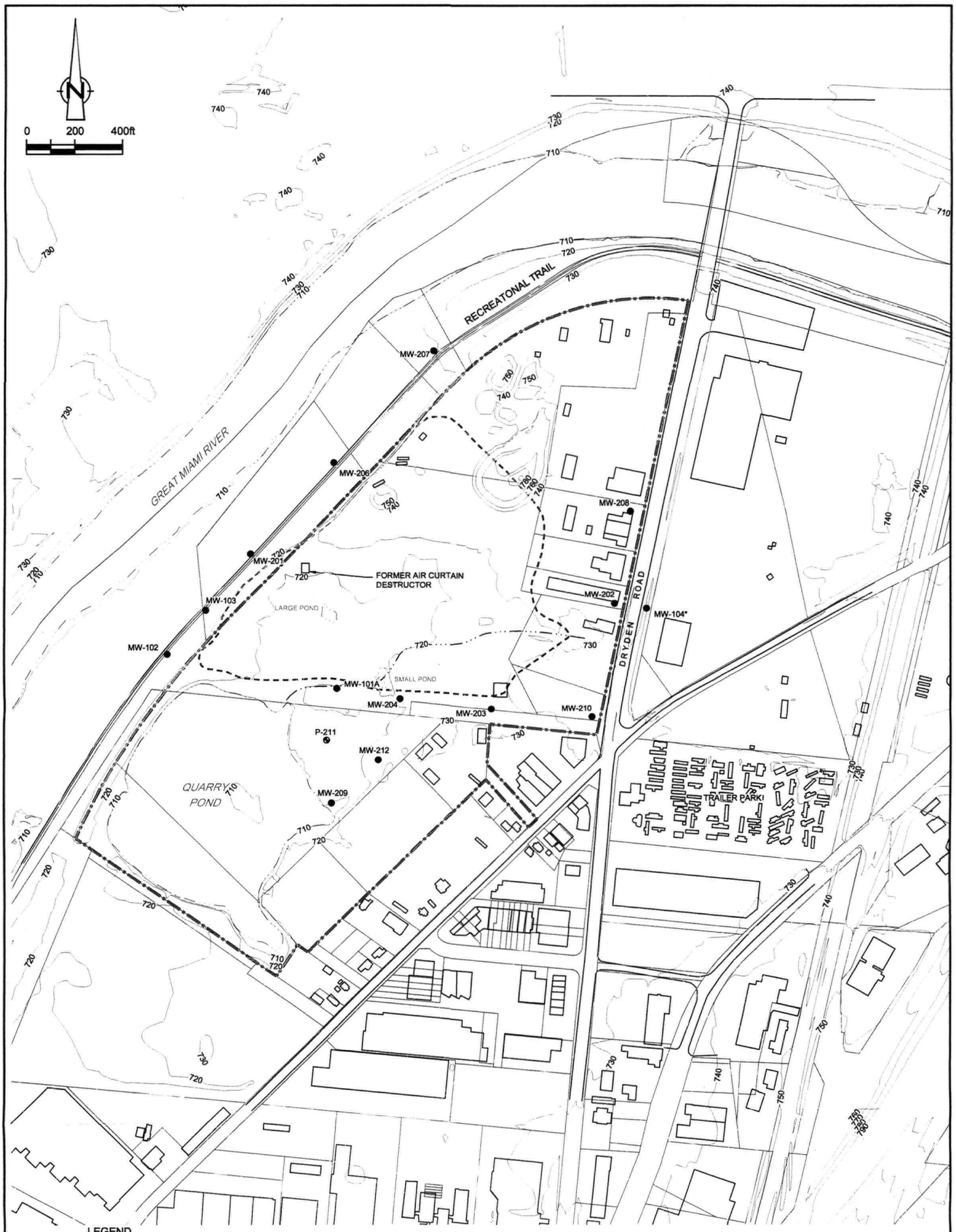
- SITE BOUNDARY (SOW 2006)
- PRELIMINARY DIRECT CONTACT RISK PRESUMPTIVE REMEDY AREA
- 730 EXISTING GROUND CONTOUR (2 FT CONTOUR INTERVAL)
- S01 SOIL BORING LOCATION
- SEDIMENT-1 SEDIMENT SAMPLING LOCATION
- EDGE OF WATER
- PARCEL BOUNDARY

figure 2.20

HISTORICAL SOIL SAMPLING AND BOREHOLE LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.

38443-00(004)GN-WA006 DEC 19/2006



LEGEND

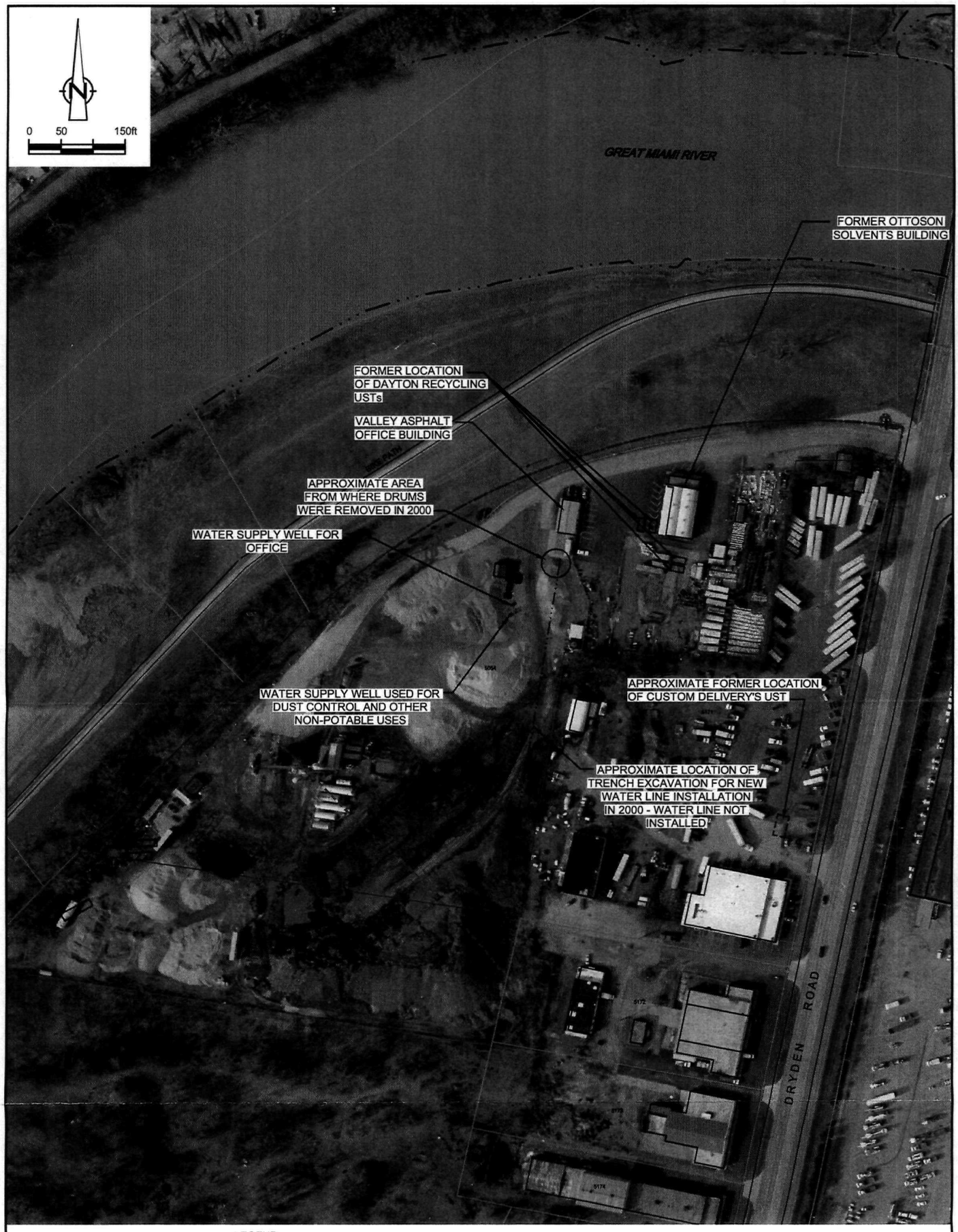
- SITE BOUNDARY (SOW 2006)
- PRELIMINARY DIRECT CONTACT RISK PRESUMPTIVE REMEDY AREA
- 730 EXISTING GROUND CONTOUR (2 FT CONTOUR INTERVAL)
- EDGE OF WATER
- MW-206 INTERMEDIATE ZONE MONITORING WELL LOCATION
- P-211 PIEZOMETER LOCATION
- PARCEL BOUNDARY
- * APPROXIMATE LOCATION

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.

figure 2.21

EXISTING GROUNDWATER MONITORING WELL LOCATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(004)GN-WA005 DEC 19/2006



LEGEND

- SITE BOUNDARY (SOW 2006)
- VALLEY ASPHALT PROPERTY
- PRELIMINARY DIRECT CONTACT RISK PRESUMPTIVE REMEDY AREA
- PARCEL BOUNDARY
- 3264 LOT NUMBER

SOURCES:
THE PAYNE FIRM, INC., PROJECT 0279.44.05, FIGURE 1, DATED 9/12/05;
TETRA TECH EM INC., PROJECT L0312006-SOUTH DAYTON DUMP, FIGURE 2, SITE LAYOUT, 05/25/2004;
CITY OF MORAINE.
CITY OF DAYTON, AERIAL DATED 2005.

figure 2.22

VALLEY ASPHALT PROPERTY
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(004)GN-WA008 DEC 19/2006

APPENDIX B

BOREHOLE LOGS

DNR 7802.94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY MONTGOMERY TOWNSHIP MIAMI SECTION/LOT No. _____ (Circle One)

OWNER/BUILDER (Circle One or Both) South Dayton Dump (First, Last) PROPERTY ADDRESS (Address of well location) 1975 DRYDEN RD (Number, Street) MORAINE OHIO (City)

LOCATION OF PROPERTY ~~DAYTON OHIO~~ MORAINE OHIO Zip Code + 4

CONSTRUCTION DETAILS

CASING *(Length below grade) Borehole Diameter 9 1/2 in.

[1] Diameter 2 in. Length* 23 ft. Wall Thickness SCH 40 in.

[2] Diameter _____ in. Length* _____ ft. Wall Thickness _____ in.

Type: [1] Steel [1] Galv. [X] PVC [1] [2] Other _____

Joints: [X] Threaded [1] Welded [1] Solvent [1] [2] Other _____

Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN

Type (wire wrapped, louvered, etc.) _____ Material PVC

Length 10 ft. Diameter 2 in.

Set between 34 ft. and 24 ft. Slot .010

GROUT

Material Portland BEAT Volume used 6 BAGS

Method of installation TRIMMIE

Depth: placed from 20 ft. to 1 ft.

GRAVEL PACK (Filter Pack)

Material #5 SAND Volume used 3 1/2 BAGS

Method of installation GRAVITY

Depth: placed from 34 ft. to 22 ft.

Pitless Device [ ] Adapter [ ] Preassembled unit

Use of Well MONITOR

[ ] Rotary [ ] Cable [X] Augered [ ] Driven [ ] Dug [ ] Other _____

Date of Completion 4-5-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

MW# 101

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
Brown Silty SANDY CLAY w/ GRAVEL	0	11
COBBLES	11	12
Brown Silty SANDY CLAY w/GRAVEL: WET	12	29
WET SANDY SILT, VERY FINE GREY SAND	29	38
BTH 38'		
SET WELL AT 34'		
WATER ON ROAD 18'		
WATER AT COMP. 16'		

*If additional space is needed to complete well log, use next consecutively numbered form.)

WELL TEST

[ ] Bailing [ ] Pumping* [ ] Other _____

Test rate NA gpm Duration of test _____ hr

Drawdown _____ ft

Measured from: [ ] top of casing [ ] ground level [ ] Other _____

Static Level (depth to water) _____ ft. Date: _____

Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump NA Capacity _____ gpm

Pump set at _____ ft

Pump installed by _____

WELL LOCATION

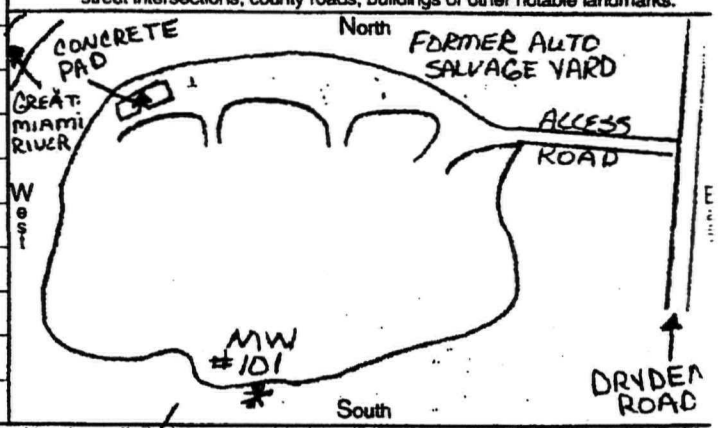
Location of well in State Plane coordinates, if available:

Zone _____ x _____ y _____

Elevation of well _____ ft./m. Datum plain: [ ] NAD27 [ ] NAD83

Source of coordinates: [ ] GPS [ ] Survey [ ] Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm Jones Environmental Drilling

Signed Gary Taylor

Address PO BOX 190

Date 4-22-96

City, State, Zip VERSAILLES, IN 47042

ODH Registration Number _____

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR. DIVISION OF WATER. 1939 FOUNTAIN SQ. DRIVE. COLS.. OHIO 43224

DNR 7802.94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY Montgomery TOWNSHIP Miami SECTION/LOT No. _____ (Circle One)

OWNER/BUILDER (Circle One or Both) South Dayton Dump (First / Last) PROPERTY ADDRESS (Address of well location) 1975 DRYDEN RD (Number / Street) MORAINE OH (City)

LOCATION OF PROPERTY MORAINE OHIO Zip Code - 4

CONSTRUCTION DETAILS

CASING *(Length below grade) Borehole Diameter 7 7/8 in.

1 Diameter 2 in. Length* 21 ft. Wall Thickness Sch 40 in.

2 Diameter _____ in. Length* _____ ft. Wall Thickness _____ in.

Type: 1 Steel 1 Galv. X PVC 1 2 Other _____

Joints: X Threaded 1 Welded 1 Solvent 1 2 Other _____

Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN

Type (wire wrapped, louvered, etc.) _____ Material PVC

Length 10 ft. Diameter 2 in.

Set between 21 ft. and 31 ft. Slot .010

GROUT

Material Holeplug Volume used 5 BAGS

Method of installation TRIMMIE

Depth: placed from ~~25~~ 17 ft. to 2 ft.

GRAVEL PACK (Filter Pack)

Material ~~#1~~ SAND Volume used 3½ bags

Method of installation GRAVITY

Depth: placed from 31 ft. to ~~22~~ 19 ft.

Pitless Device ☐ Adapter ☐ Preassembled unit

Use of Well MONITOR

☐ Rotary ☐ Cable ☒ Augered ☐ Driven ☐ Dug ☐ Other _____

Date of Completion 5-7-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc. MW 101B

	From	To
GRAVEL BASE	0	2
BROWN SILTY SANDY CLAY	2	8
GREY SILTY CLAY	8	17
BLACK TO GREY SILTY CLAY	17	20
BROWN SAND & GRAVEL w/COBBLES	20	25
BROWN SAND & GRAVEL	25	31

WELL TEST

☐ Bailing ☐ Pumping* ☐ Other _____

Test rate NA gpm Duration of test _____ hr

Drawdown _____

Measured from: ☐ top of casing ☐ ground level ☐ Other _____

Static Level (depth to water) _____ ft. Date: _____

Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump NA Capacity _____ gpm

Pump set at _____ ft.

Pump installed by _____

WELL LOCATION

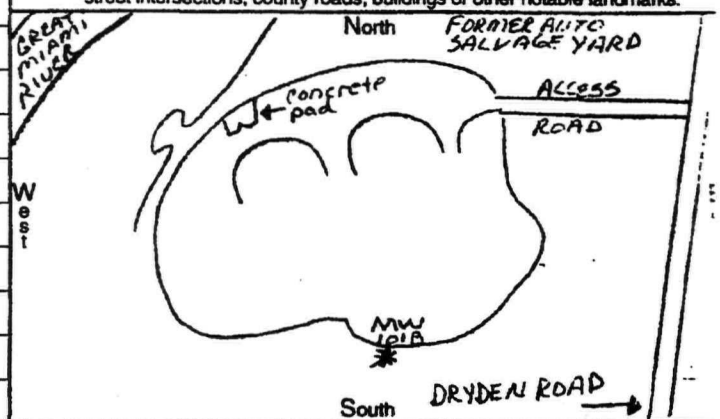
Location of well in State Plane coordinates, if available:

Zone _____ x _____ y _____

Elevation of well _____ ft./m. Datum plain: ☐ NAD27 ☐ NAD83

Source of coordinates: ☐ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



additional space is needed to complete well log, use next consecutively numbered form.)

I hereby certify the information given is accurate and correct to the best of my knowledge

Drilling Firm Jones Environmental Drilling, Inc. Signed Terry L. Wilkes

Address PO Box 190 Date 5-16-96

City, State, Zip VERSAILLES, INDIANA 47042 ODH Registration Number _____

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

DNR 7802.94
TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY MONTGOMERY TOWNSHIP MIAMI SECTION/LOT No. _____ (Circle One)

OWNER/BUILDER (Circle One or Both) SOUTH DAYTON DUMP (First / Last) PROPERTY ADDRESS (Address of well location) 1975 ~~[illegible]~~ DRYDEN RD. MORAINE OH (Number / Street / City)

LOCATION OF PROPERTY ~~DAYTON OHIO~~ MORAINE OHIO _____ Zip Code + 4

CONSTRUCTION DETAILS

CASING *(Length below grade) Borehole Diameter 9 1/2 in.

1 Diameter 2 in. Length* 23 ft. Wall Thickness Sch 40 in.

2 Diameter _____ in. Length* _____ ft. Wall Thickness _____ in.

Type: 1 2 Steel 1 2 Galv. ☒ 2 PVC 1 2 Other _____

Joints: ☒ 2 Threaded 1 2 Welded 1 2 Solvent 1 2 Other _____

Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN

Type (wire wrapped, louvered, etc.) _____ Material PVC

Length 10 ft. Diameter 2 in.

Set between 30 ft. and 20 ft. Slot .010

GROUT

Material Portland & BENT. Volume used 5 BAGS

Method of installation TRIMMIE

Depth: placed from 14 ft. to 1 ft

GRAVEL PACK (Filter Pack)

Material #5 SAND Volume used 3 1/2 bags

Method of installation GRAVITY

Depth: placed from 30 ft. to 18 ft

Pitless Device ☐ Adapter ☐ Preassembled unit

Use of Well MONITOR

☐ Rotary ☐ Cable ☒ Augered ☐ Driven ☐ Dug ☐ Other _____

Date of Completion 4-8-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.

MW #102

	From	To
Brown Silty Clay w/GRAVEL	0	10
Brown Silty to Sandy wet clay	10	15
Sand & Gravel, coarse Gravel w/COBBLES	15	32

BTH 32'
SET WELL AT 30'
WATER ON RODS 15'
WATER AT COMP. 10'

WELL TEST

☐ Bailing ☐ Pumping* ☐ Other _____

Test rate NA gpm Duration of test _____ hrs

Drawdown _____ ft

Measured from: ☐ top of casing ☐ ground level ☐ Other _____

Static Level (depth to water) _____ ft. Date: _____

Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump NA Capacity _____ gpm

Pump set at _____ ft

Pump installed by _____

WELL LOCATION

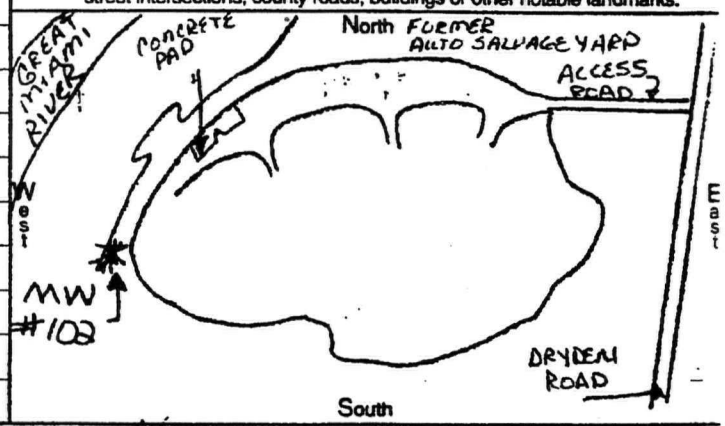
Location of well in State Plane coordinates, if available:

Zone _____ x _____ y _____

Elevation of well _____ ft./m. Datum plain: ☐ NAD27 ☐ NAD83

Source of coordinates: ☐ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



*(If additional space is needed to complete well log, use next consecutively numbered form.)

I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Jones Environmental Drilling

Signed Gary Taylor

Address PO BOX 190

Date 4-22-96

City, State, Zip VERSAILLES, IN 47042

ODH Registration Number _____

Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

DNR 7802.94

TYPE OR USE PEN
SELF TRANSCRIBING
PRESS HARD

WELL LOG AND DRILLING REPORT

Ohio Department of Natural Resources
Divison of Water, 1939 Fountain Square Drive
Columbus, Ohio 43224 Phone (614) 265-6739

Permit Number _____

COUNTY MONTGOMERY TOWNSHIP MIAMI SECTION/LOT No. _____ (Circle One)

OWNER/BUILDER (Circle One or Both) South Dayton Dump (First / Last) PROPERTY ADDRESS (Address of well location) 975 Dryden Rd. (Number / Street) Moraine Ohio (City)

LOCATION OF PROPERTY Battelle Ohio Moraine OH Zip Code + 4

CONSTRUCTION DETAILS

CASING *(Length below grade) Borehole Diameter 7 1/2 in.

1 Diameter 2 in. Length* 23 ft. Wall Thickness Sch 40 in.

2 Diameter _____ in. Length* _____ ft. Wall Thickness _____ in.

Type: 1 2 Steel; 1 2 Galv.; X 2 PVC; 1 2 Other _____

Joints: X 2 Threaded; 1 2 Welded; 1 2 Solvent; 1 2 Other _____

Liner: Length _____ Type _____ Wall Thickness _____ in.

SCREEN

Type (wire wrapped, louvered, etc.) _____ Material PVC

Length 10 ft. Diameter 2 in.

Set between 32 ft. and 22 ft. Slot .010

GROUT

Material Hydrated Bent. Volume used 5 BAGS

Method of installation TRIMMIE

Depth: placed from 16 ft. to 1 ft

GRAVEL PACK (Filter Pack)

Material #5 SAND Volume used 3 1/2 BAGS

Method of installation GRAVITY

Depth: placed from 32 ft. to 20 ft

Pitless Device ☐ Adapter ☐ Preassembled unit

Use of Well MONITOR

☐ Rotary ☐ Cable ☒ Augered ☐ Driven ☐ Dug ☐ Other _____

Date of Completion 4-9-96

WELL LOG*

INDICATE DEPTH(S) AT WHICH WATER IS ENCOUNTERED.

MW #103

Show color, texture, hardness, and formation: sandstone, shale, limestone, gravel, clay, sand, etc.	From	To
GRAVEL BASE	0	2
Clay; Brown Silty Sandy	2	8
Black to Grey Silty Clay	8	17
Black to GREY SILTY CLAY-LESS SILTY	17	20
Brown SAND & GRAVEL w/Cobbles: WET	20	25
Brown Sand & GRAVEL w/Cobbles: WET	25	27
Brown Sand & GRAVEL w/Cobbles: WET	27	32
BTH 32'		
WATER ON RODS 20'		
WATER AT COMP. 18'		

*(If additional space is needed to complete well log, use next consecutively numbered form.)

WELL TEST

☐ Bailing ☐ Pumping* ☐ Other _____

Test rate NA gpm Duration of test _____ hrs

Drawdown _____ ft

Measured from: ☐ top of casing ☐ ground level ☐ Other _____

Static Level (depth to water) _____ ft. Date: _____

Quality (clear, cloudy, taste, odor) _____

*(Attach a copy of the pumping test record, per section 1521.05, ORC)

PUMP

Type of pump NA Capacity _____ gpm

Pump set at _____ ft

Pump installed by _____

WELL LOCATION

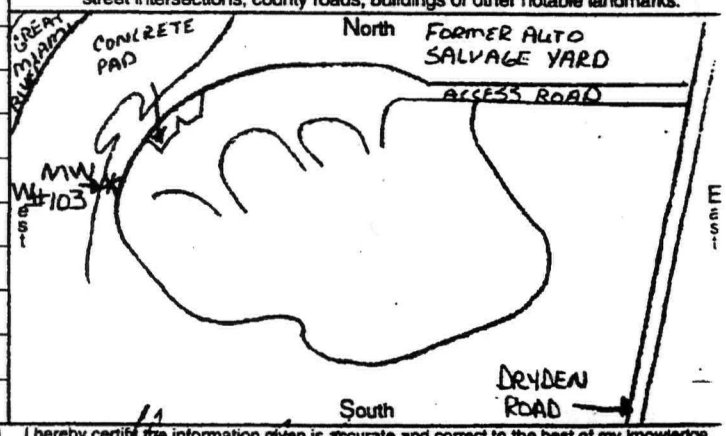
Location of well in State Plane coordinates, if available:

Zone _____ x _____ y _____

Elevation of well _____ ft./m. Datum plain: ☐ NAD27 ☐ NAD83

Source of coordinates: ☐ GPS ☐ Survey ☐ Other _____

Sketch a map showing distance well lies from numbered state highways, street intersections, county roads, buildings or other notable landmarks.



I hereby certify the information given is accurate and correct to the best of my knowledge.

Drilling Firm Jones Environmental Drilling

Signed Mary Taylor

Address PO Box 190

Date 4-22-96

City, State, Zip VERSAILLES, IN 47042

ODH Registration Number _____

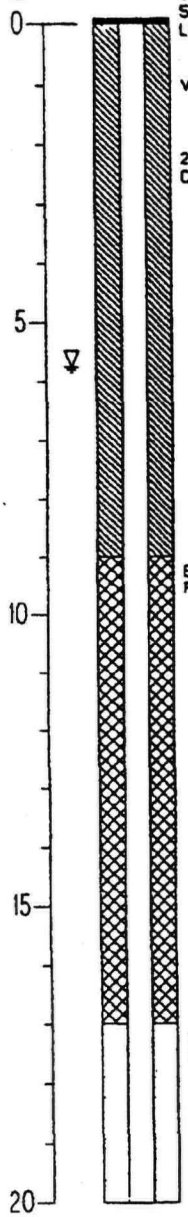
Completion of this form is required by section 1521.05, Ohio Revised Code - file within 30 days after completion of drilling.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224

LOG OF BORING .W-201

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
0							CLAY AND SILT: dark brown; moist
5	708.3	13, 21, 21, 18		13			- brown; moist
		14, 12, 10, 12		12			SAND (coarse) AND GRAVEL (fine); brown; wet
							CLAY AND SILT; brown; wet
							SAND (coarse) AND GRAVEL (fine); brown; wet; trace of cobbles
10	703.3	7, 7, 10, 10, 7, 14, 10, 12		8, 9			- medium and fine sand; brown; wet
							- course gravel and cobbles; brown; wet
							- medium and fine sand; brown; wet
		9, 9, 11, 10		10			
15	698.3	7, 58		13			- fine gravel
		12, 12, 13, 12		15			
		5, 8		15			- fine sand; brown; wet
20	693.3						

000018

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 32.0
DATE STARTED: 05/21/98
DATE FINISHED: 05/21/98
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.07

GS ELEVATION (MSL): 713.3
TOP OF CASING (MSL): 715.27
WELL DEVELOPED: 05/21/98

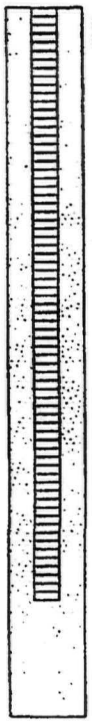
DATE PRINTED: 06/25/1998

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING .W-201

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		11					- medium and course sand, fine gravel and cobbles; wet
		13					
		5					
		12		15			
		17					
		13					
		10					
		20		17			
		14					
		17					
25	688.3	8					
		10		18			
		15					
		17					
		8					
		11		17			
		13					
		17					
30	683.3	8					
		12		20			
		16					
		18					
							Boring terminated at 32.0 feet
35	678.3						
40	673.3						

LITHOLOGY

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 32.0
DATE STARTED: 05/21/98
DATE FINISHED: 05/21/98
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.07

GS ELEVATION (MSL): 713.3
TOP OF CASING (MSL): 715.27
WELL DEVELOPED: 05/21/98

DATE PRINTED: 06/25/1998

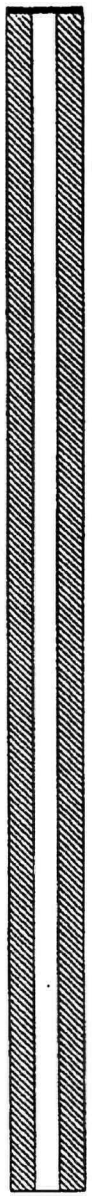
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-202

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
0							SILT, ROCK FRAGMENTS AND GLASS (FILL)
5	726.3	5					CLAY AND SILT; rock fragments; brown; moist
		13		18			
		22					
		22					
		14					SAND (medium) AND GRAVEL; light brown, slightly moist
		20		13			
		25					
		25					
		33					
		45		14			
10	721.3	29					
		38					
		10					
		16		10			
		14					
		19					
		18					
		20		11			
		22					
		24					
15	716.3	18					
		24		13			
		24					- medium and course sand; trace of fine gravel; light brown; moist
		23					
		24					
		16		12			
		20					- medium sand; light brown; moist
		39					
		35					
20	711.3	68		7			

LITHOLOGY

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 41.0
DATE STARTED: 05/21/98
DATE FINISHED: 05/21/98
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.07

GS ELEVATION (MSL): 731.3
TOP OF CASING (MSL): 733.39
WELL DEVELOPED: 05/21/98

DATE PRINTED: 06/25/1998

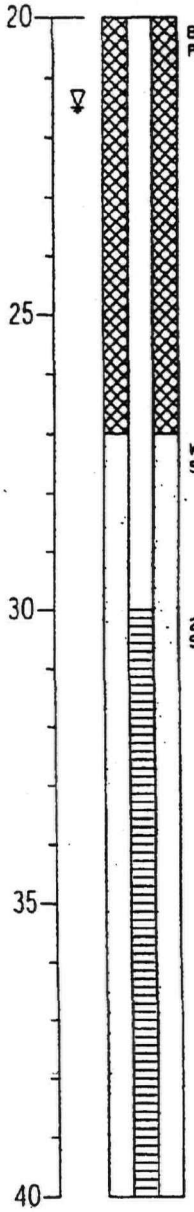
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-202

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
20		33					- medium sand and fine gravel; trace of cobbles; light brown; moist
		22					
		7					
		17		0			
		10					- spoon wet
		7					
		8					- course sand and gravel; trace of cobbles; gray; wet; some black
		16		20			
		18					- medium sand; trace of gravel; reddish-orange; wet
		21					
25	708.3	28					- course and medium sand; reddish-orange; wet
		34		17			
		20					
		19					
		6					
		10					
		12					
		11		15			
		12					
		46					
30	701.3	24					- course sand and fine gravel; trace of cobbles; light gray; wet
		28		20			
		11					
		18					- course and medium sand; reddish-orange; wet
		42					
		26		14			- course sand and fine gravel; trace of cobbles; gray; wet
		6					
		16					- course and medium sand; reddish-orange; wet
		19					
		10		16			
35	696.3	11					
		20					
		30					
		45		10			
		5					
		7					
		25					
		50					
		17					
40	691.3	9					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 41.0
DATE STARTED: 05/21/98
DATE FINISHED: 05/21/98
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.07

GS ELEVATION (MSL): 731.3
TOP OF CASING (MSL): 733.39
WELL DEVELOPED: 05/21/98

DATE PRINTED: 06/25/1998

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-202

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
40		14 28					
							Boring terminated at 41.0 feet
45	688.3						
50	681.3						
55	676.3						
60	671.3						

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 41.0
DATE STARTED: 05/21/98
DATE FINISHED: 05/21/98
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.07

GS ELEVATION (MSL): 731.3
TOP OF CASING (MSL): 733.39
WELL DEVELOPED: 05/21/98

DATE PRINTED: 06/25/1998

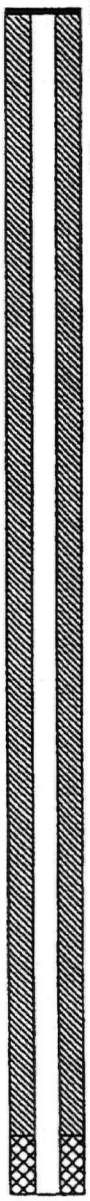
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-203

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (Ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
0							SILT AND CLAY; brown; dry (FILL)
							- concrete fragments
5	723.5						
		4					- no recovery; augered to 10.0 feet
		3					
		6					
		2					
10	718.5	5					- medium sand and gravel; brown; dry-moist
		7		14			
		12					
		10					
		7					- red brick and wood fragments mixed with black clay and medium sand; slight petroleum odor
		8		23			
		5					SAND; fine; light brown; moist
		8					
		7					
15	713.5	10		17			- medium sand and gravel; light brown; moist
		25					
		16					
		15					
		21		13			
		26					
		17					
		29					- course sand and gravel; brown; very moist
		20		14			
		28					
20	708.5	24					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 38.0
DATE STARTED: 05/21/98
DATE FINISHED: 05/21/98
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.07

GS ELEVATION (MSL): 728.5
TOP OF CASING (MSL): 730.33
WELL DEVELOPED: 05/21/98

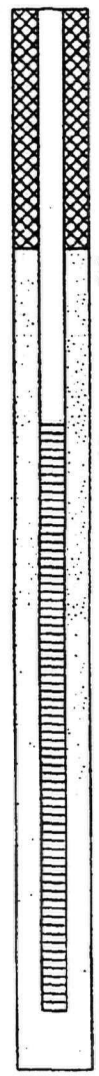
DATE PRINTED: 06/25/1998

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-203

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		20					- wet
		25		15			
		29					
		19					
		15					
		37		12			
		34					- clay lamanations; wet
		24					
		20					
		10		14			
25	703.5	40					- yellowish orange
		75					
		8					- course sand and gravel; tellowish orange; wet
		12		15			
		23					
		24					
		11					- medium sand; trace of gravel; yellowish orange
		11		18			- course sand and gravel; gray; wet
		10					
		12					
30	698.5	11					
		17		13			
		16					
		15					
		11					
		13		14			
		12					- black course sand and gravel; slight petroleum odor
		14					
		14					- medium sand and gravel; gray; wet
		13		17			
35	693.5	16					
		25					
		17					
		23					
		27					
		25					
40	688.5						Boring terminated at 38.0 feet

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *38.0*
DATE STARTED: *05/21/98*
DATE FINISHED: *05/21/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *728.5*
TOP OF CASING (MSL): *730.33*
WELL DEVELOPED: *05/21/98*

DATE PRINTED: *06/25/1998*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-204

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
0							- FINE SAND AND CLAY: brown; concrete fragments; dry (FILL)
5	715.8	1, 2, 2, 2, 4, 4, 3, 3, 3, 2		5			- sand; foundry; moist - fine grained; trace of foundry; little clay; brown; dry; stiff
10	710.8	3, 4, 4, 5, 5, 4, 4, 3		1, 18, 12, 24			- clay; brown; some fine sand; several cobbles; moist
15	705.8	5, 5, 5, 5, 4, 4, 5, 4, 5, 14, 13, 4		5, 17, 16			- coarse sand and clay - clay and fine sand - clay and black foundry sand; wet
20	700.8						

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 33.0
DATE STARTED: 05/19/98
DATE FINISHED: 05/19/98
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.07

GS ELEVATION (MSL): 720.8
TOP OF CASING (MSL): 722.89
WELL DEVELOPED: 05/19/98

DATE PRINTED: 06/25/1998

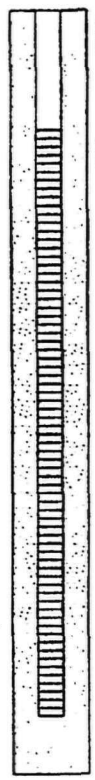
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-204

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		7					~~coarse sand and gravel; brown; little~~ clay; wet
		7					- little course foundry sand; odor
		5					
		4		4			- brown clay and fine sand
		4					
		3		21			
		3					- course sand and gravel
		4					CLAY AND SILT; brown; trace of gravel
		2					
		3		0			
25	695.8	1					
		1					
		2					
		1		1			
		1					
		3					SAND (course) AND GRAVEL
		2					
		7		23			
		23					
		33					
30	690.8	48					- gray silty clay; moist
		12					- course sand and gravel; gray; wet
		25					
		34					
		55					
		3					
							Boring terminated at 33.0 feet
35	685.8						
40	680.8						

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *33.0*
DATE STARTED: *05/19/98*
DATE FINISHED: *05/19/98*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.07*

GS ELEVATION (MSL): *720.8*
TOP OF CASING (MSL): *722.89*
WELL DEVELOPED: *05/19/98*

DATE PRINTED: *06/25/1998*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-206

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
0							CLAY AND SILT: brown, moist, some fine sand
		5		16			
		8					- some fine gravel; light brown; wet
5		18					
		25					
		7		20			- mottled brown gray; wet
		13					
		12					- grades coarse sand and gravel; light brown; wet
		15					
		16		22			SAND AND GRAVEL: coarse sand; light brown; wet
		12					
		10					
		10					
10		13		24			SAND: coarse; little silt; light brown; wet
		11					- grades to silt; light brown; changing to gray; very moist
		19					
		36					
		2		24			
		4					- medium grained; little silt and clay
		6					- grades to fine sand and silt; light brown; wet
		15					
		2		24			
		15					- medium sand; little silt; light brown to gray; wet
15		26					
		16					
		7		24			SAND AND SILT: fine grained sand; trace of clay; light gray; moist
		15					
		32					
		26					- light gray; wet
		7		20			
		15					
		19					
		27					
20							

LITHOLOGY

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *33.0*
DATE STARTED: *02/11/99*
DATE FINISHED: *02/11/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

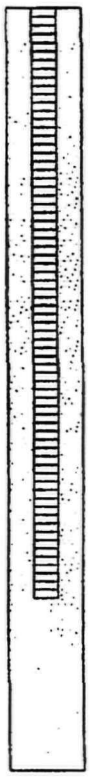
DATE PRINTED: *03/03/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-206

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		6		20			- light brown; moist
		12					- 3 inches of silt; light brown; moist
		24					- medium grained sand; light brown
		28					
		3		24			SAND; medium grained; grades to coarse, light brown; wet
		3					
		9					
		22					
		15		24			- fine and coarse sand; light brown; wet
		18					
25		28					
		26					
		15		24			
		26					
		36					
		34					
30							
35							
40							

Boring terminated at 33.0 feet

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *33.0*
DATE STARTED: *02/11/99*
DATE FINISHED: *02/11/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

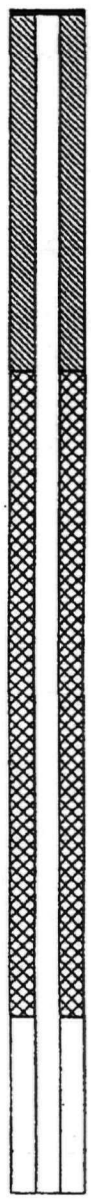
DATE PRINTED: *03/03/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-207

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
0							CLAY AND SILT: dark brown; moist
		7		8			SAND: coarse; some fine gravel; trace of silt; light brown; wet
		13					
5		13					
		21					
		20		11			SAND AND GRAVEL: coarse sand; light brown; trace of silt; wet
		20					
		50/3					
		8		24			- gray; moist to wet
		27					
		27					- grades yellow orange
		24					
10		10		24			SAND; medium; some silt; trace of fine gravel; light brown; wet
		15					
		11					
		15					- no samples taken from 12.0 - 18.0 feet
15							
		10		24			- coarse sand, little coarse gravel; light brown; wet
		14					
		18					
20		25					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *34.0*
DATE STARTED: *02/11/99*
DATE FINISHED: *02/11/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

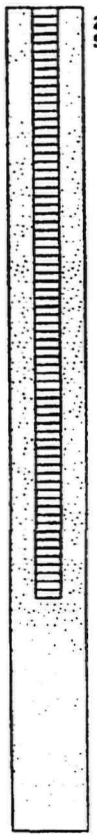
DATE PRINTED: *03/03/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-207

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20							~~no samples taken from 20.0 - 24.0~~ feet
		20 2 5 17		24			- medium sand; light brown; wet
25							
		10 6 7 17		24			- grading to coarse sand and fine grained gravel
30							
							Boring terminated at 34.0 feet
35							
40							

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *34.0*
DATE STARTED: *02/11/99*
DATE FINISHED: *02/11/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

The Payne Firm, Inc.
Environmental Consultant's
Cincinnati, Ohio

LOG OF BORING MW-208

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
0							SILTY SAND; red brick; some cobbles; moist (FILL)
5							
		4		14			- silt and sand; brown; glass fragments
		8					- grades to light brown; rock fragments; moist
		10					
		18					
		50/1		2			- brown
10							
		13		10			SAND; medium; little coarse gravel; light brown; moist
		27					
		27					
		35					
		10		13			SILT AND SAND; brown
		25					
		44					
		50					
		7		14			SAND (medium) AND GRAVEL (coarse); light brown; moist
		25					
15		45					
		50/5					
		22		14			
		32					
		50/5					
		25		20			
		30					
		34					
20		33					

LITHOLOGY

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *43.0*
DATE STARTED: *02/09/99*
DATE FINISHED: *02/09/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

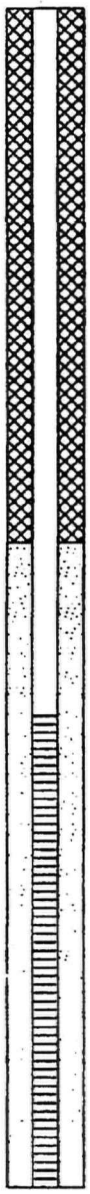
DATE PRINTED: *03/04/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-208

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
20		11		17			
		19					
		16					- coarse sand; light brown; wet
		25					
		24		12			
		26					
		50/4					
		8		13			- medium sand and fine gravel; light brown; wet
		7					
25		5					
		6					
		6		24			- grades fine sand; light brown; wet
		6					
		10					
		12					
		16		24			SAND; fine grained; little silt; light brown; wet
		14					
		17					
		18					
30		6		24			
		20					
		19					
		18					
		12		24			- trace of coarse gravel and silt; wet
		16					
		23					
		19					
		7		24			
		40					
35		50/5					
		5		24			- trace of silt
		20					
		30					
		32					
		5		24			
		27					
		50/5					SAND (coarse) AND GRAVEL (fine); gray; wet
40		33					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *43.0*
DATE STARTED: *02/09/99*
DATE FINISHED: *02/09/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

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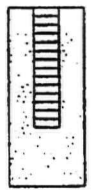
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-208

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
40		50/3		24			SAND: fine grained: light brown.
							Boring terminated at 43.0 feet
45							
50							
55							
60							

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *43.0*
DATE STARTED: *02/09/99*
DATE FINISHED: *02/09/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

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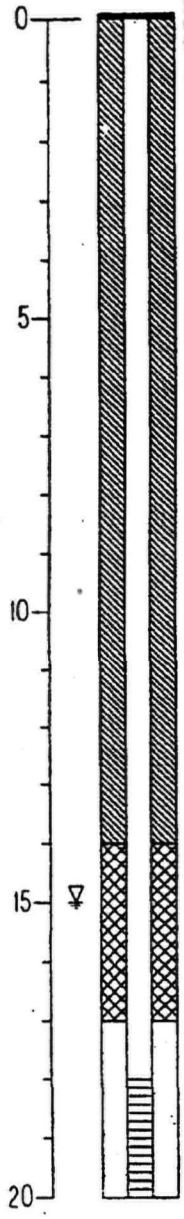
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-209

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
0							CLAY AND SILT: brown; very moist
		15		13			- sand (fine) and silt; some clay; trace of rock and red brick fragments; brown; moist
		4					
5		6					
		13					
		7		12			- grades to brown clay; rock fragments; moist
		6					
		7					
		8					
		4		14			- silty sand; some fine gravel; trace of red brick fragments; brown; moist
		2					
		2					
		4					
10		7		12			- silty sand, red brick and black asphalt; moist
		30					
		9					
		14					
		3		0			NO RECOVERY
		3					
		7					
		7					
		1		24			SAND (FINE) AND SILT; trace of clay; gray
15		2					- wet
		2					
		1					
		7		13			SAND (coarse) AND GRAVEL; gray; wet
		12					
		17					
		30					
		50/5/2		6			
20							

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *26.0*
DATE STARTED: *02/15/99*
DATE FINISHED: *02/15/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

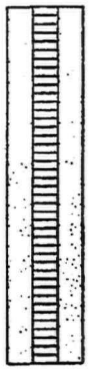
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-209

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		50/2		5			
		7		20			- light gray - some silt
		6					
		12					
		27					
		17		24			- light gray; wet
		15					
25		24					
		24					

Boring terminated at 26.0 feet

30

35

40

LITHOLOGY

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *26.0*
DATE STARTED: *02/15/99*
DATE FINISHED: *02/15/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

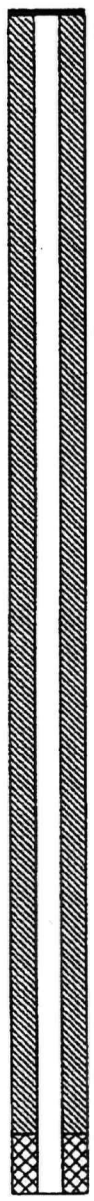
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-210

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
0							FILL MATERIAL
5							
		2		1			- sand and gravel; brown; dry
		3					- gray clay on tip
		3					
		7					
		3		8			- black slag; dry
		10					CLAY AND SAND: dark brown
		19					
		25					
10		5		10			SAND AND GRAVEL: brown; rock fragments
		15					
		13					
		7					
		9		15			
		23					
		19					
		19					
		23		16			
		21					
15		20					- light brown; rock fragments; dry
		15					
		12		14			
		17					
		12					
		11					
		11					NO RECOVERY
		30					
		35					
20		35					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *36.5*
DATE STARTED: *02/08/99*
DATE FINISHED: *02/08/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

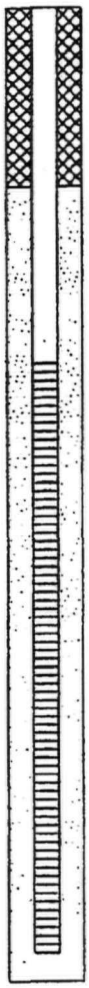
GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-210
COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
20		13		10			SAND (coarse) AND GRAVEL; grading to a medium to fine sand; brown; wet
		14					
		10					
		10					
		11		17			SAND; medium; brown; grades to coarse sand and gravel; wet
		18					
		37					
		28					
		15		18			SAND (coarse) AND GRAVEL; brown; wet
		10					
25		12					
		9					
		13		20			SAND; medium; some fine gravel; brown; wet
		14					
		17					
		9					
		12		12			
		50/1					
30		17		24			- rock fragments at bottom of spoon
		35					
		25					
		22					
		17		20			- fine sand; brown; grades coarse sand and gravel
		35					
		24					- medium sand; gray; some clay; wet
		24					
		22		18			- medium sand; brown; wet
		15					
35		35					TILL; gray; moist
		25					
		20					
40							Boring terminated at 36.5 feet

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *36.5*
DATE STARTED: *02/08/99*
DATE FINISHED: *02/08/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

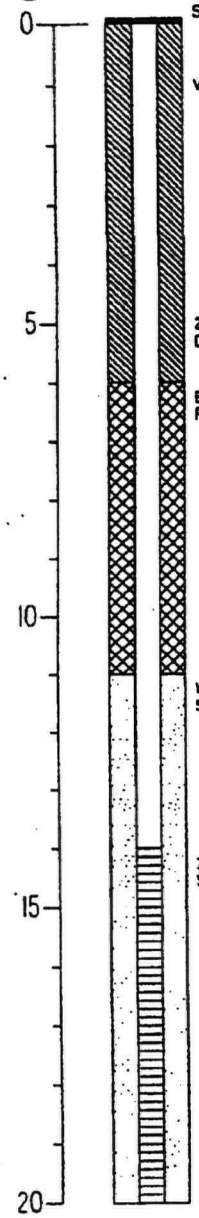
DATE PRINTED: *03/03/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING P-211

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
0							CLAY AND SILT: black; some gravel; moist (FILL)
		20		6			- black cinder, recd brick and fine gravel
		12					
5		16					
		13					
		5		2.			CLAY AND SILT: light brown; wet
		2					- fine gravel; black
		2					
		2					
		1		8			- dark gray; roots; wet
		2					
		2					
		10					
10		5		10			SAND; some clay and fine gravel; dark gray; wet
		17					
		7					
		8					
		3		1			SAND (fine) AND SILT; dark gray; wet
		2					
		3					
		4					
		2		2			
		1					
15		2					
		8					
		5		12			- trace of fine gravel; light gray; wet
		7					
		10					
		13					
		14		18			SAND; fine; light gray; wet
		13					- grades to silt; trace of clay and fine gravel; moist
		17					
20		24					

LITHOLOGY

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *24.0*
DATE STARTED: *02/12/99*
DATE FINISHED: *02/12/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/03/1999*

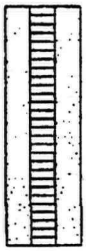
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING P-211

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
20		18					SILT; trace of clay and fine gravel; light gray; moist
		28					
		24					
		40					
		18					SAND; fine; trace of silt and clay; light gray; wet (TILL)
		50/5					
							Boring terminated at 24.0 feet
25							
30							
35							
40							

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): 24.0
DATE STARTED: 02/12/99
DATE FINISHED: 02/12/99
GEOLOGIST: Mark E. Berkich
PROJECT NO: 0279.44.05

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: 03/03/1999

The Payne Firm, Inc.
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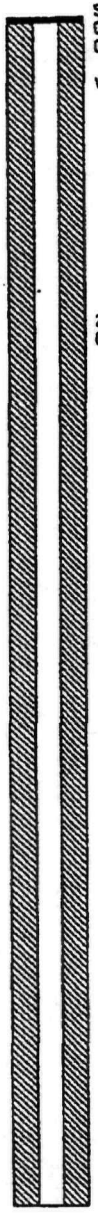
Cincinnati, Ohio

LOG OF BORING MW-212

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
0							FILL MATERIAL
5							
		16		18			- silt and sand (fine); rock and wood fragments; black; moist
		7					
		11					
		10					
10		11		5			- black silt and brown fine sand; very moist
		9					
		4					
		1					
		1/24		10			- foundary sand; black; very moist
		50/5		12			- red brick fragments; very moist
15							
		11		4			- asphalt, wood fragments and red brick, moist
		10					
		7					
		6					
		16		9			- medium sand, gravel and wood fragments; black; wet
		12					
		6					
20		7					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *58.0*
DATE STARTED: *02/06/99*
DATE FINISHED: *02/06/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

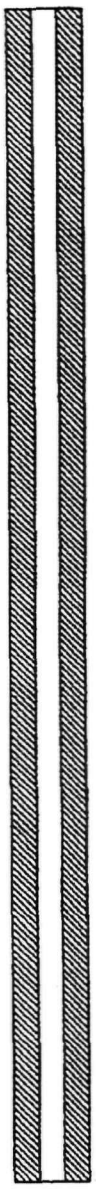
DATE PRINTED: *03/04/1999*

The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-212

COOLIDGE, WALL, WOMSLEY & LOMBARD
Grillot/Moraine, Ohio

WELL DIAGRAM



DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	LITHOLOGY DESCRIPTION
20		16		5			- medium sand and coarse gravel; cobbles and wood fragments; black; wet
		12					
		6					
		7					
		36		20			- coarse sand and gravel; foundary sand and wood fragments; wet
		50/5					- white/gray; chalk/paste; moist
		19		24			- coarse sand; some gravel; black wet
		13					
25		19					
		22					
		6		24			- white/gray chalk; moist
		13					
		14					
		24					
		8		24			- wet
		9					
		7					
		6					
30		19					
		24					
		38					
35		12		18			TILL; moist
		25					
		26					
		31					
		18		20			
		22					
		25					
40		30					

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *58.0*
DATE STARTED: *02/06/99*
DATE FINISHED: *02/06/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

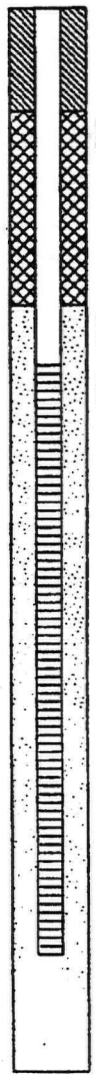
The Payne Firm, Inc.
Environmental Consultants
Cincinnati, Ohio

LOG OF BORING MW-212

COOLIDGE, WALL, WOMSLEY & LOMBARD

Grillot/Moraine, Ohio

WELL DIAGRAM



LITHOLOGY

DEPTH (ft.)	ELEVATION	BLOWS/6 in.	HSO (ppm)	RECOVERY (in.)	SAMPLES	GRAPHIC LOG	DESCRIPTION
40		8		18			
		22					
		28					
		28					
		11		4			- wet
		34					
		50/4					
		2		17			- fine sand; light gray; wet
		2					
45		4					
		7					
		13		23			- sand; coarse grades fine; light gray; wet
		22					
		21					
		21					
		12		24			
		40					
		50/4					
50		27					
		50/5					
							No sample
		50		24			TILL: moist
		50/4					
55							
							Boring terminated at 58.0 feet
60							

▽ - initial ground-water level
▼ - stabilized ground-water level

TOTAL DEPTH (Ft.): *58.0*
DATE STARTED: *02/06/99*
DATE FINISHED: *02/06/99*
GEOLOGIST: *Mark E. Berkich*
PROJECT NO: *0279.44.05*

GS ELEVATION (MSL):
TOP OF CASING (MSL):
WELL DEVELOPED:

DATE PRINTED: *03/04/1999*

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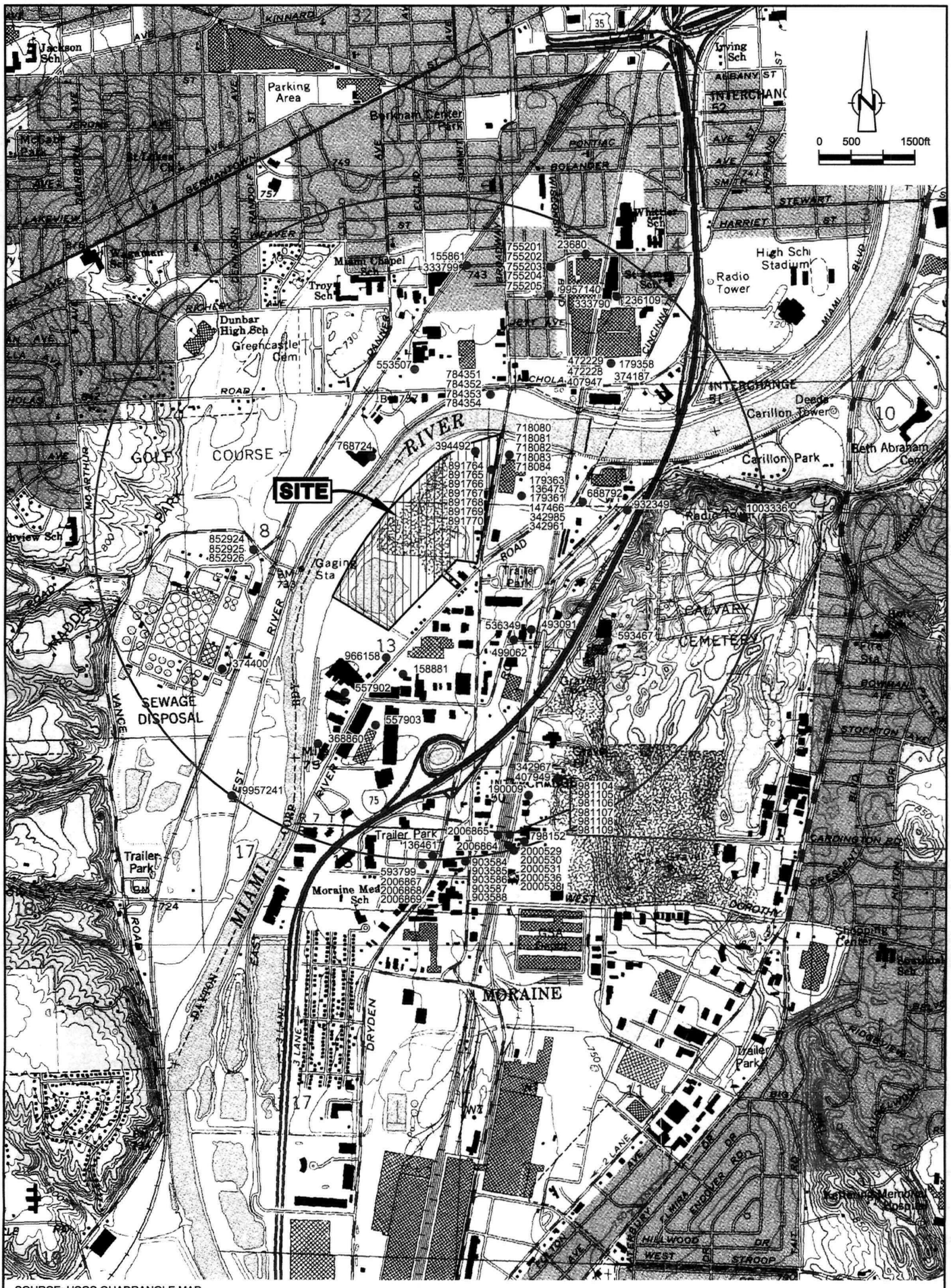
Environmental Consultants
Cincinnati, Ohio

APPENDIX C

POTENTIOMETRIC CONTOURS



SOURCE: USGS QUADRANGLE MAP
DAYTON SOUTH, OHIO

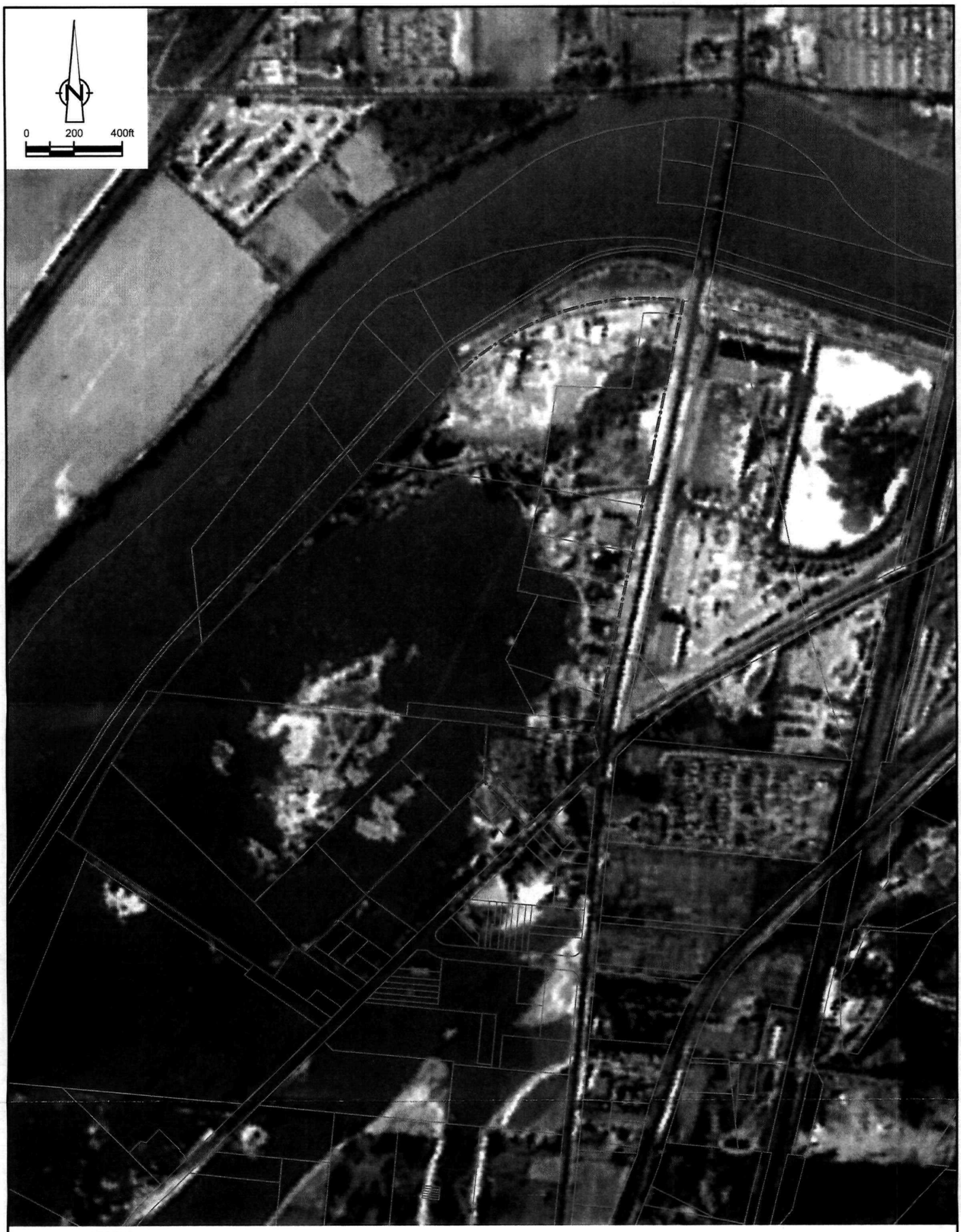
LEGEND
1 MILE RADIUS
PUBLIC SUPPLY WELL

figure C-1
WATER WELL LOCATION MAP
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(004)GN-WA051 JAN 03/2007

APPENDIX D

HISTORICAL AERIAL PHOTOS



LEGEND

SITE BOUNDARY (SOW 2006)

PARCEL BOUNDARY

SOURCE:
MIAMI CONSERVANCY DISTRICT

figure D-5

1959 AERIAL PHOTOGRAPH
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

38443-00(004)GN-WA050 JAN 03/2007

LEGEND

SITE BOUNDARY (SOW 2006)

PARCEL BOUNDARY

figure D-9

APRIL 1973 AERIAL PHOTOGRAPH
SOUTH DAYTON DUMP AND LANDFILL SITE
Moraine, Ohio

SOURCE:
OHIO DEPARTMENT OF TRANSPORTATION

38443-00(004)GN-WA032 JAN 03/2007

7224.0

OHIO DEPT. OF TRANSPORTATION
OFFICE OF AERIAL ENGINEERING

1602 WEST BROAD STREET
COLUMBUS, OHIO 43223
PH: (614) 275-1359 FAX: (614) 275-1673

TO: KAREN CIBULSKIS		FAX:	312/886-4071
COMPANY: US EPA		PROJ/PO#	

SITE: DAYTON - DAYTON DUMP SITE

AERIAL PHOTOGRAPHY RESEARCH LOG

DATE OF PHOTOGRAPH	FLIGHT	STRIP	NEGATIVE	SCALE FEET/INCH (MOT. CO.)	ROLL
8/98	10211	13	263	800	
4/88	NAPP	33	108	3333	250
5/84	HAP83	130	167	6667	188
11/79	VERQ	3	113	6667	179
* 4/14/73	5234	10	658	1000	1442
4/71	4839	7	154	1000	
3/68	3854	12	593	1000	
11/59	1355	16	573	800	
8/57	951	1	15	800	
3/56	660	1	26	800	

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PAGE 1 OF 1

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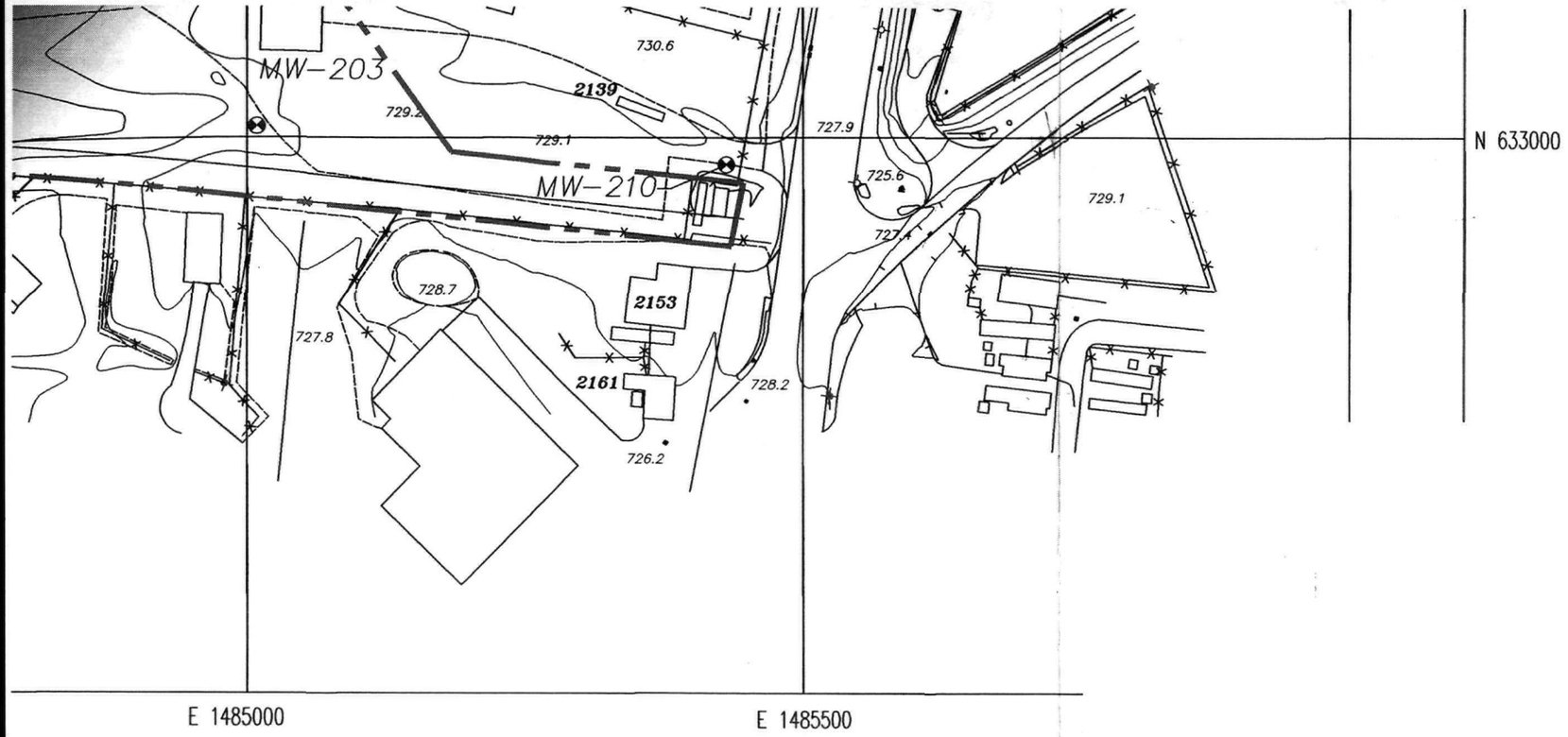
ATTACHMENT 3

PAYNE FIRM SURVEY



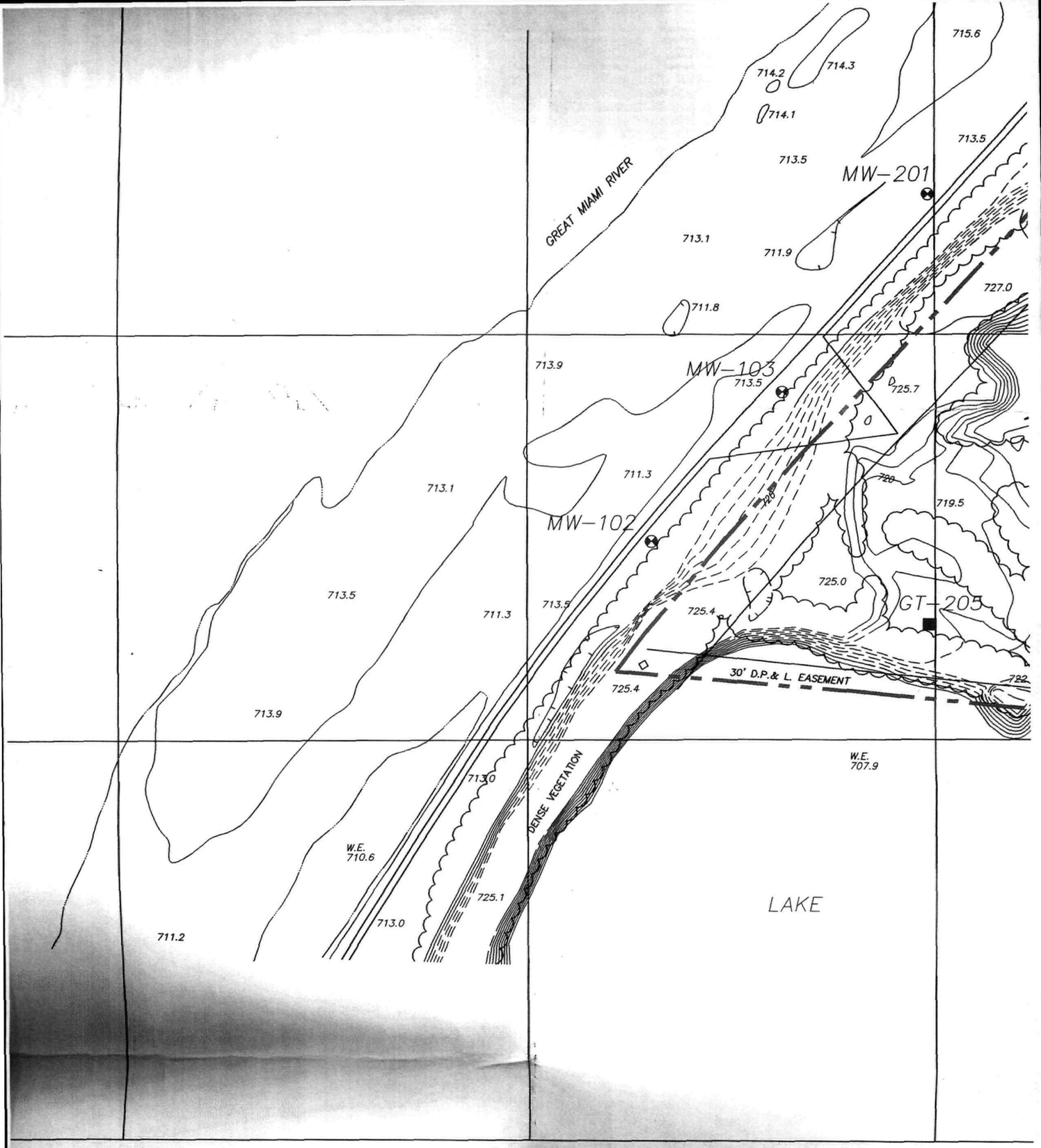
APPROXIMATE SCALE: 1 INCH = 120 FEET

TITLE	SOUTH DAYTON LANDFILL SITE MAP AND PROPERTY BOUNDARY		
DATE	07/26/02	FIGURE	1
DRAWN BY	MRD	APPROVED BY	DDW
CLIENT	COOLIDGE, WALL, WOMSLEY & LOMBARD		
PROJECT NO.	0279.44.05		

The Payne Firm, Inc.

Environmental Consultants
Cincinnati, Ohio 45242

APPROXIMATE



Property Boundary & Easement overlay
from plot plan Feburary 20, 1998
by NORFLEET, BROWN & PETKEWICZ
228 Byers Road
Miamisburg, Ohio 45342

ATTACHMENT 4

UNITED STATES GEOLOGICAL SURVEY
STREAM GAUGING DATA
DAYTON
1959
1973
1997-2007

ATTACHMENT 5

DAYTON RECYCLING UNDERGROUND STORAGE TANK REMOVAL REPORT

ATTACHMENT 6

CUSTOM DELIVERIES UNDERGROUND STORAGE TANK REMOVAL REPORT