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RCRA ENVIRONMENTAL INDICATOR CA750 REPORT
DETERMINATION OF CURRENT OF RELEASES TO GROUNDWATER CONTROLLED
GM LINDEN FACILITY
LINDEN, NEW JERSEY
US EPA ID #NJD002186690
NJDEP CASE NO. 95-01-25-1618-35

Draft

by

Haley & Aldrich, Inc.
Cleveland, Ohio

for

ENCORE
Pontiac, Michigan

File No. 28499-308
August 11, 2005

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1. INTRODUCTION

1.1 Background and Purpose

This Resource Conservation and Recovery Act (RCRA) Environmental Indicator (El) CA750 Report, Determination of Current Groundwater Releases Controlled was prepared as part of the RCRA corrective action that General Motors Corporation (GM) is conducting at the Linden Assembly Plant located at 1016 West Edgar Road in Linden, New Jersey (hereafter referred to as the "Facility") (Figure 1) under the oversight of Region 2 of the U.S. Environmental Protection Agency (USEPA). The Facility's identification number is NJD 002 186 690. The voluntary RCRA corrective action also addresses provisions in a Memorandum of Agreement between GM and the New Jersey Department of Environmental Protection (NJDEP) dated February 27, 1995 (Case No. 95-01-25-1618-35).

As part of the voluntary RCRA corrective action, GM committed to USEPA and NJDEP to complete the EI determinations for current human exposures under control (CA725) and migration of contaminated groundwater under control (CA750) by September 2004 and September 2005, respectively. USEPA, NJDEP, and GM have had regular project status meetings since then. GM submitted a CA725 Report (ENVIRON 2004) in September 2004 to USEPA and NJDEP that demonstrated current human exposures are under control at the Facility.

In the RCRA Facility Investigation (RFI)/Remedial Investigation (RI) completed to date, GM has performed activities to characterize the nature and extent of releases of hazardous waste and/or hazardous constituents at the Facility. These activities included preparation of a Current Conditions Report (ENCORE 2002) that identified 24 areas of interest (AOIs) at the Facility, and described the physical conditions, historical operations, and any previous investigation or remedial action at each AOI. The AOIs included all the solid waste management units (SWMUs) and areas of concern (AOCs) identified in USEPA's 1993 "Preliminary Assessment/Visual Site Inspection" report (USEPA 1993) and other areas at the Facility for which GM has knowledge of past management of hazardous waste or hazardous constituents. The Current Conditions Report evaluated each AOI and identified those where additional investigation was warranted. Rationale for not further investigating other AOIs was also provided in the Current Conditions Report.

Based on the information in the Current Conditions Report, GM identified 14 of the 24 AOIs for further investigation, and prepared RFI/RI Work Plan (H&A 2002) and addenda (i.e., sampling matrices) that described the objectives, approach, rationale, and procedures for these investigations. During the RFI/RI field investigations, five additional areas were identified for investigation, which brought the number of areas for field investigation to a total of 19 as discussed in Section 2.02 of the RFI/RI Report (H&A 2004). The objective of the RFI/RI field investigations was to collect data for determining whether a significant release of hazardous constituents had occurred at each area, and to characterize the extent of any release for determining whether the release poses unacceptable risk under current and reasonably expected future land use, or has adversely affected groundwater quality. The boundaries of the areas investigated during the RFI/RI is shown on Figure 2.

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The RFI/RI Work Plan and addenda were submitted to and reviewed with USEPA and NJDEP prior to their implementation. The field investigations were conducted in accordance with these work plans and addenda, except where field conditions necessitated changes as discussed in the RFI/RI Report. The data collected during the RFI/RI and the details of the data collection activities are provided in the RFI/RI Report.

The purpose of this El Report is to summarize information from the RFI/RI Report and more recent investigation results that specifically relate to the RCRA Corrective Action CA750 determination of whether migration of contaminated groundwater is under control at the Facility.

1.2 Report Organization

The remainder of this report is organized as follows:

- Section 2 summarizes the environmental setting
- Section 3 summarizes data evaluated in the RFI/RI Report and collected in subsequent investigations that pertain to the CA750 determination. The summary is organized to follow USEPA's CA750 form (Interim Final 2/5/99).
- Section 4 lists the references cited in this report.
- Tables and figures are found at the end of the text.
- A completed CA750 form that is based on this summary is provided in Appendix A of this report.

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2. ENVIRONMENTAL SETTING

2.1 Location and Physiography

The Facility location is depicted on Figure 1. True north (TN) is north as presented on the United States Geological Survey maps depicting the Facility and its surrounds. Plant north (PN) is the direction historically used by the Facility to depict "north" at the Facility with respect to the building layout, which varies by approximately 56 degrees. All directions referenced in this report refer to plant north and are followed by (PN), unless noted by (TN).

The Facility is located on approximately 94 acres of land in an area of mixed industrial/manufacturing and commercial facilities. Small areas of residential development lie to the north(PN), east(PN), and south(PN) of the Facility. The Facility is located along Routes 1 and 9 in Linden, Union County, New Jersey, in the northwestern(TN) and northeastern(TN) portions of the 7.5 minute Perth Amboy, New Jersey and Arthur Kill, New York topographic quadrangles, respectively (Figure 1).

The plant currently consists of one large assembly building, an attached administration building, several significantly smaller buildings, and the wastewater treatment plant (WWTP). The main assembly building occupies approximately 37.5 acres. Current and historic waste management facilities are located around the exterior of the main manufacturing building.

The topography of the Facility is generally flat, with a slight slope to the southeast(TN) towards the Rahway River and Arthur Kill. The area surrounding the Facility is generally developed, flat-lying and is located in an area of industrial and commercial properties. The Facility lies at approximately 25 feet above mean sea level.

Union County lies within the Piedmont Plateau, which is one of the eight major physiographic regions of the United States. There are two major features of the Piedmont Plateau within Union County which are: 1) the Watchung Mountains, which rise to an elevation of approximately 550 feet and run parallel to the northwestern(TN) boundary of Union County; and 2) a gently rolling plain that slopes from approximately 100 to 150 feet at the eastern(TN) side of the Watchung Mountains to sea level at the Arthur Kill (Nemickas, 1976).

The Watchung Mountains extend from Passaic County, through Essex and Union Counties and terminate in Somerset County. The ridges are underlain by thick sheets of basaltic flows and interbedded with the shale and sandstones of the Newark Group. The ridges generally trend northeast-southwest(TN) and have steep rock escarpments on the eastern(TN) side and gentle slopes on the west(TN).

The rolling plain is broken up by two topographic features. On the western(TN) edge of the plain, a broad, irregular ridge rising to a maximum elevation of 200 feet is an end moraine of the Wisconsin Glaciation. This ridge trends north-south(TN) from Summit southward(TN) toward Fanwood, just east(TN) of Plainfield. A second end moraine forms a low ridge trending east-west(TN) in the area of Hillside and Union Townships and Kenilworth Borough.

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Union County lies within five major drainage basins. The Passaic River and Green Brook (which is part of the Raritan River drainage basin) drain the western(TN) part of the county. The central part of the county primarily lies within the Rahway River drainage basin. The Elizabeth River and Arthur Kill drain the eastern(TN) part of the county.

2.2 Climate

The climate of Union County is humid and temperate with the coastal area somewhat influenced by the tempering effects of the ocean. Union County has no other major physiographic features that influence climate. The temperature ranges from approximately 10^0 F (winter) to approximately 95^0 F (summer) with rainfall rather evenly distributed throughout the year at an average of 47 to 54 inches/year. The average first and last frosts occur on or about September 25 and May 17, respectively.

2.3 Land Use and Demographic Data

2.3.1 Population

The Facility is situated within Union County, New Jersey, a highly developed area with residential areas, and industrial and commercial facilities. Approximately 1300 people worked at the Facility until mid-April 2005, when GM ended production at the faciltiy.

The 2000 census indicated the following:

- The population of Linden, New Jersey is 39,394 up from 36,701 (1990)
- The number of housing units in Linden is 15,567 up from 14,369 (1990)
- The population of Rahway, immediately south(TN) of the Facility, is 26,500 up from 25,325 (1990)
- The number of housing units in Rahway is 10,381 up from 9,623 (1990)

2.3.2 Surrounding Land Use

2.3.2.1 Existing Land Use

The GM Linden Facility is situated within a commercial and industrial area of Linden, with some residential development immediately adjacent to the Facility to the south(TN). The Rahway River is located approximately 1-mile to the south(TN) of the Facility. Two smaller water bodies are within a ½-mile radius (northeast (TN)) of the Facility.

Surrounding land use includes:

- West Edgar Road (U.S. Route 1 and 9) and Linden Airport are located to the east(TN). Adjacent to Linden Airport to the south(TN) is Safety Kleen, a facility that recovers spent organic solvents, and other industrial facilities;

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- A commercial area and Stiles Street are located to the northeast(TN);
- Linden Avenue and railroad tracks are located to the northwest(TN) with mixed commercial and industrial activity located northwest(TN) of the tracks;
- A cogeneration facility is located to the southwest(TN);
- A small residential neighborhood is located south-southeast(TN) of Pleasant Street; and
- GM parking lots are located to the south-southwest(TN). Adjacent to the parking lots and the Pleasant Street neighborhood, is the Merck Corporation, a pharmaceutical manufacturing company.

According to information in the NJDEP files, both Merck Corporation (identified as Site No. NJD 002182897) and Safety Kleen (identified as Site No. NJD 002186690) have impacted groundwater. These sites are currently being investigated and remediated under NJDEP oversight. In addition to these sites, there are approximately 15 additional sites on the NJDEP Known Contaminated Site List within ¼-mile radius of the Facility.

The current activities of the Facility and as noted above are consistent with the current zoning for Linden, New Jersey.

2.3.2.2 Future Land Use

The Facility is currently zoned as Heavy Industrial and was most recently used for vehicle manufacturing. Surrounding areas are zoned for commercial/industrial or residential use. The nearest residential land is immediately south(TN) of GM owned property currently used as a parking lot. No hospitals are located within 1/2 mile of the Facility.

A review of the City of Linden's Master Plan (2000) indicates the GM Facility will remain zoned as a mixture of LI and HI (Light and Heavy Industrial). Land use in the immediate vicinity of the Facility is also expected to stay as currently zoned. At this time the City does not recognize nor indicate that there will be any future change in use in this area.

2.4 Surface Water Hydrology

The predominant drainage systems in the vicinity of the Facility are the Rahway River and the Arthur Kill. The Rahway River discharges into the Arthur Kill approximately four miles to the southeast(TN) of the Facility. Local drainage occurs in small creeks and brooks that drain into the Rahway River or directly into the Arthur Kill. The Rahway River is located approximately one mile to the south(TN) of the Facility.

Two local drainage ways are present near the Facility; Kings Creek which is located approximately 1/8-mile to the southwest(TN) of the Facility and West Brook (aka Morses Creek) which is located approximately ¼-mile to the northeast(TN) of the Facility. Kings Creek drains into the Rahway River. Morses Creek, which receives storm water runoff from

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the Facility via storm sewers, discharges into two small man-made reservoirs on a refinery site to the northeast(TN) of the Facility. According to the USGS 7.5-minute quadrangles, these reservoirs discharge directly into the Arthur Kill. Nearby surface water bodies are depicted on Figure 3.

These drainages connect to the Atlantic Ocean through the Newark Bay. A connection does not exist between these drainages and the surface water bodies used by New Jersey American Water as a potable supply, which includes the Canoe Brook Reservoir, the Wanaque Reservoir and the Passaic River, all located north(TN) of the Facility.

2.5 Soils

The soils underlying the GM Linden Facility and the rest of Union County are composed primarily of unconsolidated sediments deposited by glaciers or glacial meltwater of the Pleistocene Epoch (Nemickas, 1976). The deposits consist of clay, silt, sand, gravel and boulders and are glacial, glaciolacutsrine (deposited by glacial meltwater in lakes) and glacial fluvial (deposited by glacial meltwater in streams) in origin.

There are three general classes that the Pleistocene deposits fall into. These classes are: 1) end moraine which consist of the moraine at the end of a glacier at its farthest advance; 2) ground moraine which consists of material carried forward and beneath the glacier; and 3) stratified drift which consists of deposits from meltwater. Based on the geologic map provided by Nemickas in 1976, the deposits beneath the Facility consist of ground moraine.

Prior to the last glaciation, the rivers draining Union County cut deep valleys into the Brunswick Formation. The valleys were subsequently filled with glacial material consisting of unstratified and stratified clay, silt, sand and gravel. The depths of these valleys range from 75 to 110 feet. These valleys are located in the northern(TN) portions of Union County and have not been encountered on the Facility property.

Site-wide, the surficial soils at the Facility are classified by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) as Urban Land (UL). The soils associated with Urban Land are characteristic of areas that have been paved or built upon, and typically consist of clays, silts and unconsolidated materials (sand and gravel) to a depth of 60 inches. The soils of these areas have been reworked to such an extent that the original soil profile cannot be recognized. In addition, the surface is level to nearly level, and permeability is generally poor. Included in this mapping area are loamy and small areas of undisturbed soils composing approximately 10 percent of the total map unit. (United States Department of Agriculture Natural Resources Conservation Service, 1992).

Soil boring performed during the RFI/RI have indicated that the surface soils are comprised of brown silts, red-brown clayey silts, and well-graded sands with silt and gravel. A sand, silt, clay to gravely clay layer with a thickness of up to 20 feet, is noted to underlie the surficial soils beneath the Facility.

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2.6 Regional Geologic Setting

The City of Linden is located within the Newark Basin, which is one of a series of step-faulted half-graben basins which extend linearly from Newfoundland to South Carolina and Georgia. The Newark Basin, contained within the Piedmont Physiographic Province, is dominated by Upper Triassic to Lower Jurassic non-marine sedimentary stream and lake deposits interbedded with quartz normative, olivine-poor tholeitic basaltic lava flows and intruded by diabasic sills and dikes. The beds in the basins generally strike northeast(TN) to southwest(TN) and dip between 5 degrees and 15 degrees northwest(TN) (Olsen, 1996).

The bedrock underlying the Facility is of the Triassic-aged Passaic Formation (formerly designated as the lower part of the Brunswick formation) which consists of a series of alternating beds of sandstone, siltstone, and shale interbedded with a conglomeratic faces along the basins faulted northeast(TN) border. The Passaic Formation is the thickest and most widespread formation in the Basin section with thicknesses averaging 2,700 meters and measuring upwards of 3,500 meters in the Jacksonwald syncline (Olsen, 1996).

Upward vertical trends within the Passaic Formation indicate a decrease followed by an increase in grain size of the sediments making up the formation. Also, an upward change from a massive mudstone to a mudstone interbedded with siltstone and sandstone bands has been observed in cores obtained from the formation. Throughout the region, sediments of the Newark Basin were subsequently overlain by a mantle of Jurassic to Holocene consolidated and unconsolidated sands, gravels, silts, and clays.

2.7 Local Geology and Hydrogeology

2.7.1 Merck Summary

Immediately plant west, adjacent to the Facility, is the Merck Corporation Rahway Site. Numerous subsurface investigations have been performed at the Merck facility since July 1990 to the present, which provide a substantial background resource for the local geology and hydrogeology. In March 2005, Merck issued to the NJDEP and the USEPA their "Hydrogeologic Summary Report, Rahway Site", in which they describe their interpretation of the geology and hydrogeology at the Rahway Site. The following details Merck's findings:

2.7.1.1 Geology

Based on a review of published investigation reports, Merck has gathered information from approximately 90 monitoring well borings (ranging in depth from 15 to 520 feet bgs) and 50 Geoprobe borings to assist them in their interpretation of the subsurface conditions at the site since 1990. Merck's investigation has identified that the geology at the Merck facility consists of overburden (clay, silt, sand and construction debris) underlain by approximately 5 feet of weathered bedrock and then competent bedrock. Bedrock at the Rahway site consists of thinly bedded siltstones and mudstones of the Passaic Formation which are cut by fractures that are aligned along the bedding planes. In addition, the bedrock is cut by steeply dipping fractures that dip at angles ranging from 45 to 87 degrees.

The strike and dip of the bedrock at the Rahway site has been calculated using correlations from geophysical logs and distinctive stratigraphic units to be N42E$^{(TN)}$, 10NW. The stratigraphic unit within the Passaic Formation that was used in the calculation consists of a thin, maroon, mudstone that is usually less than 5 feet thick and contains gypsum up to 2 inches thick. Until recently, this depth of this unit has been accurately predicted based on the strike and dip. More recent investigations by Merck have identified a potential inconsistency in the dip and/or strike of the unit (Merck communications July 2005).

2.7.1.2 Hydrogeology

The hydrogeology underlying the Rahway site has been separated into both overburden and bedrock zones. The overburden consists of a shallow (A) zone and a deeper (B) zone. According to Merck, the 'A' zone appears to be perched on the glacial drift and is not continuous throughout the site. Monitoring wells in the 'B' zone are sited on top of the bedrock, within gravel, sand, sandy silt and silt lenses. Based on drilling activities, contaminants from the Merck Facility have migrated from the 'A' to the 'B' zones at the site, which indicates connectivity between the two zones. A groundwater divide has been observed running north-south through the Rahway site, resulting in overburden groundwater flow toward both the southeast and southwest, with some localized flow toward Kings Creek in the north/northeast. The overburden zones discharge into the bedrock at or near subcrops of the aquifer units. A third hydrogeologic zone was identified as Zone 'C', consisting of the upper bedrock, from approximately 20 to 40 feet below the top of bedrock.

Groundwater flow within the Passaic Formation bedrock is fracture controlled (Michalski, 1990, Houghton and Flynn, 1988), with groundwater movement within the bedding plane fractures and the remainder of the bedrock acting as an aquitard. However, vertical fractures within the bedrock act as vertical conduits for groundwater flow. Merck has identified four Aquifer Units (AUI, AUII, AUIII and AUIV) beneath the Rahway site, which are considered to represent bedding plane fractures. These units were interpreted through the use of coring logs, downhole geophysical logging, open-hole saline tracer testing, discrete interval packer testing and aquifer pump testing (performed in 1999, 2000 and 2004).

Regionally, groundwater in the bedrock flows along strike from the southwest and the northeast toward the Rahway River, then ultimately eastward toward the Arthur Kill and the Atlantic Ocean. Immediately beneath the Rahway River, groundwater flows up-dip then upwards through vertical fractures toward the shallower bedrock units and finally, into the alluvium surrounding the river. Merck has observed a sloping of the bedrock surface toward a depression beneath the Rahway River, which they have called the Rahway River paleovalley. This paleovalley is a zone of weakness within the bedrock, resulting in a higher permeability than the surrounding bedrock (Merck, 1999a).

In addition, the Merck groundwater conceptual model also indicates that below 300 to 500 feet bgs, there is a diminishing of active groundwater flow. This diminishing has been documented through reduced groundwater yields in packer tests.

2.7.1.3 Groundwater Recharge
Groundwater recharge at the Rahway site is primarily zero, due to the site being paved. Regionally, infiltration varies from 0 to 20 inches per year. Southwest of the Rahway River, recharge is approximately 6 times greater than the northeast side of the river, with nearly 85% of the groundwater discharge originating from the southwest side. Groundwater modeling indicates that 80% of the baseflow originates from the southwestern side of the river (Merck, 2005).

2.7.2 Overburden

The overburden at the Facility consists of fill, glacial till, and weathered siltstone.

2.7.2.1 Overburden Conditions Identified During RFI/RI Activities: Approximately 255 subsurface explorations have been completed at the Facility for the RFI/RI. The borings indicated a generally consistent stratigraphic profile in the overburden across the Facility; however the stratigraphic depths and unit thicknesses varied. Figure 4 shows the locations of the cross-sections on the base map and Figures 5 through 8 are the cross sections developed using stratigraphic information from soil borings and monitoring wells completed at the Facility. The stratigraphic profile from the ground surface downward generally consists of the following:

- **Fill** – The buildings at the Facility were constructed on formerly undeveloped property. Original topography (pre-development) and current topography indicated the Facility was generally covered with a few feet of fill on the eastern(PN) side, but was cut on the western(PN) side. Comparison of the two datums (main sea level at Sandy Hook; date not known and 1983 National Vertical Datum) is not possible; therefore, the cut and fill quantities cannot be determined.

  The fill material consisted of various components including reworked silt, sandy silt material, reworked organic materials, and possible coal and ash. A review of historic topographic maps, grading plans, aerial photographs, and construction photographs, indicated that the Facility was regraded prior to original development and additional fill placement occurred as building expansion occurred.

  Due to the potential presence of hazardous constituents in the fill material that are unrelated to Facility operations, the fill was further evaluated, as described in the RFI/RI Report (June, 2004).

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- **Glacial Till** – The next stratigraphic unit beneath the fill was observed to be a sandy to silty to clayey till commonly containing 5 to 20 percent pebbles, cobbles, and boulders consisting of gneiss, sandstone, basalts and granite. These deposits contain a few thin lenses of stratified gravel, sand and silt. Thickness of the till is generally 10 to 30 feet (USGS Map (2002)). At the Facility, this till is typically a medium-dense to dense red-brown silt. It contains some gravel, silty sand and poorly graded sand. This material becomes denser with depth before becoming completely weathered shale.

- **Weathered Siltstone** - The next stratigraphic unit encountered beneath the till is a weathered red siltstone. This top of rock zone was, where encountered, between approximately 21 feet to 33 feet below ground surface (bgs), with an average depth of approximately 25 feet. This zone, defined as rock having less than 30% RQD (rock quality designation), varies in thickness from approximately 1 foot to 30 feet in the exploratory holes, but is generally on the order of 20 feet thick. Figure 9 depicts the elevation of the top of weathered bedrock.

  In boring logs, the weathered bedrock is described as a highly to extremely fractured, medium hard, highly weathered red-brown shale with massive bedding and horizontal and vertical fractures throughout. In some cases, the upper portions of the weathered bedrock would have little to no recovery.

2.7.3 Bedrock

Information obtained during installation of the 44 weathered bedrock wells and 24 bedrock wells during the RFI/RI indicate weathered bedrock grades to competent bedrock, which consists of a red-brown, fine-grained siltstone (Passaic Formation) that occurs at depths ranging from 33 to 69 feet bgs. Figure 10 depicts the contours of the top of competent bedrock. Competent bedrock, for this investigation, has been defined as 30% or greater RQD. The depths at which the top of rock was encountered during the RFI/RI are slightly different from those encountered during investigation in the 1990s. Information obtained during the installation of four bedrock wells (BEC-1B through BEC-4B) at the Facility prior to the RFI/RI indicated that bedrock was encountered at depths ranging from 20 feet bgs to 30 feet bgs. This difference suggests the top of rock encountered in the wells drilled prior to RFI/RI investigation identified the top of the weathered bedrock rather than competent rock.

The interpreted bedding plane from bedrock well boring logs completed prior to and during the RFI/RI, and published literature indicate a strike of approximately N50°E$^{(TN)}$ and dip to the northwest$^{(TN)}$ ranging between 5° to 15° (Nemickas, 1976). During the RFI/RI field activities, geophysical logging was performed on bedrock monitoring wells BEC-1B, BEC-2B, BEC-4B, MW-16B, MW-17B and MW-18B at the Facility. The interpreted bedding plane of these wells ranged from N31°E to

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N65°E, with an average of N53°E(TN), . The dip of the bedrock was calculated to be approximately 12°NW. Further, correlation of bedding plane fractures through stratigraphic interpretation, packer pressure testing, and aquifer response measurements indicates and confirms the strike of N53°E(TN) and dip of 12°NW(TN). These values correspond with the values presented in the published literature for the region (Nemickas, 1976). In addition, a review of the interpreted strike and dip for the nearby GM Former Hyatt-Clark Site, confirms the local interpretation of strike and dip (R. Messenger personal communication, July 2005)

2.7.4 Hydrogeology

Groundwater at and in the vicinity of the Facility is present in three major intervals. These intervals are characterized as overburden (shallow and deep), weathered bedrock, and bedrock (semi-confined flow zones). The groundwater movement within these flow intervals is in response to hydraulic gradients, with flow from areas of higher to lower hydraulic head.

Based on the RFI/RI investigation and as reported by Merck and Safety Kleen, groundwater flow in the overburden and weathered bedrock is predominantly south(TN) towards the Rahway River. In addition, groundwater investigations at the Facility indicate that there is generally a downward gradient from the overburden to the weathered bedrock flow zones, with the exception of areas near site sewers which appear to exhibit an upward gradient due to the low water elevation in the sewers. There is also a downward gradient from the weathered bedrock to bedrock flow zones. The following details groundwater flow conditions in each of these intervals.

2.7.4.1 Overburden

Overburden wells are typically screened across the water table, with some select wells installed in the deep overburden to confirm vertical groundwater flow patters. Based on groundwater elevations obtained during the RFI/RI field activities, groundwater flow in the overburden is predominantly plant south(PN) (Figures 11a through 11g). The hydraulic conductivity, based on rising head permeability testing, of the overburden is approximately 10^{-4} cm/sec (Table 2.7.4.1). Calculated hydraulic conductivity ranged from 10^{-2} to 10^{-4} cm/sec. This variability is representative of glacial drift encountered in borings throughout the Facility.

Calculations performed on the overburden wells estimate the horizontal gradient to be approximately 0.002 to 0.008 ft/ft. Based on a comparison of vertical to lateral groundwater flux, vertical groundwater movement appears to dominate the groundwater movement in the overburden, with a downward vertical gradient of 0.05 ft/ft. An exception to this is in localized areas around storm and sanitary sewers, where the vertical gradient appears neutral or upward, due to the low water elevation in the sewers.

The potentiometric surface in the overburden tends toward the southwest(PN) corner of the Facility property, with variations along the northern(PN) property boundary on

Linden Avenue (Figures 11a through 11g). Furthermore, based on groundwater observations made throughout the RFI/RI, it appears that there are two controlling features for overburden groundwater at the Facility. These controlling features are: 1) sanitary sewers installed in the overburden along the plant west(PN) (Smith Street) and along plant south(PN) (West Edgar Road), and 2) a storm sewer installed in the overburden along Linden Avenue.

The sanitary sewers installed along Smith Street and West Edgar Road, located along plant west(PN) and plant south(PN), respectively, have water levels that are approximately 3 to 6 feet below the potentiometric surface of the overburden. Due to the low water levels in the sewers, as well as the age of the sewers, groundwater appears to discharge into the sewers. Thus, groundwater appears to be controlled and captured along the sewer, with observed groundwater flow towards the sewer alignment from both the north(PN) and south(PN) sides (e.g. MW-40S and MW-41S and Figures 11a through 11g). Data presented in Merck's Hydrogeologic Report (March 2005) helps corroborate this flow pattern.

In addition, a storm sewer is installed in the overburden along Linden Avenue on the plant north(PN) side (Figures 11a through 11g), and has water levels that are approximately 3 to 6 feet below the overburden potentiometric surface. Similar to the sanitary sewers, the groundwater potentiometric surface appears to be controlled by the storm sewer with observed groundwater flow towards the sewer alignment from both the northern(PN) and southern(PN) sides (e.g. MW-43S to MW-44S). However, the influence appears to be intermittent along Linden Avenue, with sections that do not show influence or appear to be higher than surrounding area. This may be a result of the condition of the storm sewer, where certain sections of the sewer have a greater leakage inwards than others. These sections do not appear to affect the overall control of the groundwater flow into the storm sewer.

A groundwater potentiometric high is observed near MW-52S and MW-53S, with groundwater elevations in the overburden observed to be approximately 4 to 5 feet higher than elevations observed in surrounding wells. The high is currently being investigated/resolved, and may be related to a leak from the fire protection service lines in the area. This groundwater high directs water away from the southeastern(PN) corner of the Anchor Motor Freight building in all directions (Figure 2). Currently, GM is conducting well installation, test pitting, and fire main repair to resolve this groundwater high.

A second groundwater potentiometric high has been observed near MW-24S. This high is also currently being investigation/resolved, and may relate to a leak from the fire protection service lines in the area. This high has affected groundwater by directing it against the general southwest(PN) gradient and influence of the site sewers. Currently, the fire protection service in this area is being repaired (leaking fire hydrant and fire main).

2.7.4.2 Weathered Bedrock

Weathered bedrock monitoring wells are screened within the weathered shale bedrock at intervals based upon packer testing and rock quality designation (RQD < 30%). As detailed below, the extreme weathering of this unit creates sufficient permeability to allow the unit to behave as a porous media. Based on groundwater elevations obtained during the RFI/RI field activities, groundwater flow in the weathered bedrock is predominantly south/southwest(PN) (Figures 12a through 12g). Packer testing and slug testing performed during and after completion of the monitoring wells indicated a hydraulic conductivity of approximately 10^{-3} to 10^{-4} cm/sec.(Table 2.7.4.1) Due to extreme weathering of this bedrock, the hydraulic conductivity is assumed to be same in the vertical and horizontal directions.

Calculations performed on the weathered bedrock wells estimate a horizontal gradient of approximately 0.002 to 0.005 ft/ft. Based on a comparison of vertical to lateral groundwater flux, lateral flow appears to dominate groundwater movement, with a small component of vertical flow. The vertical gradient is downward to the bedrock fracture zones at an approximate gradient of 0.017 ft/ft, except in localized areas around sewers, where the sewer water elevations are much lower than the potentiometric surface. Although the vertical gradient is greater that the horizontal gradient, the lower permeability of the receiving unit (intact portions of the competent bedrock at approximately 10^{-6} cm/sec), do not allow as much vertical movement of groundwater as is laterally transmitted in the weathered bedrock. Only near the subcrop of the bedrock flow zones, discussed below, is there sufficient receiving permeability to transmit significant quantities of groundwater.

The potentiometric surface in the weathered bedrock tends toward plant south/southwest(PN) (Figures 12a through 12g). Furthermore, based on groundwater observations made throughout the RFI/RI, it appears that there are two controlling features for weathered bedrock groundwater at the Facility. These controlling features are: 1) sanitary sewers installed in the overburden along the plant west(PN) (Smith Street) and plant south(PN) (West Edgar Road), and 2) a storm sewer installed in the overburden along Linden Avenue.

The sanitary sewers installed along Smith Street and West Edgar Road, located along plant west and plant south(PN), respectively, have water levels that are approximately 6 feet below the potentiometric surface of the weathered bedrock. Due to the low water levels in the sewers, as well as the age of the sewers, groundwater appears to discharge into the sewers. Thus, groundwater appears to be controlled and captured along the sewer, with observed groundwater flow towards the sewer alignment from both the north(PN) and south(PN) sides (e.g. MW-40W and MW-41W and Figure 12a through 12g).

The groundwater potentiometric surface for the weathered bedrock indicates that there is a groundwater influence from the potentiometric high in the overburden in the northeast(PN) corner of the Site (MW-52S and MW-53S). This potentiometric high tends to direct groundwater toward the eastern/northeastern(PN) property boundary, contrary to the overall groundwater flow toward the south/southwest(PN) of the

property. Currently, GM is conducting well installation and fire main repair to resolve this groundwater high.

2.7.4.3 Bedrock Fracture Zones

The bedrock geology and hydrogeology of the area has been documented by many researchers to be very complex (Michalski 1997). Regional literature indicates that bedrock flow zones exist and consist of dipping, semi-confined, weathered, and fractured bedrock strata. The RFI/RI investigation activities have confirmed that the local hydrogeological system is consistent with the Newark Basin regional hydrogeologic conceptual model (Michalski 1997), which consists of a dipping, leaky multi-unit aquifer system (LMAS) overlain by a weathered transition zone and overburden.

Four primary bedding plane permeable fracture zones have been identified at the Site through the RFI/RI investigation activities. These zones have been labeled as bedrock flow zones (BFZs) #1, #2, #3 and #4, and represent bedding plan joints/fractures in the siltstone bedrock. The subcrop of these units are depicted on Figure 13. Though the bedding planes are assumed to be planar, the subcrop is represented by a non-linear line on Figure 13 due the changing elevation of the top of competent bedrock. Based on borehole geophysics conducted during the initial stages of groundwater investigation and correlation of flow zones between monitoring wells identified during packer testing, the bedding plane fractures are aligned along a strike of N53°E$^{(TN)}$ and have a dip of 12°NW. The depth of the targeted flow zones can be accurately predicted at locations throughout the property by using the calculated strike and dip. These values are consistent with published literature for the region. Water level responses have been correlated during monitoring well installation activities and aquifer testing have identified that these units are laterally continuous and hydraulically connected within the units. Based on aquifer testing described below, the bedrock flow zones also exhibit some amount of vertical connection between the units. The bedrock flow zones typically exhibit a downward vertical gradient.

Packer testing results performed during monitoring well installation have identified that the hydraulic conductivity of the intact bedrock matrix is relatively low, approximately 10^{-6} cm/sec (Table 2.7.4.3). Bedding plane fracture zones are observed to have a higher conductivity of approximately 10^{-4} to 10^{-5} cm/sec (Table 2.7.4.1). In addition, the Merck groundwater model also indicates that below 300 to 500 feet bgs, there is a diminishing of active groundwater flow (Michalski, 1990, Merck, 2005) due to reduced permeability with depth and increasing confining pressure. This diminishing has been documented through reduced groundwater yields in packer tests performed during their groundwater investigations (Merck 2005).

The RFI/RI investigation activities have further characterized the bedrock flow zones:

A. Bedrock Flow Zone #1

Bedrock Flow Zone #1 (BFZ#1) subcrops in the weathered bedrock in the northeast$^{(PN)}$ corner of the Facility near the southeast$^{(PN)}$ corner of the Anchor Motor Freight building (Figure 13). The strike of the subcrop is correlates

with BFZ#2 (N53E[TN], 12NW). Currently, there are three monitoring wells sited in this flow zone, MW15B, MW-45B and MW52B. Groundwater elevations obtained during the RFI/RI activities indicate that groundwater in BFZ#1 flows toward the northeast[PN] of the Facility, toward MW-45B (Figure 14a through 14c). This does not correlate with the regional models, which indicate discharge to the Rahway River (Michalski 1990, Merck 2005). GM is obtaining access to properties to install an additional monitoring well northeast of the Facility to further resolve groundwater flow direction. Groundwater elevations also indicate that there is a downward vertical towards BFZ#2 from BFZ#1.

B. Bedrock Flow Zone #2

Bedrock Flow Zone #2 (BFZ#2), which is located in the northwest[PN] area near the Paint Mix Building area, has been targeted as the primary zone of investigation, because it is the fracture zone nearest to the only significant source of groundwater contamination in the bedrock that is attributed to the GM facility (Figure 13). Groundwater flow within BFZ#2 is predominantly plant north[PN] and downdip (Figure 15a through 15c). Estimated flow, based on packer testing and rising head permeability testing, is 1 to 2 orders of magnitude lower than the weathered bedrock (Table 2.7.4.3). Groundwater flux is approximately 9.6 gal/day per 100 feet for BFZ#2. Compared to the weathered bedrock groundwater flux of approximately 454 gal/day per 100 feet, the groundwater flow through BFZ#2 is only 2% of the total flow thought the weathered bedrock.

To further characterize the hydraulic connections and conditions of BFZ#2, a maximum inflow aquifer test and a 72-hour constant rate aquifer test were performed in May 2005. The maximum inflow test was performed on May 10 and 11, 2005, at monitoring well MW-49B, to assist in defining a sustainable and constant flow rate to be used for the constant rate test. The results of the bedrock aquifer testing will be summarized in the RFI/RI Report Addendum. The results of maximum inflow testing at MW-49B indicated that BFZ#2 yielded a maximum inflow to the well of approximately 6.6 gpm. This is the maximum rate at which the aquifer can sustain without going dry near the testing well.

The 72-hour constant rate test was conducted on May 17 through May 20, 2005 at monitoring well MW-49B. To be conservative during the constant rate test, an attempt was made to maintain a constant pumping rate of approximately 4 gpm. The objectives of the constant rate test on Flow Zone #2 were:

- Explore the nature and extent of interconnections within the Flow Zone #2,
- Explore the nature and extent of connections between other water-bearing units (Overburden, Weathered Bedrock, Bedrock Flow Zone #1 and Bedrock Flow Zone #3) and Flow Zone #2; and

- Determine the hydrogeologic characteristics of Flow Zone #2 (transmissivity and storage) to support additional hydrogeologic evaluations.

The constant rate test response was monitored with 22 vented pressure transducers and dataloggers sited in select Overburden, Weathered , BFZ#1, BFZ#2 and BFZ#3 monitoring wells.

Outside of fractured bedrock hydrogeologic modeling, there are currently no analytical methodologies to evaluate the aquifer testing performed at the Site because of the complexity of the hydrogeological system. To obtain a relative order of magnitude range of aquifer parameters, the Site hydrogeologic conceptual model was simplified. The aquifer test was evaluated using confined and leaky confined aquifer solutions, similar to Michalski 1997 to estimate the possible ranges of hydrogeologic characteristics of BFZ#2 (transmissivity and storage) to support additional hydrogeologic evaluations. The data collected during testing was analyzed with AQTESOLV (HydroSOLV, 2000) utilizing three analytical solutions by Theis (1935) (for pumping and recovery) and Hantush-Jacob (1955), and two Excel based evaluations by Huisman (1972) and Bradbury and Rothschild (1985).

Approximately 68% of the monitored wells indicated a response to pumping at MW-49B, as anticipated prior to the start of the test. Overburden monitoring well MW-49S, weathered bedrock monitoring wells MW-9W, MW-33W, MW-36W, MW-37W, and MW-66W and BFZ#2 monitoring wells MW-9B, MW-15B, MW-37B, MW-43B, MW-44B, MW-47B, MW-49B, MW-50B, and MW-66B indicated an influence from pumping.

A semi-conical shape of the inferred drawdown contours for the weathered bedrock, in addition to the higher permeability observed during packer testing, indicate that the weathered bedrock unit behaved more like porous media than fractured media, with the greatest drawdown in the weathered bedrock observed nearest the strike of the subcrop of BFZ#2. This indicates that groundwater in the weathered bedrock at the subcrop areas recharges the bedrock units, due to the downward vertical gradient.

A second observation made during the constant rate test was that nine of the 12 bedrock monitoring wells had effects from pumping. The greatest observed drawdown was approximately 62-ft at the pumping well (MW-49B) with observable drawdown decreasing with distance away from the well. As BFZ#2 is not an isotropic, homogenous, and porous media, the cone of depression is not radial; rather, the observed drawdown indicates a pattern of greater drawdown down dip than cross or up-dip depending on the planar distance along the bedding plane between MW-49B and the observation well.

As MW-49S was the only monitoring point outside of the weathered bedrock and BFZ#2 to be affected by pumping. Observed drawdown is likely

associated with its proximity to the pumping well (MW-49B) and influenced by pumping due to vertical jointing and fracturing. Exploration logs for the MW-49 monitoring well cluster indicate multiple zones of horizontal and vertical joints and fractures with slight to moderate weathering.

As previously mentioned, the hydrogeologic system at the Site does not fit any of the solution models which were designed to evaluate pumping in porous media; therefore, the derived aquifer parameters from this investigation represent a possible range of values. As analyzed with standard analytical methodologies by Theis (1935) (for pumping and recovery) Hantush-Jacob (1955), Huisman (1972) ,and Bradbury and Rothschild (1985), the transmissivities for BFZ#2 approximately range between 0.88 ft^2/day and 1,500 ft^2/day and storativity for BFZ#2 approximately range between $1x10^{-3}$ to $1x10^{-5}$. These large ranges are due to the different methodologies used to evaluate the pumping test data.

With the ratio of Storativity during pumping to Storativity during recovery (S') greater than one for all analyses, the recovery test analyses using the Theis (1935) methodology indicates that a recharge boundary is present, which as described above, is the subcrop of this unit to the weathered bedrock. The results of the constant rate test indicate that the weathered bedrock appears to be a constant head boundary for the BFZ#2 subcrop, where groundwater elevations along the subcrop in the weathered bedrock are equal to the groundwater elevations in BFZ#2.

C. Bedrock Flow Zone #3

Bedrock Flow Zone #3 (BFZ#3) subcrops in the weathered bedrock approximately 150 to 200 feet south(PN) of monitoring well MW-25S, which is located south(PN) of the Paint Mix Building. As with the BFZ#1 and #2, the strike and dip of the subcrop is N53°E(TN), 12°NW. Currently, there are four monitoring wells sited in this flow zone, MW-18B, MW-49BD, MW-55B and MW-63B. BFZ#3 is encountered approximately 50 feet below BFZ#2 in monitoring well MW-49BD.

Groundwater elevations obtained during the RFI/RI activities indicate that groundwater tends towards the western(PN) property boundary (Figure 16a through 16c), consistent with the groundwater model presented by Merck (Merck, 2005). Based on observations made by Merck, bedrock groundwater is either captured through Merck's pumping efforts or flows toward the Rahway River, where it discharges into the river.

The vertical connectedness between BFZ#3 and BFZ#2 was demonstrated during the 72-hour constant rate pump test, with an observed drawdown of approximately 2 feet in BFZ#3 well MW-49BD from pumping in BFZ#2. This observed drawdown indicates the presence of vertical fractures providing a limited amount of connection between these two flow zones. This observation is consistent with published literature for the region (Michalski

1990) and the Merck's hydrogeologic model (Merck 1990). The vertical gradient between BFZ#2 and BFZ#3 is downward, indicating that there only a limited amount of connection, which creates a hydraulic separation between the units.

D. Bedrock Flow Zone #4

Bedrock Flow Zone #4 (BFZ#4) subcrops in the weathered bedrock in the southernmost(PN) portion of the Facility, near monitoring well MW-8B. Currently, there are six monitoring wells sited in this flow zone, MW-8B, MW-17B, MW-58B, MW-59B, MW-61B and MW-62B. The orientation of the subcrop is the same as the other flow zones encountered at the Facility, strike and dip of N53°E, 12°NW. Groundwater elevations obtained during the RFI/RI field activities indicate that groundwater tends northwest(PN) from the subcrop, toward monitoring well MW-58B (Figure 17a through 17c). This appears to be contrary to regional information (Michalski 1990) and Merck's hydrogeologic model (Merck 2005). One additional monitoring well is planned near the Paint Mix Building to determine vertical connections, vertical hydraulic gradients, and to resolve groundwater flow patterns.

2.8 Groundwater Use

2.8.1 Potable Water Supplies

New Jersey American Water is the provider of potable water to the City of Linden. It has indicated it delivers potable water to all businesses and residence within one mile of the Facility.

Elizabethtown Water Company indicates the water supply it uses to provide water to Linden comes from the following surface water sources:

- Raritan River
- Millstone River
- Delaware & Raritan Canal

These water supply sources are located approximately 10 to 15 miles west/northwest(PN) of the Facility in Middlesex and Somerset Counties.

2.8.2 Groundwater Use

A well search was conducted in June 1994 and was updated in 2003 and 2004 to identify groundwater uses in the neighborhood surrounding the GM-Linden Facility. The search included locating private permitted wells and public/industrial water supply wells within one mile of the GM Linden Facility. Information regarding wells and other groundwater withdrawal points within the 1-mile search radius were obtained from the NJDEP, Division of Water Resources - Bureau of Water Allocation. Information provided by the NJDEP for wells within the 1-mile search

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radius is summarized on Table 2.8.2. Through the use of the NJDEP information, the following were identified within one mile of the Facility: 5 domestic wells within one mile of the Facility (not including documented abandoned wells), 7 industrial wells, 2 injection wells, 1 private well (use unknown), 54 recovery wells, 1 test well, and 2 unknown use (assumed industrial) wells.

The Linden Health Department and Union County Regional Environmental Health Commission were also contacted for information pertaining to the wells identified by the NJDEP and any additional groundwater wells within the 1-one-mile search radius of the Linden Facility. The Linden Health Department indicated that although numerous monitoring wells exist, no drinking water wells are present within one mile of the Facility and that residences are connected to a public water supply. The groundwater investigations conducted by Merck and Safety Kleen confirm this information (Merck, 1994 and Merck, 2001). The Union County Regional Environmental Health Commission was unable to supply any information regarding groundwater wells in the area.

Of the five domestic and seven industrial wells, the following information pertains:

- Range of well depth: 119 to 510 feet below ground surface.
- Casing length range: 28 to 80 feet below ground surface.
- Range of open borehole length: 70 to 510 feet
- Static water level range: 10 to 50 feet below ground surface.

These wells were installed as an open borehole below the casing and are not set in the overburden or weathered bedrock, which was cased off. In addition, the locations of these wells indicate that they are not likely to draw groundwater from BFZs #1 through #4.

Two of the three unknown use wells are set at or below 300 feet bgs. Based upon the well locations, these wells are not deep enough to draw water from BFZs #1 through #4. The third unknown use well is reported to have been abandoned in the Merck Corrective Measures Study.

Table 2.8.2 summarizes information on these wells. Follow-up with Linden Health Department and discussions with current owners or operators indicated only one of these wells is known to exist (Well no. 17) and it is used for washing machines in a laundromat.

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3. MIGRATION OF CONTAMINATED GROUNDWATER UNDER CONTROL

3.1 Information Reviewed

Question 1 of the CA750 form asks whether all relevant information on known and reasonably suspected releases subject to RCRA corrective action has been considered in making the EI determination.

All relevant information has been considered in preparing this report. Specifically, information from the following sources was reviewed to support the evaluation of whether migration of contaminated groundwater at the Facility is under control:

- Current Conditions Report (ENCORE 2002),
- RFI/RI Work Plan (Haley & Aldrich 2002),
- RFI/RI Report (Haley & Aldrich 2004), plus
- The findings of the Stage III (a, b, c and d) investigation activities.

The above reports have been provided to USEPA. The Stage III groundwater investigation stratigraphic and hydrogeologic results are summarized in Section 2. The Stage III groundwater investigation analytical results are summarized below. These results will be included in a RFI/RI Report addendum.

3.2 Presence of Contaminated Groundwater

Question 2 of the CA750 form asks whether groundwater is known or reasonably suspected to be "contaminated" above appropriately protective levels from releases subject to RCRA corrective action. According to the CA750 form:

> "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

In this report, the presence of "contamination" is identified based on comparison of site characterization data for groundwater with conservative screening criteria. The screening criteria used in the comparisons and the comparison results are discussed in this section.

The data used in the comparisons do not include data determined to be not usable during data validation (i.e., R-qualified data). Concentrations qualified as estimated (e.g., J-qualified data) are included, and concentrations from duplicate samples have been averaged to obtain a representative concentration for each duplicate pair. The analytical data for all samples (including those for constituents not detected, R-qualified data, and data for individual samples in duplicate pairs) are in Appendix F of the RFI/RI Report. Additional data collected during Stage III of the RFI/RI field investigation will be included with a future addendum to the RFI/RI Report.

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Groundwater quality data from monitoring wells collected during the RFI/RI to date are summarized by the hydrogeologic zones discussed in Section 2 (i.e., overburden, weathered bedrock, and bedrock). To facilitate discussion of the results, the overburden and weathered bedrock intervals are further divided into four groups that correspond to geographic areas of the Facility. Group 1 is the northwest(PN) corner of the facility; Group 2 is the southwest(PN) corner of the facility; Group 3 is the southeast(PN) corner of the facility; and Group 4 is the northeast(PN) corner of the facility (Figure 18). The groundwater data from monitoring wells in the overburden and weather bedrock zones are summarized on Tables 3.2.1 and 3.2.2 and Figures 19 through 26, respectively. The bedrock zone is further divided into four fracture flow units as discussed in Section 2 (i.e., BFZ#1 to #4). The groundwater data from these monitoring wells are summarized on Table 3.2.3 (Figures 27 through 30).

Tables 3.2.1 and 3.2.2 and 3.2.3 show the constituents detected, their detection frequencies and range of detected concentrations among the overburden, weathered bedrock, and bedrock monitoring wells, and the ratios of the highest measured concentrations to the screening criteria. The screening criteria for the overburden, weathered bedrock, and bedrock groundwater data are USEPA maximum contaminant levels (MCLs) or equivalent risk-based drinking water criteria. In addition, the screening criteria for the overburden groundwater included site-specific groundwater contact criteria based on construction worker contact and industrial and residential groundwater vapor intrusion criteria. Derivation of the risk-based drinking water criteria and the site-specific groundwater contact and vapor intrusion criteria was discussed in Appendix M of the RFI/RI Report.

Groundwater that meets the definition of "contaminated" is identified on Tables 2-1 through 2-3 by comparing the highest concentration of each chemical in overburden, weathered bedrock, and bedrock groundwater to the screening criteria. The ratios of the highest concentrations to the screening criteria are shown on Tables 2-1 through 2-3. Ratios higher than 1 are considered to meet the definition of "contamination" and are highlighted. The overburden, weather bedrock, and bedrock groundwater concentrations that are higher than the screening criteria are summarized on Tables 2-4 through 2-6, respectively.

As shown on Tables 2-4 through 2-6, constituents in overburden groundwater do not have concentrations that are higher than the screening criteria based on groundwater contact or vapor intrusion. However, several constituents in overburden, weathered bedrock, and bedrock groundwater have concentrations that are higher than the drinking water criteria. Among these constituents, some are unrelated to the Facility. Specifically, metals, including arsenic, barium, manganese, and mercury have been detected at various monitoring wells in overburden, weathered bedrock, and bedrock at concentrations that are higher than drinking water criteria. However, these constituents are naturally occurring and their presence at concentrations above drinking water criteria shows no discernable association with particular areas of the Facility. In fact, these metals have concentrations above drinking water criteria at monitoring wells that are upgradient or side-gradient of the Facility, such as MW-43S, MW-47S, and MW-47W. Therefore, the presence of these constituents is not considered "contamination" for the purposes of the CA750 determination for the Facility. Other metals including cadmium, lead, selenium, and vanadium have had infrequent and inconsistent

detections above the drinking water criteria across the site. These constituents generally do not exhibit a pattern of detections that would be consistent with a Facility impact.

In addition to the metals, bis(2-chloroethyl)ether, which has been detected in groundwater at concentrations higher than the drinking water criterion, is unrelated to Facility. Based on a review of chemical usage records at the Facility, bis(2-chloroethyl)ether was not used at the Facility. This is supported by extensive site characterization data collected during the RFI/RI, which show that BCEE was not detected in any of the 156 RFI/RI soil samples, and was more prevalent and found at higher concentrations in deeper rather than shallower groundwater, as summarized below:

	Detected	Analyzed	Highest Concentration
Overburden	11	182	0.0065 mg/L
Weathered Bedrock	85	199	0.0430 mg/L
Bedrock	31	101	0.0290 mg/L

Also, BCEE was not detected in the LNAPL found at the Paint Mix Building (AOI 6) or in the groundwater directly under the LNAPL. Furthermore, a review of RFI/RI soil and groundwater characterization data collected from 22 other GM facilities shows that BCEE was detected in only 16 of 186 samples and the highest concentration was only 0.001 mg/L. Conversely, a review of groundwater data collected at the Merck Facility shows that BCEE has been found at higher concentrations (on the order of 0.190 mg/L) adjacent to the GM Linden Facility, and has been identified as a constituent of potential concern in groundwater for that site (Merck 2000). Therefore, the presence of BCEE is not considered "contamination" for the purposes of the CA750 determination for the Facility, but rather, is an indicator of off-site contamination that is present in groundwater that is also affected by the Facility.

Similarly, 1,2-dichloroethane, 1,1,2-trichloroethane, 1,1,2,2-tetrachloroethane, chloroform, and carbon tetrachloride have been identified at the Merck Facility as chemicals of primary concern for risk evaluation (Merck 2000). A review of detections of these compounds indicates that, similar to bis(2-chloroethyl)ether, these compounds are typically found at highest concentrations near the MW-47 cluster and the western[(PN)] property boundary, nearly 10-fold higher than in the Paint Mix Building area. Therefore, these compounds are also considered to be unrelated to the Facility for similar reasons to bis(2-chloroethyl)ether.

It should be noted that the off-site source of bis(2-chloroethyl)ether, 1,2-dichloroethane, 1,1,2-trichloroethane, 1,1,2,2-tetrachloroethane, chloroform, and carbon tetrachloride groundwater contamination is also known to be the source of several other VOCs that include benzene, chlorobenzene, 1,2-dichloroethene, toluene, trichloroethene, vinyl chloride, and xylenes. However, at least some of these VOCs are also known to be associated with the Facility, so that distinguishing the Facility's contribution of these VOCs from the off-site source is difficult at some locations. For the purposes of Question 2 of the CA750 determination, the presence of these constituents in groundwater (at least for some locations) is considered to meet the definition of "contamination" for the Facility.

3.2.1 Group 1 (northwest(PN))

3.2.1.1 Overburden

Overburden monitoring wells within Group 1 include the following: BEC-9D, MW-18S, MW-19S, MW-22S through 26S, MW-31S, MW-34S, MW-38S, MW-39S, MW-43S, MW-44S, MW-47S, MW-49S, MW-31D, MW-33D and MW-34D, which are located in the northwest(PN) corner of the facility (Figure 18). These wells were installed to further define groundwater flow direction and to determine whether there have been any impacts to groundwater by past Facility activities. Based on the most current groundwater data, obtained on June 20, 2005, groundwater generally flows toward the southwest(PN) (MW-18S), towards the sanitary sewer, and the northeast(PN) (in the vicinity of MW-44S), towards the storm sewer (Figure 11a through 11g). Both the sanitary and storm sewers appear to capture overburden groundwater.

There is a groundwater mound present in the vicinity of MW-21S, located on the northwest(PN) corner of the Paint Mix Building (Figure 11g), which appears to be related to a leaky fire main or hydrant. The Facility is currently in the process of repairing/replacing these leaks. The groundwater mound does not have a significant effect on overall groundwater flow in this area.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.1 and Figure 19):

- manganese*,
- arsenic*,
- trichloroethene,
- 1,2-dichloroethane*,
- chlorobenzene*,
- cis-1,2-dichloroethene,
- 1,1-dichloroethene,
- benzene,
- tetrachloroethene,
- vinyl chloride,
- bis(2-chloroethyl)ether*,
- benzo(a)anthracene, and
- benzo(a)pyrene.

* Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility-related.

3.2.1.2 Weathered Bedrock

Weathered bedrock monitoring wells within Group 1 include the following: MW-9W, MW-18W, MW-22W, MW-23W, MW-26W, MW-31W, MW-33W through 37W, MW-43W, MW-44W, MW-46W, MW-47W, MW-49W, MW-54W and MW-66W, which are located in the northwest(PN) corner of the facility (Figure 18). Based on the most current groundwater elevation data, obtained on June 20, 2005, groundwater flows south/southwest(PN) toward MW-18W. Further, based on water elevations in the sanitary sewer aligned with Smith Street and area groundwater elevations, groundwater is captured by this sewer (Figure 12a through 12g).

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The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.2 and Figure 20):

- manganese*,
- arsenic*,
- selenium*,
- trichloroethene,
- cis-1,2-dichloroethene,
- trans-1,2-dichloroethene,
- tetrachloroethene,
- benzene,
- carbon tetrachloride*,
- chlorobenzene*,
- chloroform*,
- 1,2-dichloroethane*,
- methylene chloride, and
- bis(2-chloroethyl)ether*.

* Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.2 Group 2 (southwest(PN))

3.2.2.1 Overburden

Overburden monitoring wells within Group 2 include the following: BEC-8D, MW-17S, MW-20S, MW-27S, MW-40S, MW-41S, MW-48S, MW-57S, MW-59S and MW-67S, which are located in the southwest(PN) corner of the facility (Figure 18). These wells were installed to further define groundwater flow and to determine whether there have been any impacts to groundwater by the Facility. Based on groundwater elevation data obtained on June 20, 2005, groundwater flows to the south/southwest(PN) of the Facility property. Groundwater elevation data and water elevations in the sanitary sewer along Smith Street and West Edgar Road (Figure11a through 11g), indicate that the sewer captures overburden groundwater in this area.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.1 and Figure 21):

- manganese*,
- arsenic*, and
- trichloroethene (only BEC-8D in January and October 2003).

* Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.2.2 Weathered Bedrock

Weathered bedrock monitoring wells within Group 2 include the following: MW-8W, MW-17W, MW-27W through 30W, MW-40W, MW-41W, MW-48W, MW-57W, MW-58W, MW-59W and MW-67W, which are located in the southwest(PN) corner of the Facility (Figure 18). These wells were installed to further define groundwater

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flow and to determine whether there have been any impacts to groundwater. Based on groundwater elevation data obtained on June 20, 2005, groundwater flows to the south/southwest(PN) of the Facility property. Groundwater elevation data and water elevations in the sanitary sewer along Smith Street and West Edgar Road (Figure 12a through 12g), indicate that the sewer captures weathered bedrock groundwater in this area.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.2 and Figure 22):

- Lead* (only at MW-41W in November 2004),
- manganese* (only at MW-41W in November 2004),
- vanadium* (only at MW-41W in November 2004),
- trichloroethene,
- 1,1-dichloroethene,
- cis-1,2-dichloroethene,
- vinyl chloride (only at MW-48W in February 2005), and
- carbon tetrachloride* (only at MW-57W in May 2005).

* Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.3 Group 3 (southeast(PN))

3.2.3.1 Overburden

Overburden monitoring wells within Group 3 include the following; MW-61S, MW-62S, MW-63S and MW-69S, which are located in the southeast(PN) corner of the Facility (Figure 18). These wells were installed to further define overburden groundwater flow. Based on groundwater elevation data obtained on June 20, 2005, groundwater flows to the south/southwest(PN). Groundwater elevation data and water elevations in the sanitary sewer along West Edgar Road (Figure 11a through 11g), indicate that the sewer captures overburden groundwater in this area.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.1 and Figure 23):

- arsenic*,
- cadmium* (only at BEC-7D), and
- manganese*.

* Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.3.2 Weathered Bedrock

Weathered monitoring wells within Group 3 include the following; MW-61W, MW-62W, MW-63W and MW-69W, which are located in the southeast(PN) corner of the Facility (Figure 18). These wells were installed during the same time period as the shallow wells to further define groundwater flow. Based on groundwater elevation data obtained on June 20, 2005, groundwater flows to the south/southwest(PN). Groundwater elevation data and water elevations in the sanitary sewer along West

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Edgar Road (Figure 12a through 12g), indicate that the sewer captures weathered bedrock groundwater in this area.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.2 and Figure 24):

- 1,2-dichloroethane* (only MW-63W),
- 1,1-dichloroethene (only BEC-2B),
- cis-1,2-dichloroethene (only MW-63W),
- trichloroethene, and
- vinyl chloride (only MW-63W).

  * Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.4 Group 4 (northeast(PN))

3.2.4.1 Overburden

Overburden monitoring wells within Group 4 include the following; MW-1D, MW-15S, MW-16S, MW-50S through 53S, MW-55S, BEC-1SR, BEC-2S through BEC 13S, BEC-2D and BEC-4D through 6D, which are located in the northeast(PN) corner of the Facility (Figure 18). The BEC series wells were installed in the early 1990's during the closure of the UST tank farm, located north(PN) of the Anchor Motor Freight building. The remaining wells were installed during Stage II and Stage III of the RFI/RI to further define groundwater contamination and flow.

Based on groundwater elevations obtained on June 20, 2005, a groundwater mound has been observed in the vicinity of MW-52S (Figure 11g). This mound has influenced water levels throughout this area, causing groundwater to flow away from the mound in all directions. It is suspected that the cause of the mound is a leaking fire main and currently, GM is in the process of finding and repairing the leak.

Regardless of the groundwater mound in this area, groundwater flow is predominantly towards the northeast(PN) and south-southwest(PN). Groundwater elevation data and water elevations in the storm sewer along Linden Avenue (Figure 11a through 11g), indicate that the sewer captures overburden groundwater in this area along the northern(PN) portion of the property boundary. In the southern(PN) portion of this area, groundwater flow follows the regional south-southwest(PN) pattern towards Group 2 and Group 3 areas.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria(Table 3.2.2 and Figure 25):

- arsenic*,
- manganese*,
- barium*,
- cadmium*,
- vanadium*,
- lead*,

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- mercury* (only at BEC-5D in April 2005),
- 1,2-dichloroethane* (only at BEC-5D in August 2002),
- trichloroethene, and
- bis(2-chloroethyl)ether* (only at BEC-5D).

  * Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.4.2 Weathered Bedrock

Weathered monitoring wells within Group 4 include the following; BEC-1D through 4D, BEC-1B, MW-14W, MW-15W, MW-16W, MW-42W, MW-45W, MW-50W, WM-52W, MW-55W and MW-68W, which are located in the northeast(PN) corner of the Facility (Figure 18). The BEC wells were installed in the early 1990's and the remaining wells were installed during Stage II and Stage III of the RFI/RI to further define groundwater flow in the weathered bedrock.

Based on groundwater elevations obtained on June 20, 2005, groundwater flow is towards the east(PN), southeast(PN) and south(PN). Groundwater elevation data and water elevations in the storm sewer along Linden Avenue (Figure 12g), indicate that the sewer may capture weathered bedrock groundwater in this area along the northern(PN) portion of the property boundary. In addition, the groundwater mound in the overburden appears to affect groundwater elevations in the weathered interval, resulting in a similar, slight mounding effect. Additional monitoring wells are being installed in the northeast(PN) corner of the Facility and offsite to further define groundwater flow in this area. In the southern(PN) portion of this area, groundwater flow follows the regional south(PN) pattern towards Group 2 and Group 3 areas.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.2 and Figure 25):

- arsenic* (only at BEC-1B in November 2004),
- manganese*,
- trichloroethene,
- benzene,
- 1,2-dichloroethane*,
- tetrachloroethene,
- 1,1-dichloroethene,
- cis-1,2-dichloroethene,
- vinyl chloride, and
- bis(2-chloroethyl)ether*.

  * Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.5 Bedrock Flow Zone #1

Bedrock monitoring wells within Bedrock Flow Zone #1 include the following monitoring wells; MW-15B, MW-45B, and MW-52B, which are located along the northern(PN) property boundary (Figure 27). These wells were installed during the same time period as the shallow

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and weathered bedrock wells to further define groundwater flow. Based on groundwater elevations obtained on June 20, 2005, groundwater flows toward the northeast(PN) (Figure 14a through 14c). However, this groundwater flow pattern does not follow the typical pattern identified by Merck (refer to Section 2.02.1). An additional monitoring well (MW-72B1) is planned to be installed downgradient of MW-45B to confirm groundwater flow patterns and groundwater quality.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.3 and Figure 27):

- 1,2-dichloroethane*,
- benzene (only in MW-15B),
- trichloroethene, and
- bis(2-chloroethyl)ether* (only in MW-45B).

  * Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.6 Bedrock Flow Zone #2

Bedrock monitoring wells within Bedrock Flow Zone #2 include the following; MW-9B, MW-16B, MW-37B, MW-43B, MW-44B, MW-47B, MW-49B, MW-60B, and MW-66B, which are located in roughly the north-central(PN) (east-west(PN)) portion of the Facility (Figure 28). These wells were installed during the same time period as the shallow and weathered wells to further define groundwater flow.

Based on groundwater elevations obtained on June 20, 2005, groundwater flows to the northeast(PN) (Figure 15 a through 15c), perpendicular to the strike of the subcrop of Bedrock Flow Zone #2. Regional hydrogeology information (summarized in Section 2.7.1.2) indicates that permeability in the bedrock flow zones is expected to decrease with depth, which coincides with the groundwater flow direction. According to Merck, "The depth of active groundwater flow diminishes to negligible quantities below about 300 to 500 feet" (Merck 2005). This observation, coupled with Merck's pumping and bedrock groundwater discharge at the Rahway River, this indicates that groundwater flow in Bedrock Flow Zone #2 ultimately changes direction towards the west(PN). Additional water levels are being collected in July, August, and September to verify groundwater flow direction and the influence of Merck pumping on groundwater flow direction.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.3 and Figure 28):

- arsenic*,
- vanadium* (only at MW-49B),
- trichloroethene,
- 1,1,2-trichloroethane*,
- 1,2-dichloroethane*,
- benzene,
- chlorobenzene*,
- chloroform*,

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- cis-1,2-dichloroethene,
- tetrachloroethene,
- trans-1,2-dichloroethene,
- vinyl chloride,
- 1,1-dichloroethene,
- carbon tetrachloride*,
- methylene chloride,
- 1,1,2,2-tetrachloroethane*,
- bis(2-chloroethyl)ether*.

  * Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.7 Bedrock Flow Zone #3

Bedrock monitoring wells within Bedrock Flow Zone #3 include the following; MW-18B, MW-49BD, MW-54B, MW-55B, MW-57B, and MW-63B, which are located in roughly the central (east-west(PN)) portion of the Facility (Figure 29). These wells were installed during the same time period as the shallow and weathered wells to further define groundwater flow. Based on groundwater elevations obtained on June 20, 2005, groundwater flow is toward the west(PN) (Figure 16a through 16c), sub parallel to the strike of the unit. This appears consistent with Merck's groundwater investigations and interpretations, as discussed in Section 2.7.1.2, whereby groundwater is either captured by pumping on the Merck Facility or discharges to the Rahway River.

The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.3 and Figure 29):

- 1,2-dichloroethane*,
- benzene,
- carbon tetrachloride* (only in MW-18B),
- chloroform* (only in MW-18B),
- methylene chloride, and
- trichloroethene,

  * Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.2.8 Bedrock Flow Zone #4

Bedrock monitoring wells within Bedrock Flow Zone #4 include the following; MW-8B, MW-17B, MW-58B, MW-59B, MW-61B, and MW-62B, which are located along the south(PN) property boundary (Figure 30). These wells were installed during the same time period as the shallow and weathered wells to further define groundwater flow. Based on groundwater elevations obtained on June 20, 2005, groundwater flows to the north(PN) (Figures 17a though 17c), perpendicular to the strike of the unit, different from that observed in BFZ#3 and the regional models (Michalski 1990). Any uncertainty in groundwater flow direction in this unit is not important to the CA750 determination, because no contamination has been found in this unit. However, one additional monitoring well is planned for the WWTP area (MW-49B4) to define the vertical extent of contamination near the Paint Mix Building.

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The following compounds were detected in one or more monitoring wells during the RFI/RI Stage I through III investigation, at concentrations higher than the drinking water criteria (Table 3.2.3 and Figure 30):

- manganese* (only in MW-8B in November 2004)
  * Refer to Section 3.1 for a discussion of these constituents which do not appear to be Facility related.

3.3 Existing Area of Contaminated Groundwater

Question 3 of the CA750 form asks whether the migration of contaminated groundwater has stabilized, such that contaminated groundwater is expected to remain within an "existing area of contaminated groundwater" as defined by monitoring locations designated at the time of the determination.

3.3.1 Group 1 (northeast(PN))

3.3.1.1 Overburden

Manganese was detected in some of the monitoring wells in this group (as well as in the other groups) at concentrations higher than the drinking water criterion (Table 3.3.1 and Figure 19). In addition, arsenic was detected in monitoring wells MW-18S and MW-24S at concentrations higher than the drinking water criterion drinking water criteria. As discussed in Section 3.1, manganese and arsenic are naturally occurring constituents in groundwater and not considered related to Facility activities.

Trichloroethene, 1,2-dichloroethane*, chlorobenzene*, cis-1,2-dichloroethene, 1,1-dichloroethene, benzene, tetrachloroethene and vinyl chloride were found at concentrations higher than the drinking water criterion in many of the monitoring wells in Group 1 (Table 3.3.1 and Figure 19). Subsequent samples have not indicated the presence of chlorobenzene*, cis-1,2-dichloroethene and 1,1-dichloroethene at concentrations greater than their respective MCLs. The source of VOC contamination is believed to be, in part, related to past activities at the former sludge pit adjacent to the Paint Mix Building. Based on the results of surrounding/downgradient wells (MW-18S, MW-22S, MW-23S, MW-25 S, and MW-26S) the extent of VOC contamination has been delineated in this area.

In addition, trichloroethene at MW-49S was only detected at a low concentration of 7 ug/L during one event above the drinking water criterion. Subsequent sampling (May 2005 at 3 ug/L) has been below the drinking water criterion, which indicates that contamination is not currently present at this location.

Bis(2-chloroethyl)ether was detected in monitoring wells MW-31D and MW-34D at concentrations higher than the drinking water criterion (Table 3.3.1 and Figure 19). As discussed in Section 3.1, bis(2-chloroethyl)ether and several other VOCs as identified above, are considered to be un-related to Facility activities and suggests an off-site contribution.

Benzo(a)anthracene and benzo(a)pyrene were detected in monitoring well MW-31S at concentrations slightly higher than the drinking water criteria in November 2003 (Table 3.3.1 and Figure 19). The source of these SVOCs may be related to the past activities at the sludge pit. Based on the results of surrounding wells, the extent of SVOCs has been delineated in this area.

3.3.1.2 Weathered Bedrock

Manganese was detected at concentrations above the drinking water criterion at several of the monitoring wells in this group (Table 3.3.2 and Figure 20). Exceedances were last noted at two of the wells in this group in November 2003 in monitoring wells MW-34W and MW-37W, with concentrations from subsequent samples not exceeding the drinking water criterion. Arsenic was detected in concentrations exceeding the drinking water criterion at monitoring wells MW-36W, MW-47W and MW-49W (Table 3.3.2 and Figure 20). As discussed in Section 3.1, manganese and arsenic are naturally occurring constituents in groundwater and not considered related to Facility activities.

Selenium was detected in concentrations exceeding the drinking water criterion at monitoring well MW-47W in February 2005 (Table 3.3.2 and Figure 20). Subsequent samples obtained from this well have not indicated the presence of selenium at a concentration greater than the drinking water criterion. Monitoring well MW-47W is side-gradient from the facility, which suggests that it is un-related to Facility activities nearby this area, as detailed in Section 3.1. The concentrations also appear to be localized to MW-47W, which coincide with the VOC detections at this well, as discussed below.

Trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, benzene, carbon tetrachloride*, chlorobenzene*, chloroform*, 1,2-dichloroethane* and methylene chloride were detected at concentrations greater than their respective drinking water criterion at many wells in the Group 1 area (Table 3.3.2 and Figure 20). The highest concentrations of the above constituents are located in two areas: 1) immediately north(PN) of the former sludge pit at MW-31W, and 2) MW-47W, located on the western(PN) property boundary. In addition, bis(2-chloroethyl)ether* was also detected in monitoring wells many of the monitoring wells in this group, at concentrations greater than the drinking water criterion (Table 3.3.2 and Figure 20). However, the highest concentrations of this constituent are located at MW-47W.

There is a decreasing concentration gradient of trichloroethene (approximately 0.5-fold decrease) between MW-31W at the sludge pit and MW-66W/MW-35W. Downgradient monitoring wells, south(PN) of this area (MW-23W, MW-26W, and MW-54W) do not indicate the presence VOCs or SVOCs in groundwater. In addition, as discussed in Section 2.7.4.2 and 3.2.1.2, groundwater west(PN) of this area is captured by the sanitary sewer which is aligned with Smith Street. Therefore, it appears that the contaminated groundwater from the area of the Paint Mix Building has been adequately defined.

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A review of the trichloroethene concentrations from MW-66W/MW-35W, indicates a dramatic rise (approximately 50-fold increase) at MW-47W. Bis(2-chloroethyl)ether and several other VOCs were also detected at the highest levels in this monitoring well, approximately 10 to 20 times higher than near the Paint Mix Building. As discussed in Section 3.1, bis(2-chloroethyl)ether and several other VOCs are considered to be unrelated to Facility activities. These factors indicate that the VOCs and SVOCs observed at MW-47W are unlikely to be attributed to the former sludge pit. Regardless, as indicated above, groundwater west(PN) of this area is captured by the sanitary sewer which is aligned with Smith Street. Therefore, it appears that the contaminated groundwater from the area of the Paint Mix Building has been adequately defined.

3.3.2 Group 2 (southwest(PN))

3.3.2.1 Overburden

Manganese was detected at concentrations above the drinking water criterion at several of the monitoring wells in this group (Table 3.3.1 and Figure 21). Arsenic was also detected at MW-17S above the drinking water criterion. As discussed in Section 3.1, manganese and arsenic are naturally occurring constituents in groundwater and not considered related to Facility activities. Further, overburden groundwater is captured by the sanitary sewer that is aligned along West Edgar Road (Figures 11a through 11g).

Trichloroethene was detected at concentrations greater than the drinking water criterion at monitoring well BEC-8D during January and October of 2003 (Table 3.3.1 and Figure 21). Subsequent samples obtained from BEC-8D have not had detections of trichloroethene greater than the MCL. The two groundwater sampling events conducted in February and April 2005 have used low-flow groundwater sampling techniques. This technique is considered to be more representative of natural groundwater conditions than the purge and sample techniques used during January and October of 2003, when the detections occurred. Therefore, based on the recent results from February and April 2005, trichloroethene is not currently present in the groundwater in this group above drinking water criteria.

3.3.2.2 Weathered Bedrock

Lead, manganese and vanadium were detected in monitoring well MW-41W during the November 2004 groundwater sampling event above the drinking water criterion (Table 3.3.2 and Figure 22). Subsequent samples obtained since November 2004 have not indicated any exceedences of the drinking water criterion for these constituents. Thus indicating that they are not currently present in the groundwater in this group above drinking water criteria.

Trichloroethene, 1,1-dichloroethene, cis-1,2-dichloroethene, and vinyl chloride (MW-48W in February 2005 only) were several monitoring wells in this group at concentrations greater than the drinking water criteria (Table 3.3.2 and Figure 22). The highest concentrations were observed in monitoring well MW-48W, furthest from the Facility, with a decreasing concentration gradient eastward(PN) along the West

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Edgar Road sanitary sewer alignment towards the Facility. No detections have been observed in any of the upgradient monitoring wells nearer the Facility (MW-29W, MW-30W, MW-58W, MW-59W, and MW-67W). These upgradient wells indicate that the groundwater contamination in the weathered bedrock does not appear to be attributable to the Facility, and therefore the extent has been delineated. The source of the constituent concentrations at MW-48W appears to be from an off-site source, based on concentration gradients which indicate that the source is west(PN) to southwest(PN) of the Facility. Based on groundwater elevations in this area, it is also believed that groundwater is being captured by the sanitary sewer (Figures 12a through 12g).

Carbon tetrachloride* was detected in monitoring well MW-57W at a concentration just greater (8 ug/L and 9 ug/L) than the drinking water criterion (Table 3.3.2 and Figure 22) for the May 2005 sampling event only. Carbon tetrachloride was not found in the suspected source area in Group 1 near the Paint Mix Building and is rarely detected in other on-site groundwater samples (and never in 190 RFI/RI soil samples). As discussed in Section 3.1, carbon tetrachloride appears to be related to an off-Site contributor. Therefore, the carbon tetrachloride does not appear to be related to the Facility activities in this area or upgradient of this area. Regardless, based on groundwater elevations and water elevations in the sanitary sewer along the alignment of Smith Street; groundwater is being captured by the sanitary sewer.

3.3.3 Group 3 (southeast(PN))

3.3.3.1 Overburden

Arsenic and manganese were detected above the drinking water criterion during the April 2005 sampling event at several monitoring wells in this group (Table 3.3.1 and Figure 23). As discussed in Section 3.1, manganese and arsenic are naturally occurring constituents in groundwater and not considered related to Facility activities. Cadmium was also detected above the drinking water criterion at BEC-7D (Table 3.3.1 and Figure 23). Downgradient wells in this group (MW-61S, MW-62S, and MW-69S) do not indicate cadmium above MCLs, thus the extent of cadmium appears adequately defined. In addition, as discussed in Section 3.1, sporadic and inconsistent detections of cadmium do not appear to be indicative of an Facility- elated impact. Regardless, overburden groundwater is captured by the sanitary sewer that is aligned along West Edgar Road (Figures 11a through 11g)

3.3.3.2 Weathered Bedrock

Trichloroethene was detected in several wells in Group 3 at concentrations greater than the drinking water criterion (Table 3.3.2 and Figure 24). In addition, cis-1,2-dichloroethene, vinyl chloride and 1,2-dichloroethane* were detected in MW-63W at concentrations greater than the drinking water criteria (Table 3.3.2 and Figure 24). Based on groundwater flow direction, the detections of VOCs above the drinking water criteria at MW-63W and MW-69W appear to be from off-site sources to the west(PN) of the Facility. Further, weathered bedrock groundwater is captured by the sanitary sewer that is aligned along West Edgar Road (Figures 12a through 12g), as

discussed above. Therefore, the extent of these compounds have been adequately defined.

3.3.4 Group 4 (northeast(PN))

3.3.4.1 Overburden

Arsenic, manganese, barium, cadmium and vanadium were detected at several wells in concentrations above the drinking water criterion during the RFI/RI groundwater sampling events (Table 3.3.1 and Figure 25). As discussed in Section 3.1, arsenic, manganese, and barium are naturally occurring constituents in groundwater and not considered related to Facility activities. Cadmium and vanadium have had infrequent detections above MCLs, and no consistent aerial pattern is present. Therefore, there does not appear to be a Facility-related source area for these compounds. Lead was detected in monitoring well BEC-2S in January 2003 and at BEC-11S in February 2005 at concentrations greater than the drinking water criterion (Table 3.3.1 and Figure 25). Subsequent groundwater samples have been collected that have not had concentrations greater than the drinking water criterion since the exceedences were encountered. As discussed in Section 3.2.4.1, groundwater in the northeast(PN) corner of the facility appears to be captured by the storm sewer along Linden Avenue

Mercury was detected in monitoring well BEC-5D during the April 2005 sampling event at a concentration greater than the drinking water criterion (Table 3.3.1 and Figure 25). Monitoring well BEC-5D is located along the northern(PN) property boundary along Linden Avenue. The source of the mercury appears to be off-site, based on groundwater flow direction (Figures 11a through 11g). Downgradient monitoring wells in Groups 1, 2, or 3 have not indicated any detection of mercury above the drinking water criterion.

Trichloroethene was detected in monitoring wells BEC-5D, BEC-9S and MW-01D at concentrations higher than the drinking water criterion (Table 3.3.1 and Figure 25). The last exceedances at MW-01D occurred in October 2003 and subsequent samples have not exceeded the drinking water criterion. The source of trichloroethene at monitoring wells BEC-5D and BEC-9S are off-site, based on groundwater flow direction. Groundwater flow at BEC-9S tends toward the east(PN), and appears to be captured in the storm sewer aligned along Linden Avenue (Figures 11a through 11g).

1,2-Dichloroethane* was detected in monitoring well BEC-5D at a concentration greater than the drinking water criterion in August 2002 (Table 3.3.1 and Figure 25). Subsequent groundwater samples obtained from BEC-5D have not had concentrations of 1,2-dichloroethane greater than the drinking water criterion. Bis(2-chloroethyl)ether was also detected in monitoring well BEC-5D at concentrations greater than the drinking water criterion (Table 3.3.1 and Figure 25). As discussed in Section 3.2, these constituents appear to be unrelated to Facility activities and suggest an off-Site contributor. Further, groundwater flow confirms that the source for these constituents are likely off-Site (Figure 11a through 11g).

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3.3.4.2 Weathered Bedrock

Manganese was detected in concentrations greater than the drinking water criteria at monitoring wells BEC-4D, MW-42W and MW-55W. Arsenic was detected in concentrations greater than the drinking water criteria at BEC-1B, which has been abandoned (Table 3.3.2 and Figure 26). As discussed in Section 3.1, manganese and arsenic are naturally occurring constituents in groundwater and not considered related to Facility activities.

Trichloroethene, benzene, 1,2-dichloroethane*, tetrachloroethene, 1,1-dichloroethene, cis-1,2-dichloroethene and vinyl chloride were detected in fourteen monitoring wells in Group 4, at concentrations greater than the drinking water criteria (Table 3.3.2 and Figure 26). Vinyl chloride was last detected in monitoring wells MW-42W and MW-50W in February and March 2005, respectively, but was not detected in the most recent sampling event in April/May 2005. Eight of these fourteen locations which indicated VOCs also had detections of bis(2-chloroethyl)ether as well as 1,2-dichloroethane detected at concentrations greater than the drinking water criteria (Table 3.3.2 and Figure 26). As discussed in Section 3.2, bis(2-chloroethyl)ether and 1,2-dichloroethane are considered to be unrelated to Facility activities and suggest that the detections may be related to off-Site influences. Groundwater flow patterns in the vicinity of MW-14W, MW-15W, and BEC-1D indicate that the detections of VOCs and bis(2-chloroethyl)ether are from an upgradient source. Groundwater flow patterns also indicate that the storm sewer along the Linden Avenue alignment captures groundwater in the northeast(PN) corner of the facility. Groundwater in the southern(PN) portion of this group, is towards Group 2 and Group 3, which, as discussed above, have been adequately defined.

Trichloroethene and 1,1-dichloroethene were detected at concentrations above the drinking water criterion at monitoring wells MW-16W and MW-68W, on the eastern property boundary. Groundwater flow patterns from July 2005 indicates that the groundwater mound may be influencing flow patterns in this area, resulting in off-Site groundwater flow. Additional efforts are underway to resolve the apparent groundwater mound in the overburden and weathered bedrock groundwater.

3.3.5 Bedrock Flow Zone #1

Laboratory analytical results from last four sampling events at MW-15B have indicated several VOCs (1,2-dichloroethane*, benzene, and trichloroethene) slightly above the drinking water criterion (Table 3.3.3 and Figure 27). In addition, VOCs (1,2-dichloroethane* and trichloroethene) and one SVOC (bis(2-chloroethyl)ether) were detected above drinking water criterion during the last three sampling events at concentrations slightly above their respective drinking water criterion at MW-45B (Table 3.3.3 and Figure 27). Based on the downward gradient from the weathered bedrock to bedrock and the interaction of the weathered bedrock and bedrock groundwater at the subcrop area discussed in Section 2.7.4.3, it is likely that these low level detections of VOCs and SVOCs (bis(2-chloroethyl)ether) are resulting from the weathered bedrock interval. Further delineation of the direction of groundwater flow, interaction with the Weathered Bedrock, and the extent of benzene and TCE contamination associated with the Facility is currently underway.

3.3.6 Bedrock Flow Zone #2

Arsenic has been detected in concentrations greater than the drinking water criterion in monitoring wells MW-43B, MW-47B, MW-49B and MW-66B (Table 3.3.3 and Figure 28). As discussed in Section 3.1, arsenic is a naturally occurring constituent in groundwater and not considered related to Facility activities.

Vanadium was detected in monitoring well MW-49B at a concentration greater than the drinking water criterion in April 2005 (Table 3.3.3 and Figure 28). This is the first exceedance of the MCL for vanadium in BFZ#2, so no consistent pattern is present. As discussed in Section 3.1, the sporadic and infrequent detections of several metals does not indicate a pattern that would be consistent with a Facility impact. Downgradient monitoring wells MW-43B and MW-44B do not indicate detections of vanadium above drinking water criterion, thus it appears that this constituent has been adequately defined.

Several VOCs (trichloroethene, 1,1,2-trichloroethane*, 1,2-dichloroethane*, benzene, chlorobenzene, chloroform*, cis-1,2-dichloroethene, tetrachloroethene, trans-1,2-dichloroethene, vinyl chloride, 1,1-dichloroethene, carbon tetrachloride*, methylene chloride and 1,1,2,2-trichloroethane*) have been detected at concentrations exceeding the drinking water criterion at monitoring wells in BFZ #2 (Table 3.3.3 and Figure 28). There is a known source of VOCs in the overburden and weathered bedrock intervals beneath/adjacent to the Paint Mix Building, which likely impacts BFZ #2 due to the proximity of the BFZ #2 subcrop. However, bis(2-chloroethyl)ether (BCEE) and several other VOCs, as discussed in Section 3.1 were also detected in these monitoring wells at concentrations greater than the drinking water criterion (Table 3.3.3 and Figure 28). As discussed in Section 3.2, bis(2-chloroethyl)ether and several VOCs do not appear to be related to on-Site sources and suggest an off-Site contribution. Further, a review of the concentrations of trichloroethene and bis(2-chloroethyl)ether in BFZ#2, from east to west(PN), indicate an approximate 10-fold increase in groundwater concentrations, with the highest detected concentrations of both constituents at MW-47B. Therefore, this indicates that a significant part of the groundwater contamination present in BFZ#2 is a result of an off-Site impact.

The groundwater flow pattern, as discussed in Section 2.7.4.3 and 3.2.6, indicates a northern(PN) direction of flow in the Paint Mix Building investigation area. Based on local and regional aquifer properties and influences, it is expected that groundwater flow in BFZ#2 will ultimately be towards the west(PN), where it is captured by the Merck pumping or discharges to the Rahway River (Merck 2005). Additional water levels are being collected in July, August, and September to verify groundwater flow patterns and the influence of Merck pumping.

3.3.7 Bedrock Flow Zone #3

Laboratory analytical results from MW-18B have indicated several VOCs (1,2-dichloroethane*, benzene, carbon tetrachloride*, chloroform*, methylene chloride and trichloroethene) above the drinking water criterion (Table 3.3.3 and Figure 29).
Recent sampling events indicate also several of the same VOCs above drinking water criterion at MW-49BD (1,2-dichloroethane*, benzene, methylene chloride, trichloroethene, and vinyl chloride) (Table 3.3.3 and Figure 29). Based on aquifer testing results discussed in Section

2.7.4.3, BFZ#2 and BFZ#3 are vertically hydraulically linked. Therefore, with the downward hydraulic head from BFZ#2 to BFZ#3, it is likely the presence of VOCs within this unit is a result of VOCs present in the area in BFZ#2.

Trichloroethene was also detected above drinking water criterion at MW-63B and MW-55B, on the upgradient side of the Facility in this unit. Samples from the most recent sampling event, April 2005, indicated VOCs in MW-55B were below drinking water criteria. Based on the groundwater flow in BFZ#3 from the east to west(PN), it appears that the detections at MW-63W are a result of off-Site impact.

Regardless of the source of constituents at all of the wells in BFZ#3, the groundwater flow pattern indicates that groundwater moves to the Merck facility. Concentrations of these constituents are significantly lower than those being address on the Merck facility, where Merck is actively pumping and addressing discharges to the Rahway River. Further vertical delineation of the potential impacts in BFZ#4 in the Paint Mix Building area are also currently in progress.

3.3.8 Bedrock Flow Zone #4

Laboratory analytical results from the November 2004 sampling event indicated that the only compound detected above the drinking water criterion was manganese at MW-8B (Table 3.3.3 and Figure 30). Manganese was not identified to be above the drinking water criterion in subsequent sampling events in February and April 2005. The February and April 2005 sampling events have been conducted using low-flow groundwater sampling technique. This technique is considered to be more representative of natural groundwater conditions that the techniques used previously. Regardless, as discussed in Section 3.1, manganese is a naturally occurring constituent in groundwater and not considered related to Facility activities.

Based on the detections of VOCs in shallower bedrock units (BFZ#2 and BFZ#3) in the vicinity of the Paint Mix area and the downward groundwater gradient, further vertical delineation of Facility-related VOCs in BFZ#4 is required. One additional well completed to BFZ#4 is currently being completed in this area

3.4 Discharge to Surface Water Bodies

Question 4 asks whether contaminated groundwater discharges into surface water bodies.

TO BE COMPLETED

3.5 Future Monitoring

Question 7 asks whether future monitoring will be conducted to confirm that the existing areas of groundwater identified in Question 3 will remain stabilized.

TO BE COMPLETED

DRAFT

3.6 Conclusion

TO BE COMPLETED

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REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological Profile for Chromium. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

American Conference of Government Industrial Hygenists (ACGIH). 2003. 2003 TLVs and BEIs. ISBN: 1-882417-40-2.

Anderson. 1968. Geology and Ground-Water Resources of the Rahway Area, New Jersey. State of New Jersey, Department of Conservation and Economic Development. Special Report No. 27.

Britton, R., Coffee, C., Brudereck, J. 2001. Potential Cross-Contamination of a Leaky Multi-Unit Bedrock Aquifer System Following Routine Sampling Protocols. Presented at Fractured Rock 2001, Toronto, Canada.

Dougherty, J., Soo, A., Alvey, R., Evolving Conceptual Models and Monitoring Well Reconstruction in the Passiac Formation in New Jersey.

Department of Health and Human Services (DHHS). 1997. NIOSH Pocket Guide to Chemical Hazards. DHHS(NIOSH) 97-140. June.

Efron, B. and R.J. Tibshirani. 1998. An Introduction to the Bootstrap. Chapman & Hall/CRC, Boca Raton.

ENVIRON Corporation. 2000. Human Health and Ecologic Risk Assessment, Merck Rahway Facility. April.

ENVIRON International Corporation. 2003. Health-Based Evaluation of Data to Streamline RCRA Facility Investigations (RFIs) at General Motors Facilities. October.

Haley & Aldrich. 2002. RCRA Facility Investigation Workplan and New Jersey Remedial Investigation Workplan. General Motors Vehicle Manufacturing - Linden Assembly. July 29.

Jury, W. A., D. Russo, G. Streile, and H. E. Abd. 1990. Evaluation of volatilization by organic chemicals residing below the soil surface. Water Resources Research. 26(1):13-20.

Johnson, P. C., and R. A. Ettinger. 1991. Heuristic model for predicting the intrusion rate of contaminant vapors into buildings. Environ. Sci. Technol. 25(8):1445-1452.

Merck. 1991a. RCRA Facility Investigation Rahway Facility, Facility Background Report. October.

Merck. 1991b. RCRA Facility Investigation Rahway Facility, Phase I Report. October.

Draft

Merck. 1994. RCRA Facility Investigation Rahway Facility, Phase II Report. March.

Merck & Co., Inc. 1994. RCRA Facility Investigation Merck Rahway Facility Phase II Report. Prepared by Dames & Moore, Bethesda, MD. March.

Merck. 1996a. RCRA Facility Investigation Rahway Facility, Corrective Measures Study. August.

Merck. 1996b. 1995 Interim Groundwater Monitoring Rahway Facility. May.

Merck. 1998. Soil Cleaning Unit Treatability Variance Application. April.

Merck. 1998. Soil Cleaning Unit Soil Reuse Proposal. September.

Merck. 2000b. Response to NJDEP Comments on the Hydrogeologic Assessment Report for Monitoring Wells MW-30MP and MW-34MP and Recovery Well RW-1. November 1999.

Merck. 2004b. 2003/2004 Annual Remedial Report. September.

Michalski, A., Britton, R. 1992. Integrated Use of Multiple Techniques for Contaminant Investigations in Fractured Aquifers: A Case Study from the Newark Basin, New Jersey. Proceedings of the Focus Conference on Eastern Groundwater, p. 809-826.

Michalski, A., Britton, R. 1997 The Role of Bedding Fractures in the Hydrogeology of Sedimentary Bedrock – Evidence from the Newark Basin, New Jersey. Groundwater, Vol. 35, No. 2, p. 318-327.

Michigan Department of Environmental Quality (MDEQ). 1998. Environmental Response Division, Operational Memorandum #18, Technical Supporting Document. August.

Michigan Department of Environmental Quality (MDEQ). 2002. Administrative Rules for Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as Amended. Generic Cleanup Criteria and Screening Levels. December.

Morin, R., Carleton, G., Poirier, S. 1997 Fractured-Aquifer Hydrogeology from Geophysical Logs; The Passiac Formation, New Jersey. Groundwater, Vol. 35, No. 2, p. 328-338.

National Oceanic and Atmospheric Administration (NOAA). 1993. Comparative Climatic Data for the United States Through 1993.

Nemickas, B. 1976. Geology and Ground-Water Resources of Union County, New Jersey. U.S. Geological Survey Water-Resources Investigation Report 76-73.

New Jersey Administrative Code 7:9-6. (N.J.A.C. 7:9-6). Ground Water Quality Standards. January 7, 1993.

Draft

New Jersey Administrative Code 7:26D. (N.J.A.C. 7:26D) Proposed Rule entitled Cleanup Standards for Contaminated Sites. February 3, 1992. (Soil cleanup criteria pursuant to this proposed rule were last revised on May 12, 1999, and were obtained from http://www.state.nj.us/dep/srp/regs/scc/).

Olsen, P., Kent, D., Cornet, B., Witte, W., Schlische, R. 1996 High-Resolution Stratigraphy of the Newark Rift Basin (Early Mesozoic, eastern North America). GSA Bulletin, V. 108, No. 1, p. 40-77.

Redmond, R., Starcher, R., Sigerson, A. , Groundwater Flow and Contaminant Migration in the Brunswick Group (Newark Basin). Proceeding of the Focus on Eastern Regional Ground Water, Burlington, Vermont, p. 3-16.

United States Environmental Protection Agency (USEPA). 1987. Hazardous Water Treatment, Storage and Disposal Facilities (TSDF) - Air Emission Models, Documentation, Research Triangle Park. December.

United States Environmental Protection Agency (USEPA). 1989. Office of Emergency and Remedial Response. Risk Assessment Guidance for Superfund. Volume I, Human Health Evaluation Manual. Washington, DC. EPA/540-1-89-002. OSWER Directive 9285.7 01a. December.

United States Environmental Protection Agency (USEPA). 1991a. Human health evaluation manual, supplemental guidance: "Standard default exposure factors." Memorandum from T. Fields, Jr., Office of Emergency Remedial Response, to B. Diamond, Office of Waste Programs Enforcement. OSWER Directive 9285.6-03. March 25.

United States Environmental Protection Agency (USEPA). 1991b. Role of the baseline risk assessment in Superfund remedy selection decisions. Memorandum from Don R. Clay to Regional Directors. OSWER Directive 9355.0-30. April 22.

United States Environmental Protection Agency (USEPA). 1992. Office of Research and Development. Dermal Exposure Assessment: Principles and Applications. EPA/600/8-91/011B. January.

United States Environmental Protection Agency (USEPA). 1995a. Emissions, Monitoring, and Analysis Division. Office of Air Quality Planning and Standards. SCREEN3 Model user's guide. EPA-454/B-95-004.

United States Environmental Protection Agency (USEPA), 1995b. Office of Air Quality Planning and Standards. Compilation of air pollutant emission factors. Volume I: Stationary point and area sources. AP-42, Fifth Edition.

United States Environmental Protection Agency (USEPA). 1995c. Office of Air Quality Planning and Standards. Guidelines for predictive baseline emissions estimation procedures for Superfund Sites, ASF-21. EPA-451/R-96-001. November.

DRAFT

United States Environmental Protection Agency (USEPA). 1997a. Health Effects Assessment Summary Tables (HEAST). FY 1997 Update. EPA-540-R-97-036. July.

United States Environmental Protection Agency (USEPA). 1996. Office of Solid Waste and Emergency Response (OSWER). Soil Screening Guidance: Technical Background Document, 2nd Ed. EPA/540/R95/128. May.

United States Environmental Protection Agency (USEPA). 1997b. Office of Health and Environmental Assessment. Exposure Factors Handbook. Washington, DC. EPA/600/P-95/002Fa. August.

United States Environmental Protection Agency (USEPA). 1997c. Office of Solid Waste and Emergency Response (OSWER). The Lognormal Distribution in Environmental Applications. EPA/600/R-97/006. December.

United States Environmental Protection Agency (USEPA). 1998. Office of Solid Waste and Emergency Response (OSWER). Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Peer Review Draft. EPA530-D-98-001A. July.

United States Environmental Protection Agency (USEPA), 2000. Update to supplemental guidance to RAGS: Region 4 Bulletins. March 2000 revision. U.S. Environmental Protection Agency, Region 4, Waste Management Division, Office of Technical Services, Atlanta, GA.

United States Environmental Protection Agency (USEPA). 2001. Office of Emergency and Remedial Response. Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment). EPA/540/R/99/005. September.

United States Environmental Protection Agency (USEPA), 2002. Region 9 Preliminary Remediation Goals (PRGs) 2002. October.

United States Environmental Protection Agency (USEPA), 2003a. User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings. Office of Emergency and Remedial Response, Washington D.C., June.

United States Environmental Protection Agency (USEPA). 2003b. Office of Solid Waste and Emergency Response (OSWER). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil. December.

United States Geological Survey 2003. Major Aquifers in New Jersey. http://nj/water.usgsg.gov/gw/aquifer.html.

URS Corporation. 2001. Rahway Plant, Remedial Action Work Plan. May.

Draft

URS Corporation. 2001. Rahway Plant, Remedial Action Work Plan, Quality Assurance Project Plan. May.

URS Corporation. 2001. Proposed Child Development Center Second Addition, Site Assessment, Merck Rahway Plant. June.

URS Corporation. 2001. Baseline Ecological Evaluations, Merck & Co., Inc., Rahway Site. September.

URS Corporation. 2001. Rahway River Waste and Sediment Sampling 2001. September.

URS Corporation. 2002. 2001/2002 Annual Remediation Report, Rahway Plant. September.

URS Corporation. 2002. March 2002 Baseline Groundwater Sampling Report. September.

URS Corporation. 2002. Remedial Action Work Plan Amendment Attachment: Freshwater Wetlands Mitigation Proposal. December.

URS Corporation. 2003. Quarterly Remediation Report September 1 to November 30, 2002, Rahway Site. January.

URS Corporation. 2003. 2002/2003 Annual Remediation Report. September.

URS Corporation. 2003. 2002/2003 Groundwater Management Report (Part 1 of 2). September.

URS Corporation. 2003. 2002/2003 Groundwater Management Report (Part 2 of 2). September.

URS Corporation. 2003. Quarterly Remediation Report September 1, 2003 to November 30, 2003, Rahway Site. December.

URS Corporation. 2004. Quarterly Remediation Report March 1 to May 31, 2004, Rahway Site. June.

URS Corporation. 2004. Quarterly Remediation Report December 1, 2003 to February 29, 2004, Rahway Site. March.

URS Corporation. 2005. Hydrogeologic Summary Report, Rahway Site. March.

Draft

Tables

TABLE 2.7.4.1
SUMMARY OF PERMEABILITY TESTS - STAGE III RFI/RI
GENERAL MOTORS VEHICLE MANUFACTURING - LINDEN ASSEMBLY PLANT
LINDEN, NEW JERSEY

Well ID	DEPTH TO BOTTOM	WELL DIAMETER (in)	SCREENED, OR OPEN BORE HOLE	MONITORING INTERVAL (ft)	DATE	TEST ID	K(h) (cm/sec)	Slug Test Methodology	Analysis Methodology	COMMENTS
Shallow Overburden										
MW-27S	17.5	4	SCREENED	7.5-17.5	6/15/2005	T1	2.98E-04	RH	B-R	
					6/16/2005	T2	4.05E-04	RH	B-R	
					6/16/2005	T3	5.23E-04	RH	B-R	
MW-40S	17.5	4	SCREENED	7-17	12/13/2004	T1	2.2E-03	RH	B-R	
					12/13/2004	T2	2.3E-03	RH	B-R	
MW-41S	17.0	4	SCREENED	7-17	6/9/2005	T1	3.1E-04	RH	B-R	
					6/15/2005	T2	3.3E-04	RH	B-R	
MW-43S	18.5	4	SCREENED	8-18	12/13/2004	T1	3.7E-04	RH	B-R	
					12/13/2004	T2	4.4E-04	RH	B-R	
MW-44S	17.0	4	SCREENED	7-17	12/13/2004	T1	6.0E-03	RH	B-R	
					12/13/2004	T2	7.2E-03	RH	B-R	
					12/13/2004	T3	7.6E-03	RH	B-R	
MW-47S	17.5	4	SCREENED	7-17	12/14/2004	T1	1.2E-03	RH	B-R	
					12/14/2004	T2	1.5E-03	RH	B-R	
MW-49S	17.0	4	SCREENED	7-17	6/13/2005	T2	4.0E-04	RH	B-R	
					6/13/2005	T3	4.9E-04	RH	B-R	
MW-50S	15.0	4	SCREENED	5-15	4/28/2005	T1	1.5E-03	RH	B-R	
					4/20/2005	T2	1.6E-03	RH	B-R	
MW-52S	14.0	4	SCREENED	4-14	4/7/2005	T1	6.2E-02	RH	B-R	
MW-53S	12.0	4	SCREENED	2-12	6/7/2005	T1	1.1E-03	RH	B-R	
					6/7/2005	T2	1.2E-03	RH	B-R	
MW-55S	13.0	4	SCREENED	3-13	7/27/2005	T1	3.6E-03	RH	B-R	
					7/27/2005	T2	3.2E-03	RH	B-R	
					7/27/2005	T3	3.1E-03	RH	B-R	
MW-57S	14.0	4	SCREENED	4-14	6/22/2005	T1	2.6E-02	RH	B-R	
					6/22/2005	T2	2.6E-02	RH	B-R	
MW-59S	14.0	4	SCREENED	4-14	6/22/2005	T1	1.7E-03	RH	B-R	
					6/22/2005	T2	1.7E-03	RH	B-R	
MW-62S	15.0	4	SCREENED	5-15	7/28/2005	T1	1.5E-03	RH	B-R	
					7/28/2005	T2	1.7E-03	RH	B-R	
MW-63S	17.0	4	SCREENED	7-17	6/9/2005	T1	2.6E-03	RH	B-R	
					6/9/2005	T2	2.8E-03	RH	B-R	
					6/9/2005	T3	2.9E-03	RH	B-R	
MW-67S	16.0	4	SCREENED	6-16	5/26/2005	T1	5.0E-05	RH	B-R	
MW-68S	12.0	4	SCREENED	2-12	6/7/2005	T1	2.3E-03	RH	B-R	
					6/7/2005	T2	2.6E-03	RH	B-R	
					6/7/2005	T3	2.6E-03	RH	B-R	
MW-69S	13.0	4	SCREENED	3-13	7/27/2005	T1	2.8E-03	RH	B-R	
					7/27/2005	T2	2.8E-03	RH	B-R	
					7/27/2005	T3	2.8E-03	RH	B-R	

TABLE 2.7.4.1
SUMMARY OF PERMEABILITY TESTS - STAGE III RFI/RI
GENERAL MOTORS VEHICLE MANUFACTURING - LINDEN ASSEMBLY PLANT
LINDEN, NEW JERSEY

Well ID	DEPTH TO BOTTOM	WELL DIAMETER (in)	SCREENED, OR OPEN BORE HOLE	MONITORING INTERVAL (ft)	DATE	TEST ID	K(h) (cm/sec)	Slug Test Methodology	Analysis Methodology	COMMENTS
Weathered Bedrock										
MW-9W	49.0	4	SCREENED	39-49	5/16/2005	T1	1.1E-05	RH	H	
MW-23W	37.0	4	SCREENED	27-37	1/7/2005	T1	2.2E-02	RH	H	
					1/7/2005	T2	2.3E-02	RH	H	
MW-40W	44.0	4	SCREENED	34-44	12/8/2004	T1	5.0E-03	RH	H	
					12/8/2004	T2	6.5E-03	RH	H	
					12/8/2004	T3	1.3E-03	RH	H	
MW-41W	34.0	4	SCREENED	29-34	12/7/2004	T1	1.9E-04	RH	H	
					12/7/2004	T2	2.0E-04	RH	H	
					12/7/2004	T3	1.7E-04	RH	H	
MW-42W	42.0	4	SCREENED	32-42	12/9/2004	T1	1.6E-02	RH	H	
					12/9/2004	T2	1.4E-02	RH	H	
					12/9/2004	T3	1.3E-02	RH	H	
MW-43W	47.0	4	SCREENED	37-47	1/6/2005	T1	6.2E-04	RH	H	
					1/6/2005	T2	1.0E-03	RH	H	
MW-44W	43.0	4	SCREENED	33-43	12/14/2004	T1	6.1E-03	RH	H	
					12/14/2004	T2	5.1E-03	RH	H	
MW-45W	50.0	4	SCREENED	40-50	12/9/2004	T1	1.3E-02	RH	H	
MW-46W	39.0	4	SCREENED	29-39	12/8/2004	T1	1.3E-03	RH	H	
					12/8/2004	T2	1.6E-03	RH	H	
MW-47W	38.0	4	SCREENED	28-38	12/9/2004	T1	1.6E-03	RH	H	
					12/9/2004	T2	1.6E-03	RH	H	
MW-48W	35.0	4	SCREENED	30-35	12/8/2004	T1	1.7E-03	RH	H	
					12/8/2004	T2	1.8E-03	RH	H	
					12/8/2004	T3	1.5E-03	RH	H	
MW-49W	40.0	4	SCREENED	30-40	5/16/2005	T1	2.6E-03	RH	H	
					5/16/2005	T2	1.1E-03	RH	H	
MW-50W	38.0	4	SCREENED	28-38	3/15/2005	T1	9.5E-04	RH	H	
					3/15/2005	T2	9.1E-04	RH	H	
MW-52W	50.0	4	SCREENED	40-50	3/21/2005	T1	3.5E-04	RH	H	
					3/21/2005	T2	3.3E-04	RH	H	
					3/21/2005	T3	4.0E-04	RH	H	
MW-54W	44.0	4	SCREENED	34-44	3/25/2005	T1	6.6E-05	RH	H	
					3/25/2005	T2	1.5E-04	RH	H	
MW-55W	49.0	4	SCREENED	39-49	3/17/2005	T1	2.0E-03	RH	H	
					3/17/2005	T2	1.0E-03	RH	H	
MW-57W	35.0	4	SCREENED	23-35	3/23/2005	T1	4.0E-03	RH	H	
					3/23/2005	T2	1.9E-03	RH	H	
					3/23/2005	T3	2.1E-03	RH	H	
MW-58W	61.0	4	SCREENED	51-61	3/16/2005	T1	1.0E-04	RH	H	
					3/17/2005	T2	7.1E-05	RH	H	
MW-61W	53.0	4	SCREENED	43-53	6/8/2005	T1	9.9E-04	RH	H	
MW-66W	42.0	4	SCREENED	32-42	6/6/2005	T1	2.0E-03	RH	H	
					6/6/2005	T2	8.1E-04	RH	H	
					6/6/2005	T3	2.6E-02	RH	H	
					6/6/2005	T4	3.6E-02	RH	H	
MW-67W	48.0	4	SCREENED	38-48	5/31/2005	T1	6.9E-03	RH	H	
					5/31/2005	T2	6.7E-03	RH	H	
					5/31/2005	T3	6.5E-03	RH	H	
MW-69W	48.0	4	SCREENED	38-48	6/6/2005	T1	3.7E-03	RH	H	
					6/6/2005	T2	3.2E-03	RH	H	

TABLE 2.7.4.1
SUMMARY OF PERMEABILITY TESTS - STAGE III RFI/RI
GENERAL MOTORS VEHICLE MANUFACTURING - LINDEN ASSEMBLY PLANT
LINDEN, NEW JERSEY

Well ID	DEPTH TO BOTTOM	WELL DIAMETER (in)	SCREENED, OR OPEN BORE HOLE	MONITORING INTERVAL (ft)	DATE	TEST ID	K(h) (cm/sec)	Slug Test Methodology	Analysis Methodology	COMMENTS
Bedrock										
MW-9B	99.0	6	OPEN HOLE	74-99	12/29/2004	T1	2.4E-04	RH	H	
					12/29/2004	T2	1.7E-04	RH	H	
MW-37B	109.0	6	OPEN HOLE	84-109	3/11/2005	T1	7.7E-05	RH	H	
					3/11/2005	T2	7.7E-05	RH	H	
MW-43B	205.0	6	OPEN HOLE	180-205	7/14/2005	T1	6.3E-05	RH	H	
MW-44B	200.0	6	OPEN HOLE	175-200	7/1/2005	T1	4.6E-04	RH	H	
MW-45B	90.0	6	OPEN HOLE	65-90	7/7/2005	T1	2.8E-04	RH	H	
					7/7/2005	T2	3.0E-04	RH	H	
MW-49B	150.0	6	OPEN HOLE	130-150	6/27/2005	T1	3.7E-04	RH	H	
					6/27/2005	T2	3.4E-04	RH	H	
MW-52B	110.0	6	OPEN HOLE	90-110	3/8/2005	T1	5.0E-05	RH	H	
MW-54B	123.0	6	OPEN HOLE	98-123	7/8/2005	T1	6.3E-05	RH	H	
					7/11/2005	T2	6.3E-05	RH	H	
MW-55B	100.0	6	OPEN HOLE	80-100	3/18/2005	T1	2.2E-04	RH	H	
					3/18/2005	T2	2.4E-04	RH	H	
					3/18/2005	T3	2.8E-04	RH	H	
MW-57B	70.0	6	OPEN HOLE	50-70	3/5/2005	T2	3.9E-04	RH	H	
					3/5/2005	T3	5.5E-04	RH	H	
MW-58B	108.0	6	OPEN HOLE	88-108	3/7/2005	T1	5.1E-05	RH	H	
MW-61B	98.0	6	OPEN HOLE	78-98	6/29/2005	T1	1.3E-05	RH	H	
					7/13/2005	T2	1.3E-05	RH	H	
MW-62B	109.0	6	OPEN HOLE	94-109	6/30/2005	T1	1.9E-04	RH	H	
MW-63B	100.0	6	OPEN HOLE	80-100	7/6/2005	T1	3.3E-04	RH	H	
					7/6/2005	T2	3.2E-04	RH	H	
MW-66B	85.0	6	OPEN HOLE	60-85	3/4/2005	T1	1.2E-04	RH	H	
					3/4/2005	T2	1.3E-04	RH	H	

Notes:
* Bore log not available for review
** Field data
*** Not Found
B-R - Bouwer & Rice (1976)
H - Hvorslev (1951)

TABLE 2.7.4.3
SUMMARY OF PACKER PERMEABILITY TESTS
STAGE III RFI/RI
GENERAL MOTORS LINDEN FACILITY
LINDEN, NEW JERSEY

Monitoring Well	Test Date	Depth Interval (ft)	Lugeon Value	Hydraulic Conductivity (cm/sec)	Notes
MW-9B	11/11/2004	39-44	4.58	4.39E-05	
	11/11/2004	44-49	8.34	8.00E-05	
	11/11/2004	49-54	1.63	1.57E-05	
	11/11/2004	54-59	0.16	1.55E-06	
	11/12/2004	59-64	0.06	5.53E-07	
	11/12/2004	64-69	0.05	5.12E-07	
	11/12/2004	69-74	0.07	6.69E-07	
	11/12/2004	74-79	0.03	2.56E-07	
	11/15/2004	79-84	7.38	7.08E-05	
	11/15/2004	84-89	1.26	1.20E-05	
	11/15/2004	89-94	1.39	1.33E-05	
	11/15/2004	94-99	0.04	3.55E-07	
MW-14W	11/30/2004	45-50	10.88	1.04E-04	
	11/30/2004	50-55	9.34	8.96E-05	
	11/30/2004	55-60	9.77	9.37E-05	
MW-23W	9/14/2004	32-37	18.2	1.75E-04	
	9/15/2004	37-42	6.47	6.21E-05	
MW-37B	1/13/2005	40-45	3.54	3.40E-05	
	1/13/2005	45-50	0.04	4.19E-07	
	1/13/2005	50-55	Low	Low	No take observed during test.
	1/17/2005	55-60	2.05	1.97E-05	
	1/17/2005	60-65	0.12	1.11E-06	
	1/17/2005	65-70	0.99	9.53E-06	
	1/18/2005	70-75	Low	Low	No take observed during test.
	1/18/2005	75-80	0.06	6.23E-07	
	1/18/2005	80-85	0.09	8.24E-07	
	1/19/2005	85-90	0.44	4.23E-06	
	1/19/2005	90-95	5.44	5.22E-05	
	1/19/2005	95-100	0.1	9.91E-07	
	1/20/2005	100-105	0.08	7.98E-07	
	1/20/2005	105-110	0.03	3.22E-07	
	1/20/2005	110-115	0.06	5.42E-07	
MW-40W	10/27/2004	34-39	13.04	1.25E-04	
	10/27/2004	39-44	13.18	1.26E-04	
MW-41W	8/17/2004	33-41	9.2	9.63E-05	
MW-42W	9/7/2004	35-40	14.7	1.41E-04	
	9/7/2004	35-45	2.15	2.45E-05	
MW-43W	11/5/2004	34-41	10.81	1.04E-04	
	11/5/2004	41-46	4.37	4.19E-05	
	11/5/2004	46-51	6.42	6.16E-05	
MW-43B	4/13/2005	55-60	17.61	1.69E-04	
	4/13/2005	60-65	3.71	3.56E-05	
	4/13/2005	65-70	18.19	1.75E-04	
	4/14/2005	70-75	13.63	1.31E-04	
	4/14/2005	75-80	5.73	5.50E-05	
	4/14/2005	80-85	4.07	3.91E-05	
	4/15/2005	85-90	0.37	3.57E-06	
	4/15/2005	90-95	1.15	1.11E-05	
	4/18/2005	95-100	5.22	5.01E-05	
	4/18/2005	100-105	19.95	1.91E-04	
	4/19/2005	105-110	8.79	8.43E-05	
	4/19/2005	110-115	0.44	4.18E-06	
	4/19/2005	115-120	5.44	5.22E-05	
	4/20/2005	120-125	0.1	9.41E-07	
	4/20/2005	125-130	0.1	9.59E-07	
	4/20/2005	130-135	0.06	5.57E-07	
	4/20/2005	135-140	8.53	8.19E-05	
	4/21/2005	140-145	0.37	3.59E-06	
	4/21/2005	145-150	0.52	5.01E-06	
	4/21/2005	150-155	0.33	3.19E-06	
	4/21/2005	155-160	0.54	5.23E-06	
	4/22/2005	160-165	0.24	2.28E-06	
	4/22/2005	165-170	1.29	1.24E-05	
	4/25/2005	170-175	0.46	4.40E-06	
	4/25/2005	175-180	0.63	6.04E-06	
	4/25/2005	180-185	4.51	4.33E-05	
	4/26/2005	185-190	1.84	1.77E-05	
	4/26/2005	190-195	3.17	3.04E-05	
	4/28/2005	195-200	1.84	1.76E-05	
	4/28/2005	200-205	0.69	6.59E-06	
	4/28/2005	205-210	0.23	2.22E-06	

TABLE 2.7.4.3
SUMMARY OF PACKER PERMEABILITY TESTS
STAGE III RFI/RI
GENERAL MOTORS LINDEN FACILITY
LINDEN, NEW JERSEY

Monitoring Well	Test Date	Depth Interval (ft)	Lugeon Value	Hydraulic Conductivity (cm/sec)	Notes
MW-44W	8/23/2004	35-40	16.6	1.59E-04	
	8/23/2004	40-45	9	8.63E-05	
	8/23/2004	45-50	3.74	3.59E-05	
MW-44B	2/14/2005	50-55	6.17	5.91E-05	
	2/14/2005	55-60	0.31	3.01E-06	
	2/14/2005	60-65	0.92	8.83E-06	
	2/14/2005	65-70	Low	Low	No take observed during test.
	2/15/2005	70-75	4.17	4.00E-05	
	2/16/2005	75-80	3.57	3.42E-05	
	2/16/2005	80-85	0.09	8.38E-07	
	2/16/2005	85-90	8.74	8.38E-05	
	2/16/2005	90-95	Low	Low	No take observed during test.
	2/17/2005	95-100	0.96	9.22E-06	
	2/17/2005	100-105	Low	Low	No take observed during test.
	2/17/2005	105-110	Low	Low	No take observed during test.
	2/18/2005	110-115	Low	Low	No take observed during test.
	2/18/2005	115-120	0.03	2.94E-07	
	2/18/2005	120-125	4.97	4.77E-05	
	2/18/2005	125-130	3.1	2.98E-05	
	2/21/2005	130-135	0.03	2.61E-07	
	2/21/2005	135-140	0.03	2.51E-07	
	2/21/2005	140-145	0.12	1.19E-06	
	2/22/2005	145-150	Low	Low	No take observed during test.
	2/22/2005	150-155	0.02	2.27E-07	
	2/22/2005	155-160	Low	Low	No take observed during test.
	2/22/2005	160-165	0.53	5.10E-06	
	2/23/2005	165-170	0.03	2.83E-07	
	2/23/2005	170-175	0.05	4.57E-07	
	2/23/2005	175-180	0.01	1.11E-07	
	2/23/2005	180-185	1.82	1.75E-05	
	2/24/2005	185-190	6.32	6.06E-05	
	2/24/2005	190-195	0.72	6.90E-06	
	2/24/2005	195-200	Low	Low	No take observed during test.
	2/25/2005	200-205	0.02	2.39E-07	
	2/28/2005	205-210	0.1	9.28E-07	
	2/28/2005	210-215	0.25	2.37E-06	
	2/28/2005	215-220	0.41	3.92E-06	
	3/1/2005	220-225	1.77	1.69E-05	
MW-45B	10/13/2004	55-60	0.02	2.38E-07	
	10/13/2004	60-65	10.97	1.05E-04	
	10/14/2004	65-70	4.3	4.12E-05	
	10/14/2004	70-75	3.09	2.97E-05	
	10/14/2004	75-80	9.02	8.65E-05	
	10/14/2004	80-85	6.46	6.20E-05	
	10/15/2004	85-90	1.3	1.25E-05	
MW-46W	10/1/2004	33-38	0.1	9.88E-07	
	10/1/2004	38-43	1.44	1.38E-05	
MW-47W	10/6/2004	32-37	10.98	1.11E-04	
	10/6/2004	37-42	9.86	9.46E-05	
	10/7/2004	42-47	4.55	4.37E-05	
MW-47B	3/21/2005	50-55	10	1.04E-04	
	3/21/2005	55-60	9.4	9.76E-05	
	3/21/2005	60-65	2.32	2.23E-05	
	3/22/2005	65-70	0.33	3.19E-06	
	3/22/2005	70-75	1.17	1.13E-05	
	3/23/2005	75-80	9.66	9.27E-05	
	3/25/2005	80-85	6.4	6.14E-05	
MW-48W	9/28/2004	33-38	0.85	8.14E-06	

TABLE 2.7.4.3
SUMMARY OF PACKER PERMEABILITY TESTS
STAGE III RFI/RI
GENERAL MOTORS LINDEN FACILITY
LINDEN, NEW JERSEY

Monitoring Well	Test Date	Depth Interval (ft)	Lugeon Value	Hydraulic Conductivity (cm/sec)	Notes
MW-49B	12/8/2004	35-40	11.91	1.14E-04	
	12/8/2004	40-45	2.82	2.70E-05	
	12/10/2004	45-50	6.09	5.84E-05	
	12/10/2004	50-55	0.98	9.37E-06	
	12/13/2004	55-60	0.05	5.01E-07	Minimal take observed during test.
	12/13/2004	60-65	0.21	1.97E-06	Minimal take observed during test.
	12/13/2004	65-70	0.21	2.04E-06	
	12/13/2004	70-75	0.07	6.68E-07	Minimal take observed during test.
	12/13/2004	75-80	1.09	1.04E-05	
	12/15/2004	80-85	0.6	5.79E-06	Minimal take observed during test.
	12/15/2004	85-90	0.06	5.46E-07	Minimal take observed during test.
	12/15/2004	90-95	0.08	7.36E-07	Minimal take observed during test.
	12/15/2004	95-100	0.07	6.50E-07	Minimal take observed during test.
	12/16/2004	100-105	0.03	3.20E-07	Minimal take observed during test.
	12/16/2004	105-110	0.82	7.87E-06	
	12/16/2004	110-115	0.03	3.07E-07	Minimal take observed during test.
	12/16/2004	115-120	6.54	6.27E-05	
	12/20/2004	120-125	2.72	2.61E-05	
	12/20/2004	125-130	NA	NA	No take observed during test.
	12/20/2004	130-135	6.08	5.84E-05	
	12/21/2004	135-140	0.06	5.52E-07	Minimal take observed during test.
	12/21/2004	140-145	2.63	2.52E-05	
	12/21/2004	145-150	0.05	4.69E-07	Minimal take observed during test.
	12/22/2004	150-155	2.39	2.29E-05	
MW-49BD	4/5/2005	150-155	0.98	9.42E-06	
	4/5/2005	155-160	0.75	7.15E-05	
	4/6/2005	160-165	0.86	8.20E-06	
	4/6/2005	165-170	0.37	3.58E-06	
	4/7/2005	170-175	0.99	9.50E-06	
	4/7/2005	175-180	2.32	2.22E-05	
	4/7/2005	180-185	2.89	2.77E-05	
	4/7/2005	185-190	2.41	2.32E-05	
	4/7/2005	190-195	1.33	1.28E-05	
	4/7/2005	195-200	1.48	1.42E-05	
	4/7/2005	200-205	1.18	1.14E-05	
	4/7/2005	205-210	1.26	1.20E-05	
	4/7/2005	210-215	0.84	8.06E-06	
	4/7/2005	215-220	0.56	5.40E-06	
	4/7/2005	220-225	0.54	5.16E-06	
	4/8/2005	225-230	0.75	7.15E-06	
	4/8/2005	230-235	1.54	1.47E-05	
	4/11/2005	235-240	0.34	3.31E-06	
	4/12/2005	240-245	0.07	6.27E-07	
MW-50B	2/14/2005	48-58	4.33	4.94E-05	
	2/14/2005	58-68	2.59	2.95E-05	
	2/14/2005	68-78	0.61	6.94E-06	
	2/15/2005	78-88	1.83	2.08E-05	
	2/15/2005	88-98	4.85	5.52E-05	
	2/15/2005	98-108	2.58	2.94E-05	
	2/15/2005	108-118	1.74	1.99E-05	
	2/15/2005	118-128	0.56	6.41E-06	
	2/15/2005	128-138	1.62	1.85E-05	
	2/11/2005	138-143	1.17	1.13E-05	
	2/16/2005	143-148	1.57	1.51E-05	
	2/16/2005	148-153	2.58	2.48E-05	
	2/17/2005	153-158	1.79	1.71E-05	
	2/17/2005	158-163	1.14	1.09E-05	
MW-52B	12/21/2004	49-54	33.31	3.20E-04	Possible leak in packer seal.
	12/21/2004	54-59	0.47	4.49E-06	
	12/22/2004	59-64	NA	NA	No take observed during test.
	12/22/2004	64-69	0.44	4.22E-06	
	12/22/2004	69-74	0.49	4.70E-06	
	12/22/2004	74-79	0.12	1.14E-06	
	12/23/2004	79-84	1.17	1.12E-05	
	12/23/2004	84-89	0.02	2.27E-07	
	12/27/2004	89-94	0.13	1.27E-06	
	12/27/2004	94-99	1.66	1.59E-05	
	12/27/2004	94-104	1.58	1.80E-05	Leak in packer seal from 99-104 ft.
	12/28/2004	104-109	1.22	1.17E-05	
	12/30/2004	109-114	15.38	1.48E-04	Possible leak in packer seal.
	1/3/2005	119-124	0.02	1.63E-07	
	1/3/2005	114-124	0.28	3.21E-06	
	1/3/2005	109-124	0.18	2.22E-06	

TABLE 2.7.4.3
SUMMARY OF PACKER PERMEABILITY TESTS
STAGE III RFI/RI
GENERAL MOTORS LINDEN FACILITY
LINDEN, NEW JERSEY

Monitoring Well	Test Date	Depth Interval (ft)	Lugeon Value	Hydraulic Conductivity (cm/sec)	Notes
MW-54B	2/24/2005	49-54	4.24	4.07E-05	
	2/24/2005	54-59	4.06	3.89E-05	
	2/24/2005	59-64	3.87	3.71E-05	
	2/24/2005	64-69	9.93	9.52E-05	
	2/25/2005	69-74	5.66	5.43E-05	
	2/25/2005	74-79	10.84	1.01E-04	
	3/2/2005	79-83	2.49	2.25E-05	
	3/3/2005	83-88	3.9	3.75E-05	
	3/3/2005	88-93	2.17	2.08E-05	
	3/3/2005	93-98	1.61	1.54E-05	
	3/4/2005	98-103	2.59	2.48E-05	
	3/4/2005	103-108	5.02	4.82E-05	
	3/4/2005	108-113	1.76	1.69E-05	
	3/4/2005	113-118	3.05	2.93E-05	
	3/7/2005	118-123	0.67	6.39E-06	
MW-57B	1/18/2005	32-38	0.48	4.87E-06	
	1/18/2005	38-43	9.27	8.89E-05	
	1/19/2005	43-48	0.1	9.88E-07	
	1/20/2005	48-53	0.67	6.42E-06	
	1/20/2005	52-58	2.77	2.79E-05	
	1/20/2005	58-63	1.39	1.33E-05	
	1/21/2005	63-68	0.17	1.66E-06	
	1/22/2005	68-73	0.62	5.96E-06	
	1/25/2005	73-78	0.65	6.28E-06	
MW-58B	2/18/2005	39-48	0.13	1.46E-06	
	2/18/2005	48-53	10.31	9.89E-05	
	2/22/2005	53-58	8.83	8.47E-05	
	2/22/2005	58-63	1.63	1.57E-05	
	2/22/2005	63-68	3.91	3.75E-05	
	2/22/2005	68-73	0.22	2.09E-06	
	2/23/2005	73-78	0.05	4.35E-07	
	2/23/2005	78-83	0.36	3.48E-06	
	2/23/2005	73-88	0.45	4.31E-06	
	2/23/2005	88-93	5.56	5.34E-05	
	2/24/2005	93-98	3.62	3.47E-05	
	2/24/2005	98-103	0.12	1.15E-06	
	2/25/2005	103-108	0.36	3.46E-06	
MW-59B	2/4/2005	52-57	0.84	8.04E-06	
	2/4/2005	57-62	0.35	3.36E-06	
	2/7/2005	62-67	0.67	6.45E-06	
	2/7/2005	67-72	0.05	4.94E-07	
	2/7/2005	72-77	0.05	4.61E-07	
	2/7/2005	77-82	0.08	7.86E-07	
	2/8/2005	82-87	0.11	1.08E-06	
	2/8/2005	87-92	2.63	2.52E-05	
	2/8/2005	92-97	2.24	2.15E-05	
	2/8/2005	97-102	0.05	4.61E-07	
	2/8/2005	102-107	0.07	6.58E-07	
MW-61B	3/10/2005	35-43	0	NA	No take observed during test.
	3/10/2005	43-48	18	1.73E-04	
	3/10/2005	48-53	16.14	1.55E-04	
	3/11/2005	53-58	0.17	1.61E-04	
	3/11/2005	58-63	0.73	6.96E-06	
	3/11/2005	63-68	0.58	5.55E-06	
	3/14/2005	68-73	0.07	6.89E-07	
	3/14/2005	73-78	0.02	1.82E-07	
	3/14/2005	78-83	1.32	1.27E-05	
	3/15/2005	83-88	0.06	6.22E-07	
	3/15/2005	88-93	0.79	7.56E-06	
	3/16/2005	93-98	1.03	9.86E-06	
	3/16/2005	98-103	0.02	1.98E-07	
	3/16/2005	103-108	0.25	2.41E-06	

TABLE 2.7.4.3
SUMMARY OF PACKER PERMEABILITY TESTS
STAGE III RFI/RI
GENERAL MOTORS LINDEN FACILITY
LINDEN, NEW JERSEY

Monitoring Well	Test Date	Depth Interval (ft)	Lugeon Value	Hydraulic Conductivity (cm/sec)	Notes
MW-62B	3/2/2005	36-43	0.44	4.55E-06	
	3/2/2005	43-49	0.31	3.15E-06	
	3/3/2005	49-54	0.13	1.21E-06	
	3/3/2005	54-59	14.48	1.39E-04	
	3/3/2005	59-64	7.86	7.54E-05	
	3/3/2005	64-69	0.89	8.56E-06	
	3/4/2005	69-74	0.07	6.37E-07	
	3/4/2005	74-79	0.02	2.13E-07	
	3/4/2005	79-84	0.09	8.38E-07	
	3/7/2005	84-89	0.12	1.19E-06	
	3/7/2005	89-94	0.04	3.74E-07	
	3/7/2005	94-99	0.24	2.33E-06	
	3/7/2005	99-104	4.07	3.90E-05	
	3/8/2005	104-109	0.35	3.32E-06	
MW-63B	3/11/2005	30-43	0.26	3.17E-06	
	3/11/2005	43-48	0.26	2.51E-06	
	3/11/2005	48-53	12.29	1.18E-04	
	3/11/2005	53-58	0.09	8.59E-07	
	3/14/2005	58-63	0.11	1.04E-06	
	3/14/2005	63-68	1.07	1.03E-05	
	3/14/2005	68-73	0.33	3.17E-06	
	3/14/2005	73-78	0.16	1.57E-06	
	3/14/2005	78-83	0.24	2.26E-06	
	3/14/2005	83-88	13.04	1.25E-04	
	3/14/2005	88-93	1.01	9.71E-06	
	3/15/2005	93-98	9.7	9.31E-05	
	3/15/2005	98-103	1.01	9.68E-06	
	3/15/2005	103-108	0.92	8.79E-06	
	3/15/2005	108-113	1.12	1.08E-05	
MW-66B	2/2/2005	35-40	5.53	5.31E-05	
	2/2/2005	40-45	2.58	2.48E-05	
	2/2/2005	45-50	1.25	1.20E-05	
	2/2/2005	50-55	1.72	1.65E-05	
	2/2/2005	55-60	NA	NA	No take observed during test.
	2/3/2005	60-65	0.24	2.32E-06	
	2/3/2005	65-70	8.17	7.84E-05	
	2/3/2005	70-75	4.83	4.63E-05	
	2/3/2005	75-80	NA	NA	No take observed during test.
	2/3/2005	80-85	NA	NA	No take observed during test.
MW-67W	3/17/2005	33-38	13.01	1.25E-04	
	3/17/2005	38-43	17.7	1.70E-04	
	3/18/2005	43-48	19.11	1.83E-04	
	3/18/2005	48-53	16.87	1.62E-04	
MW-68W	3/24/2005	35-43	1.09	1.18E-05	
	3/24/2005	43-48	9.4	9.01E-05	
	3/24/2005	48-53	2.27	2.18E-05	
MW-69W	3/31/2005	38-45	10.24	1.07E-04	
	3/31/2005	45-50	17.49	1.68E-04	
	3/31/2005	50-55	7.98	7.66E-05	

NOTE:
1. Lugeon value calculation based on "Routine Interpretation of the Lugeon Water Test", A. C. Houlsby, 1976
2. Draft - subject to revision.

Table 2.8.2
Well Record Search
General Motors Linden Assembly Plant
Linden, New Jersey

Bell Well Search	Location ID	Well Owner	Well Location	Atlas Sheet Coordinates	Permit Number	Total Depth (ft)	Casing Depth (ft)	Screen Length (ft)	Static Water Level Before Pumping (ft bgs)	Well Use	Installation Date	Abandonment Date	Comments
Yes	3	Apex Rendezvous, Inc.	1135 West Elizabeth Ave. Linden	26.31.324	26-4446	440	50		25	Domestic	2/18/1972		
	6	Chereuko, Mr. Joseph	401 East Scott Ave. Rahway	26.31.348	26-1629	119	48		18	Domestic	5/29/1957		Address does not exist. According to Rahway Municipal: never did
	10	G. & L. Tool Company	1167 Roosevelt Ave. Carteret	26.31.338	26-4053	165	54.5		30	Domestic	1/25/1967		Well location and atlas location fall outside the one-mile search radius
Yes	13	Kalla, Mr. Al	30 West Elm St. Linden	26.31.326	26-4347	245	40		10	Domestic	8/26/1970		
Yes	**19**	**Melenchuk, Mr. Walter**	**828 Smith St. Linden**	**26.31.349**	**26-530**	**96**	**40**		**12**	**Domestic**	**8/2/1952**	**5/Jan/00**	**Merck & Co., Inc. Quarterly Remediation Report 3/28/2000**
Yes	22	Pezzuto, Mr. Vincent	108 West Elm St. Linden	26.31.328	26-5015	225	50		30	Domestic	4/8/1981		
	25	Segalla, Mr. John	U.S. #1 Diner Rt #1 Linden	26.31.325	26-2035	485	80		30	Domestic	9/20/1959		
	30	Walsh, Mr. Carl	Jensen Ave. Woodbridge	26.21.375	26-521	93	20		25	Domestic	7/12/1952		Well location and atlas location fall outside the one-mile search radius
	31	Hanuschik, Mr. & Mrs. Paul & Joyce	42 Hogback Rd. Bordentown Twp	28.31.322	28-44887	114	104	10	47	Domestic	9/15/1999		Included in well record search, but incorrect atlas location
Yes	1	Airline Food Corporation	1130 West Elizabeth Ave. Linden	26.31.318	26-120	266	42	225	25	Industrial	8/23/1949		
Yes	4	Automatic Injection Molding	315 Cantor Ave. Linden	26.31.317	26-4117	250	28.75	--	34	Industrial	11/1/1967		
Yes	8	Delta Knit Finishers	362 Cantor Ave. Linden	26.31.263	26-4447	359	41		50	Industrial	2/16/1972		Injection Molding Cooling ('77). DEP ('94) Requested abandonment. No followup available
Yes	15	Linden Ice Co.	18 Donaldson Pl. Linden	26.31.315	26-1979	550	40		19	Industrial	3/31/1959		
	16	Linden Lumber Co.	Linden Ave. Linden	26.31.324	26-1987	278			18	Industrial	4/15/1959		
	17	M & E Properties LLC	1427 South Wood Ave. Linden	26.31.338	26-55225	200	48	152	25	Industrial	10/13/1999		
Yes	**21**	**Pacific Airmotive Corp.**	**Linden Airport Linden**	**26.31.355**	**26-174**	**300**	**31**		**5**	**Industrial**	**4/30/1950**	**22/Feb/01**	**Abandoned; Linden health Department record.**
	27	Smith & Kanzler Co.	1414 East Linden Ave. Linden	26.31.372	26-2969	360	27		8	Industrial	3/8/1965		Well location and atlas location fall outside the one-mile search radius
	11b	General Gummed Products	531 North Stiles St. Linden	26.31.317	26-1599	310			15	Industrial	3/13/1957		DEP (1994) requested well be abandoned. No follow up available
	23b	**Quinn & Boden Company, Inc.**	**1905 Elizabeth Ave. Rahway**	**26.31.266**		**357**	**137**	**--**	**47**	**Industrial**	**3/16/1966**	**Abandoned**	**Merck & Co., Inc. Corrective Measures Study Rahway Plant Volume I Table A-4 Survey Results of Properties Not Receiving Water Bills and Well Use Questionnaires**
	24	Safty Kleen Corp.	1200 Sylvan St. Linden	26.31.364	26-32687	45	28	17	10	Injection	2/26/1993		
	9a	Dock Resins Corp.	1512 West Elizabeth Ave. Linden	26.31.341	26-48058	6	3	3	Not taken	Injection	7/22/1997		
	11a	General Gum Products Co.	531 North Stiles St. Linden	26.31.317	26-757	316	39.75		16	Private	10/21/1953		Undefined well use identification
Yes	2	Ancet Realty Corp.	1539 West Elizabeth Ave. Linden	26.31.319	26-9241	3	--	50	2.54	Recovery	7/17/1986		Unconfirmed/conflicting well construction
	26	Siemens Energy & Automati	1600 Route 1 Linden	26.31.334	26-33299	12	2	10	5	Recovery	5/6/1993		
	18a	Merck & Co., Inc.	126 East Lincoln Ave. Rahway	26.31.327	26-51213	29	19	10	8	Recovery	7/13/1998		
	18b	Merck & Co., Inc.	126 East Lincoln Ave. Rahway	26.31.327	26-51214	26	16	10	6	Recovery	7/19/1998		
	18c	Merck & Co., Inc.	126 East Lincoln Ave. Rahway	26.31.324	26-52259	18	6	12	9	Recovery	12/28/1998		
	18d	Merck & Co., Inc.	126 East Lincoln Ave. Rahway	26.31.324	26-52260	19	7	12	9	Recovery	12/29/1998		
	18e	Merck & Co., Inc.	126 East Lincoln Ave. Rahway	26.31.327	26-63157	252	170	82	13	Recovery	3/30/1999		
	29a	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36682	15	1	14	5	Recovery	4/20/1994		
	29b	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36683	16	1	15	5	Recovery	4/20/1994		
	29c	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36684	16	1	15	5	Recovery	4/20/1994		
	29d	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36685	16	1	15	5	Recovery	4/20/1994		
	29e	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36686	15	2	13	5	Recovery	5/16/1994		
	29f	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36687	15	2	13	5	Recovery	5/16/1994		
	29g	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36688	15	2	13	5	Recovery	5/16/1994		
	29h	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36689	15	2	13	5	Recovery	5/16/1994		
	29i	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36690	15	2	13	5	Recovery	5/16/1994		
	29j	Sun Company Inc.	Route 1 and Stiles St. Linden	26.31.361	26-36691	15	2	13	5	Recovery	5/16/1994		
	5a	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-29283	7	1	6	3	Recovery	4/30/1992		
	5aa	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38873	15.5	0.5	15	1.2	Recovery	5/11/1995		
	5ab	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38874	14	4	10	6.1	Recovery	5/11/1995		
	5ac	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38875	13	3	10	6.2	Recovery	5/11/1995		
	5ad	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38865	11	1	10	2.1	Recovery	6/18/1995		
	5b	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-29370	12	2	10	8-10	Recovery	5/11/1992		
	5c	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-33144	12	2	10	5	Recovery	4/14/1993		
	5d	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-33146	13	2	11	5	Recovery	4/14/1993		
	5e	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-33145	9	1.5	7.5	5	Recovery	4/15/1993		
	5f	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35138	10	4	6	6	Recovery	11/18/1993		
	5g	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35139	10	4	6	6	Recovery	11/18/1993		
	5h	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35140	10	4	6	6	Recovery	11/18/1993		
	5i	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35141	10	4	6	6	Recovery	11/18/1993		
	5j	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35142	10	4	6	6	Recovery	11/18/1993		
	5k	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35167	10	4	6	6	Recovery	11/18/1993		
	5l	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35168	10	4	6	6	Recovery	11/18/1993		
	5m	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35169	10	4	6	6	Recovery	11/18/1993		
	5n	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35170	10	4	6	6	Recovery	11/18/1993		
	5o	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35171	10	4	6	6	Recovery	11/18/1993		
	5p	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35183	10	4	6	6	Recovery	11/18/1993		
	5q	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35184	10	4	6	6	Recovery	11/18/1993		
	5r	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35185	10	4	6	6	Recovery	11/18/1993		
	5s	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-35186	10	4	6	6	Recovery	11/18/1993		

Table 2.8.2
Well Record Search
General Motors Linden Assembly Plant
Linden, New Jersey

Bell Well Search	Location ID	Well Owner	Well Location	Atlas Sheet Coordinates	Permit Number	Total Depth (ft)	Casing Depth (ft)	Screen Length (ft)	Static Water Level Before Pumping (ft bgs)	Well Use	Installation Date	Abandonment Date	Comments
	5t	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.366	26-37427	5.5	0.5	5	0.5	Recovery	7/26/1994		
	5u	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-40504	11	1	10	Not taken	Recovery	4/25/1995		
	5v	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-40505	12	2	10	Not taken	Recovery	4/25/1995		
	5w	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38869	15	5	10	7.5	Recovery	5/11/1995		
	5x	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38870	13.5	3.5	10	9.2	Recovery	5/11/1995		
	5y	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38871	6	1	5	1.2	Recovery	5/11/1995		
	5z	Buckeye Pipeline Company	2650 Marshes Dock Rd. Linden	26.31.368	26-38872	6	1	5	1.7	Recovery	5/11/1995		
	7a	Consolidated Rail Corp.	600 West Linden Ave. Linden	26.31.319	26-45886	15	5	10	6.5	Recovery	10/9/1996		
	7b	Consolidated Rail Corp.	600 West Linden Ave. Linden	26.31.319	26-45887	19	4	15	6	Recovery	10/9/1996		
	7c	Consolidated Rail Corp.	600 West Linden Ave. Linden	26.31.319	26-45888	15	5	10	6	Recovery	10/10/1996		
	9b	Dock Resins Corp.	1512 West Elizabeth Ave. Linden	26.31.342	26-62593	3.5	1.5	2	3	Recovery	10/17/2001		
	9c	Dock Resins Corp.	1512 West Elizabeth Ave. Linden	26.31.342	26-62594	2.5	1	1.5	2	Recovery	10/17/2001		
	9d	Dock Resins Corp.	1512 West Elizabeth Ave. Linden	26.31.342	26-62595	11.5	10.5	1	10	Recovery	10/18/2001		
	9e	Dock Resins Corp.	1512 West Elizabeth Ave. Linden	26.31.342	26-62596	13.5	10.5	3	10	Recovery	10/18/2001		
	12	Hatfield Wire & Cable Co.	Linden	26.31.239	26-1933	356	45.75		11	Test	4/18/1959		
Yes	**14**	**Layne New York Co.**	**1250 West Elizabeth Ave. Linden**	**26.31.342**	**26-1124**	**308**	**36**		**20**	**Test**	**2/8/1955**	**9/13/1960**	**Hand written on Well Record**
Yes	20	Orange Plastics	315 Cantor Ave. Linden	26.31.263	26-4736	330	51.75		70-80		3/22/1978		
	28	Speed-E-Clean	1400 East St. George Ave. Linden	26.31.384	26-4899	300	50	20	50		10/1/1980		Well location and atlas location fall outside the one-mile search radius
	23a	**Quinn & Boden Company, Inc.**	**1905 Elizabeth Ave. Rahway**	**26.31.266**	**26-3761**	**35.5**	**35**				**12/27/1944**	**Abandoned**	**Merck & Co., Inc. Corrective Measures Study Rahway Plant Volume I Table A-4 Survey Results of Properties Not Receiving Water Bills and Well Use Questionnaires**

Notes:
Known anomaly
Information unavailable
Bold Known abandoned well

Table 3.2.1
Overburden Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria	Construction GCC (mg/L)	Ratio of Max Detect to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Max Detect to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Max Detect to Residential VI Criteria
Off-Site	AOI16	VOC	cis-1,2-Dichloroethene	156-59-2	D	4	3	8.00E-04	3.20E-03	7.00E-02	FM	4.6E-02	2.11E+01	1.5E-04	4.21E+06	7.6E-10	1.62E+02	2.0E-05
Off-Site	AOI16	VOC	Methyl Acetate	79-20-9		4	1	3.40E-03	3.40E-03	3.65E+01	NC	9.3E-05	4.33E+03	7.9E-07	9.67E+07	3.5E-11	5.63E+05	6.0E-09
Off-Site	AOI16	VOC	Methyl tert-butyl ether	1634-04-4		4	4	1.10E-03	5.50E-03	3.74E-01	C	1.5E-02	2.09E+03	2.6E-06	4.97E+06	1.1E-09	7.99E+04	6.9E-08
Off-Site	AOI16	VOC	Trichloroethene	79-01-6	C-B2	4	4	1.10E-03	3.70E-03	5.00E-03	FM	7.4E-01	2.50E+01	1.5E-04	1.55E+06	2.4E-09	3.19E+01	1.2E-04
Off-Site	AOI16	INORG	Arsenic	7440-38-2	A	4	4	9.80E-03	2.57E-02	1.00E-02	FM	2.6E+00	1.44E+01	1.8E-03				
Off-Site	AOI16	INORG	Barium	7440-39-3	D	4	4	1.91E-01	3.76E-01	2.00E+00	FM	1.9E-01	3.43E+03	1.1E-04				
Off-Site	AOI16	INORG	Cadmium	7440-43-9	B1	4	4	1.70E-04	5.90E-04	5.00E-03	FM	1.2E-01	1.80E+01	3.3E-05				
Off-Site	AOI16	INORG	Cobalt	7440-48-4	B1	4	4	1.20E-03	2.30E-03	7.30E-01	NC	3.2E-03	8.09E+03	2.8E-07				
Off-Site	AOI16	INORG	Manganese	7439-96-5	D	4	4	2.60E+00	3.82E+00	8.76E-01	NC	4.4E+00	5.96E+03	6.4E-04				
Off-Site	AOI16	INORG	Nickel	7440-02-0	A	4	4	2.70E-03	3.20E-03	7.30E-01	NC	4.4E-03	2.38E+03	1.3E-06				
Off-Site	AOI16	INORG	Selenium	7782-49-2	D	4	4	1.50E-03	2.00E-03	5.00E-02	FM	4.0E-02	1.54E+03	1.3E-06				
Off-Site	AOI16	INORG	Vanadium	7440-62-2		4	2	5.20E-04	5.20E-04	3.65E-02	NC	1.4E-02	1.94E+01	2.7E-05				
Off-Site	AOI16	INORG	Zinc	7440-66-6	D	4	1	1.11E-02	1.11E-02	1.10E+01	NC	1.0E-03	1.10E+05	1.0E-07				
Off-Site	General	VOC	Carbon Tetrachloride	56-23-5	B2	6	1	8.00E-04	8.00E-04	5.00E-03	FM	1.6E-01	2.93E+00	2.7E-04	9.96E+04	8.0E-09	1.81E+00	4.4E-04
Off-Site	General	VOC	Chloroform	67-66-3	B2	6	1	1.00E-03	1.00E-03	8.00E-02	FM	1.3E-02	2.11E+00	4.7E-04	2.75E+05	3.6E-09	5.09E+00	2.0E-04
Off-Site	General	INORG	Arsenic	7440-38-2	A	6	5	5.10E-04	1.30E-03	1.00E-02	FM	1.3E-01	1.44E+01	9.0E-05				
Off-Site	General	INORG	Barium	7440-39-3	D	6	6	6.29E-02	2.15E-01	2.00E+00	FM	1.1E-01	3.43E+03	6.3E-05				
Off-Site	General	INORG	Cadmium	7440-43-9	B1	6	5	2.10E-04	5.60E-04	5.00E-03	FM	1.1E-01	1.80E+01	3.1E-05				
Off-Site	General	INORG	Chromium (total)	7440-47-3		6	3	1.60E-04	2.80E-04	1.00E-01	FM	2.8E-03	2.85E+01	9.8E-06				
Off-Site	General	INORG	Cobalt	7440-48-4	B1	6	6	2.10E-04	3.10E-03	7.30E-01	NC	4.2E-03	8.09E+03	3.8E-07				
Off-Site	General	INORG	Copper	7440-50-8	D	6	2	3.90E-03	4.80E-03	1.30E+00	FM	3.7E-03	1.23E+04	3.9E-07				
Off-Site	General	INORG	Lead	7439-92-1	B2	6	3	2.80E-04	4.40E-03	1.50E-02	FM	2.9E-01						
Off-Site	General	INORG	Manganese	7439-96-5	D	6	6	1.56E-01	9.03E+00	8.76E-01	NC	1.0E+01	5.96E+03	1.5E-03				
Off-Site	General	INORG	Nickel	7440-02-0	A	6	6	1.70E-03	3.12E-02	7.30E-01	NC	4.3E-02	2.38E+03	1.3E-05				
Off-Site	General	INORG	Selenium	7782-49-2	D	6	4	9.30E-04	2.60E-03	5.00E-02	FM	5.2E-02	1.54E+03	1.7E-06				
Off-Site	General	INORG	Thallium	7440-28-0		6	1	3.50E-05	3.50E-05	2.00E-03	FM	1.8E-02	2.15E+01	1.6E-06				
Off-Site	General	INORG	Vanadium	7440-62-2		6	1	9.70E-04	9.70E-04	3.65E-02	NC	2.7E-02	1.94E+01	5.0E-05				
Off-Site	General	INORG	Zinc	7440-66-6	D	6	2	1.43E-01	2.24E-01	1.10E+01	NC	2.0E-02	1.10E+05	2.0E-06				
On-Site	AOI01	VOC	Methyl Acetate	79-20-9		2	1	2.00E-01	2.00E-01	3.65E+01	NC	5.5E-03	4.33E+03	4.6E-05	9.67E+07	2.1E-09	5.63E+05	3.6E-07
On-Site	AOI01	INORG	Antimony	7440-36-0		2	1	1.20E-03	1.20E-03	6.00E-03	FM	2.0E-01	3.79E+01	3.2E-05				
On-Site	AOI01	INORG	Arsenic	7440-38-2	A	2	2	9.50E-04	1.20E-03	1.00E-02	FM	1.2E-01	1.44E+01	8.4E-05				
On-Site	AOI01	INORG	Barium	7440-39-3	D	2	2	4.88E-02	2.67E-01	2.00E+00	FM	1.3E-01	3.43E+03	7.8E-05				
On-Site	AOI01	INORG	Cadmium	7440-43-9	B1	2	2	1.25E-02	1.96E-02	5.00E-03	FM	3.9E+00	1.80E+01	1.1E-03				
On-Site	AOI01	INORG	Chromium (total)	7440-47-3		2	1	2.10E-03	2.10E-03	1.00E-01	FM	2.1E-02	2.85E+01	7.4E-05				
On-Site	AOI01	INORG	Cobalt	7440-48-4	B1	2	2	8.00E-04	9.90E-04	7.30E-01	NC	1.4E-03	8.09E+03	1.2E-07				
On-Site	AOI01	INORG	Copper	7440-50-8	D	2	1	1.23E-02	1.23E-02	1.30E+00	FM	9.5E-03	1.23E+04	1.0E-06				
On-Site	AOI01	INORG	Lead	7439-92-1	B2	2	2	2.30E-03	8.80E-03	1.50E-02	FM	5.9E-01						
On-Site	AOI01	INORG	Manganese	7439-96-5	D	2	2	1.14E-01	6.52E-01	8.76E-01	NC	7.4E-01	5.96E+03	1.1E-04				
On-Site	AOI01	INORG	Nickel	7440-02-0	A	2	2	4.70E-03	5.50E-03	7.30E-01	NC	7.5E-03	2.38E+03	2.3E-06				
On-Site	AOI01	INORG	Selenium	7782-49-2	D	2	2	8.50E-04	9.90E-04	5.00E-02	FM	2.0E-02	1.54E+03	6.4E-07				
On-Site	AOI01	INORG	Vanadium	7440-62-2		2	2	8.00E-04	4.20E-03	3.65E-02	NC	1.2E-01	1.94E+01	2.2E-04				
On-Site	AOI01	INORG	Zinc	7440-66-6	D	2	1	5.56E-02	5.56E-02	1.10E+01	NC	5.1E-03	1.10E+05	5.1E-07				
On-Site	AOI03	VOC	Acetone	67-64-1	ID	8	2	1.70E-02	1.20E-01	3.29E+01	NC	3.7E-03	6.26E+03	1.9E-05	8.58E+08	1.4E-10	1.17E+06	1.0E-07
On-Site	AOI03	VOC	Chloroform	67-66-3	B2	8	2	7.00E-04	9.00E-04	8.00E-02	FM	1.1E-02	2.11E+00	4.3E-04	2.75E+05	3.3E-09	5.09E+00	1.8E-04
On-Site	AOI03	VOC	1,2-Dichlorobenzene	95-50-1	D	8	3	1.20E-03	1.80E-03	6.00E-01	FM	3.0E-03	1.35E+02	1.3E-05	1.59E+06	1.1E-09	1.88E+03	9.6E-07
On-Site	AOI03	VOC	1,1-Dichloroethane	75-34-3	C	8	2	1.10E-03	1.50E-03	3.65E+00	NC	4.1E-04	3.06E+02	4.9E-06	1.70E+06	8.8E-10	1.80E+03	8.3E-07
On-Site	AOI03	VOC	cis-1,2-Dichloroethene	156-59-2	D	8	2	5.00E-04	1.10E-03	7.00E-02	FM	1.6E-02	2.11E+01	5.2E-05	4.21E+06	2.6E-10	1.62E+02	6.8E-06
On-Site	AOI03	VOC	Toluene	108-88-3	D	8	1	1.20E-01	1.20E-01	1.00E+00	FM	1.2E-01	2.26E+02	5.3E-04	2.92E+06	4.1E-08	1.29E+03	9.3E-05
On-Site	AOI03	VOC	Trichloroethene	79-01-6	C-B2	8	4	3.00E-04	2.40E-03	5.00E-03	FM	4.8E-01	2.50E+01	9.6E-05	1.55E+06	1.5E-09	3.19E+01	7.5E-05
On-Site	AOI03	INORG	Antimony	7440-36-0		7	1	3.40E-04	3.40E-04	6.00E-03	FM	5.7E-02	3.79E+01	9.0E-06				
On-Site	AOI03	INORG	Arsenic	7440-38-2	A	7	7	6.40E-04	1.80E-03	1.00E-02	FM	1.8E-01	1.44E+01	1.3E-04				
On-Site	AOI03	INORG	Barium	7440-39-3	D	7	7	3.03E-02	1.33E-01	2.00E+00	FM	6.7E-02	3.43E+03	3.9E-05				
On-Site	AOI03	INORG	Cadmium	7440-43-9	B1	7	5	2.30E-04	6.90E-04	5.00E-03	FM	1.4E-01	1.80E+01	3.8E-05				

Table 3.2.1
Overburden Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria	Construction GCC (mg/L)	Ratio of Max Detect to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Max Detect to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Max Detect to Residential VI Criteria
On-Site	AOI03	INORG	Chromium (total)	7440-47-3		7	1	1.90E-04	1.90E-04	1.00E-01	FM	1.9E-03	2.85E+01	6.7E-06				
On-Site	AOI03	INORG	Cobalt	7440-48-4	B1	7	7	1.10E-03	5.80E-03	7.30E-01	NC	7.9E-03	8.09E+03	7.2E-07				
On-Site	AOI03	INORG	Copper	7440-50-8	D	7	1	1.21E-02	1.21E-02	1.30E+00	FM	9.3E-03	1.23E+04	9.8E-07				
On-Site	AOI03	INORG	Lead	7439-92-1	B2	7	2	2.20E-04	3.50E-04	1.50E-02	FM	2.3E-02						
On-Site	AOI03	INORG	Manganese	7439-96-5	D	7	7	4.09E-01	1.45E+01	8.76E-01	NC	1.7E+01	5.96E+03	2.4E-03				
On-Site	AOI03	INORG	Nickel	7440-02-0	A	7	7	3.50E-03	1.11E-02	7.30E-01	NC	1.5E-02	2.38E+03	4.7E-06				
On-Site	AOI03	INORG	Selenium	7782-49-2	D	7	7	1.00E-03	2.20E-03	5.00E-02	FM	4.4E-02	1.54E+03	1.4E-06				
On-Site	AOI03	INORG	Vanadium	7440-62-2		7	5	9.70E-04	2.70E-03	3.65E-02	NC	7.4E-02	1.94E+01	1.4E-04				
On-Site	AOI03	INORG	Zinc	7440-66-6	D	7	2	2.76E-02	4.43E-02	1.10E+01	NC	4.0E-03	1.10E+05	4.0E-07				
On-Site	AOI06	VOC	Acetone	67-64-1	ID	21	3	5.60E-03	3.70E-02	3.29E+01	NC	1.1E-03	6.26E+03	5.9E-06	8.58E+08	4.3E-11	1.17E+06	3.2E-08
On-Site	AOI06	VOC	Benzene	71-43-2	A	21	17	2.00E-04	3.50E-02	5.00E-03	FM	7.0E+00	4.53E+00	7.7E-03	1.35E+04	2.6E-06	1.08E+01	3.2E-03
On-Site	AOI06	VOC	Bromodichloromethane	75-27-4	B2	21	1	3.90E-03	3.90E-03	8.00E-02	FM	4.9E-02	3.20E+00	1.2E-03			1.48E+01	2.6E-04
On-Site	AOI06	VOC	Carbon Disulfide	75-15-0		21	3	3.00E-04	1.20E-03	3.65E+00	NC	3.3E-04	3.49E+02	3.4E-06	4.37E+04	2.7E-08	7.38E+02	1.6E-06
On-Site	AOI06	VOC	Carbon Tetrachloride	56-23-5	B2	21	2	6.00E-04	6.00E-04	5.00E-03	FM	1.2E-01	2.93E+00	2.0E-04	9.96E+04	6.0E-09	1.81E+00	3.3E-04
On-Site	AOI06	VOC	Chlorobenzene	108-90-7	D	21	13	2.00E-04	1.10E-01	1.00E-01	FM	1.1E+00	3.65E+01	3.0E-03	2.13E+06	5.2E-08	3.14E+02	3.5E-04
On-Site	AOI06	VOC	Chloroform	67-66-3	B2	21	8	6.00E-04	1.20E-02	8.00E-02	FM	1.5E-01	2.11E+00	5.7E-03	2.75E+05	4.4E-08	5.09E+00	2.4E-03
On-Site	AOI06	VOC	Cumene	98-82-8	D	21	7	4.00E-04	2.80E-03	3.65E+00	NC	7.7E-04	2.01E+02	1.4E-05	1.28E+05	2.2E-08	1.37E+02	2.0E-05
On-Site	AOI06	VOC	Cyclohexane	110-82-7	ID	21	8	8.00E-04	7.50E-03	6.21E+01	NC	1.2E-04	3.39E+03	2.2E-06	7.44E+05	1.0E-08	2.84E+03	2.6E-06
On-Site	AOI06	VOC	Dibromochloromethane	124-48-1	C	21	1	9.00E-04	9.00E-04	8.00E-02	FM	1.1E-02	2.83E+00	3.2E-04			2.11E+01	4.3E-05
On-Site	AOI06	VOC	1,2-Dichlorobenzene	95-50-1	D	21	12	2.00E-04	4.80E-02	6.00E-01	FM	8.0E-02	1.35E+02	3.6E-04	1.59E+06	3.0E-08	1.88E+03	2.5E-05
On-Site	AOI06	VOC	1,4-Dichlorobenzene	106-46-7	C	21	5	4.00E-04	1.70E-03	7.50E-02	FM	2.3E-02	6.78E+00	2.5E-04	3.91E+06	4.4E-10	2.83E+01	6.0E-05
On-Site	AOI06	VOC	Dichlorodifluoromethane	75-71-8		21	2	1.30E-03	2.50E-03	7.30E+00	NC	3.4E-04	1.34E+02	1.9E-05	3.22E+06	7.8E-10	8.55E+01	2.9E-05
On-Site	AOI06	VOC	1,1-Dichloroethane	75-34-3	C	21	16	5.00E-04	1.90E-02	3.65E+00	NC	5.2E-03	3.06E+02	6.2E-05	1.70E+06	1.1E-08	1.80E+03	1.1E-05
On-Site	AOI06	VOC	1,2-Dichloroethane	107-06-2	B2	21	6	2.80E-03	4.80E-02	5.00E-03	FM	9.6E+00	1.81E+00	2.7E-02	6.92E+05	6.9E-08	1.47E+01	3.3E-03
On-Site	AOI06	VOC	1,1-Dichloroethene	75-35-4	C	21	8	4.00E-04	8.50E-03	7.00E-03	FM	1.2E+00	1.16E+02	7.4E-05	3.05E+04	2.8E-07	2.33E+02	3.7E-05
On-Site	AOI06	VOC	cis-1,2-Dichloroethene	156-59-2	D	21	17	3.00E-04	1.10E-01	7.00E-02	FM	1.6E+00	2.11E+01	5.2E-03	4.21E+06	2.6E-08	1.62E+02	6.8E-04
On-Site	AOI06	VOC	trans-1,2-Dichloroethene	156-60-5		21	6	6.00E-04	2.40E-02	1.00E-01	FM	2.4E-01	3.52E+01	6.8E-04	2.27E+06	1.1E-08	1.40E+02	1.7E-04
On-Site	AOI06	VOC	Ethyl Benzene	100-41-4	D	21	7	4.00E-04	6.80E-03	7.00E-01	FM	9.7E-03	4.18E+02	1.6E-05	1.60E+06	4.3E-09	2.97E+03	2.3E-06
On-Site	AOI06	VOC	Methyl Acetate	79-20-9		21	2	2.20E-02	4.50E-02	3.65E+01	NC	1.2E-03	4.33E+03	1.0E-05	9.67E+07	4.7E-10	5.63E+05	8.0E-08
On-Site	AOI06	VOC	Methyl tert-butyl ether	1634-04-4		21	11	3.00E-04	6.90E-02	3.74E-01	C	1.8E-01	2.09E+03	3.3E-05	4.97E+06	1.4E-08	7.99E+04	8.6E-07
On-Site	AOI06	VOC	Methylcyclohexane	108-87-2		21	8	5.00E-04	2.90E-03	3.14E+01	NC	9.2E-05	1.83E+03	1.6E-06	1.19E+06	2.4E-09	1.17E+03	2.5E-06
On-Site	AOI06	VOC	Tetrachloroethene	127-18-4	C-B2	21	5	4.00E-03	1.20E-02	5.00E-03	FM	2.4E+00	1.33E+01	9.0E-04	1.48E+06	8.1E-09	1.25E+01	9.6E-04
On-Site	AOI06	VOC	Toluene	108-88-3	D	21	2	8.00E-04	1.00E-03	1.00E+00	FM	1.0E-03	2.26E+02	4.4E-06	2.92E+06	3.4E-10	1.29E+03	7.7E-07
On-Site	AOI06	VOC	1,1,1-Trichloroethane	71-55-6	D	21	1	1.40E-03	1.40E-03	2.00E-01	FM	7.0E-03	1.37E+03	1.0E-06	4.09E+06	3.4E-10	3.63E+03	3.9E-07
On-Site	AOI06	VOC	1,1,2-Trichloroethane	79-00-5	C	21	5	6.00E-04	1.50E-03	5.00E-03	FM	3.0E-01	3.35E+00	4.5E-04	8.55E+05	1.8E-09	2.60E+01	5.8E-05
On-Site	AOI06	VOC	Trichloroethene	79-01-6	C-B2	21	18	4.00E-04	3.70E-01	5.00E-03	FM	7.4E+01	2.50E+01	1.5E-02	1.55E+06	2.4E-07	3.19E+01	1.2E-02
On-Site	AOI06	VOC	Vinyl Chloride	75-01-4	A	21	12	7.00E-04	8.80E-03	2.00E-03	FM	4.4E+00	1.94E+00	4.5E-03	3.45E+03	2.6E-06	2.77E+00	3.2E-03
On-Site	AOI06	VOC	Xylenes (total)	1330-20-7	ID	21	5	7.00E-04	1.10E-02	1.00E+01	FM	1.1E-03	6.28E+01	1.8E-04	1.70E+06	6.5E-09	3.23E+02	3.4E-05
On-Site	AOI06	SVOC	Acenaphthene	83-32-9		7	3	4.00E-04	9.90E-02	2.19E+00	NC	4.5E-02	1.46E+02	6.8E-04			2.04E+04	4.8E-06
On-Site	AOI06	SVOC	Acetophenone	98-86-2	D	7	1	2.95E-03	2.95E-03				2.21E+03	1.3E-06	6.32E+07	4.7E-11	4.68E+05	6.3E-09
On-Site	AOI06	SVOC	Anthracene	120-12-7	D	7	1	1.20E-02	1.20E-02	1.10E+01	NC	1.1E-03	7.21E+02	1.7E-05				
On-Site	AOI06	SVOC	Benzo(a)anthracene	56-55-3	B2	7	1	1.00E-03	1.00E-03	9.21E-04	C	1.1E+00	6.17E-02	1.6E-02			1.11E+03	9.0E-07
On-Site	AOI06	SVOC	Benzo(a)pyrene	50-32-8	B2	7	1	3.00E-04	3.00E-04	2.00E-04	FM	1.5E+00	4.35E-03	6.9E-02			2.63E+02	1.1E-06
On-Site	AOI06	SVOC	Biphenyl	92-52-4	D	7	2	1.10E-03	1.10E-03	1.83E+00	NC	6.0E-04	9.52E+01	1.2E-05	5.60E+04	2.0E-08	9.10E+03	1.2E-07
On-Site	AOI06	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	21	7	6.00E-04	6.50E-03	6.11E-04	C	1.1E+01	1.02E+00	6.4E-03	2.27E+07	2.9E-10	5.63E+01	1.2E-04
On-Site	AOI06	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	7	1	3.10E-03	3.10E-03	6.00E-03	FM	5.2E-01	1.82E+00	1.7E-03	5.56E+08	5.6E-12	2.43E+05	1.3E-08
On-Site	AOI06	SVOC	Carbazole	86-74-8	B2	7	3	3.00E-04	1.10E-02	3.36E-02	C	3.3E-01	3.32E+01	3.3E-04			1.04E+05	1.1E-07
On-Site	AOI06	SVOC	4-Chloroaniline	106-47-8		7	1	4.50E-03	4.50E-03	1.46E-01	NC	3.1E-02	9.78E+01	4.6E-05			2.22E+04	2.0E-07
On-Site	AOI06	SVOC	Chrysene	218-01-9	B2	7	1	8.00E-04	8.00E-04	9.21E-02	C	8.7E-03	5.94E+00	1.3E-04			4.18E+03	1.9E-07
On-Site	AOI06	SVOC	Dibenzofuran	132-64-9	D	7	2	2.00E-04	7.00E-02	7.30E-02	NC	9.6E-01	5.19E+00	1.3E-02			7.98E+03	8.8E-06
On-Site	AOI06	SVOC	2,4-Dimethylphenol	105-67-9		6	1	2.60E-03	2.60E-03	7.30E-01	NC	3.6E-03	6.26E+02	4.2E-06			4.67E+05	5.6E-09
On-Site	AOI06	SVOC	Fluoranthene	206-44-0	D	7	1	1.50E-02	1.50E-02	1.46E+00	NC	1.0E-02	4.50E+01	3.3E-04			1.25E+05	1.2E-07
On-Site	AOI06	SVOC	Fluorene	86-73-7	D	7	3	3.00E-04	6.80E-02	1.46E+00	NC	4.7E-02	9.95E+01	6.8E-04			3.22E+04	2.1E-06

Table 3.2.1
Overburden Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria	Construction GCC (mg/L)	Ratio of Max Detect to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Max Detect to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Max Detect to Residential VI Criteria
On-Site	AOI06	SVOC	2-Methylnaphthalene	91-57-6	ID	7	4	1.10E-03	3.00E-02	7.30E-01	NC	4.1E-02	2.38E+00	1.3E-02			9.08E+01	3.3E-04
On-Site	AOI06	SVOC	Methylphenol (total)	1319-77-3		6	1	2.33E-04	2.33E-04	1.83E-01	NC	1.3E-03	2.59E+03	9.0E-08	3.37E+08	6.9E-13	1.91E+06	1.2E-10
On-Site	AOI06	SVOC	Naphthalene	91-20-3	C	7	4	3.00E-03	1.10E-01	7.30E-01	NC	1.5E-01	2.55E+00	4.3E-02	1.75E+06	6.3E-08	9.88E+01	1.1E-03
On-Site	AOI06	SVOC	N-Nitrosodiphenylamine	86-30-6	B2	7	1	1.40E-02	1.40E-02	1.37E-01	C	1.0E-01	3.11E+02	4.5E-05				
On-Site	AOI06	SVOC	Phenanthrene	85-01-8	D	7	3	1.25E-04	9.80E-02	1.10E+00	NC	8.9E-02	7.06E+01	1.4E-03			6.50E+04	1.5E-06
On-Site	AOI06	SVOC	Pyrene	129-00-0	D	7	1	1.00E-02	1.00E-02	1.10E+00	NC	9.1E-03	3.47E+01	2.9E-04			1.36E+05	7.3E-08
On-Site	AOI06	INORG	Antimony	7440-36-0		21	5	4.60E-04	4.30E-03	6.00E-03	FM	7.2E-01	3.79E+01	1.1E-04				
On-Site	AOI06	INORG	Arsenic	7440-38-2	A	21	20	8.00E-04	9.60E-03	1.00E-02	FM	9.6E-01	1.44E+01	6.7E-04				
On-Site	AOI06	INORG	Barium	7440-39-3	D	21	21	3.00E-02	8.10E-01	2.00E+00	FM	4.1E-01	3.43E+03	2.4E-04				
On-Site	AOI06	INORG	Cadmium	7440-43-9	B1	21	12	9.80E-05	4.90E-04	5.00E-03	FM	9.8E-02	1.80E+01	2.7E-05				
On-Site	AOI06	INORG	Chromium (total)	7440-47-3		21	4	5.10E-04	1.66E-02	1.00E-01	FM	1.7E-01	2.85E+01	5.8E-04				
On-Site	AOI06	INORG	Cobalt	7440-48-4	B1	21	19	7.10E-04	1.20E-02	7.30E-01	NC	1.6E-02	8.09E+03	1.5E-06				
On-Site	AOI06	INORG	Copper	7440-50-8	D	21	8	8.70E-04	7.40E-03	1.30E+00	FM	5.7E-03	1.23E+04	6.0E-07				
On-Site	AOI06	INORG	Lead	7439-92-1	B2	21	9	1.70E-04	1.80E-03	1.50E-02	FM	1.2E-01						
On-Site	AOI06	INORG	Manganese	7439-96-5	D	21	21	9.10E-03	5.22E+01	8.76E-01	NC	6.0E+01	5.96E+03	8.8E-03				
On-Site	AOI06	INORG	Mercury	7439-97-6	D	21	1	5.00E-05	5.00E-05	2.00E-03	FM	2.5E-02	2.61E-01	1.9E-04	1.30E+02	3.8E-07	1.17E+00	4.3E-05
On-Site	AOI06	INORG	Nickel	7440-02-0	A	21	19	4.80E-03	1.26E-02	7.30E-01	NC	1.7E-02	2.38E+03	5.3E-06				
On-Site	AOI06	INORG	Selenium	7782-49-2	D	21	15	7.50E-04	6.10E-03	5.00E-02	FM	1.2E-01	1.54E+03	4.0E-06				
On-Site	AOI06	INORG	Thallium	7440-28-0		21	5	1.70E-05	1.50E-04	2.00E-03	FM	7.5E-02	2.15E+01	7.0E-06				
On-Site	AOI06	INORG	Vanadium	7440-62-2		21	12	5.00E-04	5.50E-03	3.65E-02	NC	1.5E-01	1.94E+01	2.8E-04				
On-Site	AOI06	INORG	Zinc	7440-66-6	D	21	4	2.40E-02	5.38E-02	1.10E+01	NC	4.9E-03	1.10E+05	4.9E-07				
On-Site	AOI07	VOC	Acetone	67-64-1	ID	6	2	7.20E-02	1.20E-01	3.29E+01	NC	3.7E-03	6.26E+03	1.9E-05	8.58E+08	1.4E-10	1.17E+06	1.0E-07
On-Site	AOI07	VOC	Benzene	71-43-2	A	6	3	2.30E-02	9.55E-02	5.00E-03	FM	1.9E+01	4.53E+00	2.1E-02	1.35E+04	7.1E-06	1.08E+01	8.8E-03
On-Site	AOI07	VOC	2-Butanone	78-93-3	ID	4	3	7.50E-03	2.70E-02	2.19E+01	NC	1.2E-03	8.04E+03	3.4E-06	1.51E+08	1.8E-10	1.30E+06	2.1E-08
On-Site	AOI07	VOC	Carbon Disulfide	75-15-0		6	1	1.22E-03	1.22E-03	3.65E+00	NC	3.3E-04	3.49E+02	3.5E-06	4.37E+04	2.8E-08	7.38E+02	1.6E-06
On-Site	AOI07	VOC	Cumene	98-82-8	D	6	3	1.60E-03	1.30E-02	3.65E+00	NC	3.6E-03	2.01E+02	6.5E-05	1.28E+05	1.0E-07	1.37E+02	9.5E-05
On-Site	AOI07	VOC	Cyclohexane	110-82-7	ID	6	3	2.00E-02	4.70E-02	6.21E+01	NC	7.6E-04	3.39E+03	1.4E-05	7.44E+05	6.3E-08	2.84E+03	1.7E-05
On-Site	AOI07	VOC	cis-1,2-Dichloroethene	156-59-2	D	6	3	1.90E-03	5.30E-03	7.00E-02	FM	7.6E-02	2.11E+01	2.5E-04	4.21E+06	1.3E-09	1.62E+02	3.3E-05
On-Site	AOI07	VOC	trans-1,2-Dichloroethene	156-60-5		6	1	3.00E-04	3.00E-04	1.00E-01	FM	3.0E-03	3.52E+01	8.5E-06	2.27E+06	1.3E-10	1.40E+02	2.1E-06
On-Site	AOI07	VOC	Ethyl Benzene	100-41-4	D	6	3	1.90E-02	1.75E-01	7.00E-01	FM	2.5E-01	4.18E+02	4.2E-04	1.60E+06	1.1E-07	2.97E+03	5.9E-05
On-Site	AOI07	VOC	Methyl tert-butyl ether	1634-04-4		6	6	6.00E-04	1.50E-02	3.74E-01	C	4.0E-02	2.09E+03	7.2E-06	4.97E+06	3.0E-09	7.99E+04	1.9E-07
On-Site	AOI07	VOC	4-Methyl-2-pentanone	108-10-1	ID	6	3	2.90E-03	1.40E-02	2.92E+00	NC	4.8E-03	3.43E+03	4.1E-06	4.48E+07	3.1E-10	3.24E+05	4.3E-08
On-Site	AOI07	VOC	Methylcyclohexane	108-87-2		6	3	4.10E-02	6.85E-02	3.14E+01	NC	2.2E-03	1.83E+03	3.7E-05	1.19E+06	5.8E-08	1.17E+03	5.9E-05
On-Site	AOI07	VOC	Tetrachloroethene	127-18-4	C-B2	6	3	1.00E-03	2.00E-03	5.00E-03	FM	4.0E-01	1.33E+01	1.5E-04	1.48E+06	1.4E-09	1.25E+01	1.6E-04
On-Site	AOI07	VOC	Toluene	108-88-3	D	6	3	1.00E-02	3.85E-02	1.00E+00	FM	3.9E-02	2.26E+02	1.7E-04	2.92E+06	1.3E-08	1.29E+03	3.0E-05
On-Site	AOI07	VOC	Trichloroethene	79-01-6	C-B2	6	2	3.00E-04	5.00E-04	5.00E-03	FM	1.0E-01	2.50E+01	2.0E-05	1.55E+06	3.2E-10	3.19E+01	1.6E-05
On-Site	AOI07	VOC	Vinyl Chloride	75-01-4	A	6	1	4.00E-04	4.00E-04	2.00E-03	FM	2.0E-01	1.94E+00	2.1E-04	3.45E+03	1.2E-07	2.77E+00	1.4E-04
On-Site	AOI07	VOC	Xylenes (total)	1330-20-7	ID	6	4	8.00E-04	3.70E-01	1.00E+01	FM	3.7E-02	6.28E+01	5.9E-03	1.70E+06	2.2E-07	3.23E+02	1.1E-03
On-Site	AOI07	INORG	Antimony	7440-36-0		6	3	5.80E-04	1.70E-03	6.00E-03	FM	2.8E-01	3.79E+01	4.5E-05				
On-Site	AOI07	INORG	Arsenic	7440-38-2	A	6	6	2.30E-03	2.14E-02	1.00E-02	FM	2.1E+00	1.44E+01	1.5E-03				
On-Site	AOI07	INORG	Barium	7440-39-3	D	6	6	1.47E-01	3.52E-01	2.00E+00	FM	1.8E-01	3.43E+03	1.0E-04				
On-Site	AOI07	INORG	Cadmium	7440-43-9	B1	6	1	9.80E-05	9.80E-05	5.00E-03	FM	2.0E-02	1.80E+01	5.4E-06				
On-Site	AOI07	INORG	Cobalt	7440-48-4	B1	6	6	5.60E-04	1.30E-03	7.30E-01	NC	1.8E-03	8.09E+03	1.6E-07				
On-Site	AOI07	INORG	Copper	7440-50-8	D	6	3	1.90E-03	2.30E-02	1.30E+00	FM	1.8E-02	1.23E+04	1.9E-06				
On-Site	AOI07	INORG	Lead	7439-92-1	B2	6	4	4.00E-04	1.50E-03	1.50E-02	FM	1.0E-01						
On-Site	AOI07	INORG	Manganese	7439-96-5	D	6	4	8.80E-04	5.59E+00	8.76E-01	NC	6.4E+00	5.96E+03	9.4E-04				
On-Site	AOI07	INORG	Nickel	7440-02-0	A	6	6	4.30E-03	2.80E-02	7.30E-01	NC	3.8E-02	2.38E+03	1.2E-05				
On-Site	AOI07	INORG	Selenium	7782-49-2	D	6	4	1.50E-03	2.30E-03	5.00E-02	FM	4.6E-02	1.54E+03	1.5E-06				
On-Site	AOI07	INORG	Vanadium	7440-62-2		6	4	4.70E-04	4.45E-03	3.65E-02	NC	1.2E-01	1.94E+01	2.3E-04				
On-Site	AOI07	INORG	Zinc	7440-66-6	D	6	1	2.09E-02	2.09E-02	1.10E+01	NC	1.9E-03	1.10E+05	1.9E-07				
On-Site	AOI11	VOC	Cumene	98-82-8	D	5	1	4.00E-04	4.00E-04	3.65E+00	NC	1.1E-04	2.01E+02	2.0E-06	1.28E+05	3.1E-09	1.37E+02	2.9E-06
On-Site	AOI11	VOC	Methyl Acetate	79-20-9		5	1	2.00E-02	2.00E-02	3.65E+01	NC	5.5E-04	4.33E+03	4.6E-06	9.67E+07	2.1E-10	5.63E+05	3.6E-08
On-Site	AOI11	SVOC	Acenaphthene	83-32-9		1	1	7.80E-03	7.80E-03	2.19E+00	NC	3.6E-03	1.46E+02	5.4E-05			2.04E+04	3.8E-07

Table 3.2.1
Overburden Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria	Construction GCC (mg/L)	Ratio of Max Detect to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Max Detect to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Max Detect to Residential VI Criteria
On-Site	AOI11	SVOC	Anthracene	120-12-7	D	1	1	2.60E-03	2.60E-03	1.10E+01	NC	2.4E-04	7.21E+02	3.6E-06				
On-Site	AOI11	SVOC	Dibenzofuran	132-64-9	D	1	1	7.30E-03	7.30E-03	7.30E-02	NC	1.0E-01	5.19E+00	1.4E-03			7.98E+03	9.1E-07
On-Site	AOI11	SVOC	Fluoranthene	206-44-0	D	1	1	3.50E-03	3.50E-03	1.46E+00	NC	2.4E-03	4.50E+01	7.8E-05			1.25E+05	2.8E-08
On-Site	AOI11	SVOC	Fluorene	86-73-7	D	1	1	1.00E-02	1.00E-02	1.46E+00	NC	6.8E-03	9.95E+01	1.0E-04			3.22E+04	3.1E-07
On-Site	AOI11	SVOC	Phenanthrene	85-01-8	D	1	1	1.10E-03	1.10E-03	1.10E+00	NC	1.0E-03	7.06E+01	1.6E-05			6.50E+04	1.7E-08
On-Site	AOI11	SVOC	Pyrene	129-00-0	D	1	1	1.90E-03	1.90E-03	1.10E+00	NC	1.7E-03	3.47E+01	5.5E-05			1.36E+05	1.4E-08
On-Site	AOI11	INORG	Arsenic	7440-38-2	A	4	4	1.26E-02	2.40E-02	1.00E-02	FM	2.4E+00	1.44E+01	1.7E-03				
On-Site	AOI11	INORG	Barium	7440-39-3	D	4	4	1.04E-01	2.73E-01	2.00E+00	FM	1.4E-01	3.43E+03	7.9E-05				
On-Site	AOI11	INORG	Cadmium	7440-43-9	B1	4	4	1.40E-04	8.30E-04	5.00E-03	FM	1.7E-01	1.80E+01	4.6E-05				
On-Site	AOI11	INORG	Chromium (total)	7440-47-3		4	2	4.90E-04	4.80E-03	1.00E-01	FM	4.8E-02	2.85E+01	1.7E-04				
On-Site	AOI11	INORG	Cobalt	7440-48-4	B1	4	4	6.90E-04	1.30E-03	7.30E-01	NC	1.8E-03	8.09E+03	1.6E-07				
On-Site	AOI11	INORG	Copper	7440-50-8	D	4	2	1.95E-03	4.30E-03	1.30E+00	FM	3.3E-03	1.23E+04	3.5E-07				
On-Site	AOI11	INORG	Lead	7439-92-1	B2	4	1	1.70E-03	1.70E-03	1.50E-02	FM	1.1E-01						
On-Site	AOI11	INORG	Manganese	7439-96-5	D	4	4	2.80E-01	8.14E-01	8.76E-01	NC	9.3E-01	5.96E+03	1.4E-04				
On-Site	AOI11	INORG	Nickel	7440-02-0	A	4	4	1.65E-03	5.00E-03	7.30E-01	NC	6.8E-03	2.38E+03	2.1E-06				
On-Site	AOI11	INORG	Selenium	7782-49-2	D	4	1	1.10E-03	1.10E-03	5.00E-02	FM	2.2E-02	1.54E+03	7.1E-07				
On-Site	AOI11	INORG	Vanadium	7440-62-2		4	4	1.10E-03	2.80E-03	3.65E-02	NC	7.7E-02	1.94E+01	1.4E-04				
On-Site	AOI11	INORG	Zinc	7440-66-6	D	4	1	2.87E-02	2.87E-02	1.10E+01	NC	2.6E-03	1.10E+05	2.6E-07				
On-Site	AOI16	VOC	Acetone	67-64-1	ID	46	11	4.80E-03	6.60E-02	3.29E+01	NC	2.0E-03	6.26E+03	1.1E-05	8.58E+08	7.7E-11	1.17E+06	5.7E-08
On-Site	AOI16	VOC	Benzene	71-43-2	A	46	2	2.00E-04	5.00E-04	5.00E-03	FM	1.0E-01	4.53E+00	1.1E-04	1.35E+04	3.7E-08	1.08E+01	4.6E-05
On-Site	AOI16	VOC	2-Butanone	78-93-3	ID	21	1	2.80E-03	2.80E-03	2.19E+01	NC	1.3E-04	8.04E+03	3.5E-07	1.51E+08	1.9E-11	1.30E+06	2.2E-09
On-Site	AOI16	VOC	Carbon Disulfide	75-15-0		46	1	5.00E-04	5.00E-04	3.65E+00	NC	1.4E-04	3.49E+02	1.4E-06	4.37E+04	1.1E-08	7.38E+02	6.8E-07
On-Site	AOI16	VOC	Chloroform	67-66-3	B2	46	13	3.00E-04	2.80E-03	8.00E-02	FM	3.5E-02	2.11E+00	1.3E-03	2.75E+05	1.0E-08	5.09E+00	5.5E-04
On-Site	AOI16	VOC	Cumene	98-82-8	D	46	2	1.20E-03	1.60E-03	3.65E+00	NC	4.4E-04	2.01E+02	7.9E-06	1.28E+05	1.3E-08	1.37E+02	1.2E-05
On-Site	AOI16	VOC	Cyclohexane	110-82-7	ID	46	1	6.70E-03	6.70E-03	6.21E+01	NC	1.1E-04	3.39E+03	2.0E-06	7.44E+05	9.0E-09	2.84E+03	2.4E-06
On-Site	AOI16	VOC	1,1-Dichloroethane	75-34-3	C	46	1	2.00E-04	2.00E-04	3.65E+00	NC	5.5E-05	3.06E+02	6.5E-07	1.70E+06	1.2E-10	1.80E+03	1.1E-07
On-Site	AOI16	VOC	1,2-Dichloroethane	107-06-2	B2	46	4	4.00E-04	2.30E-03	5.00E-03	FM	4.6E-01	1.81E+00	1.3E-03	6.92E+05	3.3E-09	1.47E+01	1.6E-04
On-Site	AOI16	VOC	cis-1,2-Dichloroethene	156-59-2	D	46	8	3.00E-04	6.20E-03	7.00E-02	FM	8.9E-02	2.11E+01	2.9E-04	4.21E+06	1.5E-09	1.62E+02	3.8E-05
On-Site	AOI16	VOC	trans-1,2-Dichloroethene	156-60-5		46	1	8.00E-04	8.00E-04	1.00E-01	FM	8.0E-03	3.52E+01	2.3E-05	2.27E+06	3.5E-10	1.40E+02	5.7E-06
On-Site	AOI16	VOC	Ethyl Benzene	100-41-4	D	46	1	2.20E-03	2.20E-03	7.00E-01	FM	3.1E-03	4.18E+02	5.3E-06	1.60E+06	1.4E-09	2.97E+03	7.4E-07
On-Site	AOI16	VOC	Methyl Acetate	79-20-9		46	2	8.10E-03	1.40E-02	3.65E+01	NC	3.8E-04	4.33E+03	3.2E-06	9.67E+07	1.4E-10	5.63E+05	2.5E-08
On-Site	AOI16	VOC	Methyl tert-butyl ether	1634-04-4		46	12	3.00E-04	1.50E-02	3.74E-01	C	4.0E-02	2.09E+03	7.2E-06	4.97E+06	3.0E-09	7.99E+04	1.9E-07
On-Site	AOI16	VOC	4-Methyl-2-pentanone	108-10-1	ID	46	1	3.40E-03	3.40E-03	2.92E+00	NC	1.2E-03	3.43E+03	9.9E-07	4.48E+07	7.6E-11	3.24E+05	1.0E-08
On-Site	AOI16	VOC	Tetrachloroethene	127-18-4	C-B2	46	2	6.00E-04	1.20E-03	5.00E-03	FM	2.4E-01	1.33E+01	9.0E-05	1.48E+06	8.1E-10	1.25E+01	9.6E-05
On-Site	AOI16	VOC	Toluene	108-88-3	D	46	1	8.00E-04	8.00E-04	1.00E+00	FM	8.0E-04	2.26E+02	3.5E-06	2.92E+06	2.7E-10	1.29E+03	6.2E-07
On-Site	AOI16	VOC	Trichloroethene	79-01-6	C-B2	46	8	3.10E-03	3.80E-02	5.00E-03	FM	7.6E+00	2.50E+01	1.5E-03	1.55E+06	2.4E-08	3.19E+01	1.2E-03
On-Site	AOI16	VOC	Vinyl Chloride	75-01-4	A	46	1	6.00E-04	6.00E-04	2.00E-03	FM	3.0E-01	1.94E+00	3.1E-04	3.45E+03	1.7E-07	2.77E+00	2.2E-04
On-Site	AOI16	VOC	Xylenes (total)	1330-20-7	ID	46	2	2.00E-03	1.90E-02	1.00E+01	FM	1.9E-03	6.28E+01	3.0E-04	1.70E+06	1.1E-08	3.23E+02	5.9E-05
On-Site	AOI16	SVOC	Atrazine	1912-24-9	C	13	1	5.00E-04	5.00E-04	3.00E-03	FM	1.7E-01	1.66E+01	3.0E-05	6.94E+08	7.2E-13	9.99E+03	5.0E-08
On-Site	AOI16	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	46	1	5.00E-04	5.00E-04	6.11E-04	C	8.2E-01	1.02E+00	4.9E-04	2.27E+07	2.2E-11	5.63E+01	8.9E-06
On-Site	AOI16	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	13	1	4.00E-03	4.00E-03	6.00E-03	FM	6.7E-01	1.82E+00	2.2E-03	5.56E+08	7.2E-12	2.43E+05	1.6E-08
On-Site	AOI16	SVOC	Fluoranthene	206-44-0	D	13	1	5.00E-04	5.00E-04	1.46E+00	NC	3.4E-04	4.50E+01	1.1E-05			1.25E+05	4.0E-09
On-Site	AOI16	SVOC	2-Methylnaphthalene	91-57-6	ID	13	3	3.00E-04	1.60E-03	7.30E-01	NC	2.2E-03	2.38E+00	6.7E-04			9.08E+01	1.8E-05
On-Site	AOI16	SVOC	Naphthalene	91-20-3	C	13	3	1.10E-03	1.50E-02	7.30E-01	NC	2.1E-02	2.55E+00	5.9E-03	1.75E+06	8.5E-09	9.88E+01	1.5E-04
On-Site	AOI16	SVOC	2-Nitroaniline	88-74-4		13	1	7.00E-04	7.00E-04	1.10E-01	NC	6.4E-03	7.36E+01	9.5E-06			4.00E+03	1.7E-07
On-Site	AOI16	SVOC	4-Nitrophenol	100-02-7		8	1	7.00E-04	7.00E-04									
On-Site	AOI16	SVOC	Pyrene	129-00-0	D	13	1	3.00E-04	3.00E-04	1.10E+00	NC	2.7E-04	3.47E+01	8.6E-06			1.36E+05	2.2E-09
On-Site	AOI16	INORG	Antimony	7440-36-0		46	3	1.70E-04	1.60E-03	6.00E-03	FM	2.7E-01	3.79E+01	4.2E-05				
On-Site	AOI16	INORG	Arsenic	7440-38-2	A	46	34	2.70E-04	9.90E-03	1.00E-02	FM	9.9E-01	1.44E+01	6.9E-04				
On-Site	AOI16	INORG	Barium	7440-39-3	D	46	46	2.01E-02	2.99E+00	2.00E+00	FM	1.5E+00	3.43E+03	8.7E-04				
On-Site	AOI16	INORG	Beryllium	7440-41-7	B1	46	4	1.80E-04	6.00E-04	4.00E-03	FM	1.5E-01	1.07E+01	5.6E-05				
On-Site	AOI16	INORG	Cadmium	7440-43-9	B1	46	45	9.50E-05	7.25E-01	5.00E-03	FM	1.5E+02	1.80E+01	4.0E-02				
On-Site	AOI16	INORG	Chromium (total)	7440-47-3		46	17	2.60E-04	8.57E-02	1.00E-01	FM	8.6E-01	2.85E+01	3.0E-03				

Table 3.2.1
Overburden Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria	Construction GCC (mg/L)	Ratio of Max Detect to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Max Detect to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Max Detect to Residential VI Criteria
On-Site	AOI16	INORG	Cobalt	7440-48-4	B1	46	46	5.60E-05	1.16E-02	7.30E-01	NC	1.6E-02	8.09E+03	1.4E-06				
On-Site	AOI16	INORG	Copper	7440-50-8	D	46	18	1.20E-03	2.73E-02	1.30E+00	FM	2.1E-02	1.23E+04	2.2E-06				
On-Site	AOI16	INORG	Lead	7439-92-1	B2	46	23	3.00E-04	2.83E-02	1.50E-02	FM	1.9E+00						
On-Site	AOI16	INORG	Manganese	7439-96-5	D	46	44	3.00E-03	7.15E+01	8.76E-01	NC	8.2E+01	5.96E+03	1.2E-02				
On-Site	AOI16	INORG	Mercury	7439-97-6	D	46	1	4.50E-05	4.50E-05	2.00E-03	FM	2.3E-02	2.61E-01	1.7E-04	1.30E+02	3.5E-07	1.17E+00	3.9E-05
On-Site	AOI16	INORG	Nickel	7440-02-0	A	46	41	9.20E-04	3.26E-02	7.30E-01	NC	4.5E-02	2.38E+03	1.4E-05				
On-Site	AOI16	INORG	Selenium	7782-49-2	D	46	30	4.50E-04	4.70E-03	5.00E-02	FM	9.4E-02	1.54E+03	3.1E-06				
On-Site	AOI16	INORG	Silver	7440-22-4	D	40	3	6.30E-05	1.90E-03	1.83E-01	NC	1.0E-02	2.34E+02	8.1E-06				
On-Site	AOI16	INORG	Thallium	7440-28-0		46	2	2.00E-05	1.40E-04	2.00E-03	FM	7.0E-02	2.15E+01	6.5E-06				
On-Site	AOI16	INORG	Vanadium	7440-62-2		46	37	4.40E-04	4.93E-02	3.65E-02	NC	1.4E+00	1.94E+01	2.5E-03				
On-Site	AOI16	INORG	Zinc	7440-66-6	D	46	16	2.09E-02	1.62E+00	1.10E+01	NC	1.5E-01	1.10E+05	1.5E-05				
On-Site	AOI26	VOC	Acetone	67-64-1	ID	6	3	9.00E-03	1.60E-02	3.29E+01	NC	4.9E-04	6.26E+03	2.6E-06	8.58E+08	1.9E-11	1.17E+06	1.4E-08
On-Site	AOI26	VOC	1,4-Dichlorobenzene	106-46-7	C	6	1	8.00E-04	8.00E-04	7.50E-02	FM	1.1E-02	6.78E+00	1.2E-04	3.91E+06	2.0E-10	2.83E+01	2.8E-05
On-Site	AOI26	VOC	Methyl tert-butyl ether	1634-04-4		6	1	8.00E-04	8.00E-04	3.74E-01	C	2.1E-03	2.09E+03	3.8E-07	4.97E+06	1.6E-10	7.99E+04	1.0E-08
On-Site	AOI26	INORG	Antimony	7440-36-0		6	2	1.30E-03	2.00E-03	6.00E-03	FM	3.3E-01	3.79E+01	5.3E-05				
On-Site	AOI26	INORG	Arsenic	7440-38-2	A	6	6	7.40E-04	5.00E-03	1.00E-02	FM	5.0E-01	1.44E+01	3.5E-04				
On-Site	AOI26	INORG	Barium	7440-39-3	D	6	6	6.90E-03	6.16E-02	2.00E+00	FM	3.1E-02	3.43E+03	1.8E-05				
On-Site	AOI26	INORG	Beryllium	7440-41-7	B1	6	1	4.90E-04	4.90E-04	4.00E-03	FM	1.2E-01	1.07E+01	4.6E-05				
On-Site	AOI26	INORG	Cadmium	7440-43-9	B1	6	1	4.60E-04	4.60E-04	5.00E-03	FM	9.2E-02	1.80E+01	2.6E-05				
On-Site	AOI26	INORG	Chromium (total)	7440-47-3		6	4	4.90E-03	1.89E-02	1.00E-01	FM	1.9E-01	2.85E+01	6.6E-04				
On-Site	AOI26	INORG	Cobalt	7440-48-4	B1	6	6	2.60E-04	4.00E-03	7.30E-01	NC	5.5E-03	8.09E+03	4.9E-07				
On-Site	AOI26	INORG	Copper	7440-50-8	D	6	3	5.20E-03	1.82E-02	1.30E+00	FM	1.4E-02	1.23E+04	1.5E-06				
On-Site	AOI26	INORG	Lead	7439-92-1	B2	6	5	2.40E-04	9.30E-03	1.50E-02	FM	6.2E-01						
On-Site	AOI26	INORG	Manganese	7439-96-5	D	6	6	5.50E-03	3.47E+00	8.76E-01	NC	4.0E+00	5.96E+03	5.8E-04				
On-Site	AOI26	INORG	Mercury	7439-97-6	D	6	1	5.30E-05	5.30E-05	2.00E-03	FM	2.7E-02	2.61E-01	2.0E-04	1.30E+02	4.1E-07	1.17E+00	4.5E-05
On-Site	AOI26	INORG	Nickel	7440-02-0	A	6	6	9.20E-04	1.05E-02	7.30E-01	NC	1.4E-02	2.38E+03	4.4E-06				
On-Site	AOI26	INORG	Selenium	7782-49-2	D	6	4	9.20E-04	3.20E-03	5.00E-02	FM	6.4E-02	1.54E+03	2.1E-06				
On-Site	AOI26	INORG	Vanadium	7440-62-2		6	6	7.40E-04	4.88E-02	3.65E-02	NC	1.3E+00	1.94E+01	2.5E-03				
On-Site	AOI26	INORG	Zinc	7440-66-6	D	6	1	4.98E-02	4.98E-02	1.10E+01	NC	4.5E-03	1.10E+05	4.5E-07				
On-Site	AOI28	VOC	1,1-Dichloroethene	75-35-4	C	14	1	1.10E-03	1.10E-03	7.00E-03	FM	1.6E-01	1.16E+02	9.5E-06	3.05E+04	3.6E-08	2.33E+02	4.7E-06
On-Site	AOI28	VOC	cis-1,2-Dichloroethene	156-59-2	D	14	2	1.60E-03	3.00E-03	7.00E-02	FM	4.3E-02	2.11E+01	1.4E-04	4.21E+06	7.1E-10	1.62E+02	1.8E-05
On-Site	AOI28	VOC	Methyl tert-butyl ether	1634-04-4		14	3	9.50E-04	8.30E-03	3.74E-01	C	2.2E-02	2.09E+03	4.0E-06	4.97E+06	1.7E-09	7.99E+04	1.0E-07
On-Site	AOI28	VOC	Trichloroethene	79-01-6	C-B2	14	3	1.40E-03	3.90E-02	5.00E-03	FM	7.8E+00	2.50E+01	1.6E-03	1.55E+06	2.5E-08	3.19E+01	1.2E-03
On-Site	AOI28	SVOC	Naphthalene	91-20-3	C	3	1	6.00E-04	6.00E-04	7.30E-01	NC	8.2E-04	2.55E+00	2.4E-04	1.75E+06	3.4E-10	9.88E+01	6.1E-06
On-Site	AOI28	SVOC	Nitrobenzene	98-95-3	D	3	1	8.00E-04	8.00E-04	1.83E-02	NC	4.4E-02	6.57E+00	1.2E-04	2.91E+06	2.7E-10	1.20E+03	6.7E-07
On-Site	AOI28	INORG	Antimony	7440-36-0		12	1	4.60E-04	4.60E-04	6.00E-03	FM	7.7E-02	3.79E+01	1.2E-05				
On-Site	AOI28	INORG	Arsenic	7440-38-2	A	12	8	2.13E-04	1.58E-02	1.00E-02	FM	1.6E+00	1.44E+01	1.1E-03				
On-Site	AOI28	INORG	Barium	7440-39-3	D	12	12	7.86E-02	6.10E-01	2.00E+00	FM	3.0E-01	3.43E+03	1.8E-04				
On-Site	AOI28	INORG	Cadmium	7440-43-9	B1	12	11	9.60E-05	3.30E-03	5.00E-03	FM	6.6E-01	1.80E+01	1.8E-04				
On-Site	AOI28	INORG	Chromium (total)	7440-47-3		12	3	6.10E-04	1.40E-03	1.00E-01	FM	1.4E-02	2.85E+01	4.9E-05				
On-Site	AOI28	INORG	Cobalt	7440-48-4	B1	12	10	1.60E-04	3.15E-03	7.30E-01	NC	4.3E-03	8.09E+03	3.9E-07				
On-Site	AOI28	INORG	Copper	7440-50-8	D	12	5	8.40E-04	9.70E-03	1.30E+00	FM	7.5E-03	1.23E+04	7.9E-07				
On-Site	AOI28	INORG	Lead	7439-92-1	B2	12	5	7.10E-04	9.60E-04	1.50E-02	FM	6.4E-02						
On-Site	AOI28	INORG	Manganese	7439-96-5	D	12	11	8.30E-03	1.38E+01	8.76E-01	NC	1.6E+01	5.96E+03	2.3E-03				
On-Site	AOI28	INORG	Mercury	7439-97-6	D	12	1	6.00E-05	6.00E-05	2.00E-03	FM	3.0E-02	2.61E-01	2.3E-04	1.30E+02	4.6E-07	1.17E+00	5.1E-05
On-Site	AOI28	INORG	Nickel	7440-02-0	A	12	12	3.20E-03	1.47E-02	7.30E-01	NC	2.0E-02	2.38E+03	6.2E-06				
On-Site	AOI28	INORG	Selenium	7782-49-2	D	12	9	3.40E-04	1.40E-03	5.00E-02	FM	2.8E-02	1.54E+03	9.1E-07				
On-Site	AOI28	INORG	Vanadium	7440-62-2		12	8	5.50E-04	4.60E-03	3.65E-02	NC	1.3E-01	1.94E+01	2.4E-04				
On-Site	AOI28	INORG	Zinc	7440-66-6	D	12	1	3.17E-02	3.17E-02	1.10E+01	NC	2.9E-03	1.10E+05	2.9E-07				
On-Site	AOI29	VOC	Carbon Disulfide	75-15-0		5	1	8.00E-04	8.00E-04	3.65E+00	NC	2.2E-04	3.49E+02	2.3E-06	4.37E+04	1.8E-08	7.38E+02	1.1E-06
On-Site	AOI29	VOC	Methyl tert-butyl ether	1634-04-4		5	1	5.00E-04	5.00E-04	3.74E-01	C	1.3E-03	2.09E+03	2.4E-07	4.97E+06	1.0E-10	7.99E+04	6.3E-09
On-Site	AOI29	VOC	Trichloroethene	79-01-6	C-B2	5	2	6.00E-04	9.00E-04	5.00E-03	FM	1.8E-01	2.50E+01	3.6E-05	1.55E+06	5.8E-10	3.19E+01	2.8E-05
On-Site	AOI29	SVOC	Acenaphthene	83-32-9		1	1	7.00E-04	7.00E-04	2.19E+00	NC	3.2E-04	1.46E+02	4.8E-06			2.04E+04	3.4E-08

Table 3.2.1
Overburden Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria	Construction GCC (mg/L)	Ratio of Max Detect to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Max Detect to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Max Detect to Residential VI Criteria
On-Site	AOI29	INORG	Antimony	7440-36-0		4	2	6.70E-04	2.60E-03	6.00E-03	FM	4.3E-01	3.79E+01	6.9E-05				
On-Site	AOI29	INORG	Arsenic	7440-38-2	A	4	4	1.75E-02	2.52E-02	1.00E-02	FM	2.5E+00	1.44E+01	1.8E-03				
On-Site	AOI29	INORG	Barium	7440-39-3	D	4	4	7.94E-02	1.43E-01	2.00E+00	FM	7.2E-02	3.43E+03	4.2E-05				
On-Site	AOI29	INORG	Cadmium	7440-43-9	B1	4	4	1.00E-04	3.50E-03	5.00E-03	FM	7.0E-01	1.80E+01	1.9E-04				
On-Site	AOI29	INORG	Chromium (total)	7440-47-3		4	2	2.70E-04	5.00E-04	1.00E-01	FM	5.0E-03	2.85E+01	1.8E-05				
On-Site	AOI29	INORG	Cobalt	7440-48-4	B1	4	4	4.10E-03	5.20E-03	7.30E-01	NC	7.1E-03	8.09E+03	6.4E-07				
On-Site	AOI29	INORG	Lead	7439-92-1	B2	4	2	2.80E-04	6.60E-04	1.50E-02	FM	4.4E-02						
On-Site	AOI29	INORG	Manganese	7439-96-5	D	4	4	3.16E+01	4.18E+01	8.76E-01	NC	4.8E+01	5.96E+03	7.0E-03				
On-Site	AOI29	INORG	Nickel	7440-02-0	A	4	4	5.30E-03	6.70E-03	7.30E-01	NC	9.2E-03	2.38E+03	2.8E-06				
On-Site	AOI29	INORG	Selenium	7782-49-2	D	4	4	3.20E-03	7.70E-03	5.00E-02	FM	1.5E-01	1.54E+03	5.0E-06				
On-Site	AOI29	INORG	Vanadium	7440-62-2		4	3	2.00E-03	3.20E-03	3.65E-02	NC	8.8E-02	1.94E+01	1.7E-04				
On-Site	General	VOC	Acetone	67-64-1	ID	40	3	6.00E-03	8.10E-01	3.29E+01	NC	2.5E-02	6.26E+03	1.3E-04	8.58E+08	9.4E-10	1.17E+06	6.9E-07
On-Site	General	VOC	Benzene	71-43-2	A	41	4	3.00E-04	6.00E-04	5.00E-03	FM	1.2E-01	4.53E+00	1.3E-04	1.35E+04	4.4E-08	1.08E+01	5.5E-05
On-Site	General	VOC	Bromochloromethane	74-97-5		31	1	4.00E-04	4.00E-04						1.35E+07	3.0E-11		
On-Site	General	VOC	Bromodichloromethane	75-27-4	B2	41	2	7.00E-04	8.00E-04	8.00E-02	FM	1.0E-02	3.20E+00	2.5E-04			1.48E+01	5.4E-05
On-Site	General	VOC	2-Butanone	78-93-3	ID	11	1	9.40E-03	9.40E-03	2.19E+01	NC	4.3E-04	8.04E+03	1.2E-06	1.51E+08	6.2E-11	1.30E+06	7.2E-09
On-Site	General	VOC	Carbon Disulfide	75-15-0		41	1	6.00E-04	6.00E-04	3.65E+00	NC	1.6E-04	3.49E+02	1.7E-06	4.37E+04	1.4E-08	7.38E+02	8.1E-07
On-Site	General	VOC	Chlorobenzene	108-90-7	D	41	5	3.00E-04	3.10E-03	1.00E-01	FM	3.1E-02	3.65E+01	8.5E-05	2.13E+06	1.5E-09	3.14E+02	9.9E-06
On-Site	General	VOC	Chloroform	67-66-3	B2	41	6	1.93E-04	1.20E-02	8.00E-02	FM	1.5E-01	2.11E+00	5.7E-03	2.75E+05	4.4E-08	5.09E+00	2.4E-03
On-Site	General	VOC	Chloromethane	74-87-3	D	41	1	7.85E-04	7.85E-04	9.49E-01	NC	8.3E-04	4.00E+01	2.0E-05	3.42E+05	2.3E-09	2.42E+02	3.2E-06
On-Site	General	VOC	Cumene	98-82-8	D	41	1	9.00E-04	9.00E-04	3.65E+00	NC	2.5E-04	2.01E+02	4.5E-06	1.28E+05	7.0E-09	1.37E+02	6.6E-06
On-Site	General	VOC	1,2-Dichloroethane	107-06-2	B2	41	4	1.30E-03	5.70E-03	5.00E-03	FM	1.1E+00	1.81E+00	3.2E-03	6.92E+05	8.2E-09	1.47E+01	3.9E-04
On-Site	General	VOC	cis-1,2-Dichloroethene	156-59-2	D	41	8	3.00E-04	8.20E-03	7.00E-02	FM	1.2E-01	2.11E+01	3.9E-04	4.21E+06	1.9E-09	1.62E+02	5.1E-05
On-Site	General	VOC	trans-1,2-Dichloroethene	156-60-5		41	6	3.00E-04	1.80E-03	1.00E-01	FM	1.8E-02	3.52E+01	5.1E-05	2.27E+06	7.9E-10	1.40E+02	1.3E-05
On-Site	General	VOC	Methyl Acetate	79-20-9		41	2	6.40E-03	4.80E-02	3.65E+01	NC	1.3E-03	4.33E+03	1.1E-05	9.67E+07	5.0E-10	5.63E+05	8.5E-08
On-Site	General	VOC	Methyl tert-butyl ether	1634-04-4		41	13	3.00E-04	2.70E-03	3.74E-01	C	7.2E-03	2.09E+03	1.3E-06	4.97E+06	5.4E-10	7.99E+04	3.4E-08
On-Site	General	VOC	Methylene Chloride	75-09-2	B2	41	1	1.50E-03	1.50E-03	5.00E-03	FM	3.0E-01	8.29E+01	1.8E-05	7.24E+05	2.1E-09	3.84E+02	3.9E-06
On-Site	General	VOC	Tetrachloroethene	127-18-4	C-B2	41	5	4.00E-04	2.40E-03	5.00E-03	FM	4.8E-01	1.33E+01	1.8E-04	1.48E+06	1.6E-09	1.25E+01	1.9E-04
On-Site	General	VOC	Trichloroethene	79-01-6	C-B2	41	8	1.90E-03	5.60E-02	5.00E-03	FM	1.1E+01	2.50E+01	2.2E-03	1.55E+06	3.6E-08	3.19E+01	1.8E-03
On-Site	General	VOC	Trichlorofluoromethane	75-69-4		41	2	3.00E-04	1.50E-01	1.10E+01	NC	1.4E-02	4.83E+02	3.1E-04	4.89E+06	3.1E-08	4.21E+02	3.6E-04
On-Site	General	VOC	Vinyl Chloride	75-01-4	A	41	1	3.00E-04	3.00E-04	2.00E-03	FM	1.5E-01	1.94E+00	1.5E-04	3.45E+03	8.7E-08	2.77E+00	1.1E-04
On-Site	General	VOC	Xylenes (total)	1330-20-7	ID	41	1	3.00E-04	3.00E-04	1.00E+01	FM	3.0E-05	6.28E+01	4.8E-06	1.70E+06	1.8E-10	3.23E+02	9.3E-07
On-Site	General	SVOC	Atrazine	1912-24-9	C	3	1	7.00E-04	7.00E-04	3.00E-03	FM	2.3E-01	1.66E+01	4.2E-05	6.94E+08	1.0E-12	9.99E+03	7.0E-08
On-Site	General	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	36	3	1.90E-03	2.50E-03	6.11E-04	C	4.1E+00	1.02E+00	2.4E-03	2.27E+07	1.1E-10	5.63E+01	4.4E-05
On-Site	General	INORG	Antimony	7440-36-0		39	8	1.40E-04	2.80E-03	6.00E-03	FM	4.7E-01	3.79E+01	7.4E-05				
On-Site	General	INORG	Arsenic	7440-38-2	A	39	28	4.40E-04	3.87E-02	1.00E-02	FM	3.9E+00	1.44E+01	2.7E-03				
On-Site	General	INORG	Barium	7440-39-3	D	39	39	3.52E-02	7.70E+00	2.00E+00	FM	3.9E+00	3.43E+03	2.2E-03				
On-Site	General	INORG	Beryllium	7440-41-7	B1	39	1	2.80E-03	2.80E-03	4.00E-03	FM	7.0E-01	1.07E+01	2.6E-04				
On-Site	General	INORG	Cadmium	7440-43-9	B1	39	31	1.10E-04	1.28E-02	5.00E-03	FM	2.6E+00	1.80E+01	7.1E-04				
On-Site	General	INORG	Chromium (total)	7440-47-3		39	8	4.00E-04	3.90E-03	1.00E-01	FM	3.9E-02	2.85E+01	1.4E-04				
On-Site	General	INORG	Cobalt	7440-48-4	B1	39	39	1.10E-04	1.78E-01	7.30E-01	NC	2.4E-01	8.09E+03	2.2E-05				
On-Site	General	INORG	Copper	7440-50-8	D	39	10	3.20E-03	7.43E-02	1.30E+00	FM	5.7E-02	1.23E+04	6.0E-06				
On-Site	General	INORG	Lead	7439-92-1	B2	39	18	2.70E-04	3.80E-03	1.50E-02	FM	2.5E-01						
On-Site	General	INORG	Manganese	7439-96-5	D	39	39	2.60E-03	7.26E+01	8.76E-01	NC	8.3E+01	5.96E+03	1.2E-02				
On-Site	General	INORG	Mercury	7439-97-6	D	39	5	3.00E-05	2.20E-03	2.00E-03	FM	1.1E+00	2.61E-01	8.4E-03	1.30E+02	1.7E-05	1.17E+00	1.9E-03
On-Site	General	INORG	Nickel	7440-02-0	A	39	39	2.40E-03	7.88E-02	7.30E-01	NC	1.1E-01	2.38E+03	3.3E-05				
On-Site	General	INORG	Selenium	7782-49-2	D	39	30	7.90E-04	4.90E-03	5.00E-02	FM	9.8E-02	1.54E+03	3.2E-06				
On-Site	General	INORG	Thallium	7440-28-0		39	5	1.80E-05	7.90E-05	2.00E-03	FM	4.0E-02	2.15E+01	3.7E-06				
On-Site	General	INORG	Vanadium	7440-62-2		39	23	4.10E-04	5.80E-03	3.65E-02	NC	1.6E-01	1.94E+01	3.0E-04				
On-Site	General	INORG	Zinc	7440-66-6	D	39	10	1.46E-02	8.27E-01	1.10E+01	NC	7.6E-02	1.10E+05	7.5E-06				

Notes:

Results from Wellzones S and D are included in this table to facilitate comparison with databoxes

Table 3.2.1
Overburden Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Max Detect to DW Criteria	Construction GCC (mg/L)	Ratio of Max Detect to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Max Detect to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Max Detect to Residential VI Criteria
	The Drinking Water Screening Criteria is the Federal MCL or, when a Federal MCL is not available, the Region 9 PRG for ingestion of tap water based on a target risk of 10^{-5} and hazard quotient of 1.																
	The Screening Criteria are calculated at a target cancer risk of 10^{-5} and hazard quotient of 1.																
	The Screening Criteria for Pyrene were used as surrogates for Phenanthrene.																
	The Screening Criteria for Naphthalene were used as surrogates for 2-Methylnaphthalene.																
	The Screening Criteria for Chromium VI was used as a surrogate for Chromium (total).																
	The concentrations for the Methylphenol (2, 3, & 4) were summed before comparing to the Screening Criteria for 4-Methylphenol.																
	The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the Screening Criteria.																
	FM - The Screening Criterion is the Federal MCL.																
	C - The Screening Criterion is based on cancer risk.																
	NC - The Screening Criterion is based on noncancer effects.																
	GCC - Groundwater Contact Criteria																
	Chem Group - Chemical Group																
	Carc Class - EPA Weight-of-Evidence Cancer Classification																

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
Off-Site	General	VOC	Carbon Disulfide	75-15-0		9	1	3.00E-03	3.00E-03		3.65E+00	NC	8.2E-04
Off-Site	General	VOC	Carbon Tetrachloride	56-23-5	B2	9	2	4.50E-03	8.10E-03	5.00E-03	5.00E-03	FM	1.6E+00
Off-Site	General	VOC	Chloroform	67-66-3	B2	9	3	6.00E-04	2.70E-03	8.00E-02	8.00E-02	FM	3.4E-02
Off-Site	General	VOC	1,2-Dichloroethane	107-06-2	B2	9	1	3.00E-04	3.00E-04	5.00E-03	5.00E-03	FM	6.0E-02
Off-Site	General	VOC	cis-1,2-Dichloroethene	156-59-2	D	9	2	9.00E-04	9.00E-04	7.00E-02	7.00E-02	FM	1.3E-02
Off-Site	General	VOC	trans-1,2-Dichloroethene	156-60-5		9	1	5.00E-04	5.00E-04	1.00E-01	1.00E-01	FM	5.0E-03
Off-Site	General	VOC	Methyl Acetate	79-20-9		9	1	1.80E-01	1.80E-01		3.65E+01	NC	4.9E-03
Off-Site	General	VOC	Methyl tert-butyl ether	1634-04-4		9	1	3.00E-04	3.00E-04		3.74E-01	C	8.0E-04
Off-Site	General	VOC	Tetrachloroethene	127-18-4	C-B2	9	2	8.00E-04	1.00E-03	5.00E-03	5.00E-03	FM	2.0E-01
Off-Site	General	VOC	Trichloroethene	79-01-6	C-B2	9	3	4.00E-04	2.20E-02	5.00E-03	5.00E-03	FM	4.4E+00
Off-Site	General	INORG	Arsenic	7440-38-2	A	9	9	6.50E-04	2.40E-03	1.00E-02	1.00E-02	FM	2.4E-01
Off-Site	General	INORG	Barium	7440-39-3	D	9	9	7.45E-02	2.90E-01	2.00E+00	2.00E+00	FM	1.5E-01
Off-Site	General	INORG	Beryllium	7440-41-7	B1	9	1	7.40E-04	7.40E-04	4.00E-03	4.00E-03	FM	1.9E-01
Off-Site	General	INORG	Cadmium	7440-43-9	B1	9	2	1.40E-04	3.10E-04	5.00E-03	5.00E-03	FM	6.2E-02
Off-Site	General	INORG	Chromium (total)	7440-47-3		9	6	1.85E-04	1.47E-02	1.00E-01	1.00E-01	FM	1.5E-01
Off-Site	General	INORG	Cobalt	7440-48-4	B1	9	9	1.20E-04	7.20E-03		7.30E-01	NC	9.9E-03
Off-Site	General	INORG	Copper	7440-50-8	D	9	2	1.20E-03	1.06E-02	1.30E+00	1.30E+00	FM	8.2E-03
Off-Site	General	INORG	Lead	7439-92-1	B2	9	9	2.40E-04	6.10E-03	1.50E-02	1.50E-02	FM	4.1E-01
Off-Site	General	INORG	Manganese	7439-96-5	D	9	9	1.30E-02	6.69E-01		8.76E-01	NC	7.6E-01
Off-Site	General	INORG	Mercury	7439-97-6	D	9	2	3.70E-05	4.10E-05	2.00E-03	2.00E-03	FM	2.1E-02
Off-Site	General	INORG	Nickel	7440-02-0	A	9	8	1.10E-03	1.86E-02		7.30E-01	NC	2.5E-02
Off-Site	General	INORG	Selenium	7782-49-2	D	9	5	8.38E-04	2.00E-03	5.00E-02	5.00E-02	FM	4.0E-02
Off-Site	General	INORG	Thallium	7440-28-0		9	1	1.40E-04	1.40E-04	2.00E-03	2.00E-03	FM	7.0E-02
Off-Site	General	INORG	Vanadium	7440-62-2		9	6	5.20E-04	1.60E-02		3.65E-02	NC	4.4E-01
Off-Site	General	INORG	Zinc	7440-66-6	D	9	3	2.80E-03	6.02E-02		1.10E+01	NC	5.5E-03
On-Site	AOI01	VOC	Acetone	67-64-1	ID	3	1	2.00E-02	2.00E-02		3.29E+01	NC	6.1E-04
On-Site	AOI01	VOC	Chlorobenzene	108-90-7	D	3	2	4.60E-03	4.80E-03	1.00E-01	1.00E-01	FM	4.8E-02
On-Site	AOI01	VOC	Chloroform	67-66-3	B2	3	1	5.00E-03	5.00E-03	8.00E-02	8.00E-02	FM	6.3E-02
On-Site	AOI01	VOC	1,2-Dichlorobenzene	95-50-1	D	3	1	1.10E-03	1.10E-03	6.00E-01	6.00E-01	FM	1.8E-03
On-Site	AOI01	VOC	Dichlorodifluoromethane	75-71-8		3	1	1.30E-03	1.30E-03		7.30E+00	NC	1.8E-04
On-Site	AOI01	VOC	1,1-Dichloroethane	75-34-3	C	3	1	2.70E-03	2.70E-03		3.65E+00	NC	7.4E-04
On-Site	AOI01	VOC	1,2-Dichloroethane	107-06-2	B2	3	2	2.40E-03	3.90E-03	5.00E-03	5.00E-03	FM	7.8E-01
On-Site	AOI01	VOC	1,1-Dichloroethene	75-35-4	C	3	1	8.30E-03	8.30E-03	7.00E-03	7.00E-03	FM	1.2E+00
On-Site	AOI01	VOC	cis-1,2-Dichloroethene	156-59-2	D	3	2	8.70E-03	3.10E-02	7.00E-02	7.00E-02	FM	4.4E-01
On-Site	AOI01	VOC	Trichloroethene	79-01-6	C-B2	3	3	1.10E-03	1.40E-01	5.00E-03	5.00E-03	FM	2.8E+01
On-Site	AOI01	INORG	Antimony	7440-36-0		3	1	7.30E-04	7.30E-04	6.00E-03	6.00E-03	FM	1.2E-01
On-Site	AOI01	INORG	Arsenic	7440-38-2	A	3	2	9.70E-04	9.80E-04	1.00E-02	1.00E-02	FM	9.8E-02
On-Site	AOI01	INORG	Barium	7440-39-3	D	3	3	1.53E-02	4.90E-01	2.00E+00	2.00E+00	FM	2.5E-01
On-Site	AOI01	INORG	Cadmium	7440-43-9	B1	3	3	2.30E-04	2.30E-03	5.00E-03	5.00E-03	FM	4.6E-01
On-Site	AOI01	INORG	Cobalt	7440-48-4	B1	3	2	3.10E-04	3.20E-04		7.30E-01	NC	4.4E-04
On-Site	AOI01	INORG	Copper	7440-50-8	D	3	1	5.70E-03	5.70E-03	1.30E+00	1.30E+00	FM	4.4E-03

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI01	INORG	Lead	7439-92-1	B2	3	2	1.70E-03	3.20E-03	1.50E-02	1.50E-02	FM	2.1E-01
On-Site	AOI01	INORG	Manganese	7439-96-5	D	3	3	1.25E-01	1.75E-01		8.76E-01	NC	2.0E-01
On-Site	AOI01	INORG	Nickel	7440-02-0	A	3	3	4.10E-03	6.30E-03		7.30E-01	NC	8.6E-03
On-Site	AOI01	INORG	Selenium	7782-49-2	D	3	2	1.30E-03	1.70E-03	5.00E-02	5.00E-02	FM	3.4E-02
On-Site	AOI01	INORG	Vanadium	7440-62-2		3	2	3.90E-04	1.20E-03		3.65E-02	NC	3.3E-02
On-Site	AOI01	INORG	Zinc	7440-66-6	D	3	2	2.66E-02	5.82E-02		1.10E+01	NC	5.3E-03
On-Site	AOI03	VOC	Acetone	67-64-1	ID	10	1	6.55E-02	6.55E-02		3.29E+01	NC	2.0E-03
On-Site	AOI03	VOC	Benzene	71-43-2	A	12	8	1.50E-03	4.60E-01	5.00E-03	5.00E-03	FM	9.2E+01
On-Site	AOI03	VOC	Carbon Disulfide	75-15-0		12	2	6.00E-04	6.00E-04		3.65E+00	NC	1.6E-04
On-Site	AOI03	VOC	Carbon Tetrachloride	56-23-5	B2	12	2	6.10E-03	6.90E-03	5.00E-03	5.00E-03	FM	1.4E+00
On-Site	AOI03	VOC	Chlorobenzene	108-90-7	D	12	11	1.00E-03	3.40E-01	1.00E-01	1.00E-01	FM	3.4E+00
On-Site	AOI03	VOC	Chloroethane	75-00-3		12	1	1.20E-03	1.20E-03		1.46E+01	NC	8.2E-05
On-Site	AOI03	VOC	Chloroform	67-66-3	B2	12	9	4.00E-04	8.35E-02	8.00E-02	8.00E-02	FM	1.0E+00
On-Site	AOI03	VOC	1,2-Dichlorobenzene	95-50-1	D	12	11	4.00E-04	7.60E-02	6.00E-01	6.00E-01	FM	1.3E-01
On-Site	AOI03	VOC	1,4-Dichlorobenzene	106-46-7	C	12	1	2.40E-03	2.40E-03	7.50E-02	7.50E-02	FM	3.2E-02
On-Site	AOI03	VOC	1,1-Dichloroethane	75-34-3	C	12	9	5.50E-04	4.40E-03		3.65E+00	NC	1.2E-03
On-Site	AOI03	VOC	1,2-Dichloroethane	107-06-2	B2	12	11	2.00E-03	1.55E-01	5.00E-03	5.00E-03	FM	3.1E+01
On-Site	AOI03	VOC	1,1-Dichloroethene	75-35-4	C	12	11	9.00E-04	8.35E-03	7.00E-03	7.00E-03	FM	1.2E+00
On-Site	AOI03	VOC	cis-1,2-Dichloroethene	156-59-2	D	12	12	1.20E-02	3.00E-01	7.00E-02	7.00E-02	FM	4.3E+00
On-Site	AOI03	VOC	trans-1,2-Dichloroethene	156-60-5		12	12	1.20E-03	1.05E-01	1.00E-01	1.00E-01	FM	1.1E+00
On-Site	AOI03	VOC	1,2-Dichloropropane	78-87-5	B2	12	2	4.00E-04	5.00E-04	5.00E-03	5.00E-03	FM	1.0E-01
On-Site	AOI03	VOC	Methyl tert-butyl ether	1634-04-4		12	6	3.00E-04	4.20E-03		3.74E-01	C	1.1E-02
On-Site	AOI03	VOC	Methylene Chloride	75-09-2	B2	12	6	3.28E-04	6.20E-02	5.00E-03	5.00E-03	FM	1.2E+01
On-Site	AOI03	VOC	Tetrachloroethene	127-18-4	C-B2	12	12	4.00E-04	5.95E-02	5.00E-03	5.00E-03	FM	1.2E+01
On-Site	AOI03	VOC	Toluene	108-88-3	D	12	2	1.00E-03	5.70E-03	1.00E+00	1.00E+00	FM	5.7E-03
On-Site	AOI03	VOC	1,1,2-Trichloroethane	79-00-5	C	12	6	1.80E-03	9.20E-03	5.00E-03	5.00E-03	FM	1.8E+00
On-Site	AOI03	VOC	Trichloroethene	79-01-6	C-B2	12	12	2.10E-02	3.30E+00	5.00E-03	5.00E-03	FM	6.6E+02
On-Site	AOI03	VOC	Vinyl Chloride	75-01-4	A	12	8	1.50E-03	3.25E-02	2.00E-03	2.00E-03	FM	1.6E+01
On-Site	AOI03	SVOC	Acetophenone	98-86-2	D	3	2	2.00E-04	2.00E-04				
On-Site	AOI03	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	11	11	4.00E-04	2.95E-02		6.11E-04	C	4.8E+01
On-Site	AOI03	SVOC	Naphthalene	91-20-3	C	3	1	1.13E-04	1.13E-04		7.30E-01	NC	1.5E-04
On-Site	AOI03	SVOC	N-Nitrosodiphenylamine	86-30-6	B2	3	2	3.00E-04	3.00E-04		1.37E-01	C	2.2E-03
On-Site	AOI03	INORG	Antimony	7440-36-0		11	2	1.80E-04	1.90E-04	6.00E-03	6.00E-03	FM	3.2E-02
On-Site	AOI03	INORG	Arsenic	7440-38-2	A	11	11	1.20E-03	1.47E-02	1.00E-02	1.00E-02	FM	1.5E+00
On-Site	AOI03	INORG	Barium	7440-39-3	D	11	11	2.53E-02	1.41E-01	2.00E+00	2.00E+00	FM	7.1E-02
On-Site	AOI03	INORG	Cadmium	7440-43-9	B1	11	5	8.90E-05	2.00E-04	5.00E-03	5.00E-03	FM	4.0E-02
On-Site	AOI03	INORG	Chromium (total)	7440-47-3		11	6	8.40E-04	2.19E-02	1.00E-01	1.00E-01	FM	2.2E-01
On-Site	AOI03	INORG	Cobalt	7440-48-4	B1	11	9	2.70E-04	8.70E-04		7.30E-01	NC	1.2E-03
On-Site	AOI03	INORG	Copper	7440-50-8	D	11	2	7.10E-03	7.80E-03	1.30E+00	1.30E+00	FM	6.0E-03
On-Site	AOI03	INORG	Lead	7439-92-1	B2	11	5	1.00E-04	1.00E-03	1.50E-02	1.50E-02	FM	6.7E-02
On-Site	AOI03	INORG	Manganese	7439-96-5	D	11	11	2.00E-03	2.31E+00		8.76E-01	NC	2.6E+00

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI03	INORG	Mercury	7439-97-6	D	11	1	6.10E-05	6.10E-05	2.00E-03	2.00E-03	FM	3.1E-02
On-Site	AOI03	INORG	Nickel	7440-02-0	A	11	9	1.50E-03	5.30E-03		7.30E-01	NC	7.3E-03
On-Site	AOI03	INORG	Selenium	7782-49-2	D	11	10	3.30E-03	2.12E-02	5.00E-02	5.00E-02	FM	4.2E-01
On-Site	AOI03	INORG	Thallium	7440-28-0		11	1	2.70E-05	2.70E-05	2.00E-03	2.00E-03	FM	1.4E-02
On-Site	AOI03	INORG	Vanadium	7440-62-2		11	10	4.20E-04	4.70E-03		3.65E-02	NC	1.3E-01
On-Site	AOI03	INORG	Zinc	7440-66-6	D	11	2	1.38E-02	2.77E-02		1.10E+01	NC	2.5E-03
On-Site	AOI06	VOC	Acetone	67-64-1	ID	11	6	7.40E-03	3.90E-02		3.29E+01	NC	1.2E-03
On-Site	AOI06	VOC	Benzene	71-43-2	A	12	11	1.20E-03	3.10E-01	5.00E-03	5.00E-03	FM	6.2E+01
On-Site	AOI06	VOC	2-Butanone	78-93-3	ID	4	1	1.30E-02	1.30E-02		2.19E+01	NC	5.9E-04
On-Site	AOI06	VOC	Carbon Disulfide	75-15-0		12	1	4.00E-04	4.00E-04		3.65E+00	NC	1.1E-04
On-Site	AOI06	VOC	Carbon Tetrachloride	56-23-5	B2	12	7	6.00E-04	1.90E-02	5.00E-03	5.00E-03	FM	3.8E+00
On-Site	AOI06	VOC	Chlorobenzene	108-90-7	D	12	12	8.00E-04	3.10E-01	1.00E-01	1.00E-01	FM	3.1E+00
On-Site	AOI06	VOC	Chloroform	67-66-3	B2	12	12	4.00E-04	9.40E-02	8.00E-02	8.00E-02	FM	1.2E+00
On-Site	AOI06	VOC	Cyclohexane	110-82-7	ID	12	4	2.00E-04	1.10E-03		6.21E+01	NC	1.8E-05
On-Site	AOI06	VOC	1,2-Dichlorobenzene	95-50-1	D	12	12	1.00E-03	1.50E-01	6.00E-01	6.00E-01	FM	2.5E-01
On-Site	AOI06	VOC	1,3-Dichlorobenzene	541-73-1	D	12	1	4.00E-04	4.00E-04		1.10E+00	NC	3.7E-04
On-Site	AOI06	VOC	1,4-Dichlorobenzene	106-46-7	C	12	10	8.00E-04	3.60E-03	7.50E-02	7.50E-02	FM	4.8E-02
On-Site	AOI06	VOC	Dichlorodifluoromethane	75-71-8		12	10	5.00E-04	7.20E-03		7.30E+00	NC	9.9E-04
On-Site	AOI06	VOC	1,1-Dichloroethane	75-34-3	C	12	12	1.50E-03	1.90E-02		3.65E+00	NC	5.2E-03
On-Site	AOI06	VOC	1,2-Dichloroethane	107-06-2	B2	12	12	2.20E-03	1.50E-01	5.00E-03	5.00E-03	FM	3.0E+01
On-Site	AOI06	VOC	1,1-Dichloroethene	75-35-4	C	12	12	1.60E-03	1.00E-02	7.00E-03	7.00E-03	FM	1.4E+00
On-Site	AOI06	VOC	cis-1,2-Dichloroethene	156-59-2	D	12	12	1.80E-02	1.10E-01	7.00E-02	7.00E-02	FM	1.6E+00
On-Site	AOI06	VOC	trans-1,2-Dichloroethene	156-60-5		12	12	1.60E-03	3.90E-02	1.00E-01	1.00E-01	FM	3.9E-01
On-Site	AOI06	VOC	Ethyl Benzene	100-41-4	D	12	2	4.00E-04	5.00E-04	7.00E-01	7.00E-01	FM	7.1E-04
On-Site	AOI06	VOC	Methyl Acetate	79-20-9		12	2	1.10E-02	2.20E-02		3.65E+01	NC	6.0E-04
On-Site	AOI06	VOC	Methyl tert-butyl ether	1634-04-4		12	11	3.00E-04	1.10E-03		3.74E-01	C	2.9E-03
On-Site	AOI06	VOC	Methylene Chloride	75-09-2	B2	12	4	1.30E-02	8.70E-02	5.00E-03	5.00E-03	FM	1.7E+01
On-Site	AOI06	VOC	Tetrachloroethene	127-18-4	C-B2	12	12	6.00E-04	1.40E-02	5.00E-03	5.00E-03	FM	2.8E+00
On-Site	AOI06	VOC	Toluene	108-88-3	D	12	2	1.30E-03	1.30E-03	1.00E+00	1.00E+00	FM	1.3E-03
On-Site	AOI06	VOC	1,1,1-Trichloroethane	71-55-6	D	12	1	1.90E-03	1.90E-03	2.00E-01	2.00E-01	FM	9.5E-03
On-Site	AOI06	VOC	1,1,2-Trichloroethane	79-00-5	C	12	10	7.00E-04	3.00E-03	5.00E-03	5.00E-03	FM	6.0E-01
On-Site	AOI06	VOC	Trichloroethene	79-01-6	C-B2	12	12	2.30E-02	8.70E-01	5.00E-03	5.00E-03	FM	1.7E+02
On-Site	AOI06	VOC	Trichlorofluoromethane	75-69-4		12	3	9.00E-04	1.40E-03		1.10E+01	NC	1.3E-04
On-Site	AOI06	VOC	Vinyl Chloride	75-01-4	A	12	11	1.70E-03	2.30E-02	2.00E-03	2.00E-03	FM	1.2E+01
On-Site	AOI06	VOC	Xylenes (total)	1330-20-7	ID	12	5	6.00E-04	2.10E-03	1.00E+01	1.00E+01	FM	2.1E-04
On-Site	AOI06	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	12	12	2.10E-03	9.20E-03		6.11E-04	C	1.5E+01
On-Site	AOI06	SVOC	2-Chlorophenol	95-57-8		3	2	3.00E-04	6.00E-04		1.83E-01	NC	3.3E-03
On-Site	AOI06	SVOC	Methylphenol (total)	1319-77-3		3	1	9.00E-04	9.00E-04		1.83E-01	NC	4.9E-03
On-Site	AOI06	SVOC	Naphthalene	91-20-3	C	3	2	4.00E-04	5.00E-04		7.30E-01	NC	6.8E-04
On-Site	AOI06	SVOC	N-Nitrosodiphenylamine	86-30-6	B2	3	1	5.00E-04	5.00E-04		1.37E-01	C	3.6E-03
On-Site	AOI06	INORG	Antimony	7440-36-0		12	3	1.20E-04	4.90E-04	6.00E-03	6.00E-03	FM	8.2E-02

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI06	INORG	Arsenic	7440-38-2	A	12	12	1.50E-03	4.30E-03	1.00E-02	1.00E-02	FM	4.3E-01
On-Site	AOI06	INORG	Barium	7440-39-3	D	12	12	2.10E-02	2.17E-01	2.00E+00	2.00E+00	FM	1.1E-01
On-Site	AOI06	INORG	Cadmium	7440-43-9	B1	12	3	1.10E-04	8.90E-04	5.00E-03	5.00E-03	FM	1.8E-01
On-Site	AOI06	INORG	Chromium (total)	7440-47-3		12	3	3.40E-04	4.80E-03	1.00E-01	1.00E-01	FM	4.8E-02
On-Site	AOI06	INORG	Cobalt	7440-48-4	B1	12	9	2.70E-04	9.40E-04		7.30E-01	NC	1.3E-03
On-Site	AOI06	INORG	Copper	7440-50-8	D	12	6	1.60E-03	1.03E-02	1.30E+00	1.30E+00	FM	7.9E-03
On-Site	AOI06	INORG	Lead	7439-92-1	B2	12	8	1.30E-04	1.50E-03	1.50E-02	1.50E-02	FM	1.0E-01
On-Site	AOI06	INORG	Manganese	7439-96-5	D	12	12	2.28E-02	1.16E+00		8.76E-01	NC	**1.3E+00**
On-Site	AOI06	INORG	Mercury	7439-97-6	D	12	1	4.60E-05	4.60E-05	2.00E-03	2.00E-03	FM	2.3E-02
On-Site	AOI06	INORG	Nickel	7440-02-0	A	12	10	3.20E-03	1.19E-02		7.30E-01	NC	1.6E-02
On-Site	AOI06	INORG	Selenium	7782-49-2	D	12	12	2.50E-03	1.08E-02	5.00E-02	5.00E-02	FM	2.2E-01
On-Site	AOI06	INORG	Thallium	7440-28-0		12	1	1.80E-05	1.80E-05	2.00E-03	2.00E-03	FM	9.0E-03
On-Site	AOI06	INORG	Vanadium	7440-62-2		12	11	5.20E-04	1.02E-02		3.65E-02	NC	2.8E-01
On-Site	AOI06	INORG	Zinc	7440-66-6	D	12	3	7.50E-03	3.04E-02		1.10E+01	NC	2.8E-03
On-Site	AOI11	VOC	Acetone	67-64-1	ID	6	1	4.50E-03	4.50E-03		3.29E+01	NC	1.4E-04
On-Site	AOI11	VOC	Chlorobenzene	108-90-7	D	6	5	6.00E-04	1.00E-03	1.00E-01	1.00E-01	FM	1.0E-02
On-Site	AOI11	VOC	1,1-Dichloroethane	75-34-3	C	6	6	1.50E-03	3.70E-03		3.65E+00	NC	1.0E-03
On-Site	AOI11	VOC	1,1-Dichloroethene	75-35-4	C	6	6	1.20E-02	2.40E-02	7.00E-03	7.00E-03	FM	**3.4E+00**
On-Site	AOI11	VOC	cis-1,2-Dichloroethene	156-59-2	D	6	6	1.70E-02	4.40E-02	7.00E-02	7.00E-02	FM	6.3E-01
On-Site	AOI11	VOC	trans-1,2-Dichloroethene	156-60-5		6	6	1.30E-03	3.50E-03	1.00E-01	1.00E-01	FM	3.5E-02
On-Site	AOI11	VOC	Trichloroethene	79-01-6	C-B2	6	6	6.70E-02	1.20E-01	5.00E-03	5.00E-03	FM	**2.4E+01**
On-Site	AOI11	VOC	Vinyl Chloride	75-01-4	A	6	4	6.00E-04	8.00E-04	2.00E-03	2.00E-03	FM	4.0E-01
On-Site	AOI11	INORG	Arsenic	7440-38-2	A	5	5	8.60E-04	2.00E-03	1.00E-02	1.00E-02	FM	2.0E-01
On-Site	AOI11	INORG	Barium	7440-39-3	D	5	5	8.17E-02	5.00E-01	2.00E+00	2.00E+00	FM	2.5E-01
On-Site	AOI11	INORG	Cadmium	7440-43-9	B1	5	3	4.00E-04	1.40E-03	5.00E-03	5.00E-03	FM	2.8E-01
On-Site	AOI11	INORG	Chromium (total)	7440-47-3		5	1	8.00E-04	8.00E-04	1.00E-01	1.00E-01	FM	8.0E-03
On-Site	AOI11	INORG	Cobalt	7440-48-4	B1	5	4	2.50E-04	3.40E-04		7.30E-01	NC	4.7E-04
On-Site	AOI11	INORG	Copper	7440-50-8	D	5	1	6.80E-04	6.80E-04	1.30E+00	1.30E+00	FM	5.2E-04
On-Site	AOI11	INORG	Lead	7439-92-1	B2	5	2	3.10E-04	7.30E-04	1.50E-02	1.50E-02	FM	4.9E-02
On-Site	AOI11	INORG	Manganese	7439-96-5	D	5	5	1.02E-02	5.15E-01		8.76E-01	NC	5.9E-01
On-Site	AOI11	INORG	Nickel	7440-02-0	A	5	5	1.90E-03	4.50E-03		7.30E-01	NC	6.2E-03
On-Site	AOI11	INORG	Selenium	7782-49-2	D	5	5	1.20E-03	1.50E-03	5.00E-02	5.00E-02	FM	3.0E-02
On-Site	AOI11	INORG	Vanadium	7440-62-2		5	2	4.60E-04	7.30E-04		3.65E-02	NC	2.0E-02
On-Site	AOI16	VOC	Acetone	67-64-1	ID	16	3	7.30E-03	1.80E-02		3.29E+01	NC	5.5E-04
On-Site	AOI16	VOC	Benzene	71-43-2	A	16	4	3.00E-04	4.00E-04	5.00E-03	5.00E-03	FM	8.0E-02
On-Site	AOI16	VOC	Chlorobenzene	108-90-7	D	16	12	4.00E-04	1.20E-02	1.00E-01	1.00E-01	FM	1.2E-01
On-Site	AOI16	VOC	Chloroform	67-66-3	B2	16	5	4.00E-04	8.00E-04	8.00E-02	8.00E-02	FM	1.0E-02
On-Site	AOI16	VOC	1,1-Dichloroethane	75-34-3	C	16	1	3.00E-04	3.00E-04		3.65E+00	NC	8.2E-05
On-Site	AOI16	VOC	1,2-Dichloroethane	107-06-2	B2	16	14	1.20E-03	4.80E-02	5.00E-03	5.00E-03	FM	**9.6E+00**
On-Site	AOI16	VOC	1,1-Dichloroethene	75-35-4	C	16	5	5.00E-04	1.00E-03	7.00E-03	7.00E-03	FM	1.4E-01
On-Site	AOI16	VOC	cis-1,2-Dichloroethene	156-59-2	D	16	16	1.70E-03	5.20E-02	7.00E-02	7.00E-02	FM	7.4E-01

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI16	VOC	trans-1,2-Dichloroethene	156-60-5		16	13	1.00E-03	1.10E-02	1.00E-01	1.00E-01	FM	1.1E-01
On-Site	AOI16	VOC	Methyl Acetate	79-20-9		16	1	8.10E-03	8.10E-03		3.65E+01	NC	2.2E-04
On-Site	AOI16	VOC	Methyl tert-butyl ether	1634-04-4		16	5	4.00E-04	3.30E-03		3.74E-01	C	8.8E-03
On-Site	AOI16	VOC	Tetrachloroethene	127-18-4	C-B2	16	16	9.00E-04	1.20E-02	5.00E-03	5.00E-03	FM	2.4E+00
On-Site	AOI16	VOC	1,1,2-Trichloroethane	79-00-5	C	16	6	4.00E-04	1.30E-03	5.00E-03	5.00E-03	FM	2.6E-01
On-Site	AOI16	VOC	Trichloroethene	79-01-6	C-B2	16	16	3.30E-02	3.80E-01	5.00E-03	5.00E-03	FM	7.6E+01
On-Site	AOI16	VOC	Vinyl Chloride	75-01-4	A	16	1	4.00E-04	4.00E-04	2.00E-03	2.00E-03	FM	2.0E-01
On-Site	AOI16	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	16	15	4.00E-04	9.40E-03		6.11E-04	C	1.5E+01
On-Site	AOI16	SVOC	Fluoranthene	206-44-0	D	4	1	7.00E-04	7.00E-04		1.46E+00	NC	4.8E-04
On-Site	AOI16	SVOC	Phenanthrene	85-01-8	D	4	1	5.00E-04	5.00E-04		1.10E+00	NC	4.6E-04
On-Site	AOI16	SVOC	Pyrene	129-00-0	D	4	1	5.00E-04	5.00E-04		1.10E+00	NC	4.6E-04
On-Site	AOI16	INORG	Antimony	7440-36-0		16	1	6.00E-04	6.00E-04	6.00E-03	6.00E-03	FM	1.0E-01
On-Site	AOI16	INORG	Arsenic	7440-38-2	A	16	16	1.70E-03	4.00E-03	1.00E-02	1.00E-02	FM	4.0E-01
On-Site	AOI16	INORG	Barium	7440-39-3	D	16	16	1.04E-01	4.21E-01	2.00E+00	2.00E+00	FM	2.1E-01
On-Site	AOI16	INORG	Cadmium	7440-43-9	B1	16	15	1.10E-04	2.40E-03	5.00E-03	5.00E-03	FM	4.8E-01
On-Site	AOI16	INORG	Chromium (total)	7440-47-3		16	2	1.80E-04	2.70E-04	1.00E-01	1.00E-01	FM	2.7E-03
On-Site	AOI16	INORG	Cobalt	7440-48-4	B1	16	16	6.65E-05	3.70E-03		7.30E-01	NC	5.1E-03
On-Site	AOI16	INORG	Copper	7440-50-8	D	16	4	6.30E-04	3.05E-02	1.30E+00	1.30E+00	FM	2.3E-02
On-Site	AOI16	INORG	Lead	7439-92-1	B2	16	5	3.10E-04	3.80E-03	1.50E-02	1.50E-02	FM	2.5E-01
On-Site	AOI16	INORG	Manganese	7439-96-5	D	16	16	2.03E-02	2.84E+00		8.76E-01	NC	3.2E+00
On-Site	AOI16	INORG	Nickel	7440-02-0	A	16	15	1.40E-03	6.80E-03		7.30E-01	NC	9.3E-03
On-Site	AOI16	INORG	Selenium	7782-49-2	D	16	14	1.70E-03	8.00E-03	5.00E-02	5.00E-02	FM	1.6E-01
On-Site	AOI16	INORG	Vanadium	7440-62-2		16	14	7.50E-04	7.00E-03		3.65E-02	NC	1.9E-01
On-Site	AOI16	INORG	Zinc	7440-66-6	D	16	1	2.46E-02	2.46E-02		1.10E+01	NC	2.2E-03
On-Site	AOI26	VOC	Acetone	67-64-1	ID	2	2	6.50E-03	1.00E-02		3.29E+01	NC	3.0E-04
On-Site	AOI26	VOC	Benzene	71-43-2	A	2	2	3.20E-02	5.10E-02	5.00E-03	5.00E-03	FM	1.0E+01
On-Site	AOI26	VOC	2-Butanone	78-93-3	ID	1	1	1.20E-03	1.20E-03		2.19E+01	NC	5.5E-05
On-Site	AOI26	VOC	Carbon Disulfide	75-15-0		2	2	7.00E-04	8.00E-04		3.65E+00	NC	2.2E-04
On-Site	AOI26	VOC	Chlorobenzene	108-90-7	D	2	2	1.60E-02	2.00E-02	1.00E-01	1.00E-01	FM	2.0E-01
On-Site	AOI26	VOC	1,1-Dichloroethane	75-34-3	C	2	1	3.00E-04	3.00E-04		3.65E+00	NC	8.2E-05
On-Site	AOI26	VOC	1,2-Dichloroethane	107-06-2	B2	2	2	5.80E-02	7.70E-02	5.00E-03	5.00E-03	FM	1.5E+01
On-Site	AOI26	VOC	1,1-Dichloroethene	75-35-4	C	2	2	2.10E-03	3.50E-03	7.00E-03	7.00E-03	FM	5.0E-01
On-Site	AOI26	VOC	cis-1,2-Dichloroethene	156-59-2	D	2	2	1.40E-01	2.20E-01	7.00E-02	7.00E-02	FM	3.1E+00
On-Site	AOI26	VOC	trans-1,2-Dichloroethene	156-60-5		2	2	1.90E-02	3.30E-02	1.00E-01	1.00E-01	FM	3.3E-01
On-Site	AOI26	VOC	1,2-Dichloropropane	78-87-5	B2	2	2	4.00E-04	4.00E-04	5.00E-03	5.00E-03	FM	8.0E-02
On-Site	AOI26	VOC	Tetrachloroethene	127-18-4	C-B2	2	2	9.00E-04	1.10E-03	5.00E-03	5.00E-03	FM	2.2E-01
On-Site	AOI26	VOC	Toluene	108-88-3	D	2	2	4.00E-04	7.00E-04	1.00E+00	1.00E+00	FM	7.0E-04
On-Site	AOI26	VOC	1,1,2-Trichloroethane	79-00-5	C	2	2	6.00E-04	6.00E-04	5.00E-03	5.00E-03	FM	1.2E-01
On-Site	AOI26	VOC	Trichloroethene	79-01-6	C-B2	2	2	3.00E-01	3.80E-01	5.00E-03	5.00E-03	FM	7.6E+01
On-Site	AOI26	VOC	Vinyl Chloride	75-01-4	A	2	2	2.70E-03	3.30E-03	2.00E-03	2.00E-03	FM	1.7E+00
On-Site	AOI26	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	2	2	3.50E-03	4.00E-03		6.11E-04	C	6.5E+00

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI26	INORG	Arsenic	7440-38-2	A	2	2	8.70E-03	8.70E-03	1.00E-02	1.00E-02	FM	8.7E-01
On-Site	AOI26	INORG	Barium	7440-39-3	D	2	2	2.60E-01	3.35E-01	2.00E+00	2.00E+00	FM	1.7E-01
On-Site	AOI26	INORG	Chromium (total)	7440-47-3		2	1	2.70E-03	2.70E-03	1.00E-01	1.00E-01	FM	2.7E-02
On-Site	AOI26	INORG	Cobalt	7440-48-4	B1	2	2	1.90E-04	3.10E-04		7.30E-01	NC	4.2E-04
On-Site	AOI26	INORG	Manganese	7439-96-5	D	2	2	1.99E-01	2.96E-01		8.76E-01	NC	3.4E-01
On-Site	AOI26	INORG	Nickel	7440-02-0	A	2	2	2.10E-03	2.30E-03		7.30E-01	NC	3.2E-03
On-Site	AOI26	INORG	Selenium	7782-49-2	D	2	2	2.34E-02	2.43E-02	5.00E-02	5.00E-02	FM	4.9E-01
On-Site	AOI26	INORG	Vanadium	7440-62-2		2	2	1.90E-03	8.00E-03		3.65E-02	NC	2.2E-01
On-Site	AOI28	VOC	Benzene	71-43-2	A	27	1	7.00E-04	7.00E-04	5.00E-03	5.00E-03	FM	1.4E-01
On-Site	AOI28	VOC	Carbon Disulfide	75-15-0		27	5	7.00E-04	3.80E-03		3.65E+00	NC	1.0E-03
On-Site	AOI28	VOC	Chlorobenzene	108-90-7	D	27	6	1.00E-03	1.70E-02	1.00E-01	1.00E-01	FM	1.7E-01
On-Site	AOI28	VOC	Chloroform	67-66-3	B2	27	1	3.00E-04	3.00E-04	8.00E-02	8.00E-02	FM	3.8E-03
On-Site	AOI28	VOC	Cyclohexane	110-82-7	ID	27	1	1.20E-03	1.20E-03		6.21E+01	NC	1.9E-05
On-Site	AOI28	VOC	1,2-Dichlorobenzene	95-50-1	D	27	4	8.00E-04	1.50E-03	6.00E-01	6.00E-01	FM	2.5E-03
On-Site	AOI28	VOC	Dichlorodifluoromethane	75-71-8		27	2	7.00E-04	8.00E-04		7.30E+00	NC	1.1E-04
On-Site	AOI28	VOC	1,1-Dichloroethane	75-34-3	C	27	6	6.00E-04	1.80E-03		3.65E+00	NC	4.9E-04
On-Site	AOI28	VOC	1,2-Dichloroethane	107-06-2	B2	27	6	3.60E-03	7.40E-03	5.00E-03	5.00E-03	FM	1.5E+00
On-Site	AOI28	VOC	1,1-Dichloroethene	75-35-4	C	27	13	1.00E-03	8.50E-03	7.00E-03	7.00E-03	FM	1.2E+00
On-Site	AOI28	VOC	cis-1,2-Dichloroethene	156-59-2	D	27	17	4.50E-04	7.70E-02	7.00E-02	7.00E-02	FM	1.1E+00
On-Site	AOI28	VOC	trans-1,2-Dichloroethene	156-60-5		27	8	4.00E-04	4.70E-03	1.00E-01	1.00E-01	FM	4.7E-02
On-Site	AOI28	VOC	Ethyl Benzene	100-41-4	D	27	1	5.00E-04	5.00E-04	7.00E-01	7.00E-01	FM	7.1E-04
On-Site	AOI28	VOC	Methyl tert-butyl ether	1634-04-4		27	11	5.00E-04	2.50E-03		3.74E-01	C	6.7E-03
On-Site	AOI28	VOC	Toluene	108-88-3	D	27	1	4.00E-03	4.00E-03	1.00E+00	1.00E+00	FM	4.0E-03
On-Site	AOI28	VOC	Trichloroethene	79-01-6	C-B2	27	18	5.00E-04	6.00E-01	5.00E-03	5.00E-03	FM	1.2E+02
On-Site	AOI28	VOC	Vinyl Chloride	75-01-4	A	27	3	5.00E-04	1.20E-03	2.00E-03	2.00E-03	FM	6.0E-01
On-Site	AOI28	VOC	Xylenes (total)	1330-20-7	ID	27	1	3.30E-03	3.30E-03	1.00E+01	1.00E+01	FM	3.3E-04
On-Site	AOI28	SVOC	Acenaphthene	83-32-9		6	1	8.00E-04	8.00E-04		2.19E+00	NC	3.7E-04
On-Site	AOI28	SVOC	Anthracene	120-12-7	D	6	1	4.00E-04	4.00E-04		1.10E+01	NC	3.7E-05
On-Site	AOI28	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	6	1	3.00E-03	3.00E-03	6.00E-03	6.00E-03	FM	5.0E-01
On-Site	AOI28	SVOC	Carbazole	86-74-8	B2	6	1	1.60E-03	1.60E-03		3.36E-02	C	4.8E-02
On-Site	AOI28	SVOC	Dibenzofuran	132-64-9	D	6	1	6.00E-04	6.00E-04		7.30E-02	NC	8.2E-03
On-Site	AOI28	SVOC	Fluorene	86-73-7	D	6	1	7.00E-04	7.00E-04		1.46E+00	NC	4.8E-04
On-Site	AOI28	SVOC	2-Methylnaphthalene	91-57-6	ID	6	1	6.00E-04	6.00E-04		7.30E-01	NC	8.2E-04
On-Site	AOI28	SVOC	Naphthalene	91-20-3	C	6	1	3.50E-03	3.50E-03		7.30E-01	NC	4.8E-03
On-Site	AOI28	SVOC	Phenanthrene	85-01-8	D	6	1	1.50E-03	1.50E-03		1.10E+00	NC	1.4E-03
On-Site	AOI28	INORG	Antimony	7440-36-0		26	8	1.38E-04	5.00E-04	6.00E-03	6.00E-03	FM	8.3E-02
On-Site	AOI28	INORG	Arsenic	7440-38-2	A	26	17	4.90E-04	2.70E-03	1.00E-02	1.00E-02	FM	2.7E-01
On-Site	AOI28	INORG	Barium	7440-39-3	D	26	26	3.85E-02	5.32E-01	2.00E+00	2.00E+00	FM	2.7E-01
On-Site	AOI28	INORG	Cadmium	7440-43-9	B1	26	10	1.20E-04	3.00E-03	5.00E-03	5.00E-03	FM	6.0E-01
On-Site	AOI28	INORG	Chromium (total)	7440-47-3		26	3	3.80E-04	7.40E-03	1.00E-01	1.00E-01	FM	7.4E-02
On-Site	AOI28	INORG	Cobalt	7440-48-4	B1	26	16	1.30E-04	9.80E-04		7.30E-01	NC	1.3E-03

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI28	INORG	Copper	7440-50-8	D	26	1	5.10E-04	5.10E-04	1.30E+00	1.30E+00	FM	3.9E-04
On-Site	AOI28	INORG	Lead	7439-92-1	B2	26	15	9.80E-05	2.10E-03	1.50E-02	1.50E-02	FM	1.4E-01
On-Site	AOI28	INORG	Manganese	7439-96-5	D	26	25	4.20E-03	7.30E-01		8.76E-01	NC	8.3E-01
On-Site	AOI28	INORG	Nickel	7440-02-0	A	26	19	1.60E-03	5.40E-03		7.30E-01	NC	7.4E-03
On-Site	AOI28	INORG	Selenium	7782-49-2	D	26	18	7.80E-04	9.30E-03	5.00E-02	5.00E-02	FM	1.9E-01
On-Site	AOI28	INORG	Vanadium	7440-62-2		26	11	3.20E-04	1.40E-03		3.65E-02	NC	3.8E-02
On-Site	AOI29	VOC	Benzene	71-43-2	A	6	4	7.30E-03	1.00E-01	5.00E-03	5.00E-03	FM	2.0E+01
On-Site	AOI29	VOC	Carbon Tetrachloride	56-23-5	B2	6	4	5.90E-03	5.40E-02	5.00E-03	5.00E-03	FM	1.1E+01
On-Site	AOI29	VOC	Chlorobenzene	108-90-7	D	6	4	7.60E-03	4.15E-02	1.00E-01	1.00E-01	FM	4.2E-01
On-Site	AOI29	VOC	Chloroform	67-66-3	B2	6	4	1.20E-02	8.05E-02	8.00E-02	8.00E-02	FM	1.0E+00
On-Site	AOI29	VOC	1,2-Dichlorobenzene	95-50-1	D	6	4	4.60E-03	3.20E-02	6.00E-01	6.00E-01	FM	5.3E-02
On-Site	AOI29	VOC	1,4-Dichlorobenzene	106-46-7	C	6	1	5.00E-04	5.00E-04	7.50E-02	7.50E-02	FM	6.7E-03
On-Site	AOI29	VOC	Dichlorodifluoromethane	75-71-8		6	4	8.00E-04	2.40E-03		7.30E+00	NC	3.3E-04
On-Site	AOI29	VOC	1,1-Dichloroethane	75-34-3	C	6	1	7.00E-04	7.00E-04		3.65E+00	NC	1.9E-04
On-Site	AOI29	VOC	1,2-Dichloroethane	107-06-2	B2	6	4	6.50E-03	3.60E-02	5.00E-03	5.00E-03	FM	7.2E+00
On-Site	AOI29	VOC	1,1-Dichloroethene	75-35-4	C	6	2	6.00E-04	9.00E-04	7.00E-03	7.00E-03	FM	1.3E-01
On-Site	AOI29	VOC	cis-1,2-Dichloroethene	156-59-2	D	6	4	3.70E-03	1.50E-02	7.00E-02	7.00E-02	FM	2.1E-01
On-Site	AOI29	VOC	trans-1,2-Dichloroethene	156-60-5		6	4	2.10E-03	9.35E-03	1.00E-01	1.00E-01	FM	9.4E-02
On-Site	AOI29	VOC	Ethyl Benzene	100-41-4	D	6	1	3.03E-04	3.03E-04	7.00E-01	7.00E-01	FM	4.3E-04
On-Site	AOI29	VOC	Methyl Acetate	79-20-9		6	1	1.04E-02	1.04E-02		3.65E+01	NC	2.8E-04
On-Site	AOI29	VOC	Methylene Chloride	75-09-2	B2	6	3	3.80E-03	4.55E-02	5.00E-03	5.00E-03	FM	9.1E+00
On-Site	AOI29	VOC	Tetrachloroethene	127-18-4	C-B2	6	4	1.10E-03	5.10E-03	5.00E-03	5.00E-03	FM	1.0E+00
On-Site	AOI29	VOC	Toluene	108-88-3	D	6	1	4.23E-04	4.23E-04	1.00E+00	1.00E+00	FM	4.2E-04
On-Site	AOI29	VOC	Trichloroethene	79-01-6	C-B2	6	5	3.00E-04	1.60E-01	5.00E-03	5.00E-03	FM	3.2E+01
On-Site	AOI29	VOC	Vinyl Chloride	75-01-4	A	6	4	6.00E-04	4.75E-03	2.00E-03	2.00E-03	FM	2.4E+00
On-Site	AOI29	VOC	Xylenes (total)	1330-20-7	ID	6	1	1.82E-03	1.82E-03	1.00E+01	1.00E+01	FM	1.8E-04
On-Site	AOI29	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	5	1	1.10E-03	1.10E-03		6.11E-04	C	1.8E+00
On-Site	AOI29	INORG	Antimony	7440-36-0		5	4	1.90E-04	1.10E-03	6.00E-03	6.00E-03	FM	1.8E-01
On-Site	AOI29	INORG	Arsenic	7440-38-2	A	5	4	9.60E-04	2.00E-03	1.00E-02	1.00E-02	FM	2.0E-01
On-Site	AOI29	INORG	Barium	7440-39-3	D	5	5	2.45E-02	4.05E-01	2.00E+00	2.00E+00	FM	2.0E-01
On-Site	AOI29	INORG	Cadmium	7440-43-9	B1	5	4	1.10E-04	5.90E-04	5.00E-03	5.00E-03	FM	1.2E-01
On-Site	AOI29	INORG	Chromium (total)	7440-47-3		5	5	3.40E-04	1.56E-02	1.00E-01	1.00E-01	FM	1.6E-01
On-Site	AOI29	INORG	Cobalt	7440-48-4	B1	5	5	2.10E-04	5.50E-03		7.30E-01	NC	7.5E-03
On-Site	AOI29	INORG	Copper	7440-50-8	D	5	3	1.06E-02	5.63E-02	1.30E+00	1.30E+00	FM	4.3E-02
On-Site	AOI29	INORG	Lead	7439-92-1	B2	5	3	1.70E-03	8.90E-03	1.50E-02	1.50E-02	FM	5.9E-01
On-Site	AOI29	INORG	Manganese	7439-96-5	D	5	5	2.62E-02	3.12E-01		8.76E-01	NC	3.6E-01
On-Site	AOI29	INORG	Nickel	7440-02-0	A	5	4	1.80E-03	1.38E-02		7.30E-01	NC	1.9E-02
On-Site	AOI29	INORG	Selenium	7782-49-2	D	5	4	9.30E-04	4.20E-03	5.00E-02	5.00E-02	FM	8.4E-02
On-Site	AOI29	INORG	Vanadium	7440-62-2		5	5	1.10E-03	2.63E-02		3.65E-02	NC	7.2E-01
On-Site	AOI29	INORG	Zinc	7440-66-6	D	5	1	2.14E-02	2.14E-02		1.10E+01	NC	2.0E-03
On-Site	General	VOC	Acetone	67-64-1	ID	65	13	3.65E-03	1.80E-02		3.29E+01	NC	5.5E-04

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	General	VOC	Benzene	71-43-2	A	65	32	2.08E-04	1.00E+00	5.00E-03	5.00E-03	FM	**2.0E+02**
On-Site	General	VOC	Carbon Disulfide	75-15-0		65	11	5.00E-04	9.00E-03		3.65E+00	NC	2.5E-03
On-Site	General	VOC	Carbon Tetrachloride	56-23-5	B2	65	6	4.00E-04	3.90E-02	5.00E-03	5.00E-03	FM	**7.8E+00**
On-Site	General	VOC	Chlorobenzene	108-90-7	D	65	35	3.35E-04	8.10E-01	1.00E-01	1.00E-01	FM	**8.1E+00**
On-Site	General	VOC	Chloroform	67-66-3	B2	65	43	6.00E-04	2.90E-01	8.00E-02	8.00E-02	FM	**3.6E+00**
On-Site	General	VOC	Chloromethane	74-87-3	D	65	2	6.00E-04	7.30E-03		9.49E-01	NC	7.7E-03
On-Site	General	VOC	Cyclohexane	110-82-7	ID	65	3	3.50E-04	1.10E-03		6.21E+01	NC	1.8E-05
On-Site	General	VOC	1,2-Dichlorobenzene	95-50-1	D	65	22	6.00E-04	3.60E-02	6.00E-01	6.00E-01	FM	6.0E-02
On-Site	General	VOC	1,3-Dichlorobenzene	541-73-1	D	65	1	2.00E-04	2.00E-04		1.10E+00	NC	1.8E-04
On-Site	General	VOC	1,4-Dichlorobenzene	106-46-7	C	65	11	4.00E-04	1.00E-03	7.50E-02	7.50E-02	FM	1.3E-02
On-Site	General	VOC	Dichlorodifluoromethane	75-71-8		65	13	5.00E-04	4.80E-03		7.30E+00	NC	6.6E-04
On-Site	General	VOC	1,1-Dichloroethane	75-34-3	C	65	31	4.00E-04	1.40E-01		3.65E+00	NC	3.8E-02
On-Site	General	VOC	1,2-Dichloroethane	107-06-2	B2	65	38	4.00E-04	4.40E-01	5.00E-03	5.00E-03	FM	**8.8E+01**
On-Site	General	VOC	1,1-Dichloroethene	75-35-4	C	65	36	5.00E-04	1.00E-01	7.00E-03	7.00E-03	FM	**1.4E+01**
On-Site	General	VOC	cis-1,2-Dichloroethene	156-59-2	D	65	52	9.00E-04	1.90E+00	7.00E-02	7.00E-02	FM	**2.7E+01**
On-Site	General	VOC	trans-1,2-Dichloroethene	156-60-5		65	48	3.00E-04	5.50E-01	1.00E-01	1.00E-01	FM	**5.5E+00**
On-Site	General	VOC	Ethyl Benzene	100-41-4	D	65	1	6.00E-04	6.00E-04	7.00E-01	7.00E-01	FM	8.6E-04
On-Site	General	VOC	Methyl Acetate	79-20-9		65	2	8.80E-03	1.30E-02		3.65E+01	NC	3.6E-04
On-Site	General	VOC	Methyl tert-butyl ether	1634-04-4		65	36	4.00E-04	5.40E-02		3.74E-01	C	1.4E-01
On-Site	General	VOC	Methylene Chloride	75-09-2	B2	65	6	3.28E-04	2.70E-02	5.00E-03	5.00E-03	FM	**5.4E+00**
On-Site	General	VOC	1,1,2,2-Tetrachloroethane	79-34-5	C	65	2	1.00E-02	2.40E-02		3.36E-03	C	**7.1E+00**
On-Site	General	VOC	Tetrachloroethene	127-18-4	C-B2	65	38	5.00E-04	6.00E-01	5.00E-03	5.00E-03	FM	**1.2E+02**
On-Site	General	VOC	Toluene	108-88-3	D	65	7	3.00E-04	8.80E-03	1.00E+00	1.00E+00	FM	8.8E-03
On-Site	General	VOC	1,1,1-Trichloroethane	71-55-6	D	65	1	2.60E-03	2.60E-03	2.00E-01	2.00E-01	FM	1.3E-02
On-Site	General	VOC	1,1,2-Trichloroethane	79-00-5	C	65	20	5.00E-04	5.10E-02	5.00E-03	5.00E-03	FM	**1.0E+01**
On-Site	General	VOC	Trichloroethene	79-01-6	C-B2	65	58	4.00E-04	1.80E+01	5.00E-03	5.00E-03	FM	**3.6E+03**
On-Site	General	VOC	Trichlorofluoromethane	75-69-4		60	3	4.00E-04	4.80E-03		1.10E+01	NC	4.4E-04
On-Site	General	VOC	Vinyl Chloride	75-01-4	A	65	33	5.00E-04	1.40E-01	2.00E-03	2.00E-03	FM	**7.0E+01**
On-Site	General	VOC	Xylenes (total)	1330-20-7	ID	65	3	1.10E-03	3.00E-03	1.00E+01	1.00E+01	FM	3.0E-04
On-Site	General	SVOC	Acetophenone	98-86-2	D	5	1	4.00E-04	4.00E-04				
On-Site	General	SVOC	Benzaldehyde	100-52-7		5	1	4.00E-04	4.00E-04		3.65E+00	NC	1.1E-04
On-Site	General	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	64	36	2.00E-04	4.30E-02		6.11E-04	C	**7.0E+01**
On-Site	General	SVOC	Caprolactam	105-60-2		5	1	4.70E-03	4.70E-03		1.83E+01	NC	2.6E-04
On-Site	General	INORG	Antimony	7440-36-0		64	14	1.30E-04	3.00E-03	6.00E-03	6.00E-03	FM	5.0E-01
On-Site	General	INORG	Arsenic	7440-38-2	A	64	54	4.13E-04	4.10E-02	1.00E-02	1.00E-02	FM	**4.1E+00**
On-Site	General	INORG	Barium	7440-39-3	D	64	64	3.50E-02	1.14E+00	2.00E+00	2.00E+00	FM	5.7E-01
On-Site	General	INORG	Beryllium	7440-41-7	B1	64	1	1.20E-03	1.20E-03	4.00E-03	4.00E-03	FM	3.0E-01
On-Site	General	INORG	Cadmium	7440-43-9	B1	64	22	1.00E-04	1.70E-03	5.00E-03	5.00E-03	FM	3.4E-01
On-Site	General	INORG	Chromium (total)	7440-47-3		64	25	2.10E-04	5.78E-02	1.00E-01	1.00E-01	FM	5.8E-01
On-Site	General	INORG	Cobalt	7440-48-4	B1	64	58	9.80E-05	1.38E-02		7.30E-01	NC	1.9E-02
On-Site	General	INORG	Copper	7440-50-8	D	64	24	7.10E-04	5.75E-02	1.30E+00	1.30E+00	FM	4.4E-02

Table 3.2.2
Weathered Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	MCL FED (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	General	INORG	Lead	7439-92-1	B2	64	31	2.05E-04	1.95E-02	1.50E-02	1.50E-02	FM	1.3E+00
On-Site	General	INORG	Manganese	7439-96-5	D	64	63	2.60E-03	1.71E+00		8.76E-01	NC	2.0E+00
On-Site	General	INORG	Mercury	7439-97-6	D	64	10	2.68E-05	8.80E-04	2.00E-03	2.00E-03	FM	4.4E-01
On-Site	General	INORG	Nickel	7440-02-0	A	64	61	8.40E-04	4.57E-02		7.30E-01	NC	6.3E-02
On-Site	General	INORG	Selenium	7782-49-2	D	64	58	5.83E-04	5.41E-02	5.00E-02	5.00E-02	FM	1.1E+00
On-Site	General	INORG	Silver	7440-22-4	D	63	2	5.60E-05	7.80E-05		1.83E-01	NC	4.3E-04
On-Site	General	INORG	Thallium	7440-28-0		64	2	1.60E-05	1.60E-04	2.00E-03	2.00E-03	FM	8.0E-02
On-Site	General	INORG	Vanadium	7440-62-2		64	40	5.30E-04	3.91E-02		3.65E-02	NC	1.1E+00
On-Site	General	INORG	Zinc	7440-66-6	D	64	11	7.20E-03	1.60E-01		1.10E+01	NC	1.5E-02

Notes:

The Drinking Water Screening Criteria is the Federal MCL or, when a Federal MCL is not available, the Region 9 PRG for ingestion of tap water based on a target risk of 10^{-5} and hazard quotient of 1.

The Screening Criteria for Pyrene were used as surrogates for Phenanthrene.

The Screening Criteria for Chromium VI was used as a surrogate for Chromium (total).

The concentrations for the Methylphenol (2, 3, & 4) were summed before comparing to the Screening Criteria for 4-Methylphenol.

The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the Screening Criteria.

FM - The Screening Criterion is the Federal MCL.

C - The Screening Criterion is based on cancer risk.

NC - The Screening Criterion is based on noncancer effects.

GCC - Groundwater Contact Criteria

Chem Group - Chemical Group

Carc Class - EPA Weight-of-Evidence Cancer Classification

Table 3.2.3
Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Wellzone	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
Off-Site	General	Unit B3	VOC	Acetone	67-64-1	ID	2	2	1.10E-02	2.50E-02	3.29E+01	NC	7.6E-04
Off-Site	General	Unit B3	VOC	Toluene	108-88-3	D	2	1	1.10E-03	1.10E-03	1.00E+00	FM	1.1E-03
Off-Site	General	Unit B3	VOC	Trichloroethene	79-01-6	C-B2	2	1	3.00E-04	3.00E-04	5.00E-03	FM	6.0E-02
Off-Site	General	Unit B3	INORG	Arsenic	7440-38-2	A	2	1	1.30E-03	1.30E-03	1.00E-02	FM	1.3E-01
Off-Site	General	Unit B3	INORG	Barium	7440-39-3	D	2	2	8.91E-02	1.40E-01	2.00E+00	FM	7.0E-02
Off-Site	General	Unit B3	INORG	Chromium (total)	7440-47-3		2	2	5.40E-04	7.70E-04	1.00E-01	FM	7.7E-03
Off-Site	General	Unit B3	INORG	Cobalt	7440-48-4	B1	2	2	1.30E-04	3.00E-04	7.30E-01	NC	4.1E-04
Off-Site	General	Unit B3	INORG	Lead	7439-92-1	B2	2	1	6.80E-04	6.80E-04	1.50E-02	FM	4.5E-02
Off-Site	General	Unit B3	INORG	Manganese	7439-96-5	D	2	2	1.58E-02	2.10E-02	8.76E-01	NC	2.4E-02
Off-Site	General	Unit B3	INORG	Nickel	7440-02-0	A	2	1	2.30E-03	2.30E-03	7.30E-01	NC	3.2E-03
Off-Site	General	Unit B3	INORG	Selenium	7782-49-2	D	2	2	2.10E-03	5.60E-03	5.00E-02	FM	1.1E-01
Off-Site	General	Unit B4	INORG	Barium	7440-39-3	D	2	2	1.71E-02	3.07E-02	2.00E+00	FM	1.5E-02
Off-Site	General	Unit B4	INORG	Cobalt	7440-48-4	B1	2	2	1.40E-04	2.60E-04	7.30E-01	NC	3.6E-04
Off-Site	General	Unit B4	INORG	Lead	7439-92-1	B2	2	1	2.70E-04	2.70E-04	1.50E-02	FM	1.8E-02
Off-Site	General	Unit B4	INORG	Manganese	7439-96-5	D	2	2	4.35E-02	7.08E-02	8.76E-01	NC	8.1E-02
Off-Site	General	Unit B4	INORG	Nickel	7440-02-0	A	2	1	1.00E-03	1.00E-03	7.30E-01	NC	1.4E-03
Off-Site	General	Unit B4	INORG	Vanadium	7440-62-2		2	1	1.10E-03	1.10E-03	3.65E-02	NC	3.0E-02
On-Site	AOI11	Unit B2	VOC	Chlorobenzene	108-90-7	D	6	3	1.00E-03	4.20E-03	1.00E-01	FM	4.2E-02
On-Site	AOI11	Unit B2	VOC	Chloroform	67-66-3	B2	6	1	7.10E-03	7.10E-03	8.00E-02	FM	8.9E-02
On-Site	AOI11	Unit B2	VOC	1,2-Dichloroethane	107-06-2	B2	6	3	7.00E-04	2.60E-03	5.00E-03	FM	5.2E-01
On-Site	AOI11	Unit B2	VOC	cis-1,2-Dichloroethene	156-59-2	D	6	5	4.00E-04	8.40E-03	7.00E-02	FM	1.2E-01
On-Site	AOI11	Unit B2	VOC	trans-1,2-Dichloroethene	156-60-5		6	2	7.00E-04	1.60E-03	1.00E-01	FM	1.6E-02
On-Site	AOI11	Unit B2	VOC	Methyl Acetate	79-20-9		6	1	4.20E-03	4.20E-03	3.65E+01	NC	1.2E-04
On-Site	AOI11	Unit B2	VOC	Toluene	108-88-3	D	6	1	2.70E-03	2.70E-03	1.00E+00	FM	2.7E-03
On-Site	AOI11	Unit B2	VOC	Trichloroethene	79-01-6	C-B2	6	6	1.10E-03	1.10E-01	5.00E-03	FM	2.2E+01
On-Site	AOI11	Unit B2	SVOC	Acetophenone	98-86-2	D	1	1	9.00E-04	9.00E-04			
On-Site	AOI11	Unit B2	SVOC	Phenol	108-95-2	ID	1	1	3.00E-01	3.00E-01	1.10E+01	NC	2.7E-02
On-Site	AOI11	Unit B2	INORG	Arsenic	7440-38-2	A	5	3	6.80E-04	1.60E-03	1.00E-02	FM	1.6E-01
On-Site	AOI11	Unit B2	INORG	Barium	7440-39-3	D	5	5	3.44E-02	1.04E-01	2.00E+00	FM	5.2E-02
On-Site	AOI11	Unit B2	INORG	Cadmium	7440-43-9	B1	5	3	1.60E-04	4.10E-04	5.00E-03	FM	8.2E-02
On-Site	AOI11	Unit B2	INORG	Cobalt	7440-48-4	B1	5	5	1.70E-04	4.00E-03	7.30E-01	NC	5.5E-03
On-Site	AOI11	Unit B2	INORG	Copper	7440-50-8	D	5	3	1.70E-03	2.92E-02	1.30E+00	FM	2.2E-02
On-Site	AOI11	Unit B2	INORG	Lead	7439-92-1	B2	5	2	5.90E-04	2.10E-03	1.50E-02	FM	1.4E-01
On-Site	AOI11	Unit B2	INORG	Manganese	7439-96-5	D	5	5	4.19E-02	3.62E-01	8.76E-01	NC	4.1E-01
On-Site	AOI11	Unit B2	INORG	Nickel	7440-02-0	A	5	5	1.30E-03	3.98E-02	7.30E-01	NC	5.5E-02
On-Site	AOI11	Unit B2	INORG	Selenium	7782-49-2	D	5	1	6.30E-04	6.30E-04	5.00E-02	FM	1.3E-02
On-Site	AOI11	Unit B2	INORG	Vanadium	7440-62-2		5	4	5.10E-04	2.90E-03	3.65E-02	NC	7.9E-02
On-Site	AOI11	Unit B2	INORG	Zinc	7440-66-6	D	5	1	1.00E-02	1.00E-02	1.10E+01	NC	9.1E-04
On-Site	AOI26	Unit B1	VOC	cis-1,2-Dichloroethene	156-59-2	D	2	1	2.00E-04	2.00E-04	7.00E-02	FM	2.9E-03
On-Site	AOI26	Unit B1	VOC	Trichloroethene	79-01-6	C-B2	2	2	7.00E-04	8.00E-04	5.00E-03	FM	1.6E-01
On-Site	AOI26	Unit B1	INORG	Barium	7440-39-3	D	2	2	2.60E-02	4.07E-02	2.00E+00	FM	2.0E-02
On-Site	AOI26	Unit B1	INORG	Cadmium	7440-43-9	B1	2	1	9.60E-05	9.60E-05	5.00E-03	FM	1.9E-02

Table 3.2.3
Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Wellzone	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI26	Unit B1	INORG	Cobalt	7440-48-4	B1	2	2	6.20E-05	1.20E-04	7.30E-01	NC	1.6E-04
On-Site	AOI26	Unit B1	INORG	Manganese	7439-96-5	D	2	2	2.98E-02	6.08E-02	8.76E-01	NC	6.9E-02
On-Site	AOI26	Unit B1	INORG	Mercury	7439-97-6	D	2	1	4.00E-05	4.00E-05	2.00E-03	FM	2.0E-02
On-Site	AOI26	Unit B1	INORG	Nickel	7440-02-0	A	2	1	7.60E-04	7.60E-04	7.30E-01	NC	1.0E-03
On-Site	AOI26	Unit B1	INORG	Selenium	7782-49-2	D	2	1	8.60E-04	8.60E-04	5.00E-02	FM	1.7E-02
On-Site	AOI26	Unit B1	INORG	Vanadium	7440-62-2		2	1	9.80E-04	9.80E-04	3.65E-02	NC	2.7E-02
On-Site	AOI28	Unit B4	VOC	Acetone	67-64-1	ID	10	1	9.10E-03	9.10E-03	3.29E+01	NC	2.8E-04
On-Site	AOI28	Unit B4	VOC	Chloroform	67-66-3	B2	10	1	1.60E-03	1.60E-03	8.00E-02	FM	2.0E-02
On-Site	AOI28	Unit B4	VOC	Methyl Acetate	79-20-9		10	1	1.20E-02	1.20E-02	3.65E+01	NC	3.3E-04
On-Site	AOI28	Unit B4	VOC	Toluene	108-88-3	D	10	2	8.50E-04	2.70E-03	1.00E+00	FM	2.7E-03
On-Site	AOI28	Unit B4	INORG	Antimony	7440-36-0		9	4	1.50E-04	6.30E-04	6.00E-03	FM	1.1E-01
On-Site	AOI28	Unit B4	INORG	Arsenic	7440-38-2	A	9	7	4.10E-04	1.50E-03	1.00E-02	FM	1.5E-01
On-Site	AOI28	Unit B4	INORG	Barium	7440-39-3	D	9	9	5.43E-02	2.00E-01	2.00E+00	FM	1.0E-01
On-Site	AOI28	Unit B4	INORG	Cadmium	7440-43-9	B1	9	4	3.10E-04	2.00E-03	5.00E-03	FM	4.0E-01
On-Site	AOI28	Unit B4	INORG	Chromium (total)	7440-47-3		9	2	9.00E-04	1.50E-03	1.00E-01	FM	1.5E-02
On-Site	AOI28	Unit B4	INORG	Cobalt	7440-48-4	B1	9	7	1.40E-04	2.80E-03	7.30E-01	NC	3.8E-03
On-Site	AOI28	Unit B4	INORG	Copper	7440-50-8	D	9	2	1.10E-02	1.37E-02	1.30E+00	FM	1.1E-02
On-Site	AOI28	Unit B4	INORG	Lead	7439-92-1	B2	9	6	1.02E-04	5.50E-03	1.50E-02	FM	3.7E-01
On-Site	AOI28	Unit B4	INORG	Manganese	7439-96-5	D	9	9	1.89E-02	1.46E+00	8.76E-01	NC	1.7E+00
On-Site	AOI28	Unit B4	INORG	Nickel	7440-02-0	A	9	7	6.60E-04	2.49E-02	7.30E-01	NC	3.4E-02
On-Site	AOI28	Unit B4	INORG	Selenium	7782-49-2	D	9	3	5.30E-04	2.00E-03	5.00E-02	FM	4.0E-02
On-Site	AOI28	Unit B4	INORG	Silver	7440-22-4	D	9	2	8.50E-05	1.10E-04	1.83E-01	NC	6.0E-04
On-Site	AOI28	Unit B4	INORG	Vanadium	7440-62-2		9	5	7.30E-04	2.20E-03	3.65E-02	NC	6.0E-02
On-Site	AOI29	Unit B3	VOC	Acetone	67-64-1	ID	6	1	5.00E-03	5.00E-03	3.29E+01	NC	1.5E-04
On-Site	AOI29	Unit B3	VOC	Benzene	71-43-2	A	6	5	3.20E-03	6.00E-02	5.00E-03	FM	1.2E+01
On-Site	AOI29	Unit B3	VOC	Carbon Disulfide	75-15-0		6	1	6.00E-04	6.00E-04	3.65E+00	NC	1.6E-04
On-Site	AOI29	Unit B3	VOC	Carbon Tetrachloride	56-23-5	B2	6	3	1.80E-03	7.80E-01	5.00E-03	FM	1.6E+02
On-Site	AOI29	Unit B3	VOC	Chlorobenzene	108-90-7	D	6	5	1.10E-03	1.10E-02	1.00E-01	FM	1.1E-01
On-Site	AOI29	Unit B3	VOC	Chloroform	67-66-3	B2	6	6	8.00E-04	7.30E-01	8.00E-02	FM	9.1E+00
On-Site	AOI29	Unit B3	VOC	Chloromethane	74-87-3	D	6	2	1.90E-03	2.50E-03	9.49E-01	NC	2.6E-03
On-Site	AOI29	Unit B3	VOC	Cyclohexane	110-82-7	ID	6	2	4.00E-04	4.00E-04	6.21E+01	NC	6.4E-06
On-Site	AOI29	Unit B3	VOC	1,2-Dichlorobenzene	95-50-1	D	6	5	2.40E-03	1.00E-02	6.00E-01	FM	1.7E-02
On-Site	AOI29	Unit B3	VOC	1,4-Dichlorobenzene	106-46-7	C	6	1	4.00E-04	4.00E-04	7.50E-02	FM	5.3E-03
On-Site	AOI29	Unit B3	VOC	Dichlorodifluoromethane	75-71-8		6	3	1.00E-03	2.00E-03	7.30E+00	NC	2.7E-04
On-Site	AOI29	Unit B3	VOC	1,1-Dichloroethane	75-34-3	C	6	3	8.00E-04	1.10E-03	3.65E+00	NC	3.0E-04
On-Site	AOI29	Unit B3	VOC	1,2-Dichloroethane	107-06-2	B2	6	5	3.35E-03	1.40E-02	5.00E-03	FM	2.8E+00
On-Site	AOI29	Unit B3	VOC	cis-1,2-Dichloroethene	156-59-2	D	6	4	1.30E-03	4.70E-03	7.00E-02	FM	6.7E-02
On-Site	AOI29	Unit B3	VOC	trans-1,2-Dichloroethene	156-60-5		6	3	1.10E-03	3.90E-03	1.00E-01	FM	3.9E-02
On-Site	AOI29	Unit B3	VOC	Methylene Chloride	75-09-2	B2	6	4	1.90E-03	2.50E-02	5.00E-03	FM	5.0E+00
On-Site	AOI29	Unit B3	VOC	Tetrachloroethene	127-18-4	C-B2	6	4	1.10E-03	2.80E-03	5.00E-03	FM	5.6E-01
On-Site	AOI29	Unit B3	VOC	Toluene	108-88-3	D	6	2	1.10E-03	1.50E-03	1.00E+00	FM	1.5E-03
On-Site	AOI29	Unit B3	VOC	Trichloroethene	79-01-6	C-B2	6	4	9.90E-03	6.30E-02	5.00E-03	FM	1.3E+01

Table 3.2.3
Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Wellzone	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	AOI29	Unit B3	VOC	Trichlorofluoromethane	75-69-4		6	3	4.00E-04	2.60E-03	1.10E+01	NC	2.4E-04
On-Site	AOI29	Unit B3	VOC	Vinyl Chloride	75-01-4	A	6	1	7.00E-04	7.00E-04	2.00E-03	FM	3.5E-01
On-Site	AOI29	Unit B3	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	5	1	2.00E-04	2.00E-04	6.11E-04	C	3.3E-01
On-Site	AOI29	Unit B3	INORG	Antimony	7440-36-0		5	1	1.50E-04	1.50E-04	6.00E-03	FM	2.5E-02
On-Site	AOI29	Unit B3	INORG	Arsenic	7440-38-2	A	5	4	9.30E-04	2.50E-03	1.00E-02	FM	2.5E-01
On-Site	AOI29	Unit B3	INORG	Barium	7440-39-3	D	5	5	2.51E-02	2.57E-01	2.00E+00	FM	1.3E-01
On-Site	AOI29	Unit B3	INORG	Cadmium	7440-43-9	B1	5	4	1.20E-04	2.70E-03	5.00E-03	FM	5.4E-01
On-Site	AOI29	Unit B3	INORG	Chromium (total)	7440-47-3		5	1	4.30E-03	4.30E-03	1.00E-01	FM	4.3E-02
On-Site	AOI29	Unit B3	INORG	Cobalt	7440-48-4	B1	5	5	2.80E-04	1.60E-03	7.30E-01	NC	2.2E-03
On-Site	AOI29	Unit B3	INORG	Copper	7440-50-8	D	5	2	9.30E-03	1.08E-02	1.30E+00	FM	8.3E-03
On-Site	AOI29	Unit B3	INORG	Lead	7439-92-1	B2	5	3	1.30E-03	1.49E-02	1.50E-02	FM	9.9E-01
On-Site	AOI29	Unit B3	INORG	Manganese	7439-96-5	D	5	5	2.26E-02	3.56E-01	8.76E-01	NC	4.1E-01
On-Site	AOI29	Unit B3	INORG	Mercury	7439-97-6	D	5	1	3.80E-05	3.80E-05	2.00E-03	FM	1.9E-02
On-Site	AOI29	Unit B3	INORG	Nickel	7440-02-0	A	5	5	3.10E-03	1.87E-02	7.30E-01	NC	2.6E-02
On-Site	AOI29	Unit B3	INORG	Selenium	7782-49-2	D	5	5	2.00E-03	4.70E-03	5.00E-02	FM	9.4E-02
On-Site	AOI29	Unit B3	INORG	Vanadium	7440-62-2		5	4	2.30E-03	3.50E-03	3.65E-02	NC	9.6E-02
On-Site	AOI29	Unit B3	INORG	Zinc	7440-66-6	D	5	1	3.16E-02	3.16E-02	1.10E+01	NC	2.9E-03
On-Site	General	Unit B1	VOC	Acetone	67-64-1	ID	9	1	8.10E-03	8.10E-03	3.29E+01	NC	2.5E-04
On-Site	General	Unit B1	VOC	Benzene	71-43-2	A	9	8	7.00E-04	2.40E-02	5.00E-03	FM	**4.8E+00**
On-Site	General	Unit B1	VOC	Chlorobenzene	108-90-7	D	9	9	6.00E-04	4.00E-03	1.00E-01	FM	4.0E-02
On-Site	General	Unit B1	VOC	Chloroform	67-66-3	B2	9	2	7.00E-04	2.00E-02	8.00E-02	FM	2.5E-01
On-Site	General	Unit B1	VOC	1,2-Dichloroethane	107-06-2	B2	9	9	2.04E-03	1.70E-02	5.00E-03	FM	**3.4E+00**
On-Site	General	Unit B1	VOC	cis-1,2-Dichloroethene	156-59-2	D	9	9	1.30E-03	1.10E-02	7.00E-02	FM	1.6E-01
On-Site	General	Unit B1	VOC	trans-1,2-Dichloroethene	156-60-5		9	8	1.20E-03	4.10E-03	1.00E-01	FM	4.1E-02
On-Site	General	Unit B1	VOC	Methyl tert-butyl ether	1634-04-4		9	2	5.00E-04	6.00E-04	3.74E-01	C	1.6E-03
On-Site	General	Unit B1	VOC	Styrene	100-42-5		9	1	7.00E-04	7.00E-04	1.00E-01	FM	7.0E-03
On-Site	General	Unit B1	VOC	Tetrachloroethene	127-18-4	C-B2	9	5	6.00E-04	3.30E-03	5.00E-03	FM	6.6E-01
On-Site	General	Unit B1	VOC	Toluene	108-88-3	D	9	1	6.00E-04	6.00E-04	1.00E+00	FM	6.0E-04
On-Site	General	Unit B1	VOC	Trichloroethene	79-01-6	C-B2	9	9	7.20E-03	9.50E-02	5.00E-03	FM	**1.9E+01**
On-Site	General	Unit B1	VOC	Vinyl Chloride	75-01-4	A	9	1	4.00E-04	4.00E-04	2.00E-03	FM	2.0E-01
On-Site	General	Unit B1	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	8	4	4.00E-04	2.00E-03	6.11E-04	C	**3.3E+00**
On-Site	General	Unit B1	INORG	Arsenic	7440-38-2	A	7	7	2.10E-03	8.60E-03	1.00E-02	FM	8.6E-01
On-Site	General	Unit B1	INORG	Barium	7440-39-3	D	7	7	3.71E-02	2.21E-01	2.00E+00	FM	1.1E-01
On-Site	General	Unit B1	INORG	Beryllium	7440-41-7	B1	7	1	2.10E-04	2.10E-04	4.00E-03	FM	5.3E-02
On-Site	General	Unit B1	INORG	Cadmium	7440-43-9	B1	7	3	1.50E-04	1.30E-03	5.00E-03	FM	2.6E-01
On-Site	General	Unit B1	INORG	Chromium (total)	7440-47-3		7	2	6.80E-04	7.10E-03	1.00E-01	FM	7.1E-02
On-Site	General	Unit B1	INORG	Cobalt	7440-48-4	B1	7	7	1.55E-04	8.70E-03	7.30E-01	NC	1.2E-02
On-Site	General	Unit B1	INORG	Copper	7440-50-8	D	7	3	8.70E-04	4.85E-02	1.30E+00	FM	3.7E-02
On-Site	General	Unit B1	INORG	Lead	7439-92-1	B2	7	3	5.40E-04	3.20E-03	1.50E-02	FM	2.1E-01
On-Site	General	Unit B1	INORG	Manganese	7439-96-5	D	7	7	5.55E-03	7.44E-01	8.76E-01	NC	8.5E-01
On-Site	General	Unit B1	INORG	Nickel	7440-02-0	A	7	7	1.30E-03	1.06E-01	7.30E-01	NC	1.5E-01
On-Site	General	Unit B1	INORG	Selenium	7782-49-2	D	7	7	2.85E-03	2.10E-02	5.00E-02	FM	4.2E-01

Table 3.2.3
Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Wellzone	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	General	Unit B1	INORG	Vanadium	7440-62-2		7	6	1.50E-03	1.59E-02	3.65E-02	NC	4.4E-01
On-Site	General	Unit B1	INORG	Zinc	7440-66-6	D	7	2	3.50E-03	1.18E-01	1.10E+01	NC	1.1E-02
On-Site	General	Unit B2	VOC	Acetone	67-64-1	ID	12	4	6.75E-03	5.10E-02	3.29E+01	NC	1.6E-03
On-Site	General	Unit B2	VOC	Benzene	71-43-2	A	13	13	1.10E-02	1.20E+00	5.00E-03	FM	**2.4E+02**
On-Site	General	Unit B2	VOC	Carbon Disulfide	75-15-0		13	1	2.90E-04	2.90E-04	3.65E+00	NC	7.9E-05
On-Site	General	Unit B2	VOC	Carbon Tetrachloride	56-23-5	B2	13	8	7.00E-04	4.90E-01	5.00E-03	FM	**9.8E+01**
On-Site	General	Unit B2	VOC	Chlorobenzene	108-90-7	D	13	13	3.60E-03	8.00E-01	1.00E-01	FM	**8.0E+00**
On-Site	General	Unit B2	VOC	Chloroform	67-66-3	B2	13	11	2.60E-03	2.50E+00	8.00E-02	FM	**3.1E+01**
On-Site	General	Unit B2	VOC	Cyclohexane	110-82-7	ID	13	2	4.00E-04	6.00E-04	6.21E+01	NC	9.7E-06
On-Site	General	Unit B2	VOC	1,2-Dichlorobenzene	95-50-1	D	13	10	1.25E-03	3.00E-02	6.00E-01	FM	5.0E-02
On-Site	General	Unit B2	VOC	1,4-Dichlorobenzene	106-46-7	C	13	3	5.50E-04	1.40E-03	7.50E-02	FM	1.9E-02
On-Site	General	Unit B2	VOC	Dichlorodifluoromethane	75-71-8		13	4	5.50E-04	1.80E-03	7.30E+00	NC	2.5E-04
On-Site	General	Unit B2	VOC	1,1-Dichloroethane	75-34-3	C	13	6	1.95E-04	5.90E-03	3.65E+00	NC	1.6E-03
On-Site	General	Unit B2	VOC	1,2-Dichloroethane	107-06-2	B2	13	13	5.40E-03	4.10E-01	5.00E-03	FM	**8.2E+01**
On-Site	General	Unit B2	VOC	1,1-Dichloroethene	75-35-4	C	13	11	1.05E-03	2.20E-02	7.00E-03	FM	**3.1E+00**
On-Site	General	Unit B2	VOC	cis-1,2-Dichloroethene	156-59-2	D	13	13	6.00E-04	1.60E+00	7.00E-02	FM	**2.3E+01**
On-Site	General	Unit B2	VOC	trans-1,2-Dichloroethene	156-60-5		13	13	6.00E-04	4.20E-01	1.00E-01	FM	**4.2E+00**
On-Site	General	Unit B2	VOC	1,2-Dichloropropane	78-87-5	B2	13	1	8.50E-04	8.50E-04	5.00E-03	FM	1.7E-01
On-Site	General	Unit B2	VOC	Ethyl Benzene	100-41-4	D	13	2	5.00E-04	1.20E-03	7.00E-01	FM	1.7E-03
On-Site	General	Unit B2	VOC	Methyl tert-butyl ether	1634-04-4		13	1	3.00E-04	3.00E-04	3.74E-01	C	8.0E-04
On-Site	General	Unit B2	VOC	4-Methyl-2-pentanone	108-10-1	ID	13	1	6.40E-03	6.40E-03	2.92E+00	NC	2.2E-03
On-Site	General	Unit B2	VOC	Methylcyclohexane	108-87-2		13	1	6.00E-04	6.00E-04	3.14E+01	NC	1.9E-05
On-Site	General	Unit B2	VOC	Methylene Chloride	75-09-2	B2	13	9	6.70E-03	9.60E-01	5.00E-03	FM	**1.9E+02**
On-Site	General	Unit B2	VOC	1,1,2,2-Tetrachloroethane	79-34-5	C	13	1	6.80E-03	6.80E-03	3.36E-03	C	**2.0E+00**
On-Site	General	Unit B2	VOC	Tetrachloroethene	127-18-4	C-B2	13	13	5.00E-04	3.80E-01	5.00E-03	FM	**7.6E+01**
On-Site	General	Unit B2	VOC	Toluene	108-88-3	D	13	6	4.13E-04	5.80E-02	1.00E+00	FM	5.8E-02
On-Site	General	Unit B2	VOC	1,2,4-Trichlorobenzene	120-82-1	D	13	1	4.00E-04	4.00E-04	7.00E-02	FM	5.7E-03
On-Site	General	Unit B2	VOC	1,1,2-Trichloroethane	79-00-5	C	13	11	4.50E-04	3.90E-02	5.00E-03	FM	**7.8E+00**
On-Site	General	Unit B2	VOC	Trichloroethene	79-01-6	C-B2	13	13	9.00E-03	1.40E+01	5.00E-03	FM	**2.8E+03**
On-Site	General	Unit B2	VOC	Vinyl Chloride	75-01-4	A	13	11	4.15E-03	8.80E-02	2.00E-03	FM	**4.4E+01**
On-Site	General	Unit B2	VOC	Xylenes (total)	1330-20-7	ID	13	4	7.00E-04	5.60E-03	1.00E+01	FM	5.6E-04
On-Site	General	Unit B2	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	14	12	2.20E-03	2.90E-02	6.11E-04	C	**4.7E+01**
On-Site	General	Unit B2	INORG	Antimony	7440-36-0		13	1	2.10E-04	2.10E-04	6.00E-03	FM	3.5E-02
On-Site	General	Unit B2	INORG	Arsenic	7440-38-2	A	13	13	1.10E-03	2.11E-02	1.00E-02	FM	**2.1E+00**
On-Site	General	Unit B2	INORG	Barium	7440-39-3	D	13	13	1.89E-02	3.96E-01	2.00E+00	FM	2.0E-01
On-Site	General	Unit B2	INORG	Chromium (total)	7440-47-3		13	7	1.30E-04	1.08E-02	1.00E-01	FM	1.1E-01
On-Site	General	Unit B2	INORG	Cobalt	7440-48-4	B1	13	13	1.90E-04	1.50E-03	7.30E-01	NC	2.1E-03
On-Site	General	Unit B2	INORG	Copper	7440-50-8	D	13	5	4.90E-03	9.70E-03	1.30E+00	FM	7.5E-03
On-Site	General	Unit B2	INORG	Lead	7439-92-1	B2	13	10	1.70E-04	1.30E-03	1.50E-02	FM	8.7E-02
On-Site	General	Unit B2	INORG	Manganese	7439-96-5	D	13	13	1.94E-02	2.82E-01	8.76E-01	NC	3.2E-01
On-Site	General	Unit B2	INORG	Mercury	7439-97-6	D	13	1	3.30E-05	3.30E-05	2.00E-03	FM	1.7E-02
On-Site	General	Unit B2	INORG	Nickel	7440-02-0	A	13	13	1.25E-03	8.40E-03	7.30E-01	NC	1.2E-02

Table 3.2.3
Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Wellzone	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	General	Unit B2	INORG	Selenium	7782-49-2	D	13	13	2.30E-03	5.05E-02	5.00E-02	FM	1.0E+00
On-Site	General	Unit B2	INORG	Silver	7440-22-4	D	13	1	1.79E-04	1.79E-04	1.83E-01	NC	9.8E-04
On-Site	General	Unit B2	INORG	Thallium	7440-28-0		13	1	1.07E-04	1.07E-04	2.00E-03	FM	5.3E-02
On-Site	General	Unit B2	INORG	Vanadium	7440-62-2		13	9	1.03E-03	3.94E-02	3.65E-02	NC	1.1E+00
On-Site	General	Unit B2	INORG	Zinc	7440-66-6	D	13	3	1.55E-02	2.09E-02	1.10E+01	NC	1.9E-03
On-Site	General	Unit B3	VOC	Acetone	67-64-1	ID	5	1	6.90E-03	6.90E-03	3.29E+01	NC	2.1E-04
On-Site	General	Unit B3	VOC	Benzene	71-43-2	A	5	2	6.00E-04	6.20E-02	5.00E-03	FM	1.2E+01
On-Site	General	Unit B3	VOC	Carbon Tetrachloride	56-23-5	B2	5	3	4.00E-04	1.10E-03	5.00E-03	FM	2.2E-01
On-Site	General	Unit B3	VOC	Chlorobenzene	108-90-7	D	5	2	3.00E-03	2.80E-02	1.00E-01	FM	2.8E-01
On-Site	General	Unit B3	VOC	Chloroform	67-66-3	B2	5	4	1.00E-03	1.10E-02	8.00E-02	FM	1.4E-01
On-Site	General	Unit B3	VOC	1,2-Dichlorobenzene	95-50-1	D	5	1	3.90E-03	3.90E-03	6.00E-01	FM	6.5E-03
On-Site	General	Unit B3	VOC	Dichlorodifluoromethane	75-71-8		5	2	5.00E-04	1.40E-03	7.30E+00	NC	1.9E-04
On-Site	General	Unit B3	VOC	1,1-Dichloroethane	75-34-3	C	5	4	4.00E-04	8.00E-04	3.65E+00	NC	2.2E-04
On-Site	General	Unit B3	VOC	1,2-Dichloroethane	107-06-2	B2	5	2	2.10E-03	1.70E-02	5.00E-03	FM	3.4E+00
On-Site	General	Unit B3	VOC	1,1-Dichloroethene	75-35-4	C	5	4	7.00E-04	4.90E-03	7.00E-03	FM	7.0E-01
On-Site	General	Unit B3	VOC	cis-1,2-Dichloroethene	156-59-2	D	5	4	8.00E-04	1.10E-02	7.00E-02	FM	1.6E-01
On-Site	General	Unit B3	VOC	trans-1,2-Dichloroethene	156-60-5		5	2	1.90E-03	8.60E-03	1.00E-01	FM	8.6E-02
On-Site	General	Unit B3	VOC	Methyl tert-butyl ether	1634-04-4		5	2	6.00E-04	2.00E-03	3.74E-01	C	5.4E-03
On-Site	General	Unit B3	VOC	Methylene Chloride	75-09-2	B2	5	1	7.30E-03	7.30E-03	5.00E-03	FM	1.5E+00
On-Site	General	Unit B3	VOC	Tetrachloroethene	127-18-4	C-B2	5	2	5.00E-04	2.00E-03	5.00E-03	FM	4.0E-01
On-Site	General	Unit B3	VOC	Toluene	108-88-3	D	5	3	1.10E-03	2.90E-02	1.00E+00	FM	2.9E-02
On-Site	General	Unit B3	VOC	Trichloroethene	79-01-6	C-B2	5	4	3.20E-03	1.50E-01	5.00E-03	FM	3.0E+01
On-Site	General	Unit B3	VOC	Vinyl Chloride	75-01-4	A	5	2	4.00E-04	3.20E-03	2.00E-03	FM	1.6E+00
On-Site	General	Unit B3	SVOC	bis(2-Chloroethyl) ether	111-44-4	B2	5	1	4.00E-04	4.00E-04	6.11E-04	C	6.5E-01
On-Site	General	Unit B3	INORG	Arsenic	7440-38-2	A	5	3	5.00E-04	3.30E-03	1.00E-02	FM	3.3E-01
On-Site	General	Unit B3	INORG	Barium	7440-39-3	D	5	5	3.72E-02	2.84E-01	2.00E+00	FM	1.4E-01
On-Site	General	Unit B3	INORG	Cadmium	7440-43-9	B1	5	2	2.30E-04	4.50E-04	5.00E-03	FM	9.0E-02
On-Site	General	Unit B3	INORG	Chromium (total)	7440-47-3		5	2	1.40E-03	3.51E-02	1.00E-01	FM	3.5E-01
On-Site	General	Unit B3	INORG	Cobalt	7440-48-4	B1	5	5	1.30E-04	5.80E-04	7.30E-01	NC	7.9E-04
On-Site	General	Unit B3	INORG	Copper	7440-50-8	D	5	1	2.20E-03	2.20E-03	1.30E+00	FM	1.7E-03
On-Site	General	Unit B3	INORG	Lead	7439-92-1	B2	5	4	2.30E-04	2.10E-03	1.50E-02	FM	1.4E-01
On-Site	General	Unit B3	INORG	Manganese	7439-96-5	D	5	5	5.10E-03	1.51E-01	8.76E-01	NC	1.7E-01
On-Site	General	Unit B3	INORG	Mercury	7439-97-6	D	5	2	3.60E-05	5.60E-05	2.00E-03	FM	2.8E-02
On-Site	General	Unit B3	INORG	Nickel	7440-02-0	A	5	5	1.20E-03	2.50E-03	7.30E-01	NC	3.4E-03
On-Site	General	Unit B3	INORG	Selenium	7782-49-2	D	5	5	9.20E-04	8.70E-03	5.00E-02	FM	1.7E-01
On-Site	General	Unit B3	INORG	Vanadium	7440-62-2		5	3	1.20E-03	1.70E-03	3.65E-02	NC	4.7E-02
On-Site	General	Unit B3	INORG	Zinc	7440-66-6	D	5	2	8.20E-03	1.30E-02	1.10E+01	NC	1.2E-03
On-Site	General	Unit B4	VOC	cis-1,2-Dichloroethene	156-59-2	D	4	1	4.00E-04	4.00E-04	7.00E-02	FM	5.7E-03
On-Site	General	Unit B4	VOC	Toluene	108-88-3	D	4	1	1.00E-03	1.00E-03	1.00E+00	FM	1.0E-03
On-Site	General	Unit B4	INORG	Antimony	7440-36-0		4	1	1.50E-04	1.50E-04	6.00E-03	FM	2.5E-02
On-Site	General	Unit B4	INORG	Barium	7440-39-3	D	4	4	7.15E-02	1.40E-01	2.00E+00	FM	7.0E-02
On-Site	General	Unit B4	INORG	Cadmium	7440-43-9	B1	4	1	1.50E-04	1.50E-04	5.00E-03	FM	3.0E-02

Table 3.2.3
Bedrock Groundwater Screening Results
GMC - Linden, New Jersey

On/Off-site	Area	Wellzone	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Drinking Water Criteria (mg/L)		Ratio of Max Detect to DW Criteria
On-Site	General	Unit B4	INORG	Cobalt	7440-48-4	B1	4	4	6.10E-05	4.20E-04	7.30E-01	NC	5.8E-04
On-Site	General	Unit B4	INORG	Copper	7440-50-8	D	4	3	4.30E-04	6.80E-04	1.30E+00	FM	5.2E-04
On-Site	General	Unit B4	INORG	Lead	7439-92-1	B2	4	2	3.60E-04	1.10E-03	1.50E-02	FM	7.3E-02
On-Site	General	Unit B4	INORG	Manganese	7439-96-5	D	4	4	4.36E-02	2.76E-01	8.76E-01	NC	3.2E-01
On-Site	General	Unit B4	INORG	Nickel	7440-02-0	A	4	4	6.40E-04	2.70E-03	7.30E-01	NC	3.7E-03
On-Site	General	Unit B4	INORG	Selenium	7782-49-2	D	4	2	1.10E-03	1.20E-03	5.00E-02	FM	2.4E-02

Notes:

The Drinking Water Screening Criteria is the Federal MCL or, when a Federal MCL is not available, the Region 9 PRG for ingestion of tap water based on a target risk of 10^{-5} and hazard quotient of 1.

The Screening Criteria for Chromium VI was used as a surrogate for Chromium (total).

The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the Screening Criteria.

FM - The Screening Criterion is the Federal MCL.

C - The Screening Criterion is based on cancer risk.

NC - The Screening Criterion is based on noncancer effects.

GCC - Groundwater Contact Criteria

Chem Group - Chemical Group

Carc Class - EPA Weight-of-Evidence Cancer Classification

Table 3.3.1
Overburden Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria	Construction GCC (mg/L)	Ratio of Conc to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Conc to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Conc to Residential VI Criteria
Off-Site	4	AOI16	BEC-14S	0001-031605-1120	03/16/05	INORG	Arsenic	7440-38-2	1.94E-02		4.90E-04	1.00E-02	1.9E+00	1.44E+01	1.4E-03				
Off-Site	4	AOI16	BEC-14S	0001-031605-1120	03/16/05	INORG	Manganese	7439-96-5	3.71E+00		1.20E-04	8.76E-01	4.2E+00	5.96E+03	6.2E-04				
Off-Site	4	AOI16	BEC-14S	0001-042005-1241	04/20/05	INORG	Arsenic	7440-38-2	2.57E-02		4.90E-04	1.00E-02	2.6E+00	1.44E+01	1.8E-03				
Off-Site	4	AOI16	BEC-14S	0001-042005-1241	04/20/05	INORG	Manganese	7439-96-5	3.82E+00		1.20E-04	8.76E-01	4.4E+00	5.96E+03	6.4E-04				
Off-Site	4	AOI16	BEC-14S	28499AAP281003WGSM-3	10/28/03	INORG	Manganese	7439-96-5	2.60E+00		6.40E-04	8.76E-01	3.0E+00	5.96E+03	4.4E-04				
Off-Site	4	AOI16	BEC-14S	28499RWT300103WGSM-2	01/30/03	INORG	Arsenic	7440-38-2	1.16E-02		2.10E-04	1.00E-02	1.2E+00	1.44E+01	8.1E-04				
Off-Site	4	AOI16	BEC-14S	28499RWT300103WGSM-2	01/30/03	INORG	Manganese	7439-96-5	3.35E+00		2.00E-04	8.76E-01	3.8E+00	5.96E+03	5.6E-04				
Off-Site	2	General	MW-40S	0003-022505-1330	02/25/05	INORG	Manganese	7439-96-5	1.14E+00		1.20E-04	8.76E-01	1.3E+00	5.96E+03	1.9E-04				
Off-Site	2	General	MW-59S	0001-022805-1102	02/28/05	INORG	Manganese	7439-96-5	9.03E+00		6.00E-04	8.76E-01	1.0E+01	5.96E+03	1.5E-03				
Off-Site	2	General	MW-59S	0001-050205-1254	05/02/05	INORG	Manganese	7439-96-5	6.30E+00		6.00E-04	8.76E-01	7.2E+00	5.96E+03	1.1E-03				
On-Site	3	AOI01	BEC-7D	28499MAP281003WGDI-3	10/28/03	INORG	Cadmium	7440-43-9	1.96E-02		8.90E-05	5.00E-03	3.9E+00	1.80E+01	1.1E-03				
On-Site	3	AOI01	BEC-7D	28499RWT280103WGDI-2	01/28/03	INORG	Cadmium	7440-43-9	1.25E-02		7.50E-05	5.00E-03	2.5E+00	1.80E+01	6.9E-04				
On-Site	1	AOI03	BEC-9D	0001-022105-1325	02/21/05	INORG	Manganese	7439-96-5	3.08E+00		1.20E-04	8.76E-01	3.5E+00	5.96E+03	5.2E-04				
On-Site	1	AOI03	BEC-9D	0002-042605-0952	04/26/05	INORG	Manganese	7439-96-5	4.11E+00		1.20E-04	8.76E-01	4.7E+00	5.96E+03	6.9E-04				
On-Site	1	AOI03	BEC-9D	28499MAP281003WGHD-3	10/28/03	INORG	Manganese	7439-96-5	1.45E+01		3.20E-03	8.76E-01	1.7E+01	5.96E+03	2.4E-03				
On-Site	1	AOI06	MW-31D	0001-022205-1400	02/22/05	VOC	1,2-Dichloroethane	107-06-2	1.70E-02		1.50E-04	5.00E-03	3.4E+00	1.81E+00	9.4E-03	6.92E+05	2.5E-08	1.47E+01	1.2E-03
On-Site	1	AOI06	MW-31D	0001-022205-1400	02/22/05	VOC	Trichloroethene	79-01-6	2.10E-01		5.00E-04	5.00E-03	4.2E+01	2.50E+01	8.4E-03	1.55E+06	1.4E-07	3.19E+01	6.6E-03
On-Site	1	AOI06	MW-31D	0001-022205-1400	02/22/05	VOC	Vinyl Chloride	75-01-4	3.30E-03	J	2.80E-04	2.00E-03	1.7E+00	1.94E+00	1.7E-03	3.45E+03	9.6E-07	2.77E+00	1.2E-03
On-Site	1	AOI06	MW-31D	0001-022205-1400	02/22/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.80E-03		9.20E-04	6.11E-04	6.2E+00	1.02E+00	3.7E-03	2.27E+07	1.7E-10	5.63E+01	6.8E-05
On-Site	1	AOI06	MW-31D	0002-042505-1252	04/25/05	VOC	1,2-Dichloroethane	107-06-2	1.70E-02		1.50E-04	5.00E-03	3.4E+00	1.81E+00	9.4E-03	6.92E+05	2.5E-08	1.47E+01	1.2E-03
On-Site	1	AOI06	MW-31D	0002-042505-1252	04/25/05	VOC	Trichloroethene	79-01-6	2.00E-01		2.50E-04	5.00E-03	4.0E+01	2.50E+01	8.0E-03	1.55E+06	1.3E-07	3.19E+01	6.3E-03
On-Site	1	AOI06	MW-31D	0002-042505-1252	04/25/05	VOC	Vinyl Chloride	75-01-4	2.70E-03	J	2.80E-04	2.00E-03	1.4E+00	1.94E+00	1.4E-03	3.45E+03	7.8E-07	2.77E+00	9.8E-04
On-Site	1	AOI06	MW-31D	0002-042505-1252	04/25/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.40E-03		9.20E-04	6.11E-04	3.9E+00	1.02E+00	2.3E-03	2.27E+07	1.1E-10	5.63E+01	4.3E-05
On-Site	1	AOI06	MW-31D	28499MAP171103WGDFX-3	11/17/03	VOC	1,2-Dichloroethane	107-06-2	1.60E-02		1.10E-04	5.00E-03	3.2E+00	1.81E+00	8.9E-03	6.92E+05	2.3E-08	1.47E+01	1.1E-03
On-Site	1	AOI06	MW-31D	28499MAP171103WGDFX-3	11/17/03	VOC	Trichloroethene	79-01-6	2.30E-01		5.00E-04	5.00E-03	4.6E+01	2.50E+01	9.2E-03	1.55E+06	1.5E-07	3.19E+01	7.2E-03
On-Site	1	AOI06	MW-31D	28499MAP171103WGDFX-3	11/17/03	VOC	Vinyl Chloride	75-01-4	2.80E-03	J	3.80E-04	2.00E-03	1.4E+00	1.94E+00	1.4E-03	3.45E+03	8.1E-07	2.77E+00	1.0E-03
On-Site	1	AOI06	MW-31D	28499MAP171103WGDFX-3	11/17/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.00E-03		7.50E-04	6.11E-04	6.5E+00	1.02E+00	3.9E-03	2.27E+07	1.8E-10	5.63E+01	7.1E-05
On-Site	1	AOI06	MW-31S	28499AAP031103WGSFX-3	11/03/03	SVOC	Benzo(a)anthracene	56-55-3	1.00E-03	J	1.60E-04	9.21E-04	1.1E+00	6.17E-02	1.6E-02			1.11E+03	9.0E-07
On-Site	1	AOI06	MW-31S	28499AAP031103WGSFX-3	11/03/03	SVOC	Benzo(a)pyrene	50-32-8	3.00E-04	J	8.90E-05	2.00E-04	1.5E+00	4.35E-03	6.9E-02			2.63E+02	1.1E-06
On-Site	1	AOI06	MW-31S	28499AAP031103WGSFX-3	11/03/03	INORG	Manganese	7439-96-5	2.69E+00		6.40E-04	8.76E-01	3.1E+00	5.96E+03	4.5E-04				
On-Site	1	AOI06	MW-33D	0002-042505-1026	04/25/05	INORG	Manganese	7439-96-5	1.18E+01		6.00E-04	8.76E-01	1.3E+01	5.96E+03	2.0E-03				
On-Site	1	AOI06	MW-33D	0003-022305-1137	02/23/05	INORG	Manganese	7439-96-5	1.05E+01		6.00E-04	8.76E-01	1.2E+01	5.96E+03	1.8E-03				
On-Site	1	AOI06	MW-33D	28499CSM171103WGDFF-3	11/17/03	VOC	Trichloroethene	79-01-6	1.60E-02		2.50E-04	5.00E-03	3.2E+00	2.50E+01	6.4E-04	1.55E+06	1.0E-08	3.19E+01	5.0E-04
On-Site	1	AOI06	MW-33D	28499CSM171103WGDFF-3	11/17/03	INORG	Manganese	7439-96-5	5.40E+00		3.20E-03	8.76E-01	6.2E+00	5.96E+03	9.1E-04				
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	Benzene	71-43-2	9.80E-03		4.40E-04	5.00E-03	2.0E+00	4.53E+00	2.2E-03	1.35E+04	7.3E-07	1.08E+01	9.1E-04
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	Chlorobenzene	108-90-7	1.10E-01		2.60E-04	1.00E-01	1.1E+00	3.65E+01	3.0E-03	2.13E+06	5.2E-08	3.14E+02	3.5E-04
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	1,2-Dichloroethane	107-06-2	4.80E-02		3.00E-04	5.00E-03	9.6E+00	1.81E+00	2.7E-02	6.92E+05	6.9E-08	1.47E+01	3.3E-03
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	1,1-Dichloroethene	75-35-4	8.50E-03		6.40E-04	7.00E-03	1.2E+00	1.16E+02	7.4E-05	3.05E+04	2.8E-07	2.33E+02	3.7E-05
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.10E-01		2.60E-04	7.00E-02	1.6E+00	2.11E+01	5.2E-03	4.21E+06	2.6E-08	1.62E+02	6.8E-04
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	Tetrachloroethene	127-18-4	1.20E-02		3.00E-04	5.00E-03	2.4E+00	1.33E+01	9.0E-04	1.48E+06	8.1E-09	1.25E+01	9.6E-04
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	Trichloroethene	79-01-6	3.70E-01		1.20E-03	5.00E-03	7.4E+01	2.50E+01	1.5E-02	1.55E+06	2.4E-07	3.19E+01	1.2E-02
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	VOC	Vinyl Chloride	75-01-4	8.40E-03	J	5.60E-04	2.00E-03	4.2E+00	1.94E+00	4.3E-03	3.45E+03	2.4E-06	2.77E+00	3.0E-03
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	6.50E-03		9.20E-04	6.11E-04	1.1E+01	1.02E+00	6.4E-03	2.27E+07	2.9E-10	5.63E+01	1.2E-04
On-Site	1	AOI06	MW-34D	0001-022305-1047	02/23/05	INORG	Manganese	7439-96-5	9.65E-01		1.20E-04	8.76E-01	1.1E+00	5.96E+03	1.6E-04				
On-Site	1	AOI06	MW-34D	0002-042205-1131	04/22/05	VOC	1,2-Dichloroethane	107-06-2	3.00E-02		1.50E-04	5.00E-03	6.0E+00	1.81E+00	1.7E-02	6.92E+05	4.3E-08	1.47E+01	2.0E-03
On-Site	1	AOI06	MW-34D	0002-042205-1131	04/22/05	VOC	Tetrachloroethene	127-18-4	6.20E-03		1.50E-04	5.00E-03	1.2E+00	1.33E+01	4.7E-04	1.48E+06	4.2E-09	1.25E+01	5.0E-04
On-Site	1	AOI06	MW-34D	0002-042205-1131	04/22/05	VOC	Trichloroethene	79-01-6	2.30E-01		5.00E-04	5.00E-03	4.6E+01	2.50E+01	9.2E-03	1.55E+06	1.5E-07	3.19E+01	7.2E-03
On-Site	1	AOI06	MW-34D	0002-042205-1131	04/22/05	VOC	Vinyl Chloride	75-01-4	3.80E-03	J	2.80E-04	2.00E-03	1.9E+00	1.94E+00	2.0E-03	3.45E+03	1.1E-06	2.77E+00	1.4E-03
On-Site	1	AOI06	MW-34D	0002-042205-1131	04/22/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.70E-03		9.20E-04	6.11E-04	6.1E+00	1.02E+00	3.6E-03	2.27E+07	1.6E-10	5.63E+01	6.6E-05
On-Site	1	AOI06	MW-34D	28499AS120403WGDFZ-4	12/04/03	VOC	Trichloroethene	79-01-6	6.80E-03		2.50E-04	5.00E-03	1.4E+00	2.50E+01	2.7E-04	1.55E+06	4.4E-09	3.19E+01	2.1E-04
On-Site	1	AOI06	MW-34D	28499AS120403WGDFZ-4	12/04/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.00E-03		7.50E-04	6.11E-04	3.3E+00	1.02E+00	2.0E-03	2.27E+07	8.8E-11	5.63E+01	3.6E-05
On-Site	1	AOI06	MW-34S	0002-042205-1038	04/22/05	VOC	Benzene	71-43-2	3.40E-02		2.30E-04	5.00E-03	6.8E+00	4.53E+00	7.5E-03	1.35E+04	2.5E-06	1.08E+01	3.1E-03
On-Site	1	AOI06	MW-34S	0002-042205-1038	04/22/05	INORG	Manganese	7439-96-5	1.46E+01		1.20E-03	8.76E-01	1.7E+01	5.96E+03	2.4E-03				
On-Site	1	AOI06	MW-34S	0003-022305-0930	02/23/05	VOC	Benzene	71-43-2	1.60E-02		2.30E-04	5.00E-03	3.2E+00	4.53E+00	3.5E-03	1.35E+04	1.2E-06	1.08E+01	1.5E-03
On-Site	1	AOI06	MW-34S	0003-022305-0930	02/23/05	INORG	Manganese	7439-96-5	1.57E+01		1.20E-03	8.76E-01	1.8E+01	5.96E+03	2.6E-03				
On-Site	1	AOI06	MW-34S	28499RWT021003WGSFZ1	10/02/03	INORG	Manganese	7439-96-5	2.33E+01		6.40E-03	8.76E-01	2.7E+01	5.96E+03	3.9E-03				

Table 3.3.1
Overburden Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria	Construction GCC (mg/L)	Ratio of Conc to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Conc to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Conc to Residential VI Criteria
On-Site	1	AOI06	MW-34S	28499RWT031003WGSFZ1	10/03/03	VOC	Benzene	71-43-2	3.50E-02		2.00E-04	5.00E-03	7.0E+00	4.53E+00	7.7E-03	1.35E+04	2.6E-06	1.08E+01	3.2E-03
On-Site	1	AOI06	MW-38S	0001-022305-1229	02/23/05	INORG	Manganese	7439-96-5	5.22E+01		2.40E-03	8.76E-01	6.0E+01	5.96E+03	8.8E-03				
On-Site	1	AOI06	MW-38S	0002-042205-1241	04/22/05	INORG	Manganese	7439-96-5	4.38E+01		1.20E-03	8.76E-01	5.0E+01	5.96E+03	7.3E-03				
On-Site	1	AOI06	MW-38S	28499SCS131003WGSFJ-3	10/13/03	VOC	Benzene	71-43-2	1.30E-02		2.00E-04	5.00E-03	2.6E+00	4.53E+00	2.9E-03	1.35E+04	9.6E-07	1.08E+01	1.2E-03
On-Site	1	AOI06	MW-38S	28499SCS131003WGSFJ-3	10/13/03	VOC	Vinyl Chloride	75-01-4	3.60E-03	J	3.80E-04	2.00E-03	1.8E+00	1.94E+00	1.9E-03	3.45E+03	1.0E-06	2.77E+00	1.3E-03
On-Site	1	AOI06	MW-38S	28499SCS131003WGSFJ-3	10/13/03	INORG	Manganese	7439-96-5	3.00E+01		6.40E-03	8.76E-01	3.4E+01	5.96E+03	5.0E-03				
On-Site	1	AOI06	MW-39S	0001-042205-1258	04/22/05	VOC	Vinyl Chloride	75-01-4	6.00E-03		2.80E-04	2.00E-03	3.0E+00	1.94E+00	3.1E-03	3.45E+03	1.7E-06	2.77E+00	2.2E-03
On-Site	1	AOI06	MW-39S	0001-042205-1258	04/22/05	INORG	Manganese	7439-96-5	2.37E+01		1.20E-03	8.76E-01	2.7E+01	5.96E+03	4.0E-03				
On-Site	1	AOI06	MW-39S	0003-022305-1248	02/23/05	VOC	Vinyl Chloride	75-01-4	5.40E-03		2.80E-04	2.00E-03	2.7E+00	1.94E+00	2.8E-03	3.45E+03	1.6E-06	2.77E+00	2.0E-03
On-Site	1	AOI06	MW-39S	0003-022305-1248	02/23/05	INORG	Manganese	7439-96-5	2.05E+01		1.20E-03	8.76E-01	2.3E+01	5.96E+03	3.4E-03				
On-Site	1	AOI06	MW-39S	28499RWT021003WGSFH1	10/02/03	INORG	Manganese	7439-96-5	2.50E+01		6.40E-03	8.76E-01	2.9E+01	5.96E+03	4.2E-03				
On-Site	1	AOI06	MW-39S	28499RWT031003WGSFH1	10/03/03	VOC	Benzene	71-43-2	1.80E-02		2.00E-04	5.00E-03	3.6E+00	4.53E+00	4.0E-03	1.35E+04	1.3E-06	1.08E+01	1.7E-03
On-Site	1	AOI06	MW-39S	28499RWT031003WGSFH1	10/03/03	VOC	Vinyl Chloride	75-01-4	8.80E-03		3.80E-04	2.00E-03	4.4E+00	1.94E+00	4.5E-03	3.45E+03	2.6E-06	2.77E+00	3.2E-03
On-Site	1	AOI07	MW-24S	0002-042505-1346	04/25/05	VOC	Benzene	71-43-2	4.80E-02		2.30E-04	5.00E-03	9.6E+00	4.53E+00	1.1E-02	1.35E+04	3.6E-06	1.08E+01	4.4E-03
On-Site	1	AOI07	MW-24S	0003-022305-1337	02/23/05	VOC	Benzene	71-43-2	2.30E-02		2.30E-04	5.00E-03	4.6E+00	4.53E+00	5.1E-03	1.35E+04	1.7E-06	1.08E+01	2.1E-03
On-Site	1	AOI07	MW-24S	28499RWT021003WGSR1	10/02/03	INORG	Arsenic	7440-38-2	2.14E-02		3.80E-04	1.00E-02	2.1E+00	1.44E+01	1.5E-03				
On-Site	1	AOI07	MW-24S	28499RWT031003WGSR1	10/03/03	VOC	Benzene	71-43-2	9.55E-02	J	2.00E-04	5.00E-03	1.9E+01	4.53E+00	2.1E-02	1.35E+04	7.1E-06	1.08E+01	8.8E-03
On-Site	1	AOI07	MW-25S	0001-022305-1339	02/23/05	INORG	Manganese	7439-96-5	3.07E+00		1.20E-04	8.76E-01	3.5E+00	5.96E+03	5.1E-04				
On-Site	1	AOI07	MW-25S	0002-042505-1421	04/25/05	INORG	Manganese	7439-96-5	5.59E+00		6.00E-04	8.76E-01	6.4E+00	5.96E+03	9.4E-04				
On-Site	1	AOI07	MW-25S	28499RWT021003WGSS1	10/02/03	INORG	Manganese	7439-96-5	3.34E+00		6.40E-04	8.76E-01	3.8E+00	5.96E+03	5.6E-04				
On-Site	4	AOI11	MW-16S	0001-021405-1151	02/14/05	INORG	Arsenic	7440-38-2	1.57E-02		4.90E-04	1.00E-02	1.6E+00	1.44E+01	1.1E-03				
On-Site	4	AOI11	MW-16S	0001-041805-1011	04/18/05	INORG	Arsenic	7440-38-2	1.67E-02		4.90E-04	1.00E-02	1.7E+00	1.44E+01	1.2E-03				
On-Site	4	AOI11	MW-16S	28499CSM231003WGSP-3	10/23/03	INORG	Arsenic	7440-38-2	2.40E-02		3.80E-04	1.00E-02	2.4E+00	1.44E+01	1.7E-03				
On-Site	4	AOI11	MW-16S	28499RWT280103WGSP-2	01/28/03	INORG	Arsenic	7440-38-2	1.26E-02		2.10E-04	1.00E-02	1.3E+00	1.44E+01	8.8E-04				
On-Site	4	AOI16	BEC-10S	0001-021505-1002	02/15/05	INORG	Manganese	7439-96-5	7.55E+00		6.00E-04	8.76E-01	8.6E+00	5.96E+03	1.3E-03				
On-Site	4	AOI16	BEC-10S	0001-041805-1303	04/18/05	INORG	Manganese	7439-96-5	8.27E+00		2.40E-04	8.76E-01	9.4E+00	5.96E+03	1.4E-03				
On-Site	4	AOI16	BEC-10S	28499CSM221003WGSW-3	10/22/03	INORG	Manganese	7439-96-5	7.12E+00		3.20E-03	8.76E-01	8.1E+00	5.96E+03	1.2E-03				
On-Site	4	AOI16	BEC-10S	28499KMA310103WGSW-2	01/31/03	INORG	Cadmium	7440-43-9	3.10E-02		7.50E-05	5.00E-03	6.2E+00	1.80E+01	1.7E-03				
On-Site	4	AOI16	BEC-10S	28499KMA310103WGSW-2	01/31/03	INORG	Manganese	7439-96-5	4.40E+00		2.00E-04	8.76E-01	5.0E+00	5.96E+03	7.4E-04				
On-Site	4	AOI16	BEC-11S	0001-021505-0951	02/15/05	INORG	Cadmium	7440-43-9	3.85E-02		7.70E-05	5.00E-03	7.7E+00	1.80E+01	2.1E-03				
On-Site	4	AOI16	BEC-11S	0001-021505-0951	02/15/05	INORG	Lead	7439-92-1	1.69E-02		2.20E-04	1.50E-02	1.1E+00						
On-Site	4	AOI16	BEC-12S	0002-021505-1001	02/15/05	INORG	Manganese	7439-96-5	4.03E+01		2.40E-03	8.76E-01	4.6E+01	5.96E+03	6.8E-03				
On-Site	4	AOI16	BEC-12S	0002-041805-1509	04/18/05	INORG	Manganese	7439-96-5	7.15E+01		2.40E-03	8.76E-01	8.2E+01	5.96E+03	1.2E-02				
On-Site	4	AOI16	BEC-12S	28499CSM221003WGSB-3	10/22/03	INORG	Manganese	7439-96-5	4.49E+01		1.28E-02	8.76E-01	5.1E+01	5.96E+03	7.5E-03				
On-Site	4	AOI16	BEC-12S	28499KMA310103WGSB-2	01/31/03	INORG	Manganese	7439-96-5	4.61E+01		2.00E-03	8.76E-01	5.3E+01	5.96E+03	7.7E-03				
On-Site	4	AOI16	BEC-1SR	0001-041905-1243	04/19/05	INORG	Manganese	7439-96-5	1.23E+00		1.20E-04	8.76E-01	1.4E+00	5.96E+03	2.1E-04				
On-Site	4	AOI16	BEC-1SR	0001-041905-1243	04/19/05	INORG	Vanadium	7440-62-2	4.93E-02		3.90E-04	3.65E-02	1.4E+00	1.94E+01	2.5E-03				
On-Site	4	AOI16	BEC-1SR	28499RWT290103WGSX-2	01/29/03	INORG	Manganese	7439-96-5	1.07E+00		2.00E-04	8.76E-01	1.2E+00	5.96E+03	1.8E-04				
On-Site	4	AOI16	BEC-2S	28499CSM221003WGSG-3	10/22/03	INORG	Cadmium	7440-43-9	5.30E-03		8.90E-05	5.00E-03	1.1E+00	1.80E+01	2.9E-04				
On-Site	4	AOI16	BEC-2S	28499RWT290103WGSG-2	01/29/03	INORG	Barium	7440-39-3	2.99E+00		5.70E-05	2.00E+00	1.5E+00	3.43E+03	8.7E-04				
On-Site	4	AOI16	BEC-2S	28499RWT290103WGSG-2	01/29/03	INORG	Cadmium	7440-43-9	7.25E-01		7.50E-05	5.00E-03	1.5E+02	1.80E+01	4.0E-02				
On-Site	4	AOI16	BEC-2S	28499RWT290103WGSG-2	01/29/03	INORG	Lead	7439-92-1	2.83E-02		2.90E-05	1.50E-02	1.9E+00						
On-Site	4	AOI16	BEC-5S	0002-021505-1411	02/15/05	INORG	Manganese	7439-96-5	7.68E+00		6.00E-04	8.76E-01	8.8E+00	5.96E+03	1.3E-03				
On-Site	4	AOI16	BEC-5S	0002-041905-1354	04/19/05	INORG	Cadmium	7440-43-9	1.42E-02		7.70E-05	5.00E-03	2.8E+00	1.80E+01	7.9E-04				
On-Site	4	AOI16	BEC-5S	0002-041905-1354	04/19/05	INORG	Manganese	7439-96-5	1.72E+01		1.20E-03	8.76E-01	2.0E+01	5.96E+03	2.9E-03				
On-Site	4	AOI16	BEC-5S	28499RWT300103WGSE-2	01/30/03	INORG	Manganese	7439-96-5	1.38E+01		1.00E-03	8.76E-01	1.6E+01	5.96E+03	2.3E-03				
On-Site	4	AOI16	BEC-7S	28499RWT290103WGSI-2	01/29/03	INORG	Cadmium	7440-43-9	5.50E-03		7.50E-05	5.00E-03	1.1E+00	1.80E+01	3.1E-04				
On-Site	4	AOI16	BEC-8S	0002-041905-1241	04/19/05	INORG	Cadmium	7440-43-9	1.01E-02		7.70E-05	5.00E-03	2.0E+00	1.80E+01	5.6E-04				
On-Site	4	AOI16	BEC-8S	0002-041905-1241	04/19/05	INORG	Manganese	7439-96-5	2.43E+00		1.20E-04	8.76E-01	2.8E+00	5.96E+03	4.1E-04				
On-Site	4	AOI16	BEC-8S	28499RWT300103WGSJ-2	01/30/03	INORG	Manganese	7439-96-5	3.66E+00		2.00E-04	8.76E-01	4.2E+00	5.96E+03	6.1E-04				
On-Site	4	AOI16	BEC-9S	0001-021505-1350	02/15/05	VOC	Trichloroethene	79-01-6	1.70E-02		2.50E-04	5.00E-03	3.4E+00	2.50E+01	6.8E-04	1.55E+06	1.1E-08	3.19E+01	5.3E-04
On-Site	4	AOI16	BEC-9S	0001-041905-0940	04/19/05	VOC	Trichloroethene	79-01-6	6.90E-03		2.50E-04	5.00E-03	1.4E+00	2.50E+01	2.8E-04	1.55E+06	4.4E-09	3.19E+01	2.2E-04
On-Site	4	AOI16	BEC-9S	0001-041905-0940	04/19/05	INORG	Manganese	7439-96-5	2.34E+00		1.20E-04	8.76E-01	2.7E+00	5.96E+03	3.9E-04				
On-Site	4	AOI16	BEC-9S	28499MAP281003WGSA-3	10/28/03	VOC	Trichloroethene	79-01-6	1.10E-02		2.50E-04	5.00E-03	2.2E+00	2.50E+01	4.4E-04	1.55E+06	7.1E-09	3.19E+01	3.4E-04
On-Site	4	AOI16	BEC-9S	28499MAP281003WGSA-3	10/28/03	INORG	Manganese	7439-96-5	1.92E+00		6.40E-04	8.76E-01	2.2E+00	5.96E+03	3.2E-04				
On-Site	4	AOI16	BEC-9S	28499RWT050203WGSH-2	02/05/03	VOC	Trichloroethene	79-01-6	1.60E-02		1.40E-04	5.00E-03	3.2E+00	2.50E+01	6.4E-04	1.55E+06	1.0E-08	3.19E+01	5.0E-04

Table 3.3.1
Overburden Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria	Construction GCC (mg/L)	Ratio of Conc to Construction GCC	Occ VI Criteria (mg/L)	Ratio of Conc to Occ VI Criteria	Residential VI Criteria (mg/L)	Ratio of Conc to Residential VI Criteria
On-Site	4	AOI16	BEC-9S	28499RWT300103WGSH-2	01/30/03	INORG	Manganese	7439-96-5	4.97E+00		2.00E-04	8.76E-01	5.7E+00	5.96E+03	8.3E-04				
On-Site	4	AOI16	MW-01D	28499AES160403WGDX21210	04/16/03	VOC	Trichloroethene	79-01-6	3.80E-02		1.40E-04	5.00E-03	7.6E+00	2.50E+01	1.5E-03	1.55E+06	2.4E-08	3.19E+01	1.2E-03
On-Site	4	AOI16	MW-01D	28499MAP221003MWGDX-3	10/22/03	VOC	Trichloroethene	79-01-6	1.50E-02		2.50E-04	5.00E-03	3.0E+00	2.50E+01	6.0E-04	1.55E+06	9.7E-09	3.19E+01	4.7E-04
On-Site	4	AOI26	MW-51S	0002-042005-1231	04/20/05	INORG	Manganese	7439-96-5	3.47E+00		1.20E-04	8.76E-01	4.0E+00	5.96E+03	5.8E-04				
On-Site	4	AOI26	MW-52S	0002-041805-1121	04/18/05	INORG	Vanadium	7440-62-2	4.88E-02		3.90E-04	3.65E-02	1.3E+00	1.94E+01	2.5E-03				
On-Site	2	AOI28	BEC-8D	28499CSM231003WGDJ-3	10/23/03	VOC	Trichloroethene	79-01-6	3.90E-02		2.50E-04	5.00E-03	7.8E+00	2.50E+01	1.6E-03	1.55E+06	2.5E-08	3.19E+01	1.2E-03
On-Site	2	AOI28	BEC-8D	28499END280103WGDJ-2	01/28/03	VOC	Trichloroethene	79-01-6	3.00E-02		1.40E-04	5.00E-03	6.0E+00	2.50E+01	1.2E-03	1.55E+06	1.9E-08	3.19E+01	9.4E-04
On-Site	2	AOI28	MW-17S	0001-021705-1333	02/17/05	INORG	Arsenic	7440-38-2	1.58E-02		4.90E-04	1.00E-02	1.6E+00	1.44E+01	1.1E-03				
On-Site	2	AOI28	MW-17S	0001-021705-1333	02/17/05	INORG	Manganese	7439-96-5	1.02E+01		6.00E-04	8.76E-01	1.2E+01	5.96E+03	1.7E-03				
On-Site	2	AOI28	MW-17S	0001-042605-0958	04/26/05	INORG	Manganese	7439-96-5	1.38E+01		6.00E-04	8.76E-01	1.6E+01	5.96E+03	2.3E-03				
On-Site	2	AOI28	MW-17S	28499MAP281003WGSQ-3	10/28/03	INORG	Arsenic	7440-38-2	1.13E-02		3.80E-04	1.00E-02	1.1E+00	1.44E+01	7.9E-04				
On-Site	2	AOI28	MW-17S	28499MAP281003WGSQ-3	10/28/03	INORG	Manganese	7439-96-5	8.51E+00		3.20E-03	8.76E-01	9.7E+00	5.96E+03	1.4E-03				
On-Site	2	AOI28	MW-17S	28499RWT220103WGSQ-2	01/22/03	INORG	Arsenic	7440-38-2	1.05E-02		2.10E-04	1.00E-02	1.1E+00	1.44E+01	7.3E-04				
On-Site	2	AOI28	MW-17S	28499RWT220103WGSQ-2	01/22/03	INORG	Manganese	7439-96-5	7.76E+00		1.00E-03	8.76E-01	8.9E+00	5.96E+03	1.3E-03				
On-Site	1	AOI29	MW-18S	0001-050305-1130	05/03/05	INORG	Arsenic	7440-38-2	1.75E-02		4.90E-04	1.00E-02	1.8E+00	1.44E+01	1.2E-03				
On-Site	1	AOI29	MW-18S	0001-050305-1130	05/03/05	INORG	Manganese	7439-96-5	3.17E+01		1.20E-03	8.76E-01	3.6E+01	5.96E+03	5.3E-03				
On-Site	1	AOI29	MW-18S	0003-030105-1202	03/01/05	INORG	Arsenic	7440-38-2	1.97E-02		4.90E-04	1.00E-02	2.0E+00	1.44E+01	1.4E-03				
On-Site	1	AOI29	MW-18S	0003-030105-1202	03/01/05	INORG	Manganese	7439-96-5	4.18E+01		6.00E-03	8.76E-01	4.8E+01	5.96E+03	7.0E-03				
On-Site	1	AOI29	MW-18S	28499MAP291003WGSV-3	10/29/03	INORG	Arsenic	7440-38-2	2.52E-02		3.80E-04	1.00E-02	2.5E+00	1.44E+01	1.8E-03				
On-Site	1	AOI29	MW-18S	28499MAP291003WGSV-3	10/29/03	INORG	Manganese	7439-96-5	3.16E+01		6.40E-03	8.76E-01	3.6E+01	5.96E+03	5.3E-03				
On-Site	1	AOI29	MW-18S	28499RWT270103WGSV-2	01/27/03	INORG	Arsenic	7440-38-2	1.86E-02		2.10E-04	1.00E-02	1.9E+00	1.44E+01	1.3E-03				
On-Site	1	AOI29	MW-18S	28499RWT270103WGSV-2	01/27/03	INORG	Manganese	7439-96-5	3.69E+01	J	2.00E-03	8.76E-01	4.2E+01	5.96E+03	6.2E-03				
On-Site	4	General	BEC-5D	0001-021705-1145	02/17/05	VOC	Trichloroethene	79-01-6	4.40E-02		2.50E-04	5.00E-03	8.8E+00	2.50E+01	1.8E-03	1.55E+06	2.8E-08	3.19E+01	1.4E-03
On-Site	4	General	BEC-5D	0001-021705-1145	02/17/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.50E-03		1.00E-03	6.11E-04	4.1E+00	1.02E+00	2.4E-03	2.27E+07	1.1E-10	5.63E+01	4.4E-05
On-Site	4	General	BEC-5D	0002-042105-1026	04/21/05	VOC	Trichloroethene	79-01-6	5.00E-02		2.50E-04	5.00E-03	1.0E+01	2.50E+01	2.0E-03	1.55E+06	3.2E-08	3.19E+01	1.6E-03
On-Site	4	General	BEC-5D	0002-042105-1026	04/21/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.90E-03		9.20E-04	6.11E-04	3.1E+00	1.02E+00	1.9E-03	2.27E+07	8.4E-11	5.63E+01	3.4E-05
On-Site	4	General	BEC-5D	0002-042105-1026	04/21/05	INORG	Mercury	7439-97-6	2.20E-03		2.90E-05	2.00E-03	1.1E+00	2.61E-01	8.4E-03	1.30E+02	1.7E-05	1.17E+00	1.9E-03
On-Site	4	General	BEC-5D	28499END300103WGDE-2	01/30/03	VOC	Trichloroethene	79-01-6	5.50E-02		1.40E-04	5.00E-03	1.1E+01	2.50E+01	2.2E-03	1.55E+06	3.5E-08	3.19E+01	1.7E-03
On-Site	4	General	BEC-5D	28499RWT082002DE1	08/20/02	VOC	1,2-Dichloroethane	107-06-2	5.70E-03		2.00E-04	5.00E-03	1.1E+00	1.81E+00	3.2E-03	6.92E+05	8.2E-09	1.47E+01	3.9E-04
On-Site	4	General	BEC-5D	28499RWT082002DE1	08/20/02	VOC	Trichloroethene	79-01-6	5.60E-02		1.40E-04	5.00E-03	1.1E+01	2.50E+01	2.2E-03	1.55E+06	3.6E-08	3.19E+01	1.8E-03
On-Site	4	General	BEC-5D	28499RWT240103WGDE-2	01/24/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.10E-03		5.50E-04	6.11E-04	3.4E+00	1.02E+00	2.1E-03	2.27E+07	9.3E-11	5.63E+01	3.7E-05
On-Site	4	General	BEC-6D	28499CSM291003WGDA-3	10/29/03	INORG	Manganese	7439-96-5	1.02E+00		6.40E-04	8.76E-01	1.2E+00	5.96E+03	1.7E-04				
On-Site	1	General	MW-22S	0001-050305-1350	05/03/05	INORG	Manganese	7439-96-5	1.86E+00		1.20E-04	8.76E-01	2.1E+00	5.96E+03	3.1E-04				
On-Site	1	General	MW-22S	0003-022405-0945	02/24/05	INORG	Manganese	7439-96-5	1.81E+00		1.20E-04	8.76E-01	2.1E+00	5.96E+03	3.0E-04				
On-Site	1	General	MW-22S	28499RWT031003WGSL1	10/03/03	INORG	Manganese	7439-96-5	1.07E+00		6.40E-04	8.76E-01	1.2E+00	5.96E+03	1.8E-04				
On-Site	2	General	MW-41S	0001-042805-1202	04/28/05	INORG	Manganese	7439-96-5	2.86E+00		1.20E-04	8.76E-01	3.3E+00	5.96E+03	4.8E-04				
On-Site	1	General	MW-43S	0002-050905-1051	05/09/05	INORG	Manganese	7439-96-5	3.62E+00		1.20E-04	8.76E-01	4.1E+00	5.96E+03	6.1E-04				
On-Site	1	General	MW-47S	0001-050405-1200	05/04/05	INORG	Manganese	7439-96-5	4.42E+00		1.20E-04	8.76E-01	5.0E+00	5.96E+03	7.4E-04				
On-Site	1	General	MW-47S	0003-022405-1237	02/24/05	INORG	Manganese	7439-96-5	3.40E+00		1.20E-04	8.76E-01	3.9E+00	5.96E+03	5.7E-04				
On-Site	1	General	MW-49S	0001-050505-1115	05/05/05	INORG	Manganese	7439-96-5	1.19E+00		1.20E-04	8.76E-01	1.4E+00	5.96E+03	2.0E-04				
On-Site	1	General	MW-49S	0002-022105-1212	02/21/05	VOC	Trichloroethene	79-01-6	6.70E-03		2.50E-04	5.00E-03	1.3E+00	2.50E+01	2.7E-04	1.55E+06	4.3E-09	3.19E+01	2.1E-04
On-Site	1	General	MW-49S	0002-022105-1212	02/21/05	INORG	Manganese	7439-96-5	1.34E+00		1.20E-04	8.76E-01	1.5E+00	5.96E+03	2.2E-04				
On-Site	4	General	MW-50S	0001-042105-1050	04/21/05	INORG	Manganese	7439-96-5	2.60E+00		1.20E-04	8.76E-01	3.0E+00	5.96E+03	4.4E-04				
On-Site	4	General	MW-50S	0003-031605-0831	03/16/05	INORG	Manganese	7439-96-5	2.41E+00		1.20E-04	8.76E-01	2.8E+00	5.96E+03	4.0E-04				
On-Site	4	General	MW-55S	0001-042005-0937	04/20/05	INORG	Barium	7440-39-3	4.82E+00		2.40E-04	2.00E+00	2.4E+00	3.43E+03	1.4E-03				
On-Site	4	General	MW-55S	0001-042005-0937	04/20/05	INORG	Manganese	7439-96-5	2.08E+00		1.20E-04	8.76E-01	2.4E+00	5.96E+03	3.5E-04				
On-Site	4	General	MW-55S	0002-021405-1326	02/14/05	INORG	Barium	7440-39-3	7.70E+00		1.20E-03	2.00E+00	3.9E+00	3.43E+03	2.2E-03				
On-Site	4	General	MW-55S	0002-021405-1326	02/14/05	INORG	Manganese	7439-96-5	3.59E+00		1.20E-04	8.76E-01	4.1E+00	5.96E+03	6.0E-04				
On-Site	3	General	MW-62S	0001-042505-0957	04/25/05	INORG	Manganese	7439-96-5	4.86E+00		1.20E-04	8.76E-01	5.5E+00	5.96E+03	8.2E-04				
On-Site	3	General	MW-63S	0001-042105-1344	04/21/05	INORG	Arsenic	7440-38-2	3.87E-02		4.90E-04	1.00E-02	3.9E+00	1.44E+01	2.7E-03				
On-Site	3	General	MW-63S	0001-042105-1344	04/21/05	INORG	Manganese	7439-96-5	4.52E+00		1.20E-04	8.76E-01	5.2E+00	5.96E+03	7.6E-04				
On-Site	2	General	MW-67S	0001-042705-1253	04/27/05	INORG	Manganese	7439-96-5	4.34E+00		1.20E-04	8.76E-01	5.0E+00	5.96E+03	7.3E-04				
On-Site	4	General	MW-68S	0002-051105-1101	05/11/05	INORG	Cadmium	7440-43-9	1.28E-02		7.70E-05	5.00E-03	2.6E+00	1.80E+01	7.1E-04				
On-Site	4	General	MW-68S	0002-051105-1101	05/11/05	INORG	Manganese	7439-96-5	7.26E+01		6.00E-03	8.76E-01	8.3E+01	5.96E+03	1.2E-02				
On-Site	3	General	MW-69S	0002-042105-1549	04/21/05	INORG	Manganese	7439-96-5	2.83E+00		1.20E-04	8.76E-01	3.2E+00	5.96E+03	4.7E-04				

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
Off-Site	4	General	MW-14W	0001-042005-1230	04/20/05	VOC	Trichloroethene	79-01-6	1.80E-02		2.50E-04	5.00E-03	**3.6E+00**
Off-Site	4	General	MW-14W	0003-031605-1116	03/16/05	VOC	Trichloroethene	79-01-6	2.20E-02		2.50E-04	5.00E-03	**4.4E+00**
Off-Site	2	General	MW-57W	0001-050205-1005	05/02/05	VOC	Carbon Tetrachloride	56-23-5	8.10E-03		2.10E-04	5.00E-03	**1.6E+00**
On-Site	3	AOI01	BEC-2B	28499AAP281003WGBG-3	10/28/03	VOC	1,1-Dichloroethene	75-35-4	8.30E-03		2.50E-04	7.00E-03	**1.2E+00**
On-Site	3	AOI01	BEC-2B	28499AAP281003WGBG-3	10/28/03	VOC	Trichloroethene	79-01-6	1.40E-01		2.50E-04	5.00E-03	**2.8E+01**
On-Site	3	AOI01	BEC-2B	28499RWT030203WGBG-2	02/03/03	VOC	Trichloroethene	79-01-6	1.10E-02		1.40E-04	5.00E-03	**2.2E+00**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	Benzene	71-43-2	3.30E-01		4.00E-04	5.00E-03	**6.6E+01**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	Chlorobenzene	108-90-7	2.60E-01		1.70E-04	1.00E-01	**2.6E+00**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	1,2-Dichloroethane	107-06-2	1.20E-01		2.30E-04	5.00E-03	**2.4E+01**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	cis-1,2-Dichloroethene	156-59-2	1.70E-01		4.40E-04	7.00E-02	**2.4E+00**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	Methylene Chloride	75-09-2	4.10E-02		2.60E-04	5.00E-03	**8.2E+00**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	Tetrachloroethene	127-18-4	4.40E-02		6.80E-04	5.00E-03	**8.8E+00**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	1,1,2-Trichloroethane	79-00-5	5.60E-03	J	3.40E-04	5.00E-03	**1.1E+00**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	Trichloroethene	79-01-6	2.30E+00		5.00E-04	5.00E-03	**4.6E+02**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	VOC	Vinyl Chloride	75-01-4	2.70E-02		7.60E-04	2.00E-03	**1.4E+01**
On-Site	1	AOI03	BEC-4B	0979-111004-1630	11/10/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	8.60E-03		7.50E-04	6.11E-04	**1.4E+01**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	VOC	Benzene	71-43-2	2.50E-01		4.00E-03	5.00E-03	**5.0E+01**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	VOC	Chlorobenzene	108-90-7	2.00E-01		1.60E-03	1.00E-01	**2.0E+00**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	VOC	cis-1,2-Dichloroethene	156-59-2	1.40E-01		4.40E-03	7.00E-02	**2.0E+00**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	VOC	Methylene Chloride	75-09-2	3.50E-02	J	2.60E-03	5.00E-03	**7.0E+00**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	VOC	Tetrachloroethene	127-18-4	3.70E-02		6.80E-03	5.00E-03	**7.4E+00**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	VOC	Trichloroethene	79-01-6	1.40E+00		5.00E-03	5.00E-03	**2.8E+02**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	VOC	Vinyl Chloride	75-01-4	2.80E-02	J	7.60E-03	2.00E-03	**1.4E+01**
On-Site	1	AOI03	BEC-4B	28499AAP281003WGBZ-3	10/28/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.70E-03		7.50E-04	6.11E-04	**2.8E+00**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	Benzene	71-43-2	4.60E-01		4.50E-04	5.00E-03	**9.2E+01**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	Carbon Tetrachloride	56-23-5	6.90E-03	J	1.60E-03	5.00E-03	**1.4E+00**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	Chlorobenzene	108-90-7	3.40E-01		5.00E-04	1.00E-01	**3.4E+00**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	1,2-Dichloroethane	107-06-2	1.55E-01		9.50E-04	5.00E-03	**3.1E+01**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	1,1-Dichloroethene	75-35-4	8.35E-03	J	1.10E-03	7.00E-03	**1.2E+00**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	cis-1,2-Dichloroethene	156-59-2	2.25E-01		5.50E-04	7.00E-02	**3.2E+00**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	trans-1,2-Dichloroethene	156-60-5	1.05E-01		8.50E-04	1.00E-01	**1.1E+00**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	Methylene Chloride	75-09-2	6.20E-02		9.00E-04	5.00E-03	**1.2E+01**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	Tetrachloroethene	127-18-4	5.95E-02		1.20E-03	5.00E-03	**1.2E+01**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	1,1,2-Trichloroethane	79-00-5	8.05E-03	J	8.50E-04	5.00E-03	**1.6E+00**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	Trichloroethene	79-01-6	2.60E+00		3.50E-03	5.00E-03	**5.2E+02**
On-Site	1	AOI03	BEC-4B	28499RWT030203WGBZ-2	02/03/03	VOC	Vinyl Chloride	75-01-4	3.25E-02		1.20E-03	2.00E-03	**1.6E+01**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	Benzene	71-43-2	4.20E-01		4.50E-04	5.00E-03	**8.4E+01**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	Carbon Tetrachloride	56-23-5	6.10E-03	J	1.60E-03	5.00E-03	**1.2E+00**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	Chlorobenzene	108-90-7	3.30E-01		5.00E-04	1.00E-01	**3.3E+00**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	1,2-Dichloroethane	107-06-2	1.30E-01		9.50E-04	5.00E-03	**2.6E+01**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	cis-1,2-Dichloroethene	156-59-2	2.00E-01		5.50E-04	7.00E-02	**2.9E+00**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	Methylene Chloride	75-09-2	5.30E-02		9.00E-04	5.00E-03	**1.1E+01**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	Tetrachloroethene	127-18-4	5.60E-02		1.20E-03	5.00E-03	**1.1E+01**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	1,1,2-Trichloroethane	79-00-5	9.20E-03	J	8.50E-04	5.00E-03	**1.8E+00**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	Trichloroethene	79-01-6	3.30E+00		3.50E-03	5.00E-03	**6.6E+02**
On-Site	1	AOI03	BEC-4B	28499RWT082102-BZ1	08/21/02	VOC	Vinyl Chloride	75-01-4	3.20E-02		1.20E-03	2.00E-03	**1.6E+01**
On-Site	1	AOI03	BEC-4B	28499RWT290103WGBZ-2	01/29/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	8.45E-03		5.50E-04	6.11E-04	**1.4E+01**
On-Site	1	AOI03	MW-36W	0001-022205-1100	02/22/05	VOC	1,2-Dichloroethane	107-06-2	8.30E-02		1.50E-04	5.00E-03	**1.7E+01**
On-Site	1	AOI03	MW-36W	0001-022205-1100	02/22/05	VOC	cis-1,2-Dichloroethene	156-59-2	2.40E-01		9.75E-04	7.00E-02	**3.4E+00**
On-Site	1	AOI03	MW-36W	0001-022205-1100	02/22/05	VOC	Tetrachloroethene	127-18-4	1.80E-02		1.50E-04	5.00E-03	**3.6E+00**
On-Site	1	AOI03	MW-36W	0001-022205-1100	02/22/05	VOC	Trichloroethene	79-01-6	7.95E-01		1.85E-03	5.00E-03	**1.6E+02**
On-Site	1	AOI03	MW-36W	0001-022205-1100	02/22/05	VOC	Vinyl Chloride	75-01-4	3.25E-03	J	2.80E-04	2.00E-03	**1.6E+00**
On-Site	1	AOI03	MW-36W	0001-022205-1100	02/22/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.95E-02		9.20E-04	6.11E-04	**4.8E+01**
On-Site	1	AOI03	MW-36W	0001-022205-1100	02/22/05	INORG	Arsenic	7440-38-2	1.47E-02		4.90E-04	1.00E-02	**1.5E+00**
On-Site	1	AOI03	MW-36W	0001-050505-1141	05/05/05	VOC	1,2-Dichloroethane	107-06-2	8.40E-02		1.50E-04	5.00E-03	**1.7E+01**
On-Site	1	AOI03	MW-36W	0001-050505-1141	05/05/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.90E-01		6.50E-04	7.00E-02	**2.7E+00**
On-Site	1	AOI03	MW-36W	0001-050505-1141	05/05/05	VOC	Tetrachloroethene	127-18-4	1.80E-02		1.50E-04	5.00E-03	**3.6E+00**
On-Site	1	AOI03	MW-36W	0001-050505-1141	05/05/05	VOC	Trichloroethene	79-01-6	5.00E-01		1.20E-03	5.00E-03	**1.0E+02**
On-Site	1	AOI03	MW-36W	0001-050505-1141	05/05/05	VOC	Vinyl Chloride	75-01-4	3.10E-03	J	2.80E-04	2.00E-03	**1.6E+00**
On-Site	1	AOI03	MW-36W	0001-050505-1141	05/05/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.50E-02		9.20E-04	6.11E-04	**4.1E+01**
On-Site	1	AOI03	MW-36W	0001-050505-1141	05/05/05	INORG	Arsenic	7440-38-2	1.22E-02		4.90E-04	1.00E-02	**1.2E+00**
On-Site	1	AOI03	MW-36W	0469-111004-1730	11/10/04	VOC	Benzene	71-43-2	1.80E-02		2.00E-04	5.00E-03	**3.6E+00**
On-Site	1	AOI03	MW-36W	0469-111004-1730	11/10/04	VOC	1,2-Dichloroethane	107-06-2	5.40E-02		1.10E-04	5.00E-03	**1.1E+01**
On-Site	1	AOI03	MW-36W	0469-111004-1730	11/10/04	VOC	cis-1,2-Dichloroethene	156-59-2	1.60E-01		2.30E-04	7.00E-02	**2.3E+00**
On-Site	1	AOI03	MW-36W	0469-111004-1730	11/10/04	VOC	Tetrachloroethene	127-18-4	8.10E-03		3.40E-04	5.00E-03	**1.6E+00**
On-Site	1	AOI03	MW-36W	0469-111004-1730	11/10/04	VOC	Trichloroethene	79-01-6	3.00E-01		5.00E-04	5.00E-03	**6.0E+01**
On-Site	1	AOI03	MW-36W	0469-111004-1730	11/10/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.90E-02		7.50E-04	6.11E-04	**3.1E+01**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	VOC	Benzene	71-43-2	4.50E-02		4.00E-04	5.00E-03	**9.0E+00**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	VOC	1,2-Dichloroethane	107-06-2	1.20E-01		2.30E-04	5.00E-03	**2.4E+01**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	VOC	cis-1,2-Dichloroethene	156-59-2	3.00E-01		4.40E-04	7.00E-02	**4.3E+00**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	VOC	Tetrachloroethene	127-18-4	3.20E-02		6.80E-04	5.00E-03	**6.4E+00**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	VOC	Trichloroethene	79-01-6	1.10E+00		2.50E-03	5.00E-03	**2.2E+02**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	VOC	Vinyl Chloride	75-01-4	8.70E-03	J	7.60E-04	2.00E-03	**4.4E+00**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.40E-03		8.20E-04	6.11E-04	**2.3E+00**
On-Site	1	AOI03	MW-36W	28499CSM171103WGWFA-3	11/17/03	INORG	Arsenic	7440-38-2	1.36E-02		3.80E-04	1.00E-02	**1.4E+00**
On-Site	1	AOI03	MW-37W	0001-022205-1115	02/22/05	VOC	1,2-Dichloroethane	107-06-2	5.30E-03		1.50E-04	5.00E-03	**1.1E+00**
On-Site	1	AOI03	MW-37W	0001-022205-1115	02/22/05	VOC	Trichloroethene	79-01-6	3.90E-02		2.50E-04	5.00E-03	**7.8E+00**
On-Site	1	AOI03	MW-37W	0002-042605-1353	04/26/05	VOC	1,2-Dichloroethane	107-06-2	5.80E-03		1.50E-04	5.00E-03	**1.2E+00**
On-Site	1	AOI03	MW-37W	0002-042605-1353	04/26/05	VOC	Trichloroethene	79-01-6	2.60E-02		2.50E-04	5.00E-03	**5.2E+00**
On-Site	1	AOI03	MW-37W	0469-111004-1430	11/10/04	VOC	1,2-Dichloroethane	107-06-2	6.10E-03		1.10E-04	5.00E-03	**1.2E+00**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	1	AOI03	MW-37W	0469-111004-1430	11/10/04	VOC	Trichloroethene	79-01-6	4.30E-02		2.50E-04	5.00E-03	**8.6E+00**
On-Site	1	AOI03	MW-37W	0469-111004-1430	11/10/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.50E-03		7.50E-04	6.11E-04	**5.7E+00**
On-Site	1	AOI03	MW-37W	28499AAP171103WGWFI-3	11/17/03	VOC	Trichloroethene	79-01-6	2.10E-02		2.50E-04	5.00E-03	**4.2E+00**
On-Site	1	AOI03	MW-37W	28499AAP171103WGWFI-3	11/17/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.40E-03		8.20E-04	6.11E-04	**2.3E+00**
On-Site	1	AOI03	MW-37W	28499AAP171103WGWFI-3	11/17/03	INORG	Manganese	7439-96-5	2.31E+00		6.40E-04	8.76E-01	**2.6E+00**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	VOC	Benzene	71-43-2	6.40E-02		2.30E-04	5.00E-03	**1.3E+01**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	VOC	Carbon Tetrachloride	56-23-5	6.70E-03		2.10E-04	5.00E-03	**1.3E+00**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	VOC	1,2-Dichloroethane	107-06-2	1.20E-01		1.50E-04	5.00E-03	**2.4E+01**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	VOC	Methylene Chloride	75-09-2	3.10E-02		3.10E-04	5.00E-03	**6.2E+00**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	VOC	Tetrachloroethene	127-18-4	1.30E-02		1.50E-04	5.00E-03	**2.6E+00**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	VOC	Trichloroethene	79-01-6	8.70E-01		1.20E-03	5.00E-03	**1.7E+02**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	VOC	Vinyl Chloride	75-01-4	1.40E-02		2.80E-04	2.00E-03	**7.0E+00**
On-Site	1	AOI06	MW-31W	0001-022205-1412	02/22/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.80E-03		9.20E-04	6.11E-04	**7.9E+00**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	VOC	Benzene	71-43-2	9.40E-02		2.30E-04	5.00E-03	**1.9E+01**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	VOC	1,2-Dichloroethane	107-06-2	1.20E-01		1.50E-04	5.00E-03	**2.4E+01**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	VOC	cis-1,2-Dichloroethene	156-59-2	7.80E-02		1.40E-04	7.00E-02	**1.1E+00**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	VOC	Methylene Chloride	75-09-2	1.30E-02		3.10E-04	5.00E-03	**2.6E+00**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	VOC	Tetrachloroethene	127-18-4	1.40E-02		1.50E-04	5.00E-03	**2.8E+00**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	VOC	Trichloroethene	79-01-6	6.40E-01		2.50E-03	5.00E-03	**1.3E+02**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	VOC	Vinyl Chloride	75-01-4	1.20E-02		2.80E-04	2.00E-03	**6.0E+00**
On-Site	1	AOI06	MW-31W	0002-042505-1221	04/25/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.10E-03		9.20E-04	6.11E-04	**3.4E+00**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	Benzene	71-43-2	2.50E-01		1.00E-03	5.00E-03	**5.0E+01**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	Carbon Tetrachloride	56-23-5	1.90E-02		3.90E-04	5.00E-03	**3.8E+00**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	Chlorobenzene	108-90-7	2.50E-01		4.00E-04	1.00E-01	**2.5E+00**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	1,2-Dichloroethane	107-06-2	1.50E-01		1.10E-04	5.00E-03	**3.0E+01**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	Methylene Chloride	75-09-2	4.10E-02		1.40E-04	5.00E-03	**8.2E+00**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	Tetrachloroethene	127-18-4	1.20E-02		3.40E-04	5.00E-03	**2.4E+00**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	Trichloroethene	79-01-6	6.50E-01		1.20E-03	5.00E-03	**1.3E+02**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	VOC	Vinyl Chloride	75-01-4	1.40E-02		3.80E-04	2.00E-03	**7.0E+00**
On-Site	1	AOI06	MW-31W	0469-111504-1440	11/15/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	5.00E-03		7.50E-04	6.11E-04	**8.2E+00**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Benzene	71-43-2	3.10E-01		1.00E-03	5.00E-03	**6.2E+01**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Carbon Tetrachloride	56-23-5	1.80E-02		3.90E-04	5.00E-03	**3.6E+00**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Chlorobenzene	108-90-7	3.10E-01		4.00E-04	1.00E-01	**3.1E+00**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Chloroform	67-66-3	9.40E-02		1.70E-04	8.00E-02	**1.2E+00**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	1,2-Dichloroethane	107-06-2	1.30E-01		1.10E-04	5.00E-03	**2.6E+01**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Methylene Chloride	75-09-2	8.70E-02		1.40E-04	5.00E-03	**1.7E+01**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Tetrachloroethene	127-18-4	1.00E-02		3.40E-04	5.00E-03	**2.0E+00**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Trichloroethene	79-01-6	6.50E-01		1.20E-03	5.00E-03	**1.3E+02**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	VOC	Vinyl Chloride	75-01-4	1.70E-02		3.80E-04	2.00E-03	**8.5E+00**
On-Site	1	AOI06	MW-31W	28499AS120403WGWFX-4	12/04/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	5.40E-03		7.50E-04	6.11E-04	**8.8E+00**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	1	AOI06	MW-33W	0002-042505-1011	04/25/05	VOC	1,2-Dichloroethane	107-06-2	2.90E-02		1.50E-04	5.00E-03	**5.8E+00**
On-Site	1	AOI06	MW-33W	0002-042505-1011	04/25/05	VOC	Tetrachloroethene	127-18-4	6.80E-03		1.50E-04	5.00E-03	**1.4E+00**
On-Site	1	AOI06	MW-33W	0002-042505-1011	04/25/05	VOC	Trichloroethene	79-01-6	3.10E-01		5.00E-04	5.00E-03	**6.2E+01**
On-Site	1	AOI06	MW-33W	0002-042505-1011	04/25/05	VOC	Vinyl Chloride	75-01-4	4.60E-03	J	2.80E-04	2.00E-03	**2.3E+00**
On-Site	1	AOI06	MW-33W	0002-042505-1011	04/25/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.70E-03		9.20E-04	6.11E-04	**6.1E+00**
On-Site	1	AOI06	MW-33W	0003-022305-1058	02/23/05	VOC	1,2-Dichloroethane	107-06-2	2.50E-02		1.50E-04	5.00E-03	**5.0E+00**
On-Site	1	AOI06	MW-33W	0003-022305-1058	02/23/05	VOC	Tetrachloroethene	127-18-4	7.60E-03		1.50E-04	5.00E-03	**1.5E+00**
On-Site	1	AOI06	MW-33W	0003-022305-1058	02/23/05	VOC	Trichloroethene	79-01-6	3.10E-01		5.00E-04	5.00E-03	**6.2E+01**
On-Site	1	AOI06	MW-33W	0003-022305-1058	02/23/05	VOC	Vinyl Chloride	75-01-4	5.00E-03		2.80E-04	2.00E-03	**2.5E+00**
On-Site	1	AOI06	MW-33W	0003-022305-1058	02/23/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	9.20E-03		9.20E-04	6.11E-04	**1.5E+01**
On-Site	1	AOI06	MW-33W	0979-110904-1734	11/09/04	VOC	Trichloroethene	79-01-6	1.00E-01		2.50E-04	5.00E-03	**2.0E+01**
On-Site	1	AOI06	MW-33W	0979-110904-1734	11/09/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.30E-03		7.50E-04	6.11E-04	**3.8E+00**
On-Site	1	AOI06	MW-33W	28499AAP171103WGWFF-3	11/17/03	VOC	1,2-Dichloroethane	107-06-2	2.20E-02		1.10E-04	5.00E-03	**4.4E+00**
On-Site	1	AOI06	MW-33W	28499AAP171103WGWFF-3	11/17/03	VOC	Tetrachloroethene	127-18-4	5.30E-03		3.40E-04	5.00E-03	**1.1E+00**
On-Site	1	AOI06	MW-33W	28499AAP171103WGWFF-3	11/17/03	VOC	Trichloroethene	79-01-6	2.60E-01		5.00E-04	5.00E-03	**5.2E+01**
On-Site	1	AOI06	MW-33W	28499AAP171103WGWFF-3	11/17/03	VOC	Vinyl Chloride	75-01-4	3.90E-03	J	3.80E-04	2.00E-03	**2.0E+00**
On-Site	1	AOI06	MW-33W	28499AAP171103WGWFF-3	11/17/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.60E-03		7.50E-04	6.11E-04	**7.5E+00**
On-Site	1	AOI06	MW-34W	0002-042205-1309	04/22/05	VOC	1,2-Dichloroethane	107-06-2	3.70E-02		1.50E-04	5.00E-03	**7.4E+00**
On-Site	1	AOI06	MW-34W	0002-042205-1309	04/22/05	VOC	1,1-Dichloroethene	75-35-4	1.00E-02		3.20E-04	7.00E-03	**1.4E+00**
On-Site	1	AOI06	MW-34W	0002-042205-1309	04/22/05	VOC	cis-1,2-Dichloroethene	156-59-2	9.40E-02		1.40E-04	7.00E-02	**1.3E+00**
On-Site	1	AOI06	MW-34W	0002-042205-1309	04/22/05	VOC	Tetrachloroethene	127-18-4	7.20E-03		1.50E-04	5.00E-03	**1.4E+00**
On-Site	1	AOI06	MW-34W	0002-042205-1309	04/22/05	VOC	Trichloroethene	79-01-6	2.80E-01		1.20E-03	5.00E-03	**5.6E+01**
On-Site	1	AOI06	MW-34W	0002-042205-1309	04/22/05	VOC	Vinyl Chloride	75-01-4	1.20E-02		2.80E-04	2.00E-03	**6.0E+00**
On-Site	1	AOI06	MW-34W	0002-042205-1309	04/22/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.30E-03		9.20E-04	6.11E-04	**5.4E+00**
On-Site	1	AOI06	MW-34W	0003-022305-0910	02/23/05	VOC	1,2-Dichloroethane	107-06-2	2.90E-02		1.50E-04	5.00E-03	**5.8E+00**
On-Site	1	AOI06	MW-34W	0003-022305-0910	02/23/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.10E-01		1.40E-04	7.00E-02	**1.6E+00**
On-Site	1	AOI06	MW-34W	0003-022305-0910	02/23/05	VOC	Tetrachloroethene	127-18-4	5.70E-03		1.50E-04	5.00E-03	**1.1E+00**
On-Site	1	AOI06	MW-34W	0003-022305-0910	02/23/05	VOC	Trichloroethene	79-01-6	2.00E-01		5.00E-04	5.00E-03	**4.0E+01**
On-Site	1	AOI06	MW-34W	0003-022305-0910	02/23/05	VOC	Vinyl Chloride	75-01-4	2.30E-02		2.80E-04	2.00E-03	**1.2E+01**
On-Site	1	AOI06	MW-34W	0003-022305-0910	02/23/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	7.30E-03		9.20E-04	6.11E-04	**1.2E+01**
On-Site	1	AOI06	MW-34W	0469-110904-1700	11/09/04	VOC	1,2-Dichloroethane	107-06-2	1.10E-02		1.10E-04	5.00E-03	**2.2E+00**
On-Site	1	AOI06	MW-34W	0469-110904-1700	11/09/04	VOC	cis-1,2-Dichloroethene	156-59-2	8.00E-02		2.30E-04	7.00E-02	**1.1E+00**
On-Site	1	AOI06	MW-34W	0469-110904-1700	11/09/04	VOC	Trichloroethene	79-01-6	2.30E-02		2.50E-04	5.00E-03	**4.6E+00**
On-Site	1	AOI06	MW-34W	0469-110904-1700	11/09/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.20E-03		7.50E-04	6.11E-04	**3.6E+00**
On-Site	1	AOI06	MW-34W	28499AAP171103WGWFZ-3	11/17/03	VOC	1,2-Dichloroethane	107-06-2	2.30E-02		1.10E-04	5.00E-03	**4.6E+00**
On-Site	1	AOI06	MW-34W	28499AAP171103WGWFZ-3	11/17/03	VOC	Tetrachloroethene	127-18-4	5.30E-03		3.40E-04	5.00E-03	**1.1E+00**
On-Site	1	AOI06	MW-34W	28499AAP171103WGWFZ-3	11/17/03	VOC	Trichloroethene	79-01-6	2.60E-01		5.00E-04	5.00E-03	**5.2E+01**
On-Site	1	AOI06	MW-34W	28499AAP171103WGWFZ-3	11/17/03	VOC	Vinyl Chloride	75-01-4	3.60E-03	J	3.80E-04	2.00E-03	**1.8E+00**
On-Site	1	AOI06	MW-34W	28499AAP171103WGWFZ-3	11/17/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.70E-03		7.50E-04	6.11E-04	**6.1E+00**
On-Site	1	AOI06	MW-34W	28499AAP171103WGWFZ-3	11/17/03	INORG	Manganese	7439-96-5	1.16E+00		6.40E-04	8.76E-01	**1.3E+00**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	4	AOI11	MW-16W	0001-021805-1232	02/18/05	VOC	1,1-Dichloroethene	75-35-4	1.50E-02		3.20E-04	7.00E-03	**2.1E+00**
On-Site	4	AOI11	MW-16W	0001-021805-1232	02/18/05	VOC	Trichloroethene	79-01-6	6.70E-02		2.50E-04	5.00E-03	**1.3E+01**
On-Site	4	AOI11	MW-16W	0001-041805-1059	04/18/05	VOC	1,1-Dichloroethene	75-35-4	2.40E-02		3.20E-04	7.00E-03	**3.4E+00**
On-Site	4	AOI11	MW-16W	0001-041805-1059	04/18/05	VOC	Trichloroethene	79-01-6	7.40E-02		2.50E-04	5.00E-03	**1.5E+01**
On-Site	4	AOI11	MW-16W	0979-111304-1800	11/13/04	VOC	1,1-Dichloroethene	75-35-4	1.50E-02		2.50E-04	7.00E-03	**2.1E+00**
On-Site	4	AOI11	MW-16W	0979-111304-1800	11/13/04	VOC	Trichloroethene	79-01-6	1.00E-01		2.50E-04	5.00E-03	**2.0E+01**
On-Site	4	AOI11	MW-16W	28499END290103WGWP-2	01/29/03	VOC	1,1-Dichloroethene	75-35-4	1.40E-02		2.30E-04	7.00E-03	**2.0E+00**
On-Site	4	AOI11	MW-16W	28499END290103WGWP-2	01/29/03	VOC	Trichloroethene	79-01-6	1.20E-01		1.40E-04	5.00E-03	**2.4E+01**
On-Site	4	AOI11	MW-16W	28499MAP231003WGWP-3	10/23/03	VOC	1,1-Dichloroethene	75-35-4	1.20E-02		2.50E-04	7.00E-03	**1.7E+00**
On-Site	4	AOI11	MW-16W	28499MAP231003WGWP-3	10/23/03	VOC	Trichloroethene	79-01-6	8.00E-02		2.50E-04	5.00E-03	**1.6E+01**
On-Site	4	AOI11	MW-16W	28499RWT082102-WP1	08/21/02	VOC	1,1-Dichloroethene	75-35-4	1.20E-02		2.30E-04	7.00E-03	**1.7E+00**
On-Site	4	AOI11	MW-16W	28499RWT082102-WP1	08/21/02	VOC	Trichloroethene	79-01-6	1.20E-01		1.40E-04	5.00E-03	**2.4E+01**
On-Site	4	AOI16	BEC-1D	0001-021605-1044	02/16/05	VOC	1,2-Dichloroethane	107-06-2	2.40E-02		1.50E-04	5.00E-03	**4.8E+00**
On-Site	4	AOI16	BEC-1D	0001-021605-1044	02/16/05	VOC	Tetrachloroethene	127-18-4	7.50E-03		1.50E-04	5.00E-03	**1.5E+00**
On-Site	4	AOI16	BEC-1D	0001-021605-1044	02/16/05	VOC	Trichloroethene	79-01-6	2.30E-01		5.00E-04	5.00E-03	**4.6E+01**
On-Site	4	AOI16	BEC-1D	0001-041905-1113	04/19/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.40E-03		9.20E-04	6.11E-04	**3.9E+00**
On-Site	4	AOI16	BEC-1D	0001-042905-1412	04/29/05	VOC	1,2-Dichloroethane	107-06-2	2.60E-02		1.50E-04	5.00E-03	**5.2E+00**
On-Site	4	AOI16	BEC-1D	0001-042905-1412	04/29/05	VOC	Tetrachloroethene	127-18-4	7.10E-03		1.50E-04	5.00E-03	**1.4E+00**
On-Site	4	AOI16	BEC-1D	0001-042905-1412	04/29/05	VOC	Trichloroethene	79-01-6	2.10E-01		1.20E-03	5.00E-03	**4.2E+01**
On-Site	4	AOI16	BEC-1D	28499AAP221003BWGDX-3	10/22/03	VOC	1,2-Dichloroethane	107-06-2	4.80E-02		2.30E-04	5.00E-03	**9.6E+00**
On-Site	4	AOI16	BEC-1D	28499AAP221003BWGDX-3	10/22/03	VOC	Tetrachloroethene	127-18-4	1.20E-02		6.80E-04	5.00E-03	**2.4E+00**
On-Site	4	AOI16	BEC-1D	28499AAP221003BWGDX-3	10/22/03	VOC	Trichloroethene	79-01-6	3.80E-01		5.00E-04	5.00E-03	**7.6E+01**
On-Site	4	AOI16	BEC-1D	28499AAP221003BWGDX-3	10/22/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.90E-03		8.20E-04	6.11E-04	**4.7E+00**
On-Site	4	AOI16	BEC-1D	28499RWT030203WGDX-2	02/03/03	VOC	Trichloroethene	79-01-6	4.40E-02		1.40E-04	5.00E-03	**8.8E+00**
On-Site	4	AOI16	BEC-1D	28499RWT290103WGDX-2	01/29/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.80E-03		5.50E-04	6.11E-04	**4.6E+00**
On-Site	4	AOI16	BEC-2D	0001-021605-1231	02/16/05	VOC	1,2-Dichloroethane	107-06-2	1.30E-02		1.50E-04	5.00E-03	**2.6E+00**
On-Site	4	AOI16	BEC-2D	0001-021605-1231	02/16/05	VOC	Trichloroethene	79-01-6	1.50E-01		2.50E-04	5.00E-03	**3.0E+01**
On-Site	4	AOI16	BEC-2D	0001-021605-1231	02/16/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.60E-03		9.20E-04	6.11E-04	**2.6E+00**
On-Site	4	AOI16	BEC-2D	0001-041905-1349	04/19/05	VOC	1,2-Dichloroethane	107-06-2	1.50E-02		1.50E-04	5.00E-03	**3.0E+00**
On-Site	4	AOI16	BEC-2D	0001-041905-1349	04/19/05	VOC	Trichloroethene	79-01-6	2.00E-01		2.50E-04	5.00E-03	**4.0E+01**
On-Site	4	AOI16	BEC-2D	0001-041905-1349	04/19/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.50E-03		9.20E-04	6.11E-04	**2.5E+00**
On-Site	4	AOI16	BEC-2D	28499AAP221003WGDG-3	10/22/03	VOC	1,2-Dichloroethane	107-06-2	1.40E-02		1.10E-04	5.00E-03	**2.8E+00**
On-Site	4	AOI16	BEC-2D	28499AAP221003WGDG-3	10/22/03	VOC	Trichloroethene	79-01-6	1.30E-01		2.50E-04	5.00E-03	**2.6E+01**
On-Site	4	AOI16	BEC-2D	28499RWT040203WGDG-2	02/04/03	VOC	1,2-Dichloroethane	107-06-2	2.05E-02		2.00E-04	5.00E-03	**4.1E+00**
On-Site	4	AOI16	BEC-2D	28499RWT040203WGDG-2	02/04/03	VOC	Trichloroethene	79-01-6	1.60E-01		1.40E-04	5.00E-03	**3.2E+01**
On-Site	4	AOI16	BEC-2D	28499RWT300103WGDG-2	01/30/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.00E-03	J	5.50E-04	6.11E-04	**1.6E+00**
On-Site	4	AOI16	BEC-3D	0002-021505-0921	02/15/05	VOC	1,2-Dichloroethane	107-06-2	6.10E-03		1.50E-04	5.00E-03	**1.2E+00**
On-Site	4	AOI16	BEC-3D	0002-021505-0921	02/15/05	VOC	Trichloroethene	79-01-6	5.40E-02		2.50E-04	5.00E-03	**1.1E+01**
On-Site	4	AOI16	BEC-3D	0002-021505-0921	02/15/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.30E-03		9.20E-04	6.11E-04	**7.0E+00**
On-Site	4	AOI16	BEC-3D	0002-041905-1150	04/19/05	VOC	1,2-Dichloroethane	107-06-2	1.00E-02		1.50E-04	5.00E-03	**2.0E+00**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	4	AOI16	BEC-3D	0002-041905-1150	04/19/05	VOC	Trichloroethene	79-01-6	6.60E-02		2.50E-04	5.00E-03	**1.3E+01**
On-Site	4	AOI16	BEC-3D	0002-041905-1150	04/19/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	5.20E-03		9.20E-04	6.11E-04	**8.5E+00**
On-Site	4	AOI16	BEC-3D	28499CSM281003WGDF-3	10/28/03	VOC	1,2-Dichloroethane	107-06-2	1.60E-02		1.10E-04	5.00E-03	**3.2E+00**
On-Site	4	AOI16	BEC-3D	28499CSM281003WGDF-3	10/28/03	VOC	Trichloroethene	79-01-6	9.40E-02		2.50E-04	5.00E-03	**1.9E+01**
On-Site	4	AOI16	BEC-3D	28499CSM281003WGDF-3	10/28/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	8.00E-03		7.50E-04	6.11E-04	**1.3E+01**
On-Site	4	AOI16	BEC-3D	28499KMA310103WGDF-2	01/31/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	9.40E-03		5.50E-04	6.11E-04	**1.5E+01**
On-Site	4	AOI16	BEC-3D	28499RWT050203WGDF-2	02/05/03	VOC	1,2-Dichloroethane	107-06-2	1.10E-02		2.00E-04	5.00E-03	**2.2E+00**
On-Site	4	AOI16	BEC-3D	28499RWT050203WGDF-2	02/05/03	VOC	Trichloroethene	79-01-6	7.80E-02		1.40E-04	5.00E-03	**1.6E+01**
On-Site	4	AOI16	BEC-4D	0001-021505-1343	02/15/05	VOC	Trichloroethene	79-01-6	5.60E-02		2.50E-04	5.00E-03	**1.1E+01**
On-Site	4	AOI16	BEC-4D	0001-041905-0939	04/19/05	VOC	Trichloroethene	79-01-6	3.90E-02		2.50E-04	5.00E-03	**7.8E+00**
On-Site	4	AOI16	BEC-4D	28499CSM281003WGDZ-3	10/28/03	VOC	Trichloroethene	79-01-6	3.30E-02		2.50E-04	5.00E-03	**6.6E+00**
On-Site	4	AOI16	BEC-4D	28499KMA310103WGDZ-2	01/31/03	INORG	Manganese	7439-96-5	2.84E+00		2.00E-04	8.76E-01	**3.2E+00**
On-Site	4	AOI16	BEC-4D	28499RWT040203WGDZ-2	02/04/03	VOC	Trichloroethene	79-01-6	3.50E-02		1.40E-04	5.00E-03	**7.0E+00**
On-Site	4	AOI26	MW-52W	0002-021505-1130	02/15/05	VOC	Benzene	71-43-2	3.20E-02		2.30E-04	5.00E-03	**6.4E+00**
On-Site	4	AOI26	MW-52W	0002-021505-1130	02/15/05	VOC	1,2-Dichloroethane	107-06-2	5.80E-02		1.50E-04	5.00E-03	**1.2E+01**
On-Site	4	AOI26	MW-52W	0002-021505-1130	02/15/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.40E-01		1.40E-04	7.00E-02	**2.0E+00**
On-Site	4	AOI26	MW-52W	0002-021505-1130	02/15/05	VOC	Trichloroethene	79-01-6	3.80E-01		5.00E-04	5.00E-03	**7.6E+01**
On-Site	4	AOI26	MW-52W	0002-021505-1130	02/15/05	VOC	Vinyl Chloride	75-01-4	2.70E-03	J	2.80E-04	2.00E-03	**1.4E+00**
On-Site	4	AOI26	MW-52W	0002-021505-1130	02/15/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.50E-03		9.20E-04	6.11E-04	**5.7E+00**
On-Site	4	AOI26	MW-52W	0002-041805-1031	04/18/05	VOC	Benzene	71-43-2	5.10E-02		2.30E-04	5.00E-03	**1.0E+01**
On-Site	4	AOI26	MW-52W	0002-041805-1031	04/18/05	VOC	1,2-Dichloroethane	107-06-2	7.70E-02		1.50E-04	5.00E-03	**1.5E+01**
On-Site	4	AOI26	MW-52W	0002-041805-1031	04/18/05	VOC	cis-1,2-Dichloroethene	156-59-2	2.20E-01		2.60E-04	7.00E-02	**3.1E+00**
On-Site	4	AOI26	MW-52W	0002-041805-1031	04/18/05	VOC	Trichloroethene	79-01-6	3.00E-01		5.00E-04	5.00E-03	**6.0E+01**
On-Site	4	AOI26	MW-52W	0002-041805-1031	04/18/05	VOC	Vinyl Chloride	75-01-4	3.30E-03	J	2.80E-04	2.00E-03	**1.7E+00**
On-Site	4	AOI26	MW-52W	0002-041805-1031	04/18/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.00E-03		9.20E-04	6.11E-04	**6.5E+00**
On-Site	4	AOI28	MW-17W	0001-021705-1326	02/17/05	VOC	1,2-Dichloroethane	107-06-2	5.40E-03		1.50E-04	5.00E-03	**1.1E+00**
On-Site	4	AOI28	MW-17W	0469-111204-1400	11/12/04	VOC	1,2-Dichloroethane	107-06-2	6.10E-03		1.10E-04	5.00E-03	**1.2E+00**
On-Site	4	AOI28	MW-17W	28499CSM281003WGWQ-3	10/28/03	VOC	1,2-Dichloroethane	107-06-2	7.40E-03		1.10E-04	5.00E-03	**1.5E+00**
On-Site	4	AOI28	MW-17W	28499CSM281003WGWQ-3	10/28/03	VOC	cis-1,2-Dichloroethene	156-59-2	7.70E-02		2.30E-04	7.00E-02	**1.1E+00**
On-Site	2	AOI28	MW-28W	0001-021805-1055	02/18/05	VOC	Trichloroethene	79-01-6	1.70E-01		2.50E-04	5.00E-03	**3.4E+01**
On-Site	2	AOI28	MW-28W	0001-042605-1351	04/26/05	VOC	Trichloroethene	79-01-6	1.50E-01		2.50E-04	5.00E-03	**3.0E+01**
On-Site	2	AOI28	MW-28W	0469-111304-1450	11/13/04	VOC	Trichloroethene	79-01-6	8.10E-02		2.50E-04	5.00E-03	**1.6E+01**
On-Site	2	AOI28	MW-28W	28499CSM181103WGWGJ-3	11/18/03	VOC	Trichloroethene	79-01-6	1.10E-01		2.50E-04	5.00E-03	**2.2E+01**
On-Site	2	AOI28	MW-8W	0001-021805-0844	02/18/05	VOC	1,1-Dichloroethene	75-35-4	8.10E-03		3.20E-04	7.00E-03	**1.2E+00**
On-Site	2	AOI28	MW-8W	0001-021805-0844	02/18/05	VOC	Trichloroethene	79-01-6	3.90E-01		5.00E-04	5.00E-03	**7.8E+01**
On-Site	2	AOI28	MW-8W	0001-042905-1115	04/29/05	VOC	1,1-Dichloroethene	75-35-4	8.40E-03		3.20E-04	7.00E-03	**1.2E+00**
On-Site	2	AOI28	MW-8W	0001-042905-1115	04/29/05	VOC	Trichloroethene	79-01-6	3.40E-01		1.20E-03	5.00E-03	**6.8E+01**
On-Site	2	AOI28	MW-8W	0469-111404-1135	11/14/04	VOC	Trichloroethene	79-01-6	8.50E-02		2.50E-04	5.00E-03	**1.7E+01**
On-Site	2	AOI28	MW-8W	28499AAP231003WGWJ-3	10/23/03	VOC	1,1-Dichloroethene	75-35-4	8.50E-03		2.50E-04	7.00E-03	**1.2E+00**
On-Site	2	AOI28	MW-8W	28499AAP231003WGWJ-3	10/23/03	VOC	Trichloroethene	79-01-6	6.00E-01	J	2.50E-04	5.00E-03	**1.2E+02**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	2	AOI28	MW-8W	28499END280103WGWJ-2	01/28/03	VOC	Trichloroethene	79-01-6	2.70E-01		7.00E-04	5.00E-03	**5.4E+01**
On-Site	1	AOI29	MW-18W	0469-111104-1200	11/11/04	VOC	Benzene	71-43-2	7.30E-03		2.00E-04	5.00E-03	**1.5E+00**
On-Site	1	AOI29	MW-18W	0469-111104-1200	11/11/04	VOC	Carbon Tetrachloride	56-23-5	7.00E-03		3.90E-04	5.00E-03	**1.4E+00**
On-Site	1	AOI29	MW-18W	0469-111104-1200	11/11/04	VOC	1,2-Dichloroethane	107-06-2	6.50E-03		1.10E-04	5.00E-03	**1.3E+00**
On-Site	1	AOI29	MW-18W	0469-111104-1200	11/11/04	VOC	Trichloroethene	79-01-6	4.10E-02		2.50E-04	5.00E-03	**8.2E+00**
On-Site	1	AOI29	MW-18W	28499CSM291003WGWV-3	10/29/03	VOC	Benzene	71-43-2	2.10E-02		2.00E-04	5.00E-03	**4.2E+00**
On-Site	1	AOI29	MW-18W	28499CSM291003WGWV-3	10/29/03	VOC	Carbon Tetrachloride	56-23-5	1.60E-02		3.90E-04	5.00E-03	**3.2E+00**
On-Site	1	AOI29	MW-18W	28499CSM291003WGWV-3	10/29/03	VOC	1,2-Dichloroethane	107-06-2	1.80E-02		1.10E-04	5.00E-03	**3.6E+00**
On-Site	1	AOI29	MW-18W	28499CSM291003WGWV-3	10/29/03	VOC	Methylene Chloride	75-09-2	6.10E-03		1.40E-04	5.00E-03	**1.2E+00**
On-Site	1	AOI29	MW-18W	28499CSM291003WGWV-3	10/29/03	VOC	Trichloroethene	79-01-6	9.90E-02		2.50E-04	5.00E-03	**2.0E+01**
On-Site	1	AOI29	MW-18W	28499CSM291003WGWV-3	10/29/03	VOC	Vinyl Chloride	75-01-4	2.90E-03	J	3.80E-04	2.00E-03	**1.5E+00**
On-Site	1	AOI29	MW-18W	28499END280103WGWV-2	01/28/03	VOC	Benzene	71-43-2	2.00E-02		9.00E-05	5.00E-03	**4.0E+00**
On-Site	1	AOI29	MW-18W	28499END280103WGWV-2	01/28/03	VOC	Carbon Tetrachloride	56-23-5	5.90E-03		3.20E-04	5.00E-03	**1.2E+00**
On-Site	1	AOI29	MW-18W	28499END280103WGWV-2	01/28/03	VOC	1,2-Dichloroethane	107-06-2	2.10E-02		2.00E-04	5.00E-03	**4.2E+00**
On-Site	1	AOI29	MW-18W	28499END280103WGWV-2	01/28/03	VOC	Trichloroethene	79-01-6	8.90E-02		1.40E-04	5.00E-03	**1.8E+01**
On-Site	1	AOI29	MW-18W	28499END280103WGWV-2	01/28/03	VOC	Vinyl Chloride	75-01-4	2.70E-03	J	2.50E-04	2.00E-03	**1.4E+00**
On-Site	1	AOI29	MW-18W	28499RWT082002WV1	08/20/02	VOC	Benzene	71-43-2	1.00E-01		9.00E-05	5.00E-03	**2.0E+01**
On-Site	1	AOI29	MW-18W	28499RWT082002WV1	08/20/02	VOC	Carbon Tetrachloride	56-23-5	5.40E-02		3.20E-04	5.00E-03	**1.1E+01**
On-Site	1	AOI29	MW-18W	28499RWT082002WV1	08/20/02	VOC	1,2-Dichloroethane	107-06-2	3.60E-02		2.00E-04	5.00E-03	**7.2E+00**
On-Site	1	AOI29	MW-18W	28499RWT082002WV1	08/20/02	VOC	Methylene Chloride	75-09-2	4.55E-02		1.80E-04	5.00E-03	**9.1E+00**
On-Site	1	AOI29	MW-18W	28499RWT082002WV1	08/20/02	VOC	Trichloroethene	79-01-6	1.60E-01		1.40E-04	5.00E-03	**3.2E+01**
On-Site	1	AOI29	MW-18W	28499RWT082002WV1	08/20/02	VOC	Vinyl Chloride	75-01-4	4.75E-03	J	2.50E-04	2.00E-03	**2.4E+00**
On-Site	1	AOI29	MW-18W	28499RWT270103WGWV-2	01/27/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.10E-03		5.50E-04	6.11E-04	**1.8E+00**
On-Site	4	General	BEC-1B	0979-111704-1650	11/17/04	VOC	Benzene	71-43-2	5.90E-02		2.00E-04	5.00E-03	**1.2E+01**
On-Site	4	General	BEC-1B	0979-111704-1650	11/17/04	VOC	1,2-Dichloroethane	107-06-2	6.80E-02		1.10E-04	5.00E-03	**1.4E+01**
On-Site	4	General	BEC-1B	0979-111704-1650	11/17/04	VOC	Tetrachloroethene	127-18-4	1.50E-02		3.40E-04	5.00E-03	**3.0E+00**
On-Site	4	General	BEC-1B	0979-111704-1650	11/17/04	VOC	Trichloroethene	79-01-6	5.00E-01		2.50E-03	5.00E-03	**1.0E+02**
On-Site	4	General	BEC-1B	0979-111704-1650	11/17/04	VOC	Vinyl Chloride	75-01-4	4.60E-03	J	3.80E-04	2.00E-03	**2.3E+00**
On-Site	4	General	BEC-1B	0979-111704-1650	11/17/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.30E-03		7.50E-04	6.11E-04	**7.0E+00**
On-Site	4	General	BEC-1B	0979-111704-1650	11/17/04	INORG	Arsenic	7440-38-2	1.14E-02		4.90E-04	1.00E-02	**1.1E+00**
On-Site	4	General	BEC-1B	28499AAP291003WGBX-3	10/29/03	VOC	Benzene	71-43-2	3.40E-02		4.00E-04	5.00E-03	**6.8E+00**
On-Site	4	General	BEC-1B	28499AAP291003WGBX-3	10/29/03	VOC	1,2-Dichloroethane	107-06-2	3.60E-02		2.30E-04	5.00E-03	**7.2E+00**
On-Site	4	General	BEC-1B	28499AAP291003WGBX-3	10/29/03	VOC	Tetrachloroethene	127-18-4	6.20E-03		6.80E-04	5.00E-03	**1.2E+00**
On-Site	4	General	BEC-1B	28499AAP291003WGBX-3	10/29/03	VOC	Trichloroethene	79-01-6	2.60E-01		5.00E-04	5.00E-03	**5.2E+01**
On-Site	4	General	BEC-1B	28499AAP291003WGBX-3	10/29/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.50E-03		7.50E-04	6.11E-04	**2.5E+00**
On-Site	4	General	BEC-1B	28499END240103WGBX-2	01/24/03	VOC	Benzene	71-43-2	1.00E-01		9.00E-05	5.00E-03	**2.0E+01**
On-Site	4	General	BEC-1B	28499END240103WGBX-2	01/24/03	VOC	1,2-Dichloroethane	107-06-2	1.00E-01		2.00E-04	5.00E-03	**2.0E+01**
On-Site	4	General	BEC-1B	28499END240103WGBX-2	01/24/03	VOC	Tetrachloroethene	127-18-4	2.40E-02		2.50E-04	5.00E-03	**4.8E+00**
On-Site	4	General	BEC-1B	28499END240103WGBX-2	01/24/03	VOC	Trichloroethene	79-01-6	8.10E-01		7.00E-04	5.00E-03	**1.6E+02**
On-Site	4	General	BEC-1B	28499END240103WGBX-2	01/24/03	VOC	Vinyl Chloride	75-01-4	8.00E-03		2.50E-04	2.00E-03	**4.0E+00**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	4	General	BEC-1B	28499RWT230103WGBX-2	01/23/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.40E-03		5.50E-04	6.11E-04	**2.3E+00**
On-Site	4	General	MW-15W	0001-022105-0940	02/21/05	VOC	Trichloroethene	79-01-6	4.80E-02		2.50E-04	5.00E-03	**9.6E+00**
On-Site	4	General	MW-15W	0001-022105-0940	02/21/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	9.00E-04	J	9.20E-04	6.11E-04	**1.5E+00**
On-Site	4	General	MW-15W	0002-042005-1458	04/20/05	VOC	Trichloroethene	79-01-6	5.80E-02		2.50E-04	5.00E-03	**1.2E+01**
On-Site	4	General	MW-15W	0002-042005-1458	04/20/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	9.00E-04	J	9.20E-04	6.11E-04	**1.5E+00**
On-Site	4	General	MW-15W	0979-111504-0920	11/15/04	VOC	Trichloroethene	79-01-6	5.50E-02		2.50E-04	5.00E-03	**1.1E+01**
On-Site	4	General	MW-15W	0979-111504-0920	11/15/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	7.00E-04	J	7.50E-04	6.11E-04	**1.1E+00**
On-Site	4	General	MW-15W	28499END300103WGWT-2	01/30/03	VOC	Trichloroethene	79-01-6	5.40E-02		1.40E-04	5.00E-03	**1.1E+01**
On-Site	4	General	MW-15W	28499MAP231003WGWT-3	10/23/03	VOC	1,2-Dichloroethane	107-06-2	5.50E-03		1.10E-04	5.00E-03	**1.1E+00**
On-Site	4	General	MW-15W	28499MAP231003WGWT-3	10/23/03	VOC	Trichloroethene	79-01-6	6.10E-02		2.50E-04	5.00E-03	**1.2E+01**
On-Site	4	General	MW-15W	28499MAP231003WGWT-3	10/23/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.00E-03	J	7.50E-04	6.11E-04	**1.6E+00**
On-Site	4	General	MW-15W	28499RWT082002WT1	08/20/02	VOC	Trichloroethene	79-01-6	4.80E-02		1.40E-04	5.00E-03	**9.6E+00**
On-Site	4	General	MW-15W	28499RWT240103WGWT-2	01/24/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.10E-03		5.50E-04	6.11E-04	**1.8E+00**
On-Site	1	General	MW-22W	0001-022405-1012	02/24/05	VOC	Benzene	71-43-2	5.80E-03		2.30E-04	5.00E-03	**1.2E+00**
On-Site	1	General	MW-22W	0001-022405-1012	02/24/05	VOC	1,2-Dichloroethane	107-06-2	2.55E-02		1.50E-04	5.00E-03	**5.1E+00**
On-Site	1	General	MW-22W	0001-022405-1012	02/24/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.10E-01		1.40E-04	7.00E-02	**1.6E+00**
On-Site	1	General	MW-22W	0001-022405-1012	02/24/05	VOC	Tetrachloroethene	127-18-4	5.40E-03		1.50E-04	5.00E-03	**1.1E+00**
On-Site	1	General	MW-22W	0001-022405-1012	02/24/05	VOC	Trichloroethene	79-01-6	2.45E-01		5.00E-04	5.00E-03	**4.9E+01**
On-Site	1	General	MW-22W	0001-022405-1012	02/24/05	VOC	Vinyl Chloride	75-01-4	6.00E-03		2.80E-04	2.00E-03	**3.0E+00**
On-Site	1	General	MW-22W	0001-022405-1012	02/24/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.30E-03		9.20E-04	6.11E-04	**5.4E+00**
On-Site	1	General	MW-22W	0001-050305-1439	05/03/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.20E-01		1.40E-04	7.00E-02	**1.7E+00**
On-Site	1	General	MW-22W	0001-050305-1439	05/03/05	VOC	Trichloroethene	79-01-6	2.00E-01		2.50E-04	5.00E-03	**4.0E+01**
On-Site	1	General	MW-22W	0001-050305-1439	05/03/05	VOC	Vinyl Chloride	75-01-4	5.80E-03		2.80E-04	2.00E-03	**2.9E+00**
On-Site	1	General	MW-22W	0001-050305-1439	05/03/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.80E-03		9.20E-04	6.11E-04	**4.6E+00**
On-Site	1	General	MW-22W	0979-111104-1645	11/11/04	VOC	1,2-Dichloroethane	107-06-2	1.30E-02		1.10E-04	5.00E-03	**2.6E+00**
On-Site	1	General	MW-22W	0979-111104-1645	11/11/04	VOC	cis-1,2-Dichloroethene	156-59-2	9.80E-02		2.30E-04	7.00E-02	**1.4E+00**
On-Site	1	General	MW-22W	0979-111104-1645	11/11/04	VOC	Trichloroethene	79-01-6	7.30E-02		2.50E-04	5.00E-03	**1.5E+01**
On-Site	1	General	MW-22W	0979-111104-1645	11/11/04	VOC	Vinyl Chloride	75-01-4	2.80E-03	J	3.80E-04	2.00E-03	**1.4E+00**
On-Site	1	General	MW-22W	0979-111104-1645	11/11/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.50E-03		8.20E-04	6.11E-04	**2.5E+00**
On-Site	1	General	MW-22W	28499MAP171103WGWL-3	11/17/03	VOC	1,2-Dichloroethane	107-06-2	2.30E-02		1.10E-04	5.00E-03	**4.6E+00**
On-Site	1	General	MW-22W	28499MAP171103WGWL-3	11/17/03	VOC	Tetrachloroethene	127-18-4	5.60E-03		3.40E-04	5.00E-03	**1.1E+00**
On-Site	1	General	MW-22W	28499MAP171103WGWL-3	11/17/03	VOC	Trichloroethene	79-01-6	2.70E-01		5.00E-04	5.00E-03	**5.4E+01**
On-Site	1	General	MW-22W	28499MAP171103WGWL-3	11/17/03	VOC	Vinyl Chloride	75-01-4	5.80E-03		3.80E-04	2.00E-03	**2.9E+00**
On-Site	1	General	MW-22W	28499MAP171103WGWL-3	11/17/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.60E-03		7.50E-04	6.11E-04	**4.3E+00**
On-Site	1	General	MW-35W	0001-050405-1011	05/04/05	VOC	1,2-Dichloroethane	107-06-2	1.50E-02		1.50E-04	5.00E-03	**3.0E+00**
On-Site	1	General	MW-35W	0001-050405-1011	05/04/05	VOC	Tetrachloroethene	127-18-4	6.60E-03		1.50E-04	5.00E-03	**1.3E+00**
On-Site	1	General	MW-35W	0001-050405-1011	05/04/05	VOC	Trichloroethene	79-01-6	2.80E-01		5.00E-04	5.00E-03	**5.6E+01**
On-Site	1	General	MW-35W	0001-050405-1011	05/04/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.70E-03		9.20E-04	6.11E-04	**6.1E+00**
On-Site	1	General	MW-35W	0003-022405-1102	02/24/05	VOC	1,2-Dichloroethane	107-06-2	2.10E-02		1.50E-04	5.00E-03	**4.2E+00**
On-Site	1	General	MW-35W	0003-022405-1102	02/24/05	VOC	cis-1,2-Dichloroethene	156-59-2	7.50E-02		1.40E-04	7.00E-02	**1.1E+00**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	1	General	MW-35W	0003-022405-1102	02/24/05	VOC	Tetrachloroethene	127-18-4	9.20E-03		1.50E-04	5.00E-03	**1.8E+00**
On-Site	1	General	MW-35W	0003-022405-1102	02/24/05	VOC	Trichloroethene	79-01-6	3.20E-01		5.00E-04	5.00E-03	**6.4E+01**
On-Site	1	General	MW-35W	0003-022405-1102	02/24/05	VOC	Vinyl Chloride	75-01-4	2.50E-03	J	2.80E-04	2.00E-03	**1.3E+00**
On-Site	1	General	MW-35W	0003-022405-1102	02/24/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	5.40E-03		9.20E-04	6.11E-04	**8.8E+00**
On-Site	1	General	MW-35W	0469-111604-1420	11/16/04	VOC	Trichloroethene	79-01-6	1.70E-01		2.50E-04	5.00E-03	**3.4E+01**
On-Site	1	General	MW-35W	0469-111604-1420	11/16/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.00E-03		7.50E-04	6.11E-04	**1.6E+00**
On-Site	1	General	MW-35W	28499AS120303WGWFE-4	12/03/03	VOC	1,2-Dichloroethane	107-06-2	9.50E-03		1.10E-04	5.00E-03	**1.9E+00**
On-Site	1	General	MW-35W	28499AS120303WGWFE-4	12/03/03	VOC	Tetrachloroethene	127-18-4	5.70E-03		3.40E-04	5.00E-03	**1.1E+00**
On-Site	1	General	MW-35W	28499AS120303WGWFE-4	12/03/03	VOC	Trichloroethene	79-01-6	2.50E-01		2.50E-04	5.00E-03	**5.0E+01**
On-Site	1	General	MW-35W	28499AS120303WGWFE-4	12/03/03	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.80E-03		7.50E-04	6.11E-04	**7.9E+00**
On-Site	2	General	MW-41W	0001-022805-1010	02/28/05	VOC	1,1-Dichloroethene	75-35-4	1.60E-02		3.20E-04	7.00E-03	**2.3E+00**
On-Site	2	General	MW-41W	0001-022805-1010	02/28/05	VOC	cis-1,2-Dichloroethene	156-59-2	5.10E-01		6.50E-04	7.00E-02	**7.3E+00**
On-Site	2	General	MW-41W	0001-022805-1010	02/28/05	VOC	Trichloroethene	79-01-6	5.70E-01		1.20E-03	5.00E-03	**1.1E+02**
On-Site	2	General	MW-41W	0001-042805-1155	04/28/05	VOC	1,1-Dichloroethene	75-35-4	8.25E-03		3.20E-04	7.00E-03	**1.2E+00**
On-Site	2	General	MW-41W	0001-042805-1155	04/28/05	VOC	cis-1,2-Dichloroethene	156-59-2	3.00E-01		2.60E-04	7.00E-02	**4.3E+00**
On-Site	2	General	MW-41W	0001-042805-1155	04/28/05	VOC	Trichloroethene	79-01-6	2.35E-01		5.00E-04	5.00E-03	**4.7E+01**
On-Site	2	General	MW-41W	0979-111604-0910	11/16/04	VOC	1,1-Dichloroethene	75-35-4	2.00E-02		2.50E-04	7.00E-03	**2.9E+00**
On-Site	2	General	MW-41W	0979-111604-0910	11/16/04	VOC	cis-1,2-Dichloroethene	156-59-2	1.00E-01		2.30E-04	7.00E-02	**1.4E+00**
On-Site	2	General	MW-41W	0979-111604-0910	11/16/04	VOC	Trichloroethene	79-01-6	1.00E+00		2.50E-03	5.00E-03	**2.0E+02**
On-Site	2	General	MW-41W	0979-111604-0910	11/16/04	INORG	Lead	7439-92-1	1.95E-02		2.20E-04	1.50E-02	**1.3E+00**
On-Site	2	General	MW-41W	0979-111604-0910	11/16/04	INORG	Manganese	7439-96-5	1.33E+00		1.20E-04	8.76E-01	**1.5E+00**
On-Site	2	General	MW-41W	0979-111604-0910	11/16/04	INORG	Vanadium	7440-62-2	3.91E-02		3.90E-04	3.65E-02	**1.1E+00**
On-Site	4	General	MW-42W	0001-022105-0941	02/21/05	VOC	Trichloroethene	79-01-6	2.90E-02		2.50E-04	5.00E-03	**5.8E+00**
On-Site	4	General	MW-42W	0001-022105-0941	02/21/05	VOC	Vinyl Chloride	75-01-4	2.50E-03	J	2.80E-04	2.00E-03	**1.3E+00**
On-Site	4	General	MW-42W	0002-042105-1332	04/21/05	INORG	Manganese	7439-96-5	9.65E-01		1.20E-04	8.76E-01	**1.1E+00**
On-Site	1	General	MW-43W	0002-050905-1150	05/09/05	VOC	Trichloroethene	79-01-6	1.30E-02		2.50E-04	5.00E-03	**2.6E+00**
On-Site	1	General	MW-44W	0001-042105-0946	04/21/05	VOC	Trichloroethene	79-01-6	7.80E-03		2.50E-04	5.00E-03	**1.6E+00**
On-Site	1	General	MW-44W	0002-022105-1116	02/21/05	VOC	Trichloroethene	79-01-6	9.50E-03		2.50E-04	5.00E-03	**1.9E+00**
On-Site	4	General	MW-45W	0001-021505-1141	02/15/05	VOC	Trichloroethene	79-01-6	6.60E-02		2.50E-04	5.00E-03	**1.3E+01**
On-Site	4	General	MW-45W	0001-021505-1141	02/15/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	7.50E-04	J	9.20E-04	6.11E-04	**1.2E+00**
On-Site	4	General	MW-45W	0001-041805-1500	04/18/05	VOC	1,2-Dichloroethane	107-06-2	6.20E-03		1.50E-04	5.00E-03	**1.2E+00**
On-Site	4	General	MW-45W	0001-041805-1500	04/18/05	VOC	Trichloroethene	79-01-6	9.10E-02		2.50E-04	5.00E-03	**1.8E+01**
On-Site	4	General	MW-45W	0001-041805-1500	04/18/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	9.00E-04	J	9.20E-04	6.11E-04	**1.5E+00**
On-Site	4	General	MW-45W	0469-111504-1700	11/15/04	VOC	Trichloroethene	79-01-6	1.80E-02		2.50E-04	5.00E-03	**3.6E+00**
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	VOC	Benzene	71-43-2	1.30E-02		2.30E-04	5.00E-03	**2.6E+00**
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	VOC	Carbon Tetrachloride	56-23-5	1.10E-02		2.10E-04	5.00E-03	**2.2E+00**
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	VOC	1,2-Dichloroethane	107-06-2	3.60E-02		1.50E-04	5.00E-03	**7.2E+00**
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	VOC	cis-1,2-Dichloroethene	156-59-2	2.10E-01		2.60E-04	7.00E-02	**3.0E+00**
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	VOC	Tetrachloroethene	127-18-4	6.50E-03		1.50E-04	5.00E-03	**1.3E+00**
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	VOC	Trichloroethene	79-01-6	1.60E-01		2.50E-04	5.00E-03	**3.2E+01**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	VOC	Vinyl Chloride	75-01-4	3.00E-03	J	2.80E-04	2.00E-03	**1.5E+00**
On-Site	1	General	MW-46W	0001-050405-1201	05/04/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.50E-03		9.20E-04	6.11E-04	**4.1E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	Benzene	71-43-2	5.20E-02		2.30E-04	5.00E-03	**1.0E+01**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	Carbon Tetrachloride	56-23-5	3.90E-02		2.10E-04	5.00E-03	**7.8E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	Chloroform	67-66-3	1.60E-01		1.80E-04	8.00E-02	**2.0E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	1,2-Dichloroethane	107-06-2	4.20E-02		1.50E-04	5.00E-03	**8.4E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.80E-01		1.40E-04	7.00E-02	**2.6E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	Methylene Chloride	75-09-2	2.70E-02		3.10E-04	5.00E-03	**5.4E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	Tetrachloroethene	127-18-4	8.40E-03		1.50E-04	5.00E-03	**1.7E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	Trichloroethene	79-01-6	2.20E-01		5.00E-04	5.00E-03	**4.4E+01**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	VOC	Vinyl Chloride	75-01-4	6.90E-03		2.80E-04	2.00E-03	**3.5E+00**
On-Site	1	General	MW-46W	0003-022405-1145	02/24/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.60E-03		9.20E-04	6.11E-04	**4.3E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	Benzene	71-43-2	1.80E-02		2.00E-04	5.00E-03	**3.6E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	Carbon Tetrachloride	56-23-5	8.00E-03		3.90E-04	5.00E-03	**1.6E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	1,2-Dichloroethane	107-06-2	2.80E-02		1.10E-04	5.00E-03	**5.6E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	cis-1,2-Dichloroethene	156-59-2	8.50E-02		2.30E-04	7.00E-02	**1.2E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	Methylene Chloride	75-09-2	7.50E-03		1.40E-04	5.00E-03	**1.5E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	Tetrachloroethene	127-18-4	9.30E-03		3.40E-04	5.00E-03	**1.9E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	Trichloroethene	79-01-6	3.20E-01		5.00E-04	5.00E-03	**6.4E+01**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	VOC	Vinyl Chloride	75-01-4	4.60E-03	J	3.80E-04	2.00E-03	**2.3E+00**
On-Site	1	General	MW-46W	0979-111104-1133	11/11/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.60E-03		7.50E-04	6.11E-04	**4.3E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	Benzene	71-43-2	3.10E-01		2.20E-03	5.00E-03	**6.2E+01**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	Chlorobenzene	108-90-7	3.60E-01		1.30E-03	1.00E-01	**3.6E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	Chloroform	67-66-3	9.10E-02		1.80E-03	8.00E-02	**1.1E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	1,2-Dichloroethane	107-06-2	1.60E-01		1.50E-03	5.00E-03	**3.2E+01**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	1,1-Dichloroethene	75-35-4	1.60E-02	J	3.20E-03	7.00E-03	**2.3E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.20E+00		1.30E-03	7.00E-02	**1.7E+01**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	trans-1,2-Dichloroethene	156-60-5	2.10E-01		2.00E-03	1.00E-01	**2.1E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	1,1,2,2-Tetrachloroethane	79-34-5	1.00E-02		1.50E-03	3.36E-03	**3.0E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	Tetrachloroethene	127-18-4	2.10E-01		1.50E-03	5.00E-03	**4.2E+01**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	1,1,2-Trichloroethane	79-00-5	2.00E-02	J	2.80E-03	5.00E-03	**4.0E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	Trichloroethene	79-01-6	1.50E+01		2.50E-02	5.00E-03	**3.0E+03**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	VOC	Vinyl Chloride	75-01-4	6.70E-02		2.80E-03	2.00E-03	**3.4E+01**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.30E-02		9.20E-04	6.11E-04	**7.0E+01**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	INORG	Arsenic	7440-38-2	2.19E-02		4.90E-04	1.00E-02	**2.2E+00**
On-Site	1	General	MW-47W	0001-022405-1238	02/24/05	INORG	Selenium	7782-49-2	5.41E-02		7.50E-04	5.00E-02	**1.1E+00**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	Benzene	71-43-2	1.00E+00		2.20E-03	5.00E-03	**2.0E+02**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	Chlorobenzene	108-90-7	8.10E-01		1.30E-03	1.00E-01	**8.1E+00**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	Chloroform	67-66-3	2.90E-01		1.80E-03	8.00E-02	**3.6E+00**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	1,2-Dichloroethane	107-06-2	4.40E-01		1.50E-03	5.00E-03	**8.8E+01**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	1,1-Dichloroethene	75-35-4	3.40E-02		3.20E-03	7.00E-03	**4.9E+00**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.90E+00		1.30E-02	7.00E-02	**2.7E+01**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	trans-1,2-Dichloroethene	156-60-5	5.50E-01		2.00E-03	1.00E-01	**5.5E+00**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	1,1,2,2-Tetrachloroethane	79-34-5	2.40E-02		1.50E-03	3.36E-03	**7.1E+00**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	Tetrachloroethene	127-18-4	6.00E-01		1.50E-03	5.00E-03	**1.2E+02**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	1,1,2-Trichloroethane	79-00-5	5.10E-02		2.80E-03	5.00E-03	**1.0E+01**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	Trichloroethene	79-01-6	1.80E+01		2.50E-02	5.00E-03	**3.6E+03**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	VOC	Vinyl Chloride	75-01-4	1.40E-01		2.80E-03	2.00E-03	**7.0E+01**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.10E-02		9.20E-04	6.11E-04	**6.7E+01**
On-Site	1	General	MW-47W	0001-050405-1355	05/04/05	INORG	Arsenic	7440-38-2	1.88E-02		4.90E-04	1.00E-02	**1.9E+00**
On-Site	1	General	MW-47W	0979-111204-1610	11/12/04	VOC	Benzene	71-43-2	7.10E-02		2.00E-04	5.00E-03	**1.4E+01**
On-Site	1	General	MW-47W	0979-111204-1610	11/12/04	VOC	1,2-Dichloroethane	107-06-2	4.80E-02		1.10E-04	5.00E-03	**9.6E+00**
On-Site	1	General	MW-47W	0979-111204-1610	11/12/04	VOC	cis-1,2-Dichloroethene	156-59-2	2.40E-01		2.20E-03	7.00E-02	**3.4E+00**
On-Site	1	General	MW-47W	0979-111204-1610	11/12/04	VOC	Tetrachloroethene	127-18-4	4.30E-02		3.40E-04	5.00E-03	**8.6E+00**
On-Site	1	General	MW-47W	0979-111204-1610	11/12/04	VOC	Trichloroethene	79-01-6	1.40E+00		1.20E-02	5.00E-03	**2.8E+02**
On-Site	1	General	MW-47W	0979-111204-1610	11/12/04	VOC	Vinyl Chloride	75-01-4	1.00E-02		3.80E-04	2.00E-03	**5.0E+00**
On-Site	1	General	MW-47W	0979-111204-1610	11/12/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	8.30E-03		8.20E-04	6.11E-04	**1.4E+01**
On-Site	2	General	MW-48W	0001-022805-1202	02/28/05	VOC	1,1-Dichloroethene	75-35-4	1.00E-01		1.60E-03	7.00E-03	**1.4E+01**
On-Site	2	General	MW-48W	0001-022805-1202	02/28/05	VOC	cis-1,2-Dichloroethene	156-59-2	3.80E-01		6.50E-04	7.00E-02	**5.4E+00**
On-Site	2	General	MW-48W	0001-022805-1202	02/28/05	VOC	Trichloroethene	79-01-6	3.60E+00		5.00E-03	5.00E-03	**7.2E+02**
On-Site	2	General	MW-48W	0001-022805-1202	02/28/05	VOC	Vinyl Chloride	75-01-4	4.30E-03	J	1.50E-03	2.00E-03	**2.2E+00**
On-Site	2	General	MW-48W	0001-042805-1043	04/28/05	VOC	1,1-Dichloroethene	75-35-4	2.10E-02		1.60E-03	7.00E-03	**3.0E+00**
On-Site	2	General	MW-48W	0001-042805-1043	04/28/05	VOC	cis-1,2-Dichloroethene	156-59-2	2.40E-01		6.50E-04	7.00E-02	**3.4E+00**
On-Site	2	General	MW-48W	0001-042805-1043	04/28/05	VOC	Trichloroethene	79-01-6	1.40E+00		2.50E-03	5.00E-03	**2.8E+02**
On-Site	2	General	MW-48W	0469-111604-0900	11/16/04	VOC	1,1-Dichloroethene	75-35-4	2.90E-02		2.50E-04	7.00E-03	**4.1E+00**
On-Site	2	General	MW-48W	0469-111604-0900	11/16/04	VOC	cis-1,2-Dichloroethene	156-59-2	1.10E-01		2.30E-04	7.00E-02	**1.6E+00**
On-Site	2	General	MW-48W	0469-111604-0900	11/16/04	VOC	Trichloroethene	79-01-6	1.30E+00		2.50E-03	5.00E-03	**2.6E+02**
On-Site	1	General	MW-49W	0001-050505-1037	05/05/05	VOC	1,2-Dichloroethane	107-06-2	1.50E-02		1.50E-04	5.00E-03	**3.0E+00**
On-Site	1	General	MW-49W	0001-050505-1037	05/05/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.20E-01		1.40E-04	7.00E-02	**1.7E+00**
On-Site	1	General	MW-49W	0001-050505-1037	05/05/05	VOC	Trichloroethene	79-01-6	7.60E-03		2.50E-04	5.00E-03	**1.5E+00**
On-Site	1	General	MW-49W	0001-050505-1037	05/05/05	VOC	Vinyl Chloride	75-01-4	3.70E-03	J	2.80E-04	2.00E-03	**1.9E+00**
On-Site	1	General	MW-49W	0001-050505-1037	05/05/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.30E-02		9.20E-04	6.11E-04	**2.1E+01**
On-Site	1	General	MW-49W	0001-050505-1037	05/05/05	INORG	Arsenic	7440-38-2	3.59E-02		4.90E-04	1.00E-02	**3.6E+00**
On-Site	1	General	MW-49W	0001-050505-1037	05/05/05	INORG	Manganese	7439-96-5	1.01E+00		1.20E-04	8.76E-01	**1.2E+00**
On-Site	1	General	MW-49W	0002-022105-1251	02/21/05	VOC	1,2-Dichloroethane	107-06-2	8.20E-03		1.50E-04	5.00E-03	**1.6E+00**
On-Site	1	General	MW-49W	0002-022105-1251	02/21/05	VOC	Trichloroethene	79-01-6	3.60E-02		2.50E-04	5.00E-03	**7.2E+00**
On-Site	1	General	MW-49W	0002-022105-1251	02/21/05	VOC	Vinyl Chloride	75-01-4	1.30E-02		2.80E-04	2.00E-03	**6.5E+00**
On-Site	1	General	MW-49W	0002-022105-1251	02/21/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	9.20E-03		9.20E-04	6.11E-04	**1.5E+01**
On-Site	1	General	MW-49W	0002-022105-1251	02/21/05	INORG	Arsenic	7440-38-2	4.10E-02		4.90E-04	1.00E-02	**4.1E+00**
On-Site	1	General	MW-49W	0002-022105-1251	02/21/05	INORG	Manganese	7439-96-5	1.05E+00		1.20E-04	8.76E-01	**1.2E+00**

Table 3.3.2
Weathered Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	4	General	MW-50W	0001-031505-1347	03/15/05	VOC	1,2-Dichloroethane	107-06-2	5.10E-02		1.50E-04	5.00E-03	**1.0E+01**
On-Site	4	General	MW-50W	0001-031505-1347	03/15/05	VOC	Tetrachloroethene	127-18-4	1.30E-02		1.50E-04	5.00E-03	**2.6E+00**
On-Site	4	General	MW-50W	0001-031505-1347	03/15/05	VOC	Trichloroethene	79-01-6	6.50E-01		1.20E-03	5.00E-03	**1.3E+02**
On-Site	4	General	MW-50W	0001-031505-1347	03/15/05	VOC	Vinyl Chloride	75-01-4	2.30E-03	J	2.80E-04	2.00E-03	**1.2E+00**
On-Site	4	General	MW-50W	0001-031505-1347	03/15/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	8.30E-03		9.20E-04	6.11E-04	**1.4E+01**
On-Site	4	General	MW-50W	0001-042105-1129	04/21/05	VOC	1,2-Dichloroethane	107-06-2	3.50E-02		1.50E-04	5.00E-03	**7.0E+00**
On-Site	4	General	MW-50W	0001-042105-1129	04/21/05	VOC	Tetrachloroethene	127-18-4	1.10E-02		1.50E-04	5.00E-03	**2.2E+00**
On-Site	4	General	MW-50W	0001-042105-1129	04/21/05	VOC	Trichloroethene	79-01-6	4.70E-01		1.20E-03	5.00E-03	**9.4E+01**
On-Site	4	General	MW-50W	0001-042105-1129	04/21/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.10E-02		9.20E-04	6.11E-04	**1.8E+01**
On-Site	4	General	MW-55W	0001-042005-1020	04/20/05	VOC	Trichloroethene	79-01-6	1.50E-01		2.50E-04	5.00E-03	**3.0E+01**
On-Site	4	General	MW-55W	0001-042005-1020	04/20/05	INORG	Manganese	7439-96-5	1.55E+00		1.20E-04	8.76E-01	**1.8E+00**
On-Site	4	General	MW-55W	0002-021405-1221	02/14/05	VOC	Trichloroethene	79-01-6	1.50E-01		2.50E-04	5.00E-03	**3.0E+01**
On-Site	3	General	MW-62W	0001-042505-1105	04/25/05	VOC	Trichloroethene	79-01-6	1.90E-02		2.50E-04	5.00E-03	**3.8E+00**
On-Site	3	General	MW-63W	0001-042105-1247	04/21/05	VOC	1,2-Dichloroethane	107-06-2	1.00E-02		1.50E-04	5.00E-03	**2.0E+00**
On-Site	3	General	MW-63W	0001-042105-1247	04/21/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.10E-01		1.40E-04	7.00E-02	**1.6E+00**
On-Site	3	General	MW-63W	0001-042105-1247	04/21/05	VOC	Trichloroethene	79-01-6	3.00E-01		5.00E-04	5.00E-03	**6.0E+01**
On-Site	3	General	MW-63W	0001-042105-1247	04/21/05	VOC	Vinyl Chloride	75-01-4	3.00E-03	J	2.80E-04	2.00E-03	**1.5E+00**
On-Site	1	General	MW-66W	0002-050605-1406	05/06/05	VOC	1,2-Dichloroethane	107-06-2	3.80E-02		1.50E-04	5.00E-03	**7.6E+00**
On-Site	1	General	MW-66W	0002-050605-1406	05/06/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.40E-01		1.40E-04	7.00E-02	**2.0E+00**
On-Site	1	General	MW-66W	0002-050605-1406	05/06/05	VOC	Tetrachloroethene	127-18-4	1.10E-02		1.50E-04	5.00E-03	**2.2E+00**
On-Site	1	General	MW-66W	0002-050605-1406	05/06/05	VOC	Trichloroethene	79-01-6	3.60E-01		1.20E-03	5.00E-03	**7.2E+01**
On-Site	1	General	MW-66W	0002-050605-1406	05/06/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.30E-02		9.20E-04	6.11E-04	**2.1E+01**
On-Site	1	General	MW-66W	0002-050605-1406	05/06/05	INORG	Manganese	7439-96-5	1.71E+00	J	1.20E-04	8.76E-01	**2.0E+00**
On-Site	4	General	MW-68W	0002-051105-1011	05/11/05	VOC	1,1-Dichloroethene	75-35-4	9.00E-03		3.20E-04	7.00E-03	**1.3E+00**
On-Site	4	General	MW-68W	0002-051105-1011	05/11/05	VOC	Trichloroethene	79-01-6	1.00E-01		2.50E-04	5.00E-03	**2.0E+01**
On-Site	3	General	MW-69W	0001-042205-1125	04/22/05	VOC	Trichloroethene	79-01-6	5.60E-01		1.20E-03	5.00E-03	**1.1E+02**
On-Site	1	General	MW-9W	0001-022105-1224	02/21/05	VOC	Benzene	71-43-2	8.00E-02		2.30E-04	5.00E-03	**1.6E+01**
On-Site	1	General	MW-9W	0001-022105-1224	02/21/05	VOC	1,2-Dichloroethane	107-06-2	6.00E-02		1.50E-04	5.00E-03	**1.2E+01**
On-Site	1	General	MW-9W	0001-022105-1224	02/21/05	VOC	cis-1,2-Dichloroethene	156-59-2	8.10E-02		1.40E-04	7.00E-02	**1.2E+00**
On-Site	1	General	MW-9W	0001-022105-1224	02/21/05	VOC	Tetrachloroethene	127-18-4	1.50E-02		1.50E-04	5.00E-03	**3.0E+00**
On-Site	1	General	MW-9W	0001-022105-1224	02/21/05	VOC	Trichloroethene	79-01-6	1.00E+00		2.50E-03	5.00E-03	**2.0E+02**
On-Site	1	General	MW-9W	0001-022105-1224	02/21/05	VOC	Vinyl Chloride	75-01-4	1.20E-02		2.80E-04	2.00E-03	**6.0E+00**
On-Site	1	General	MW-9W	0001-022105-1224	02/21/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.80E-03		9.20E-04	6.11E-04	**7.9E+00**
On-Site	1	General	MW-9W	0002-042605-1153	04/26/05	VOC	Benzene	71-43-2	7.40E-02		2.30E-04	5.00E-03	**1.5E+01**
On-Site	1	General	MW-9W	0002-042605-1153	04/26/05	VOC	1,2-Dichloroethane	107-06-2	5.60E-02		1.50E-04	5.00E-03	**1.1E+01**
On-Site	1	General	MW-9W	0002-042605-1153	04/26/05	VOC	cis-1,2-Dichloroethene	156-59-2	7.90E-02		1.40E-04	7.00E-02	**1.1E+00**
On-Site	1	General	MW-9W	0002-042605-1153	04/26/05	VOC	Tetrachloroethene	127-18-4	1.20E-02		1.50E-04	5.00E-03	**2.4E+00**
On-Site	1	General	MW-9W	0002-042605-1153	04/26/05	VOC	Trichloroethene	79-01-6	9.20E-01		1.20E-03	5.00E-03	**1.8E+02**
On-Site	1	General	MW-9W	0002-042605-1153	04/26/05	VOC	Vinyl Chloride	75-01-4	9.30E-03		2.80E-04	2.00E-03	**4.7E+00**
On-Site	1	General	MW-9W	0002-042605-1153	04/26/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.40E-03		9.20E-04	6.11E-04	**7.2E+00**

Table 3.3.3
Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Wellzone	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	2	AOI11	Unit B2	MW-16B	0001-021405-1300	02/14/05	VOC	Trichloroethene	79-01-6	8.50E-03		2.50E-04	5.00E-03	**1.7E+00**
On-Site	2	AOI11	Unit B2	MW-16B	28499END290103WGBP-2	01/29/03	VOC	Trichloroethene	79-01-6	1.10E-01		1.40E-04	5.00E-03	**2.2E+01**
On-Site	2	AOI11	Unit B2	MW-16B	28499RWT082102-BP1	08/21/02	VOC	Trichloroethene	79-01-6	5.90E-02		1.40E-04	5.00E-03	**1.2E+01**
On-Site	4	AOI28	Unit B4	MW-8B	0469-111404-1200	11/14/04	INORG	Manganese	7439-96-5	1.46E+00		1.20E-04	8.76E-01	**1.7E+00**
On-Site	3	AOI29	Unit B3	MW-18B	0001-030105-1156	03/01/05	VOC	Benzene	71-43-2	3.70E-02		2.30E-04	5.00E-03	**7.4E+00**
On-Site	3	AOI29	Unit B3	MW-18B	0001-030105-1156	03/01/05	VOC	Chloroform	67-66-3	2.50E-01		3.60E-04	8.00E-02	**3.1E+00**
On-Site	3	AOI29	Unit B3	MW-18B	0001-030105-1156	03/01/05	VOC	1,2-Dichloroethane	107-06-2	9.90E-03		1.50E-04	5.00E-03	**2.0E+00**
On-Site	3	AOI29	Unit B3	MW-18B	0001-030105-1156	03/01/05	VOC	Trichloroethene	79-01-6	1.70E-02		2.50E-04	5.00E-03	**3.4E+00**
On-Site	3	AOI29	Unit B3	MW-18B	0001-050305-1120	05/03/05	VOC	Benzene	71-43-2	6.00E-02		2.30E-04	5.00E-03	**1.2E+01**
On-Site	3	AOI29	Unit B3	MW-18B	0001-050305-1120	05/03/05	VOC	Carbon Tetrachloride	56-23-5	7.80E-01		1.00E-03	5.00E-03	**1.6E+02**
On-Site	3	AOI29	Unit B3	MW-18B	0001-050305-1120	05/03/05	VOC	Chloroform	67-66-3	7.30E-01		9.00E-04	8.00E-02	**9.1E+00**
On-Site	3	AOI29	Unit B3	MW-18B	0001-050305-1120	05/03/05	VOC	1,2-Dichloroethane	107-06-2	1.40E-02		1.50E-04	5.00E-03	**2.8E+00**
On-Site	3	AOI29	Unit B3	MW-18B	0001-050305-1120	05/03/05	VOC	Trichloroethene	79-01-6	6.30E-02		2.50E-04	5.00E-03	**1.3E+01**
On-Site	3	AOI29	Unit B3	MW-18B	0469-111104-1530	11/11/04	VOC	Methylene Chloride	75-09-2	5.30E-03		1.40E-04	5.00E-03	**1.1E+00**
On-Site	3	AOI29	Unit B3	MW-18B	28499AAP291003WGBV-3	10/29/03	VOC	Benzene	71-43-2	2.20E-02		2.00E-04	5.00E-03	**4.4E+00**
On-Site	3	AOI29	Unit B3	MW-18B	28499AAP291003WGBV-3	10/29/03	VOC	Carbon Tetrachloride	56-23-5	1.50E-01		3.90E-04	5.00E-03	**3.0E+01**
On-Site	3	AOI29	Unit B3	MW-18B	28499AAP291003WGBV-3	10/29/03	VOC	Chloroform	67-66-3	1.40E-01		1.70E-04	8.00E-02	**1.8E+00**
On-Site	3	AOI29	Unit B3	MW-18B	28499AAP291003WGBV-3	10/29/03	VOC	1,2-Dichloroethane	107-06-2	6.10E-03		1.10E-04	5.00E-03	**1.2E+00**
On-Site	3	AOI29	Unit B3	MW-18B	28499AAP291003WGBV-3	10/29/03	VOC	Trichloroethene	79-01-6	3.30E-02		2.50E-04	5.00E-03	**6.6E+00**
On-Site	3	AOI29	Unit B3	MW-18B	28499RWT082002BV1	08/20/02	VOC	Benzene	71-43-2	5.10E-02		9.00E-05	5.00E-03	**1.0E+01**
On-Site	3	AOI29	Unit B3	MW-18B	28499RWT082002BV1	08/20/02	VOC	1,2-Dichloroethane	107-06-2	1.10E-02		2.00E-04	5.00E-03	**2.2E+00**
On-Site	3	AOI29	Unit B3	MW-18B	28499RWT082002BV1	08/20/02	VOC	Methylene Chloride	75-09-2	2.50E-02		1.80E-04	5.00E-03	**5.0E+00**
On-Site	3	AOI29	Unit B3	MW-18B	28499RWT082002BV1	08/20/02	VOC	Trichloroethene	79-01-6	9.90E-03		1.40E-04	5.00E-03	**2.0E+00**
On-Site	1	General	Unit B1	MW-15B	0001-021705-1002	02/17/05	VOC	Benzene	71-43-2	2.40E-02		2.30E-04	5.00E-03	**4.8E+00**
On-Site	1	General	Unit B1	MW-15B	0001-021705-1002	02/17/05	VOC	1,2-Dichloroethane	107-06-2	1.70E-02		1.50E-04	5.00E-03	**3.4E+00**
On-Site	1	General	Unit B1	MW-15B	0001-021705-1002	02/17/05	VOC	Trichloroethene	79-01-6	4.90E-02		2.50E-04	5.00E-03	**9.8E+00**
On-Site	1	General	Unit B1	MW-15B	0001-042005-1438	04/20/05	VOC	Benzene	71-43-2	9.80E-03		2.30E-04	5.00E-03	**2.0E+00**
On-Site	1	General	Unit B1	MW-15B	0001-042005-1438	04/20/05	VOC	1,2-Dichloroethane	107-06-2	6.00E-03		1.50E-04	5.00E-03	**1.2E+00**
On-Site	1	General	Unit B1	MW-15B	0001-042005-1438	04/20/05	VOC	Trichloroethene	79-01-6	1.20E-02		2.50E-04	5.00E-03	**2.4E+00**
On-Site	1	General	Unit B1	MW-15B	0979-111704-1800	11/17/04	VOC	Benzene	71-43-2	1.80E-02		2.00E-04	5.00E-03	**3.6E+00**
On-Site	1	General	Unit B1	MW-15B	0979-111704-1800	11/17/04	VOC	1,2-Dichloroethane	107-06-2	1.20E-02		1.10E-04	5.00E-03	**2.4E+00**
On-Site	1	General	Unit B1	MW-15B	0979-111704-1800	11/17/04	VOC	Trichloroethene	79-01-6	7.90E-02		2.50E-04	5.00E-03	**1.6E+01**
On-Site	1	General	Unit B1	MW-15B	28499AAP231003WGBT-3	10/23/03	VOC	Trichloroethene	79-01-6	7.20E-03		2.50E-04	5.00E-03	**1.4E+00**
On-Site	1	General	Unit B1	MW-15B	28499END300103WGBT-2	01/30/03	VOC	Benzene	71-43-2	2.20E-02		9.00E-05	5.00E-03	**4.4E+00**
On-Site	1	General	Unit B1	MW-15B	28499END300103WGBT-2	01/30/03	VOC	1,2-Dichloroethane	107-06-2	1.30E-02		2.00E-04	5.00E-03	**2.6E+00**
On-Site	1	General	Unit B1	MW-15B	28499END300103WGBT-2	01/30/03	VOC	Trichloroethene	79-01-6	7.20E-02		1.40E-04	5.00E-03	**1.4E+01**
On-Site	1	General	Unit B1	MW-15B	28499RWT082002BT1	08/20/02	VOC	Benzene	71-43-2	1.60E-02		9.00E-05	5.00E-03	**3.2E+00**
On-Site	1	General	Unit B1	MW-15B	28499RWT082002BT1	08/20/02	VOC	1,2-Dichloroethane	107-06-2	8.60E-03		2.00E-04	5.00E-03	**1.7E+00**
On-Site	1	General	Unit B1	MW-15B	28499RWT082002BT1	08/20/02	VOC	Trichloroethene	79-01-6	4.90E-02		1.40E-04	5.00E-03	**9.8E+00**
On-Site	1	General	Unit B1	MW-45B	0001-021505-1139	02/15/05	VOC	1,2-Dichloroethane	107-06-2	9.00E-03		1.50E-04	5.00E-03	**1.8E+00**
On-Site	1	General	Unit B1	MW-45B	0001-021505-1139	02/15/05	VOC	Trichloroethene	79-01-6	7.40E-02	J	2.50E-04	5.00E-03	**1.5E+01**
On-Site	1	General	Unit B1	MW-45B	0001-021505-1139	02/15/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.20E-03		9.20E-04	6.11E-04	**2.0E+00**
On-Site	1	General	Unit B1	MW-45B	0001-041805-1445	04/18/05	VOC	Trichloroethene	79-01-6	7.60E-02		2.50E-04	5.00E-03	**1.5E+01**

Table 3.3.3
Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Wellzone	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	1	General	Unit B1	MW-45B	0001-041805-1445	04/18/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	7.50E-04	J	9.20E-04	6.11E-04	**1.2E+00**
On-Site	1	General	Unit B1	MW-45B	0699-1119041110	11/19/04	VOC	1,2-Dichloroethane	107-06-2	1.30E-02		1.10E-04	5.00E-03	**2.6E+00**
On-Site	1	General	Unit B1	MW-45B	0699-1119041110	11/19/04	VOC	Trichloroethene	79-01-6	9.50E-02		2.50E-04	5.00E-03	**1.9E+01**
On-Site	1	General	Unit B1	MW-45B	0699-1119041110	11/19/04	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.00E-03		7.50E-04	6.11E-04	**3.3E+00**
On-Site	2	General	Unit B2	MW-37B	0001-042905-1445	04/29/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.30E-03		9.20E-04	6.11E-04	**7.0E+00**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	VOC	Benzene	71-43-2	8.10E-02		4.40E-04	5.00E-03	**1.6E+01**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	VOC	1,2-Dichloroethane	107-06-2	6.40E-02		3.00E-04	5.00E-03	**1.3E+01**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	VOC	cis-1,2-Dichloroethene	156-59-2	9.60E-02		2.60E-04	7.00E-02	**1.4E+00**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	VOC	Methylene Chloride	75-09-2	6.70E-03		6.20E-04	5.00E-03	**1.3E+00**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	VOC	Tetrachloroethene	127-18-4	2.20E-02		3.00E-04	5.00E-03	**4.4E+00**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	VOC	Trichloroethene	79-01-6	1.20E+00		2.50E-03	5.00E-03	**2.4E+02**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	VOC	Vinyl Chloride	75-01-4	9.80E-03	J	5.60E-04	2.00E-03	**4.9E+00**
On-Site	2	General	Unit B2	MW-37B	0002-042605-1351	04/26/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	3.70E-03		9.20E-04	6.11E-04	**6.1E+00**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	Benzene	71-43-2	1.80E-01		2.30E-04	5.00E-03	**3.6E+01**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	Chlorobenzene	108-90-7	1.50E-01		1.40E-04	1.00E-01	**1.5E+00**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	1,2-Dichloroethane	107-06-2	9.80E-02		1.50E-04	5.00E-03	**2.0E+01**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.20E-01		1.40E-04	7.00E-02	**1.7E+00**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	Methylene Chloride	75-09-2	2.00E-02		3.10E-04	5.00E-03	**4.0E+00**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	Tetrachloroethene	127-18-4	3.30E-02		1.50E-04	5.00E-03	**6.6E+00**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	Trichloroethene	79-01-6	1.80E+00		2.50E-03	5.00E-03	**3.6E+02**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	VOC	Vinyl Chloride	75-01-4	2.00E-02		2.80E-04	2.00E-03	**1.0E+01**
On-Site	2	General	Unit B2	MW-37B	0003-030105-0957	03/01/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.70E-03		9.20E-04	6.11E-04	**7.7E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	Benzene	71-43-2	8.80E-01		1.10E-03	5.00E-03	**1.8E+02**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	Chlorobenzene	108-90-7	5.90E-01		6.50E-04	1.00E-01	**5.9E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	Chloroform	67-66-3	1.20E-01		9.00E-04	8.00E-02	**1.5E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	1,2-Dichloroethane	107-06-2	3.00E-01		7.50E-04	5.00E-03	**6.0E+01**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	cis-1,2-Dichloroethene	156-59-2	2.50E-01		6.50E-04	7.00E-02	**3.6E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	trans-1,2-Dichloroethene	156-60-5	1.40E-01		9.50E-04	1.00E-01	**1.4E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	Tetrachloroethene	127-18-4	8.20E-02		7.50E-04	5.00E-03	**1.6E+01**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	1,1,2-Trichloroethane	79-00-5	7.40E-03	J	1.50E-03	5.00E-03	**1.5E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	Trichloroethene	79-01-6	4.60E+00		1.20E-02	5.00E-03	**9.2E+02**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	VOC	Vinyl Chloride	75-01-4	9.30E-03	J	1.50E-03	2.00E-03	**4.7E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	5.60E-03		9.20E-04	6.11E-04	**9.2E+00**
On-Site	2	General	Unit B2	MW-43B	0002-050905-1056	05/09/05	INORG	Arsenic	7440-38-2	1.25E-02		4.90E-04	1.00E-02	**1.3E+00**
On-Site	2	General	Unit B2	MW-44B	0002-050905-1441	05/09/05	VOC	Benzene	71-43-2	6.05E-02		2.30E-04	5.00E-03	**1.2E+01**
On-Site	2	General	Unit B2	MW-44B	0002-050905-1441	05/09/05	VOC	1,2-Dichloroethane	107-06-2	4.30E-02		1.50E-04	5.00E-03	**8.6E+00**
On-Site	2	General	Unit B2	MW-44B	0002-050905-1441	05/09/05	VOC	Tetrachloroethene	127-18-4	5.50E-03		1.50E-04	5.00E-03	**1.1E+00**
On-Site	2	General	Unit B2	MW-44B	0002-050905-1441	05/09/05	VOC	Trichloroethene	79-01-6	2.50E-01		5.00E-04	5.00E-03	**5.0E+01**
On-Site	2	General	Unit B2	MW-44B	0002-050905-1441	05/09/05	VOC	Vinyl Chloride	75-01-4	4.15E-03	J	2.80E-04	2.00E-03	**2.1E+00**
On-Site	2	General	Unit B2	MW-44B	0002-050905-1441	05/09/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.20E-03		9.20E-04	6.11E-04	**3.6E+00**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Benzene	71-43-2	1.20E+00		2.20E-03	5.00E-03	**2.4E+02**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Carbon Tetrachloride	56-23-5	4.90E-01		2.10E-03	5.00E-03	**9.8E+01**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Chlorobenzene	108-90-7	8.00E-01		1.30E-03	1.00E-01	**8.0E+00**

Table 3.3.3
Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Wellzone	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Chloroform	67-66-3	2.50E+00		1.80E-02	8.00E-02	**3.1E+01**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	1,2-Dichloroethane	107-06-2	4.10E-01		1.50E-03	5.00E-03	**8.2E+01**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	1,1-Dichloroethene	75-35-4	2.20E-02		3.20E-03	7.00E-03	**3.1E+00**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.60E+00		1.30E-03	7.00E-02	**2.3E+01**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	trans-1,2-Dichloroethene	156-60-5	4.20E-01		2.00E-03	1.00E-01	**4.2E+00**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Methylene Chloride	75-09-2	9.60E-01		3.10E-03	5.00E-03	**1.9E+02**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	1,1,2,2-Tetrachloroethane	79-34-5	6.80E-03	J	1.50E-03	3.36E-03	**2.0E+00**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Tetrachloroethene	127-18-4	3.80E-01		1.50E-03	5.00E-03	**7.6E+01**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	1,1,2-Trichloroethane	79-00-5	3.60E-02		2.80E-03	5.00E-03	**7.2E+00**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Trichloroethene	79-01-6	1.40E+01		2.50E-02	5.00E-03	**2.8E+03**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	VOC	Vinyl Chloride	75-01-4	8.80E-02		2.80E-03	2.00E-03	**4.4E+01**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	2.90E-02		9.20E-04	6.11E-04	**4.7E+01**
On-Site	2	General	Unit B2	MW-47B	0001-050405-1418	05/04/05	INORG	Arsenic	7440-38-2	1.33E-02		4.90E-04	1.00E-02	**1.3E+00**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	Benzene	71-43-2	6.60E-01	J	3.30E-03	5.00E-03	**1.3E+02**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	Chloroform	67-66-3	1.60E-01		5.40E-04	8.00E-02	**2.0E+00**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	1,2-Dichloroethane	107-06-2	1.95E-01		4.50E-04	5.00E-03	**3.9E+01**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	cis-1,2-Dichloroethene	156-59-2	1.70E-01		3.95E-04	7.00E-02	**2.4E+00**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	Methylene Chloride	75-09-2	3.70E-02		9.55E-04	5.00E-03	**7.4E+00**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	Tetrachloroethene	127-18-4	5.15E-02	J	4.50E-04	5.00E-03	**1.0E+01**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	1,1,2-Trichloroethane	79-00-5	1.10E-02	J	8.90E-04	5.00E-03	**2.2E+00**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	Trichloroethene	79-01-6	4.45E+00		6.20E-03	5.00E-03	**8.9E+02**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	VOC	Vinyl Chloride	75-01-4	1.40E-02	J	8.90E-04	2.00E-03	**7.0E+00**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	4.00E-03		9.20E-04	6.11E-04	**6.5E+00**
On-Site	2	General	Unit B2	MW-49B	0001-030105-0958	03/01/05	INORG	Arsenic	7440-38-2	1.70E-02		4.90E-04	1.00E-02	**1.7E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Benzene	71-43-2	7.00E-01		1.10E-03	5.00E-03	**1.4E+02**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Carbon Tetrachloride	56-23-5	1.50E-02		1.00E-03	5.00E-03	**3.0E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Chlorobenzene	108-90-7	3.50E-01		6.50E-04	1.00E-01	**3.5E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Chloroform	67-66-3	9.70E-01		9.00E-04	8.00E-02	**1.2E+01**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	1,2-Dichloroethane	107-06-2	2.30E-01		7.50E-04	5.00E-03	**4.6E+01**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	1,1-Dichloroethene	75-35-4	7.60E-03	J	1.60E-03	7.00E-03	**1.1E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	cis-1,2-Dichloroethene	156-59-2	4.10E-01		6.50E-04	7.00E-02	**5.9E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	trans-1,2-Dichloroethene	156-60-5	1.60E-01		9.50E-04	1.00E-01	**1.6E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Methylene Chloride	75-09-2	2.70E-01		1.60E-03	5.00E-03	**5.4E+01**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Tetrachloroethene	127-18-4	1.40E-01		7.50E-04	5.00E-03	**2.8E+01**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	1,1,2-Trichloroethane	79-00-5	1.80E-02		1.50E-03	5.00E-03	**3.6E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Trichloroethene	79-01-6	6.50E+00		1.20E-02	5.00E-03	**1.3E+03**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	VOC	Vinyl Chloride	75-01-4	2.40E-02	J	1.50E-03	2.00E-03	**1.2E+01**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	8.60E-03		9.20E-04	6.11E-04	**1.4E+01**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	INORG	Arsenic	7440-38-2	2.11E-02		4.90E-04	1.00E-02	**2.1E+00**
On-Site	2	General	Unit B2	MW-49B	0001-050505-1015	05/05/05	INORG	Vanadium	7440-62-2	3.94E-02		3.90E-04	3.65E-02	**1.1E+00**
On-Site	2	General	Unit B2	MW-50B	0002-050905-1331	05/09/05	VOC	Benzene	71-43-2	1.10E-02		2.30E-04	5.00E-03	**2.2E+00**
On-Site	2	General	Unit B2	MW-50B	0002-050905-1331	05/09/05	VOC	1,2-Dichloroethane	107-06-2	5.40E-03		1.50E-04	5.00E-03	**1.1E+00**
On-Site	2	General	Unit B2	MW-50B	0002-050905-1331	05/09/05	VOC	Trichloroethene	79-01-6	9.00E-03		2.50E-04	5.00E-03	**1.8E+00**

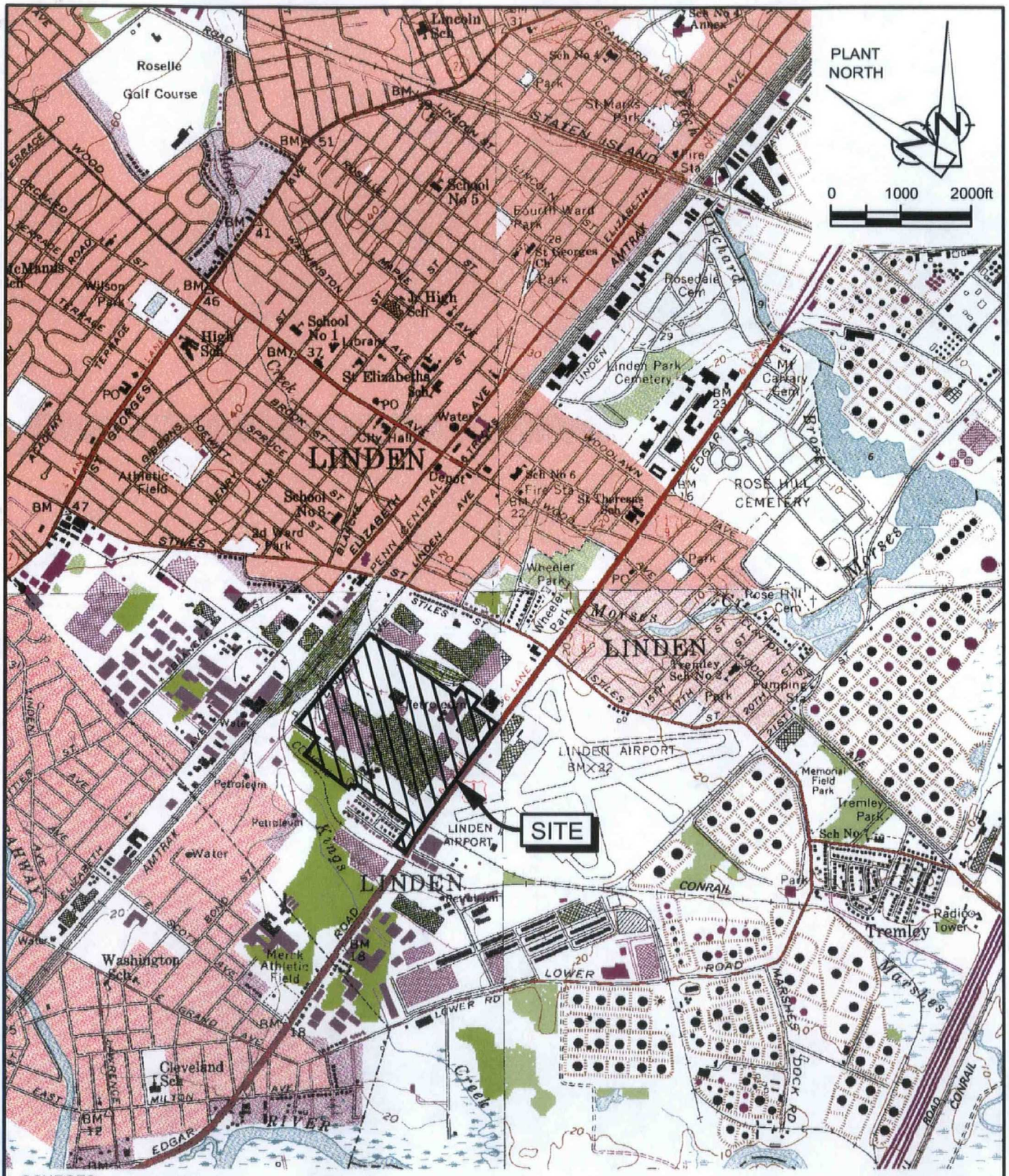
Table 3.3.3
Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Wellzone	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	2	General	Unit B2	MW-50B	0003-031505-1255	03/15/05	VOC	Benzene	71-43-2	2.60E-02		2.30E-04	5.00E-03	**5.2E+00**
On-Site	2	General	Unit B2	MW-50B	0003-031505-1255	03/15/05	VOC	1,2-Dichloroethane	107-06-2	5.70E-03		1.50E-04	5.00E-03	**1.1E+00**
On-Site	2	General	Unit B2	MW-50B	0003-031505-1255	03/15/05	VOC	Trichloroethene	79-01-6	1.60E-02		2.50E-04	5.00E-03	**3.2E+00**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	Benzene	71-43-2	9.80E-01		1.10E-03	5.00E-03	**2.0E+02**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	Chlorobenzene	108-90-7	5.50E-01		6.50E-04	1.00E-01	**5.5E+00**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	Chloroform	67-66-3	1.80E+00		9.00E-03	8.00E-02	**2.3E+01**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	1,2-Dichloroethane	107-06-2	3.60E-01		7.50E-04	5.00E-03	**7.2E+01**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	1,1-Dichloroethene	75-35-4	1.40E-02		1.60E-03	7.00E-03	**2.0E+00**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	cis-1,2-Dichloroethene	156-59-2	8.50E-01		6.50E-04	7.00E-02	**1.2E+01**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	trans-1,2-Dichloroethene	156-60-5	3.10E-01		9.50E-04	1.00E-01	**3.1E+00**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	Methylene Chloride	75-09-2	7.40E-01		1.60E-03	5.00E-03	**1.5E+02**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	Tetrachloroethene	127-18-4	3.10E-01		7.50E-04	5.00E-03	**6.2E+01**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	1,1,2-Trichloroethane	79-00-5	2.80E-02		1.50E-03	5.00E-03	**5.6E+00**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	Trichloroethene	79-01-6	9.80E+00		1.20E-02	5.00E-03	**2.0E+03**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	VOC	Vinyl Chloride	75-01-4	6.20E-02		1.50E-03	2.00E-03	**3.1E+01**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.90E-02		9.20E-04	6.11E-04	**3.1E+01**
On-Site	2	General	Unit B2	MW-66B	0001-050405-1035	05/04/05	INORG	Arsenic	7440-38-2	1.58E-02		4.90E-04	1.00E-02	**1.6E+00**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Benzene	71-43-2	1.10E+00		2.20E-03	5.00E-03	**2.2E+02**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Carbon Tetrachloride	56-23-5	1.20E-02	J	2.10E-03	5.00E-03	**2.4E+00**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Chlorobenzene	108-90-7	6.30E-01		1.30E-03	1.00E-01	**6.3E+00**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Chloroform	67-66-3	2.00E+00		1.80E-03	8.00E-02	**2.5E+01**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	1,2-Dichloroethane	107-06-2	3.90E-01		1.50E-03	5.00E-03	**7.8E+01**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	1,1-Dichloroethene	75-35-4	1.50E-02	J	3.20E-03	7.00E-03	**2.1E+00**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	cis-1,2-Dichloroethene	156-59-2	9.00E-01		1.30E-03	7.00E-02	**1.3E+01**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	trans-1,2-Dichloroethene	156-60-5	3.30E-01		2.00E-03	1.00E-01	**3.3E+00**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Methylene Chloride	75-09-2	7.80E-01		3.10E-03	5.00E-03	**1.6E+02**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Tetrachloroethene	127-18-4	3.20E-01		1.50E-03	5.00E-03	**6.4E+01**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	1,1,2-Trichloroethane	79-00-5	3.90E-02		2.80E-03	5.00E-03	**7.8E+00**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Trichloroethene	79-01-6	1.20E+01		2.50E-02	5.00E-03	**2.4E+03**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	VOC	Vinyl Chloride	75-01-4	7.80E-02		2.80E-03	2.00E-03	**3.9E+01**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	1.90E-02		9.20E-04	6.11E-04	**3.1E+01**
On-Site	2	General	Unit B2	MW-66B	0003-022405-1257	02/24/05	INORG	Arsenic	7440-38-2	1.78E-02		4.90E-04	1.00E-02	**1.8E+00**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Benzene	71-43-2	6.20E-01		1.10E-03	5.00E-03	**1.2E+02**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Carbon Tetrachloride	56-23-5	8.80E-03	J	1.00E-03	5.00E-03	**1.8E+00**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Chlorobenzene	108-90-7	3.00E-01		6.50E-04	1.00E-01	**3.0E+00**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Chloroform	67-66-3	1.80E-01		9.00E-04	8.00E-02	**2.3E+00**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	1,2-Dichloroethane	107-06-2	1.60E-01		7.50E-04	5.00E-03	**3.2E+01**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	1,1-Dichloroethene	75-35-4	8.80E-03	J	1.60E-03	7.00E-03	**1.3E+00**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	cis-1,2-Dichloroethene	156-59-2	3.10E-01		6.50E-04	7.00E-02	**4.4E+00**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	trans-1,2-Dichloroethene	156-60-5	1.60E-01		9.50E-04	1.00E-01	**1.6E+00**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Methylene Chloride	75-09-2	7.40E-02		1.60E-03	5.00E-03	**1.5E+01**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Tetrachloroethene	127-18-4	1.10E-01		7.50E-04	5.00E-03	**2.2E+01**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	1,1,2-Trichloroethane	79-00-5	1.80E-02		1.50E-03	5.00E-03	**3.6E+00**

Table 3.3.3
Bedrock Groundwater Samples Exceeding Screening Criteria
GMC - Linden, New Jersey

On/Off Site	Well Group	Area	Wellzone	Location	Sample ID	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Qual	MRL (mg/L)	Drinking Water Criteria (mg/L)	Ratio of Conc to DW Criteria
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Trichloroethene	79-01-6	4.90E+00		1.20E-02	5.00E-03	**9.8E+02**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	VOC	Vinyl Chloride	75-01-4	3.60E-02		1.50E-03	2.00E-03	**1.8E+01**
On-Site	2	General	Unit B2	MW-9B	0001-022105-1206	02/21/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	7.30E-03		9.20E-04	6.11E-04	**1.2E+01**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Benzene	71-43-2	4.40E-01		1.10E-03	5.00E-03	**8.8E+01**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Carbon Tetrachloride	56-23-5	8.00E-03	J	1.00E-03	5.00E-03	**1.6E+00**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Chlorobenzene	108-90-7	2.40E-01		6.50E-04	1.00E-01	**2.4E+00**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Chloroform	67-66-3	1.30E-01		9.00E-04	8.00E-02	**1.6E+00**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	1,2-Dichloroethane	107-06-2	1.30E-01		7.50E-04	5.00E-03	**2.6E+01**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	cis-1,2-Dichloroethene	156-59-2	2.20E-01		6.50E-04	7.00E-02	**3.1E+00**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	trans-1,2-Dichloroethene	156-60-5	1.10E-01		9.50E-04	1.00E-01	**1.1E+00**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Methylene Chloride	75-09-2	4.90E-02		1.60E-03	5.00E-03	**9.8E+00**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Tetrachloroethene	127-18-4	8.00E-02		7.50E-04	5.00E-03	**1.6E+01**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	1,1,2-Trichloroethane	79-00-5	1.20E-02	J	1.50E-03	5.00E-03	**2.4E+00**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Trichloroethene	79-01-6	3.00E+00		6.20E-03	5.00E-03	**6.0E+02**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	VOC	Vinyl Chloride	75-01-4	2.20E-02	J	1.50E-03	2.00E-03	**1.1E+01**
On-Site	2	General	Unit B2	MW-9B	0002-042605-1156	04/26/05	SVOC	bis(2-Chloroethyl) ether	111-44-4	6.00E-03		9.20E-04	6.11E-04	**9.8E+00**
On-Site	3	General	Unit B3	MW-49BD	0001-050505-1325	05/05/05	VOC	Benzene	71-43-2	6.20E-02		2.30E-04	5.00E-03	**1.2E+01**
On-Site	3	General	Unit B3	MW-49BD	0001-050505-1325	05/05/05	VOC	1,2-Dichloroethane	107-06-2	1.70E-02		1.50E-04	5.00E-03	**3.4E+00**
On-Site	3	General	Unit B3	MW-49BD	0001-050505-1325	05/05/05	VOC	Methylene Chloride	75-09-2	7.30E-03		3.10E-04	5.00E-03	**1.5E+00**
On-Site	3	General	Unit B3	MW-49BD	0001-050505-1325	05/05/05	VOC	Trichloroethene	79-01-6	1.50E-01		2.50E-04	5.00E-03	**3.0E+01**
On-Site	3	General	Unit B3	MW-49BD	0001-050505-1325	05/05/05	VOC	Vinyl Chloride	75-01-4	3.20E-03	J	2.80E-04	2.00E-03	**1.6E+00**
On-Site	3	General	Unit B3	MW-55B	0002-021405-1111	02/14/05	VOC	Trichloroethene	79-01-6	1.20E-02		2.50E-04	5.00E-03	**2.4E+00**
On-Site	3	General	Unit B3	MW-63B	0001-042105-1330	04/21/05	VOC	Trichloroethene	79-01-6	1.00E-01		2.50E-04	5.00E-03	**2.0E+01**

Figures

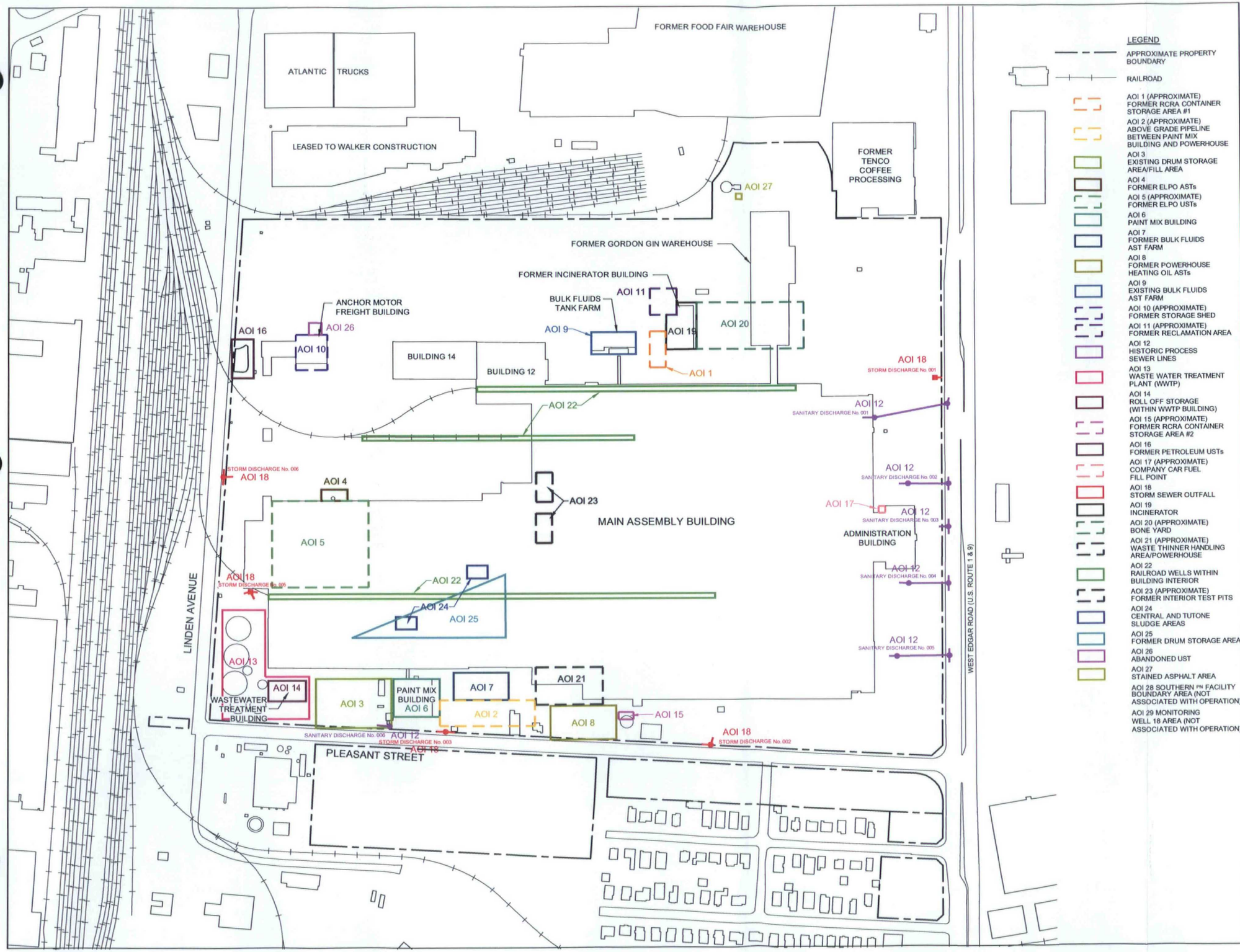


SOURCES:
USGS QUADRANGLES, PHOTOREVISED 1981:
ARTHUR KILL, N.Y.-N.J.
PERTH AMBOY, N.J.
ELIZABETH, N.J.-N.Y.
ROSELLE, N.J.

figure 1

FACILITY LOCATION
GENERAL MOTORS VEHICLE MANUFACTURING-
LINDEN ASSEMBLY
Linden, New Jersey

17371-00(PRES019)GN-WA002 JUL 25/2005



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- AOI 1 (APPROXIMATE) FORMER RCRA CONTAINER STORAGE AREA #1
- AOI 2 (APPROXIMATE) ABOVE GRADE PIPELINE BETWEEN PAINT MIX BUILDING AND POWERHOUSE
- AOI 3 EXISTING DRUM STORAGE AREA/FILL AREA
- AOI 4 FORMER ELPO ASTs
- AOI 5 (APPROXIMATE) FORMER ELPO USTs
- AOI 6 PAINT MIX BUILDING
- AOI 7 FORMER BULK FLUIDS AST FARM
- AOI 8 FORMER POWERHOUSE HEATING OIL ASTs
- AOI 9 EXISTING BULK FLUIDS AST FARM
- AOI 10 (APPROXIMATE) FORMER STORAGE SHED
- AOI 11 (APPROXIMATE) FORMER RECLAMATION AREA
- AOI 12 HISTORIC PROCESS SEWER LINES
- AOI 13 WASTE WATER TREATMENT PLANT (WWTP)
- AOI 14 ROLL OFF STORAGE (WITHIN WWTP BUILDING)
- AOI 15 (APPROXIMATE) FORMER RCRA CONTAINER STORAGE AREA #2
- AOI 16 FORMER PETROLEUM USTs
- AOI 17 (APPROXIMATE) COMPANY CAR FUEL FILL POINT
- AOI 18 STORM SEWER OUTFALL
- AOI 19 INCINERATOR
- AOI 20 (APPROXIMATE) BONE YARD
- AOI 21 (APPROXIMATE) WASTE THINNER HANDLING AREA/POWERHOUSE
- AOI 22 RAILROAD WELLS WITHIN BUILDING INTERIOR
- AOI 23 (APPROXIMATE) FORMER INTERIOR TEST PITS
- AOI 24 CENTRAL AND TUTONE SLUDGE AREAS
- AOI 25 FORMER DRUM STORAGE AREA
- AOI 26 ABANDONED UST
- AOI 27 STAINED ASPHALT AREA
- AOI 28 SOUTHERN PN FACILITY BOUNDARY AREA (NOT ASSOCIATED WITH OPERATION)
- AOI 29 MONITORING WELL 18 AREA (NOT ASSOCIATED WITH OPERATION)

No	Revision	Date	Initial

PLANT NORTH

0 60 150ft

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

DRAWING STATUS

Status	Date	Initial

GENERAL MOTORS VEHICLE MANUFACTURING-
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

FACILITY PLAN SHOWING AOI INVESTIGATION AREAS

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:
JAMES M. STEWART SURVEYING, INC.-BASE APRIL 2002, WELLS JUNE 27, 2002

Project Manager:	Reviewed By:	Date:	
IKR	SE	JULY 2005	
Scale: 1"=150'	Project N #: 17371-00	Report N #: PRES019	Drawing N #: figure 2

17371-00(PRES019)GN-WA003 JUL 25/2005

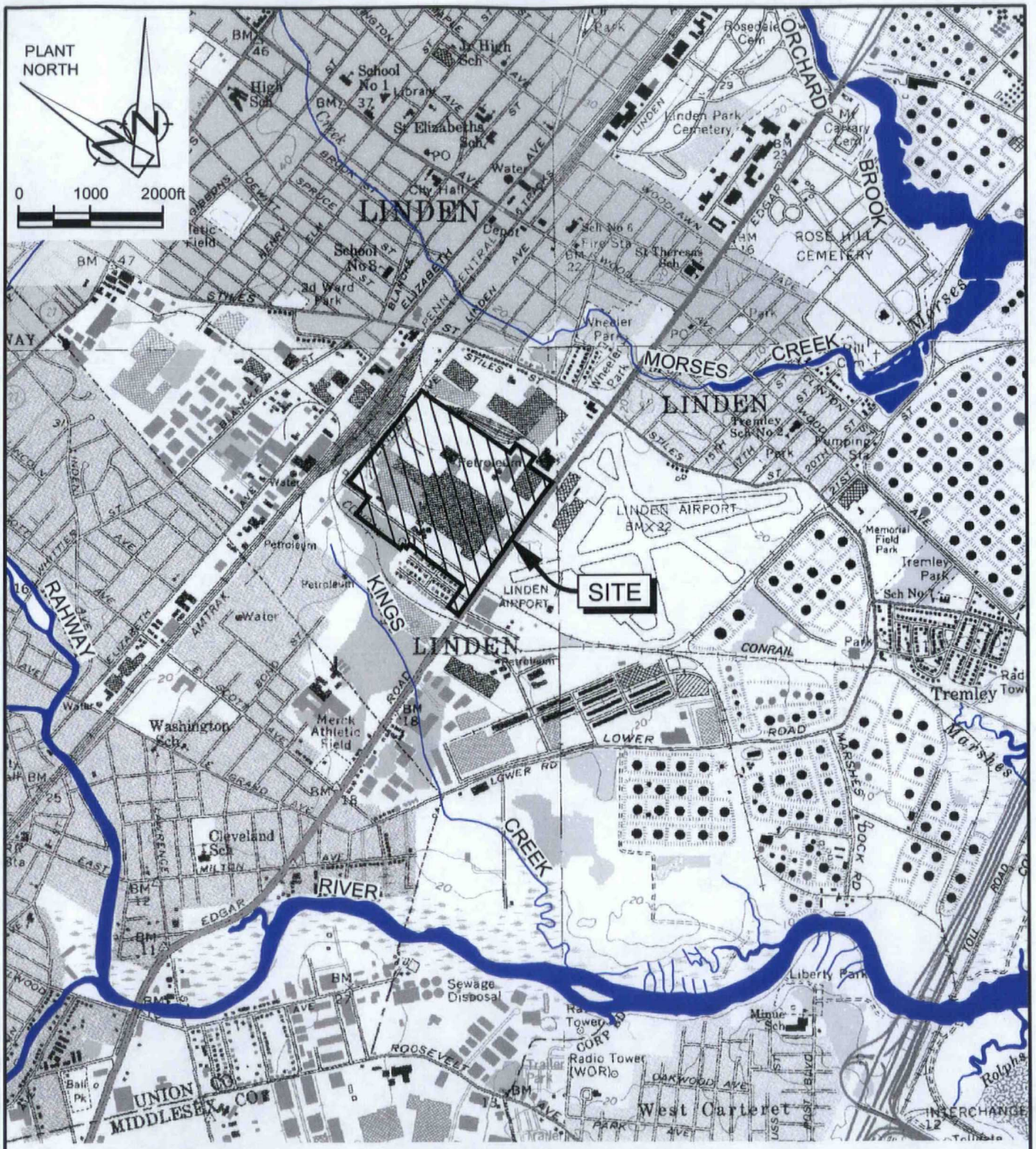
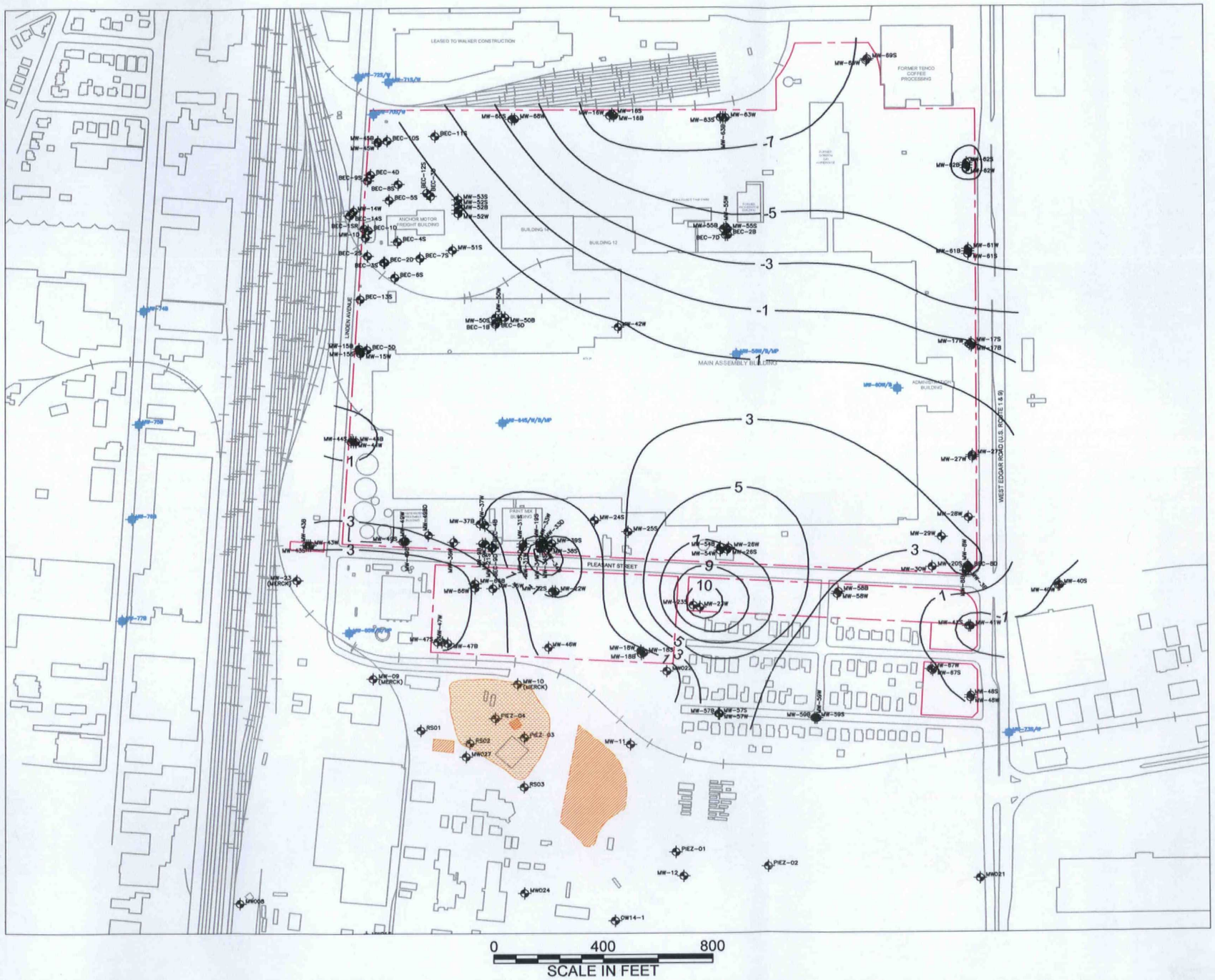


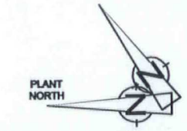
figure 3

LOCAL WATER BODIES
GENERAL MOTORS VEHICLE MANUFACTURING-
LINDEN ASSEMBLY
Linden, New Jersey

SOURCE:
USGS 7.5 MINUTE TOPOGRAPHIC STATE QUADRANGLE MAPS (ELIZABETH, ROSELLE, ARTHUR KELL AND PERTH AMBOY) 1981
SCALE 1:24000

17371-00(PRES019)GN-WA004 JUL 25/2005





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- MW-41S PROPOSED MONITORING WELL LOCATION
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

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UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

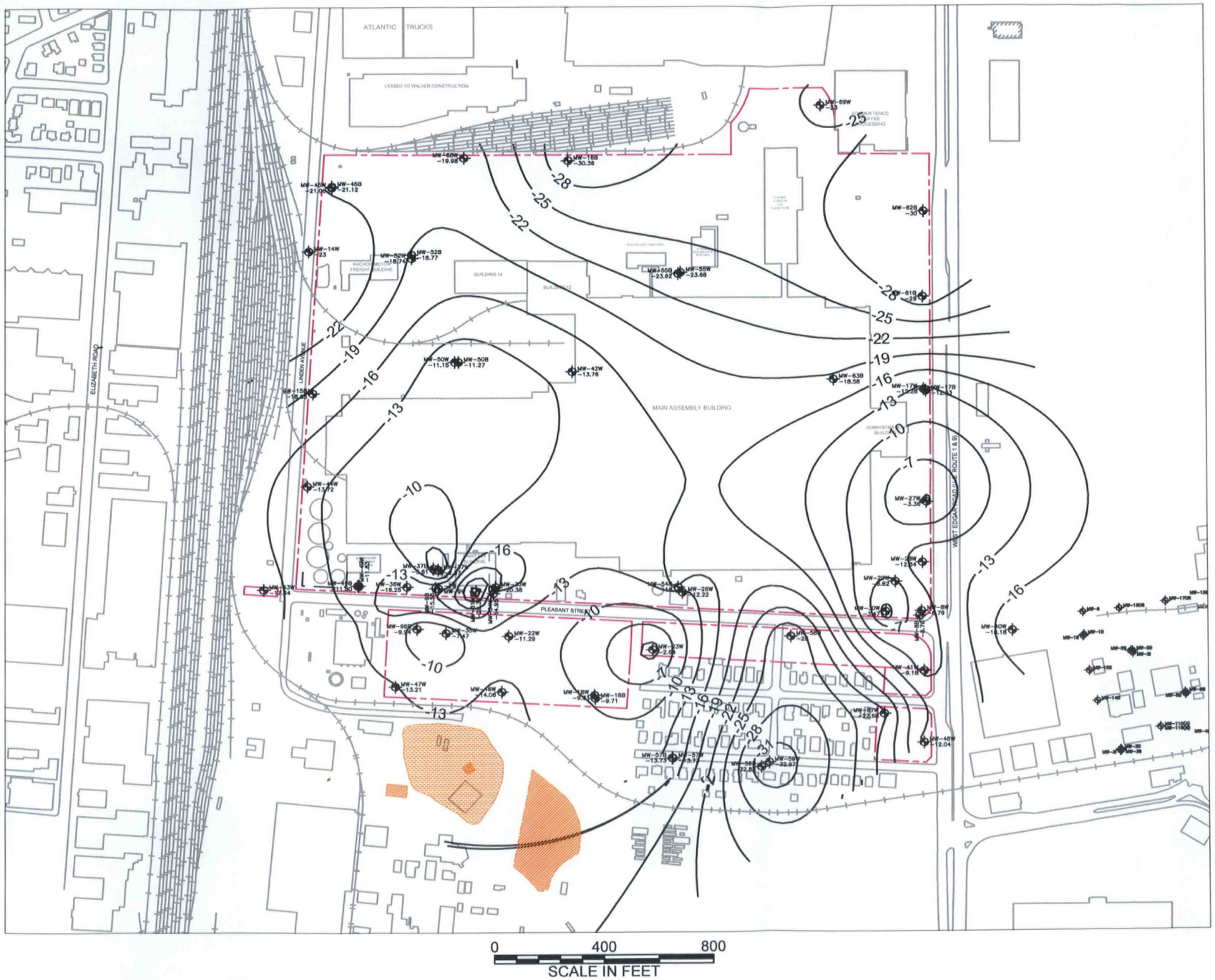
TOP OF WEATHERED BEDROCK CONTOUR MAP

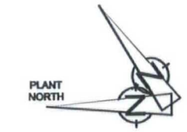
SCALE: AS SHOWN

JULY 29, 2005

FIGURE 9

G:\28499\308\CA750\Figures\28499-SUB_CROP_MAP.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — TOP OF BEDROCK ELEVATION CONTOUR (CONTOUR INTERVAL: 3 FEET)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

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GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

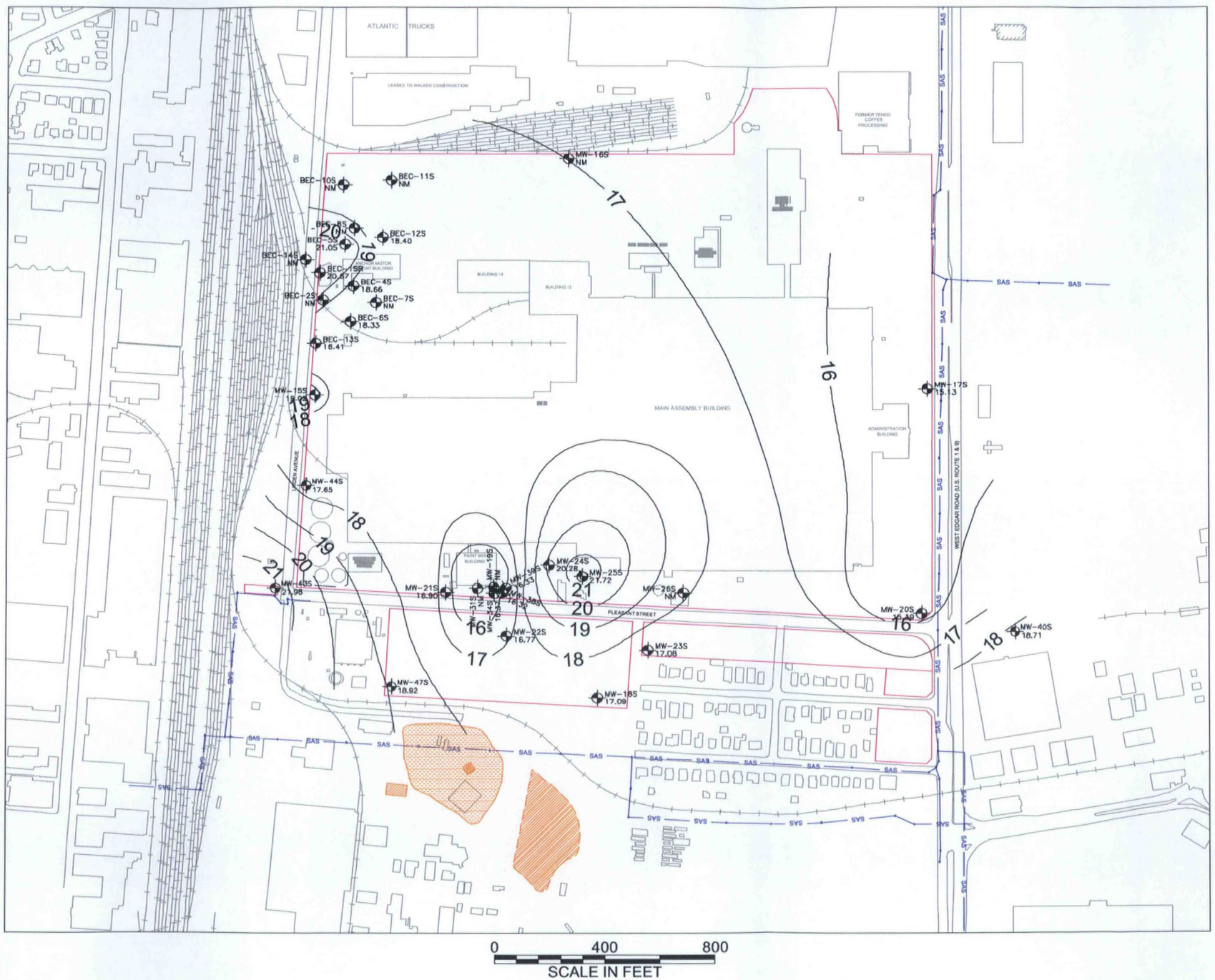
TOP OF BEDROCK CONTOUR PLAN

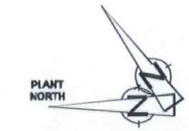
SCALE: AS SHOWN

JUNE 13, 2005

FIGURE 10

G:\28499\Stage III\CAD\28499-BEDROCK_ELEVATIONS_R3.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JANUARY 14, 2005.
2. NM – NOT MEASURED.

HALEY & ALDRICH

GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

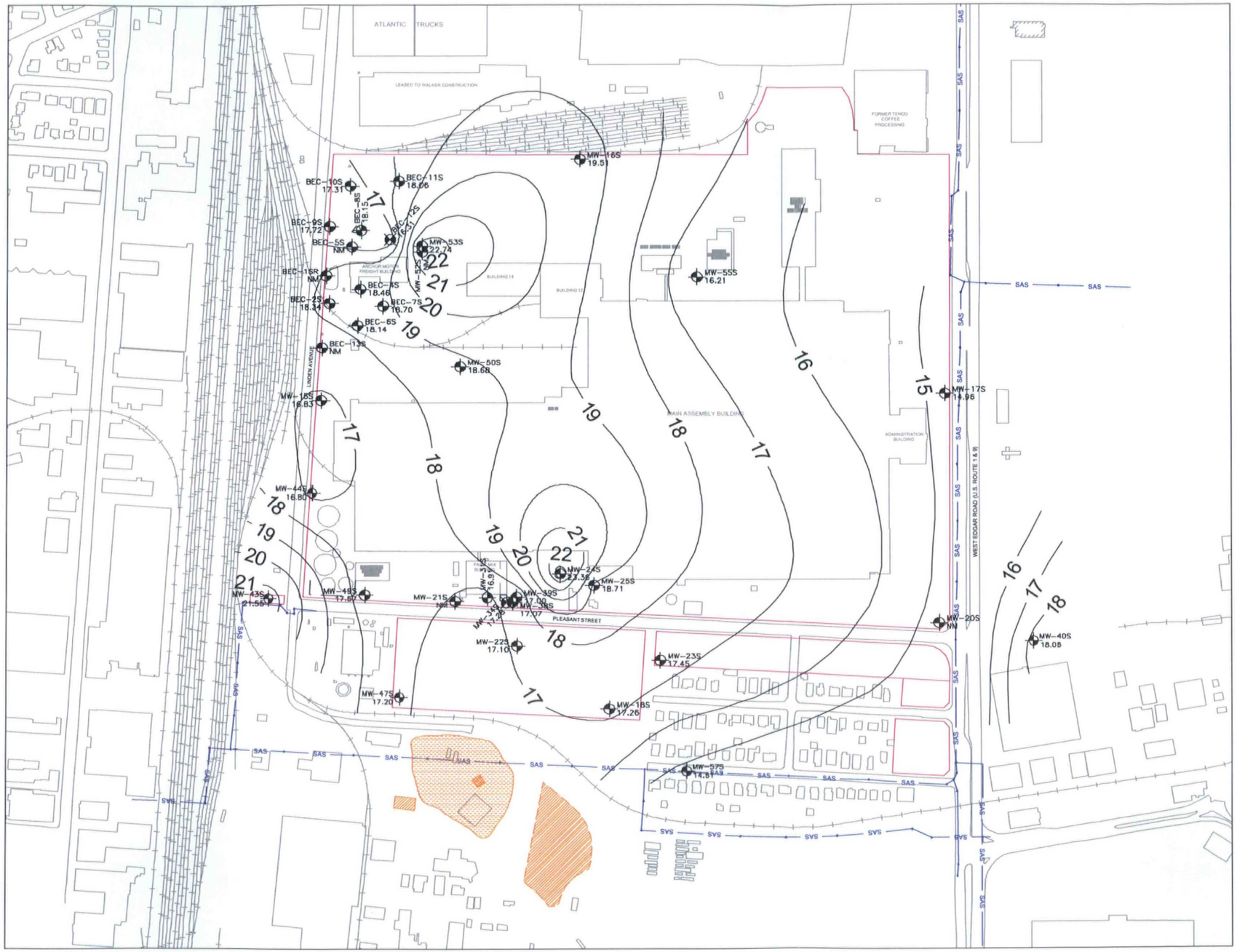
GROUNDWATER ELEVATIONS
OVERBURDEN
JANUARY 2005

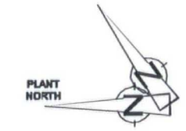
SCALE: AS SHOWN

JULY 29, 2005

FIGURE 11A

G:\28499\308\CA750\Figures\JAN05_GW_ELEV.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON FEBRUARY 11, 2005.
2. NM – NOT MEASURED.

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GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

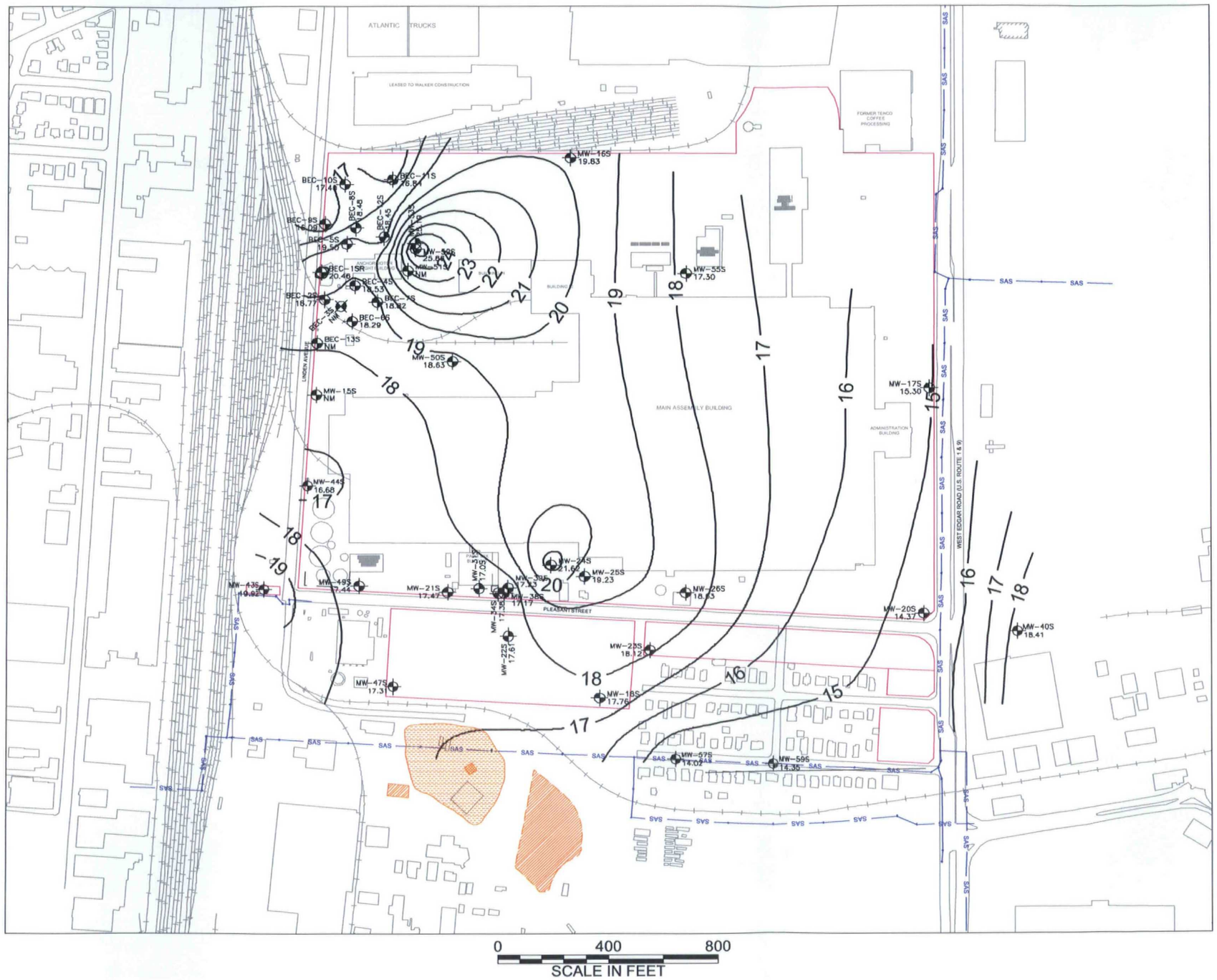
GROUNDWATER ELEVATIONS
OVERBURDEN WELLS
FEBRUARY 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 11B

G:\28499\308\CA750\Figures\FEBRUARY_2005_GW CONT.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MARCH 17, 2005.
2. NM – NOT MEASURED.

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GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

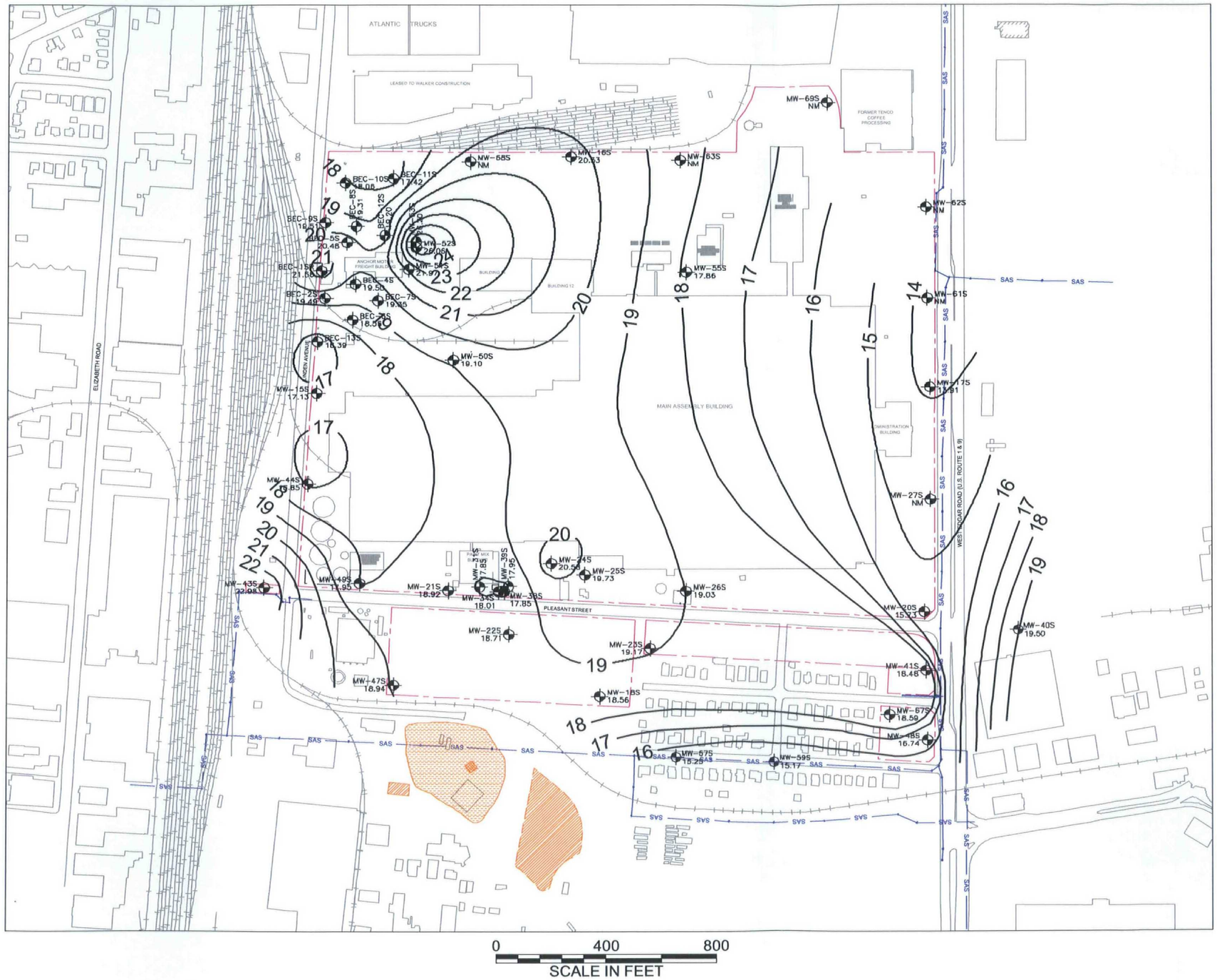
GROUNDWATER CONTOURS
OVERBURDEN
MARCH 2005

SCALE: AS SHOWN

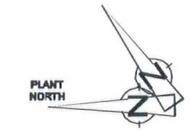
JULY 29, 2005

FIGURE 11C

G:\28499\308\CA750\Figures\28499-UTILITY_GW-CONT_R2.dwg



0 400 800
SCALE IN FEET



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON APRIL 5, 2005.
2. NM – NOT MEASURED.

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GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

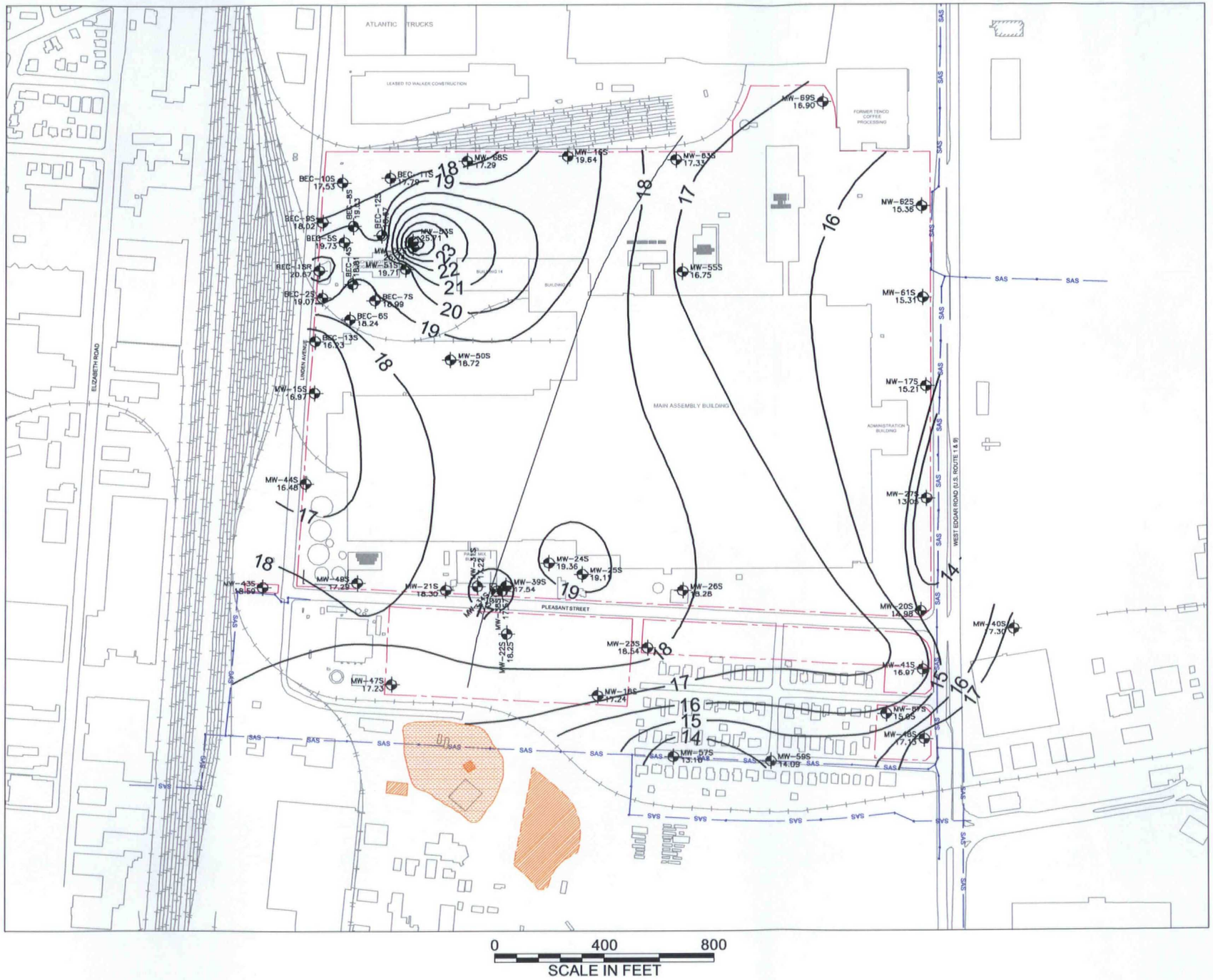
GROUNDWATER CONTOURS
OVERBURDEN
APRIL 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 11D

G:\28499\308\CA750\Figures\28499-GW_CONT-APRIL_2005_R2.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MAY 9, 2005.
2. NM – NOT MEASURED.

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GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

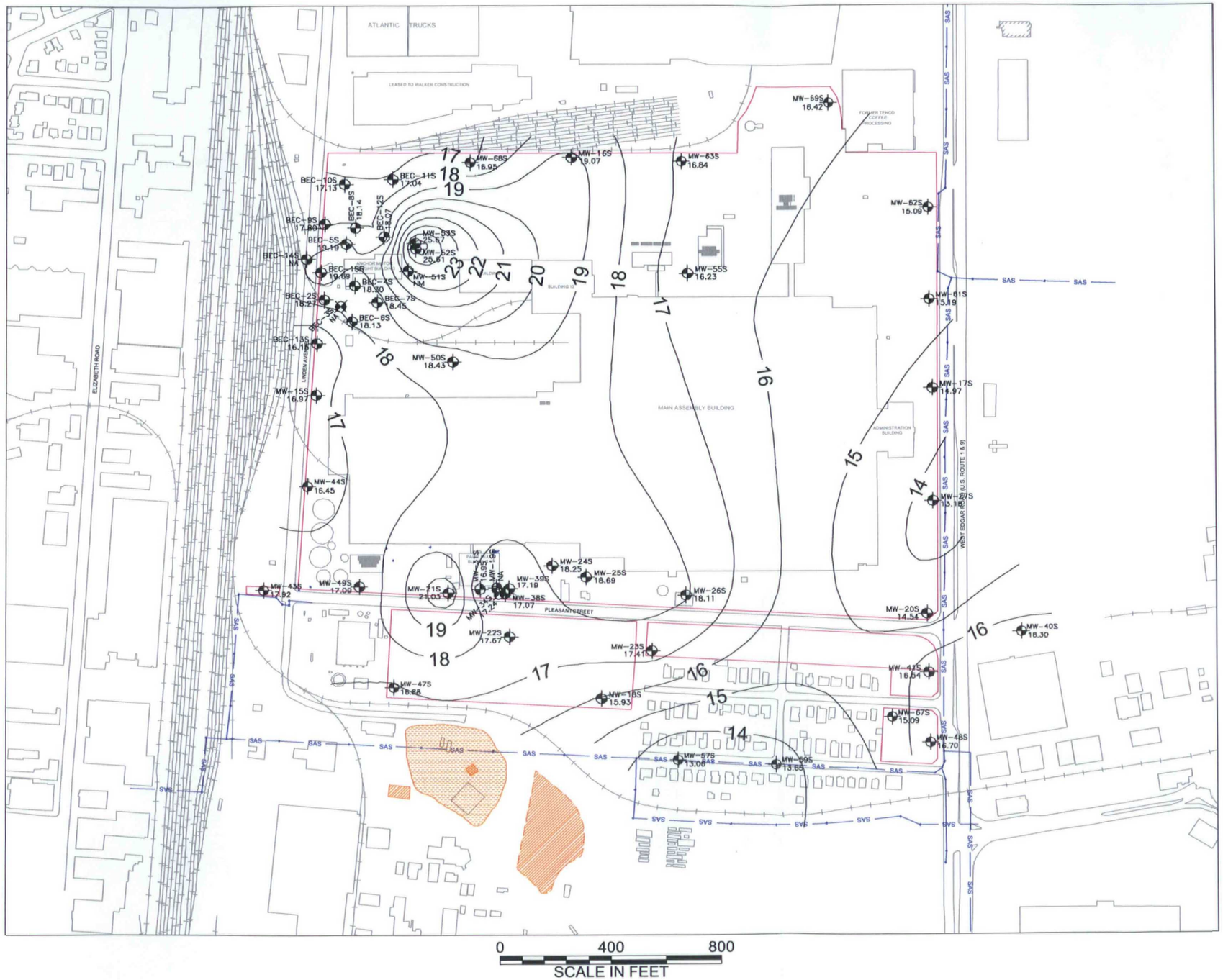
GROUNDWATER CONTOURS
OVERBURDEN
MAY 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 11E

G:\28499\308\CA750\Figures\28499-GW_CONT-MAY_2005_R3.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JUNE 20, 2005.
2. NM – NOT MEASURED.

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GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

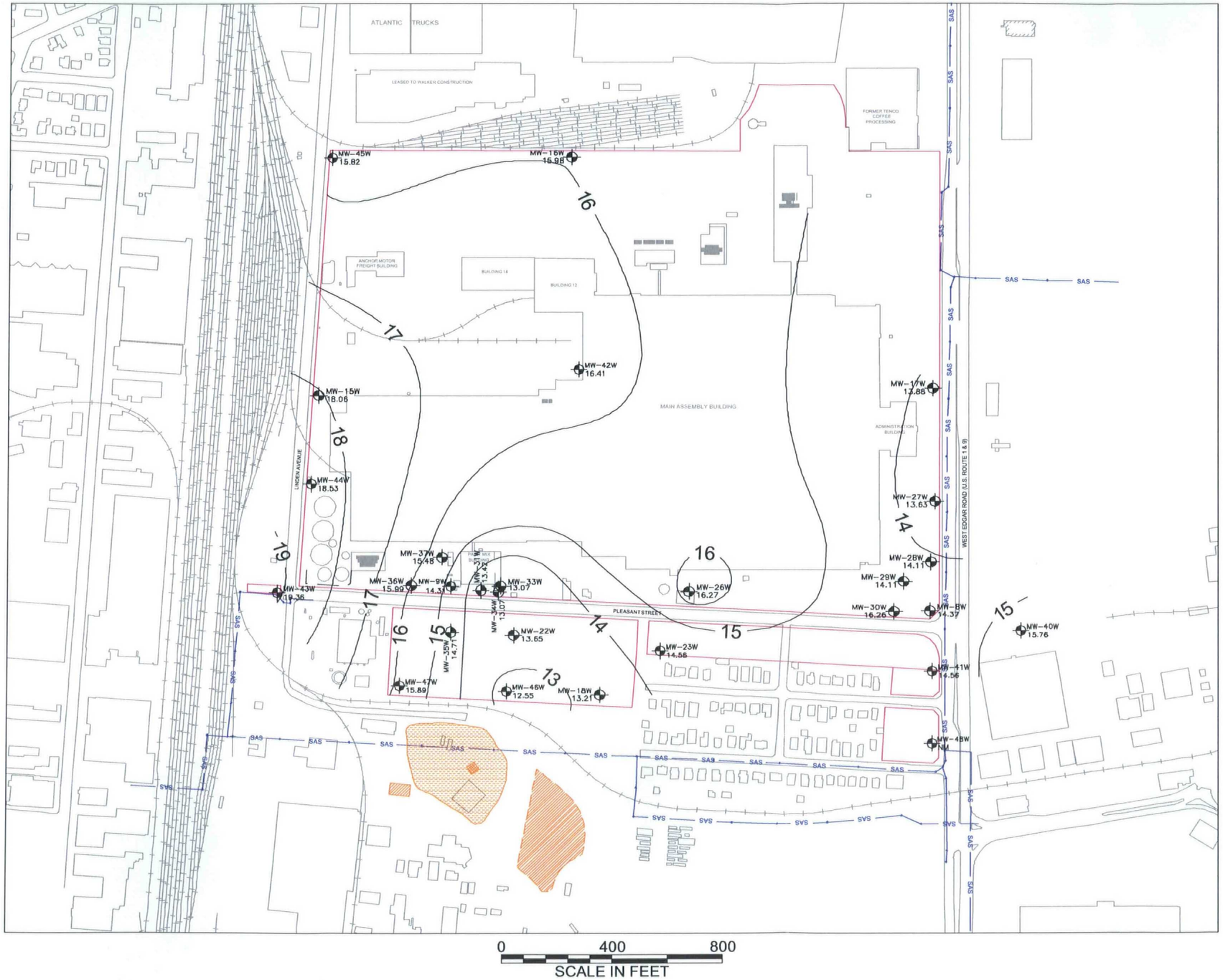
GROUNDWATER CONTOURS
OVERBURDEN WELLS
JUNE 2005

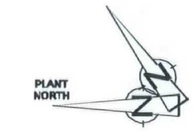
SCALE: AS SHOWN

JUNE 13, 2005

FIGURE 11F

G:\28499\308\CA750\Figures\28499-GW_CONT_JUNE-2005.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JANUARY 14, 2005.
2. NM – NOT MEASURED.

HALEY & ALDRICH

GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

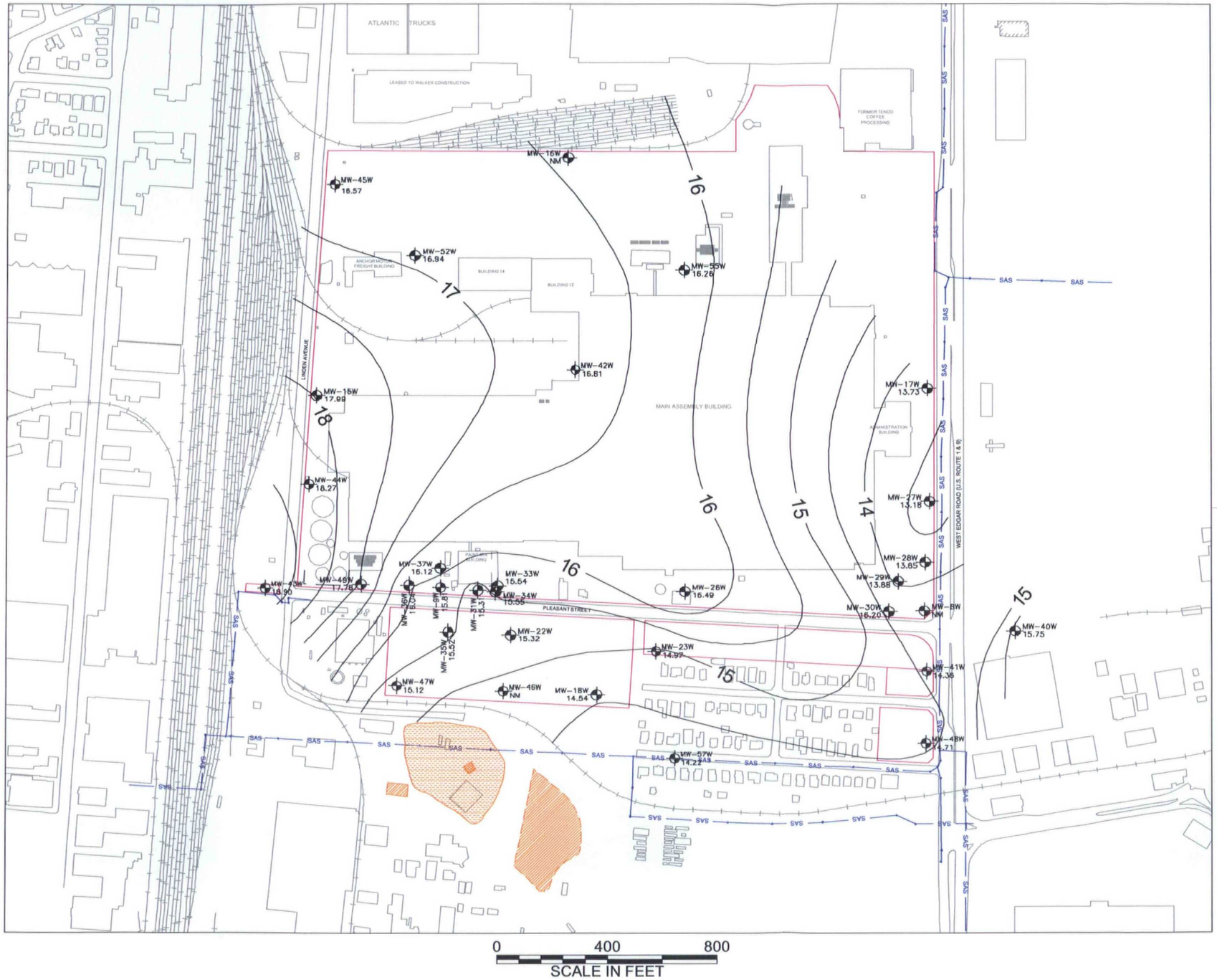
GROUNDWATER ELEVATIONS
WEATHERED BEDROCK
JANUARY 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 12A

G:\28499\308\CA750\Figures\JAN05_GW_ELEV.dwg



0 400 800
SCALE IN FEET

PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON FEBRUARY 11, 2005.
2. NM – NOT MEASURED.

DRAFT

HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

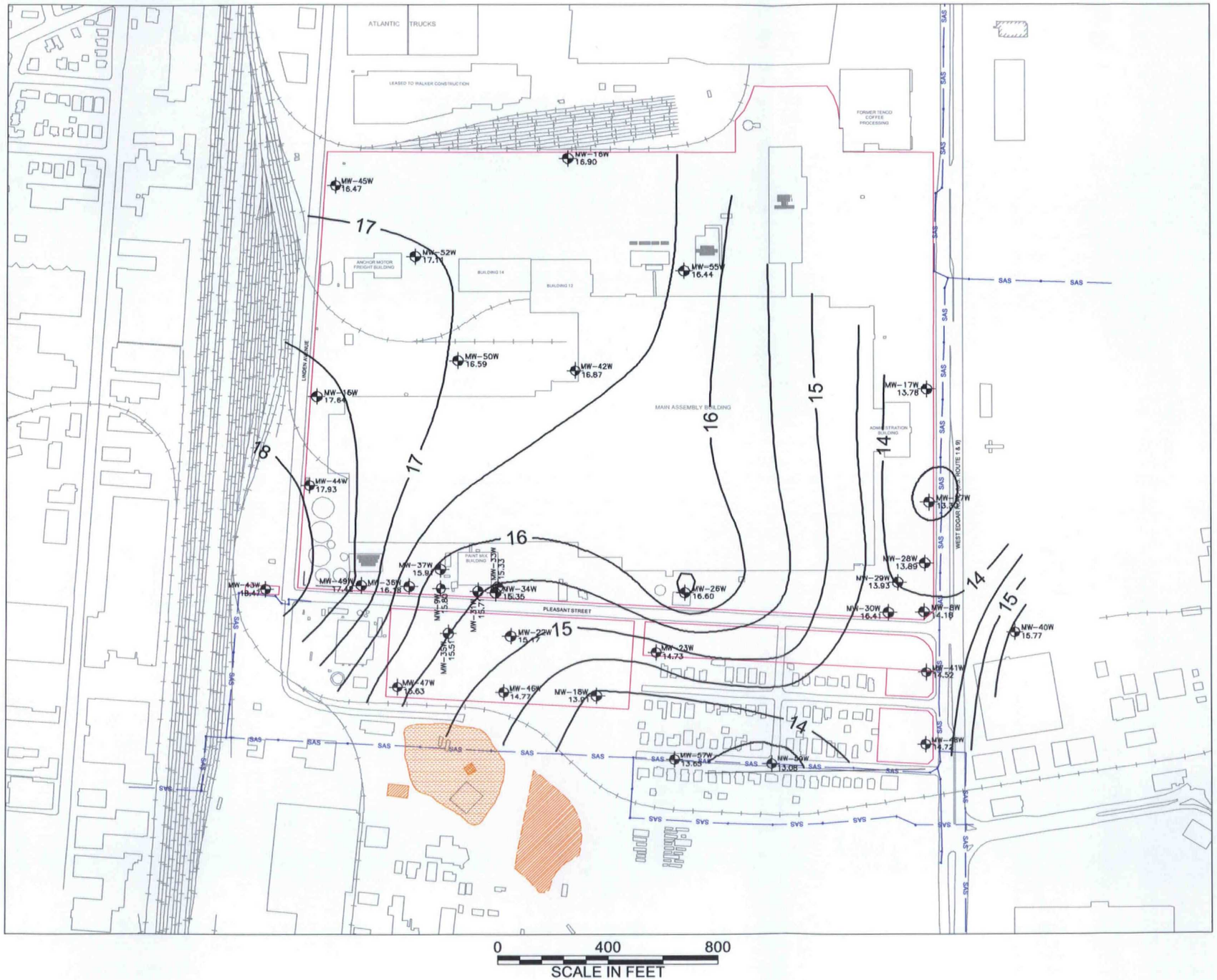
GROUNDWATER ELEVATIONS
WEATHERED BEDROCK
FEBRUARY 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 12B

G:\28499\308\CA750\Figures\FEBRUARY_2005_GW CONT.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MARCH 17, 2005.
2. NM – NOT MEASURED.

DRAFT

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

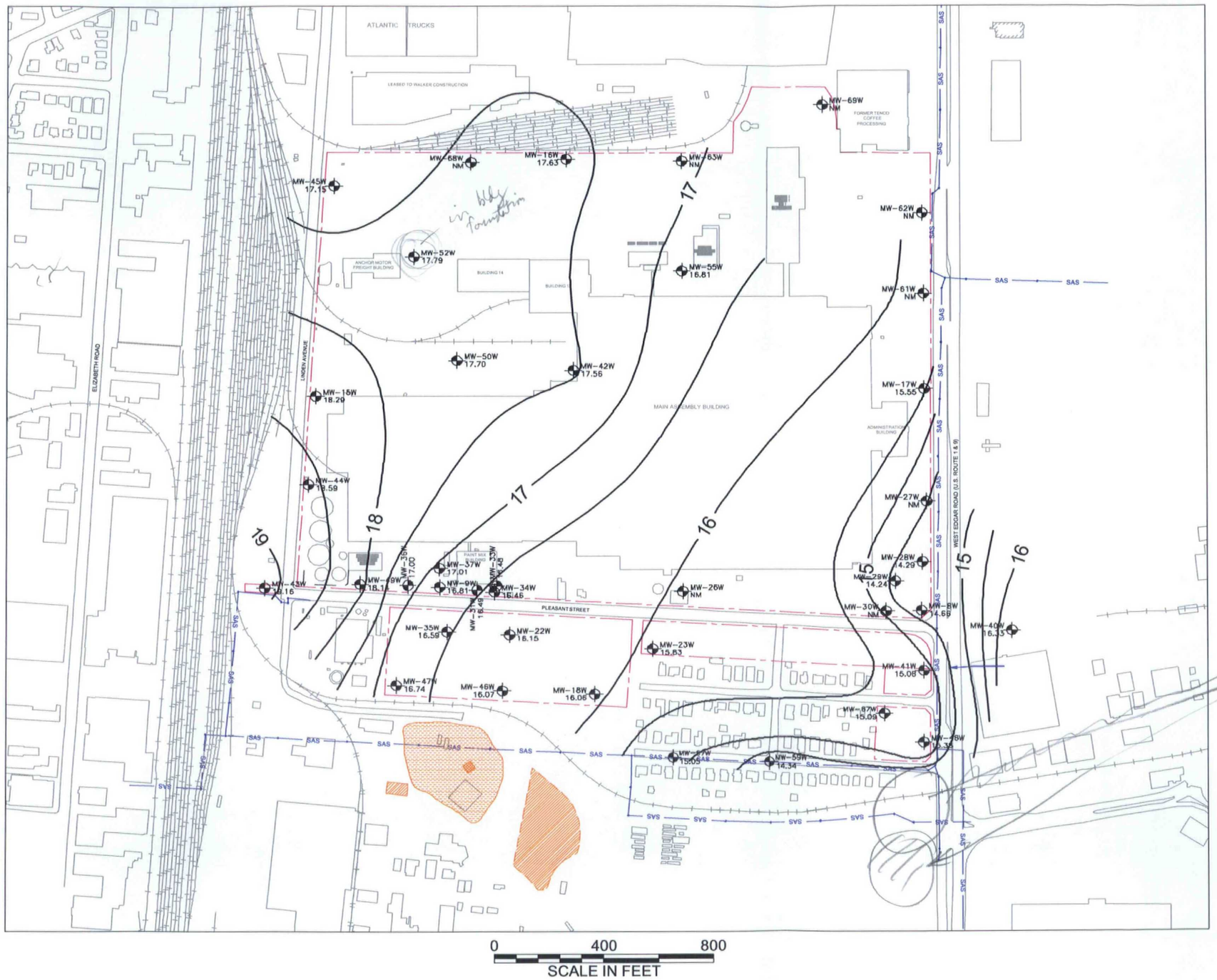
GROUNDWATER CONTOURS
WEATHERED BEDROCK
MARCH 2005

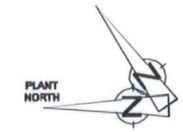
SCALE: AS SHOWN

JULY 29, 2005

FIGURE 12C

G:\28499\308\CA750\Figures\28499-UTILITY_GW-CONT_R2.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- GROUNDWATER FLOW DIRECTION
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON APRIL 5, 2005.
2. NM – NOT MEASURED.

Magness Organ manufacture

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LINDEN ASSEMBLY
LINDEN, NEW JERSEY

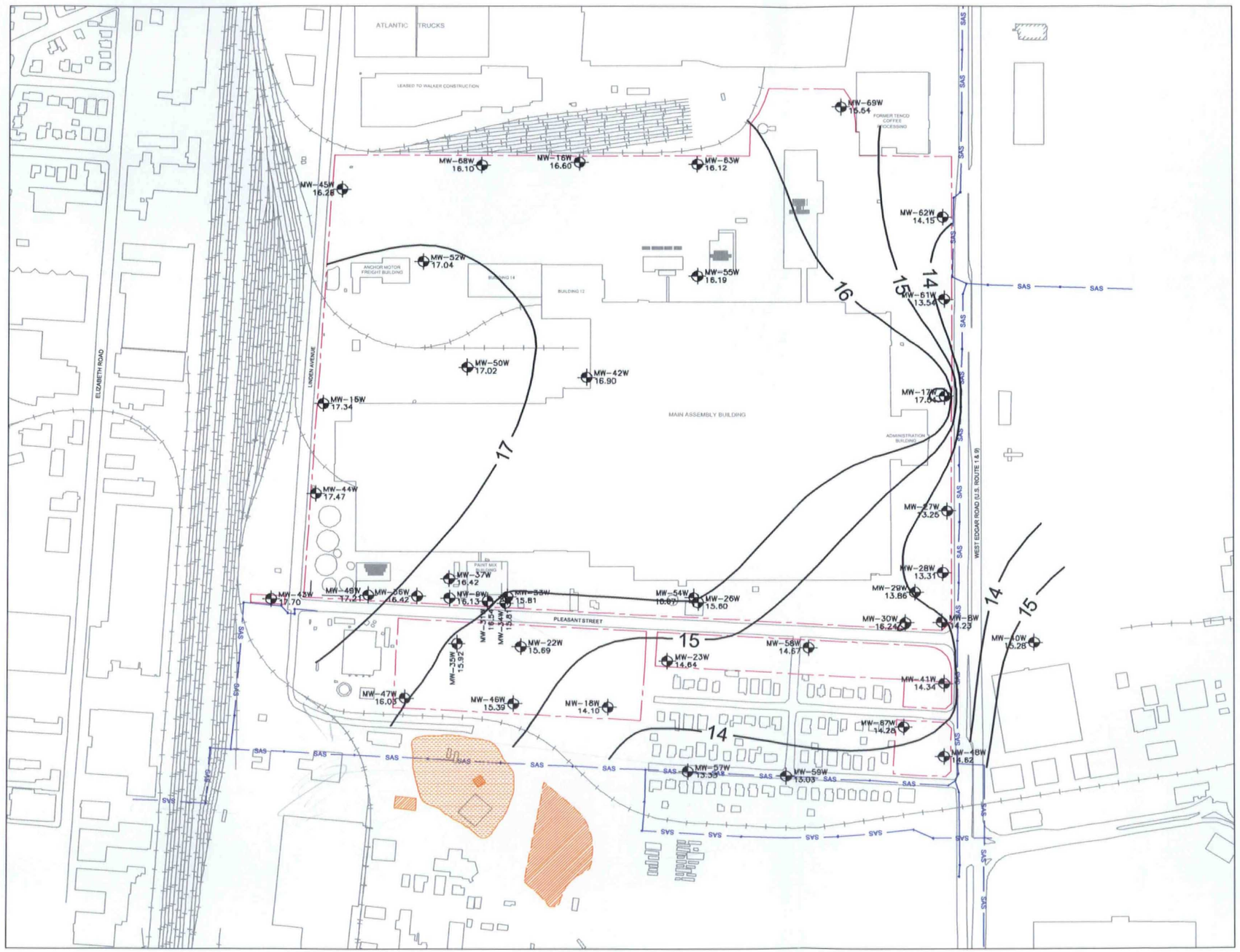
GROUNDWATER CONTOURS
WEATHERED BEDROCK
APRIL 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 12D

G:\28499\308\CA750\Figures\28499-GW_CONT-APRIL_2005_R2.dwg



0 400 800
SCALE IN FEET

PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MAY 9, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

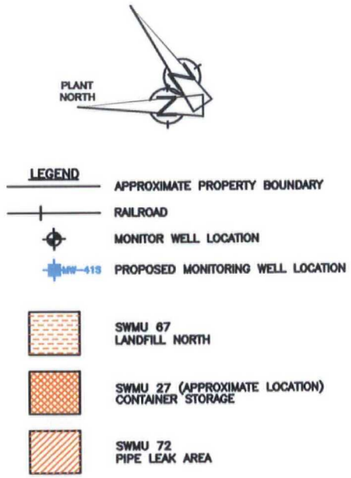
GROUNDWATER CONTOURS
WEATHERED BEDROCK
MAY 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 12E

G:\28499\308\CA750\Figures\28499-GW_CONT-MAY_2005_R3.dwg



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LINDEN ASSEMBLY
LINDEN, NEW JERSEY

BEDROCK SUBCROP LOCATION MAP

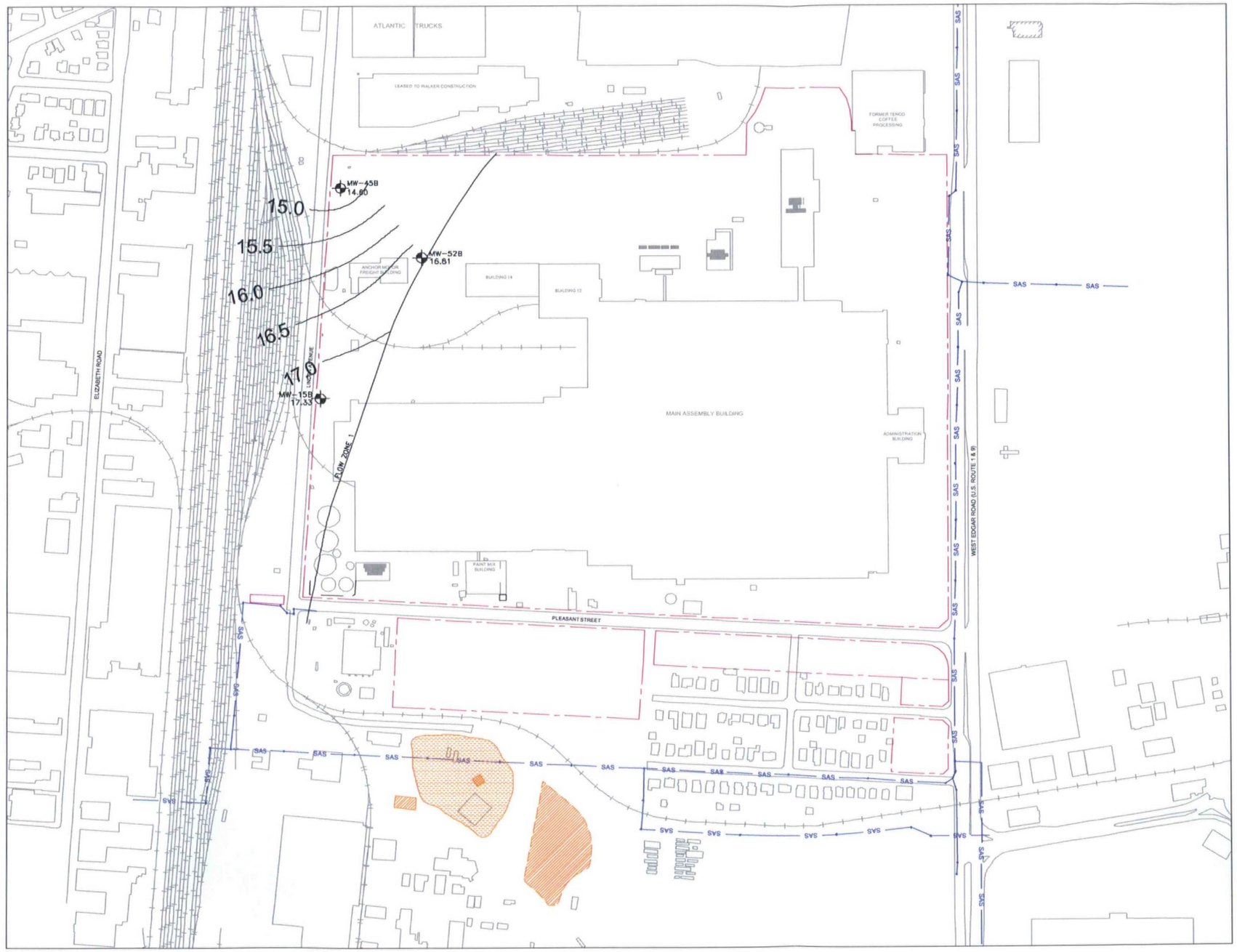
UNITED GROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

SCALE: AS SHOWN

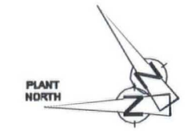
JULY 29, 2005

FIGURE 13

G:\28499\308\CA750\Figures\28499-SUB_CROP_MAP.dwg



0 400 800
SCALE IN FEET



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MAY 9, 2005.
2. NM – NDT MEASURED.

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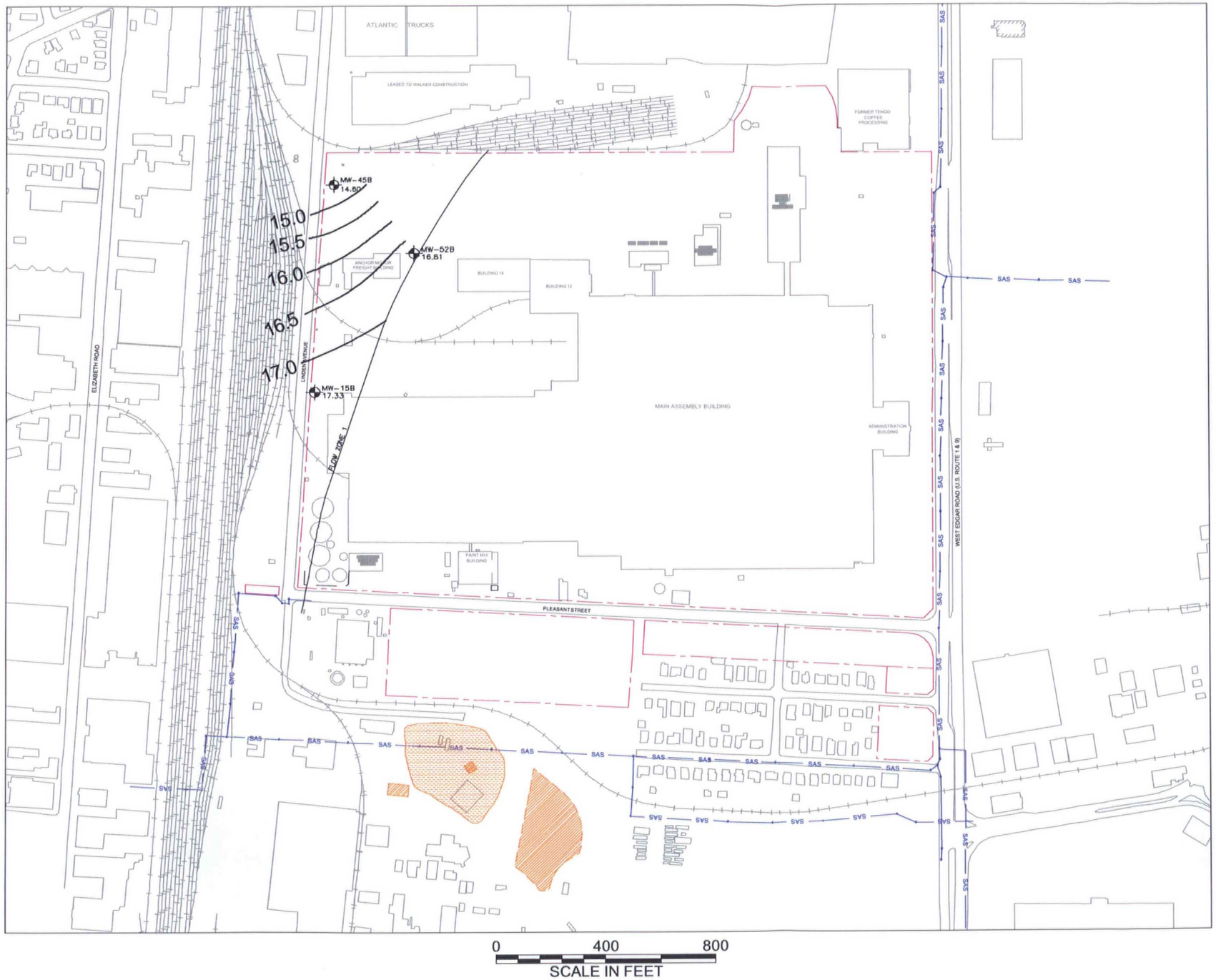
GROUNDWATER CONTOURS
BEDROCK – UNIT 1
MAY 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 14A

G:\28499\308\CA750\Figures\28499-GW_CONT-MAY_2005_R3.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JUNE 20, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

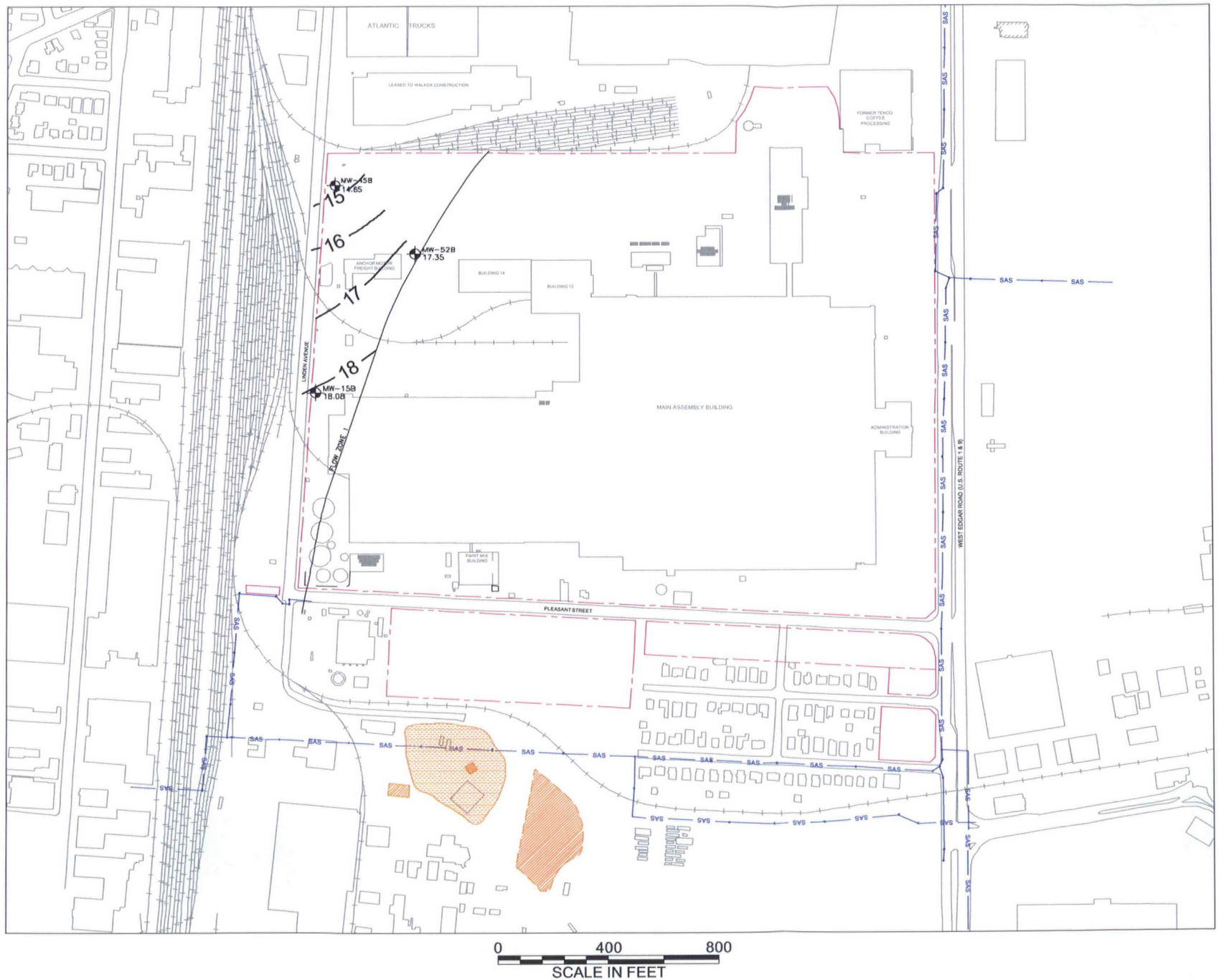
GROUNDWATER CONTOURS
BEDROCK – UNIT 1
JUNE 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 14B

G:\28499\308\CA750\Figures\28499-CONT_BEDROCK-JUNE_2005.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1.0 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JULY 11, 2005.
2. NM – NOT MEASURED.

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LINDEN ASSEMBLY
LINDEN, NEW JERSEY

GROUNDWATER CONTOURS
BEDROCK – UNIT 1
JULY 2005

SCALE: AS SHOWN

JULY 27, 2005

FIGURE 14C

G:\28499\308\CA750\Figures\28499-GW_CONTOURS-JULY05.dwg

PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MAY 9, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

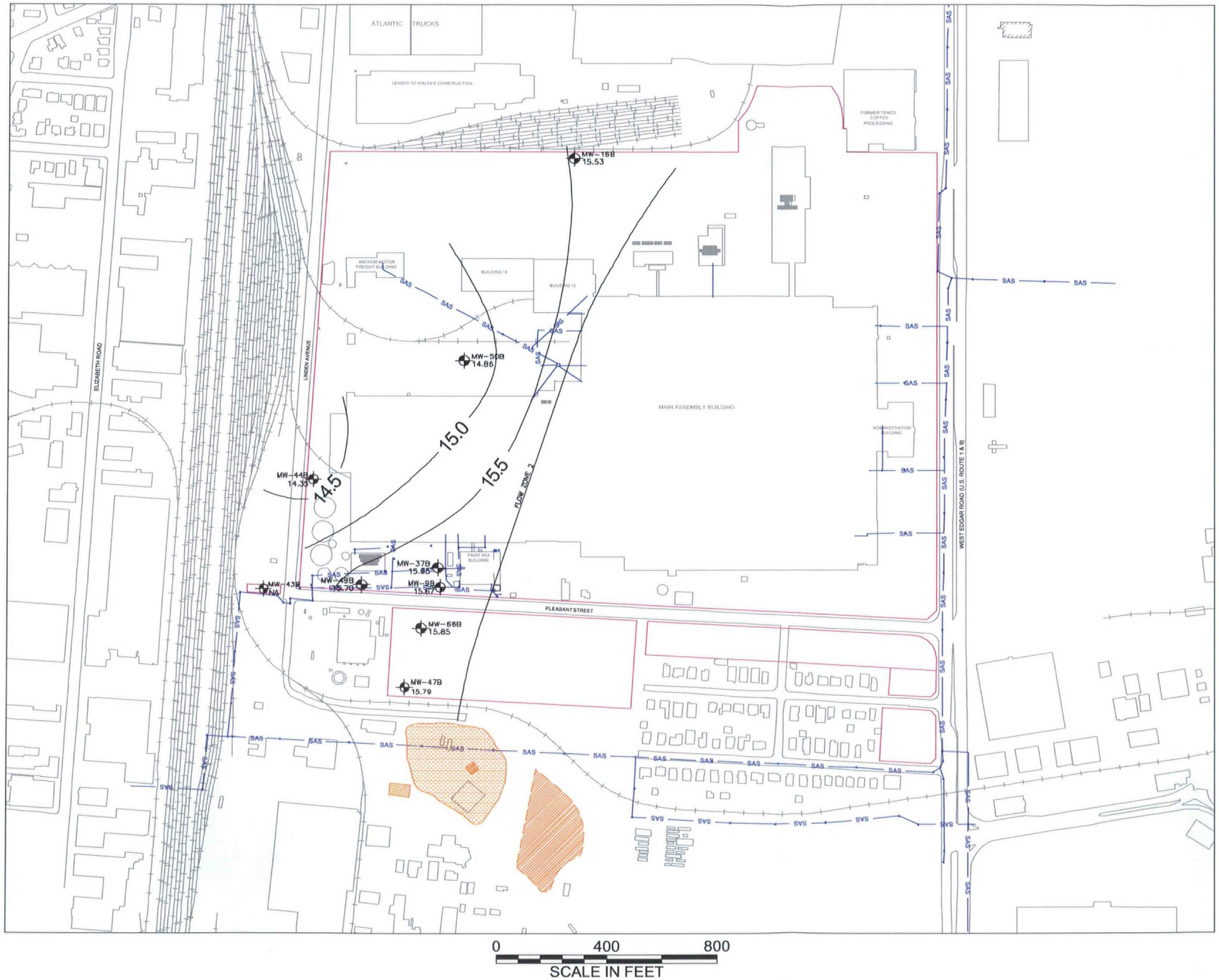
GROUNDWATER CONTOURS
BEDROCK – UNIT 2
MAY 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 15A

G:\28499\308\CA750\Figures\28499-GW_CONT-MAY_2005_R3.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JUNE 20, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

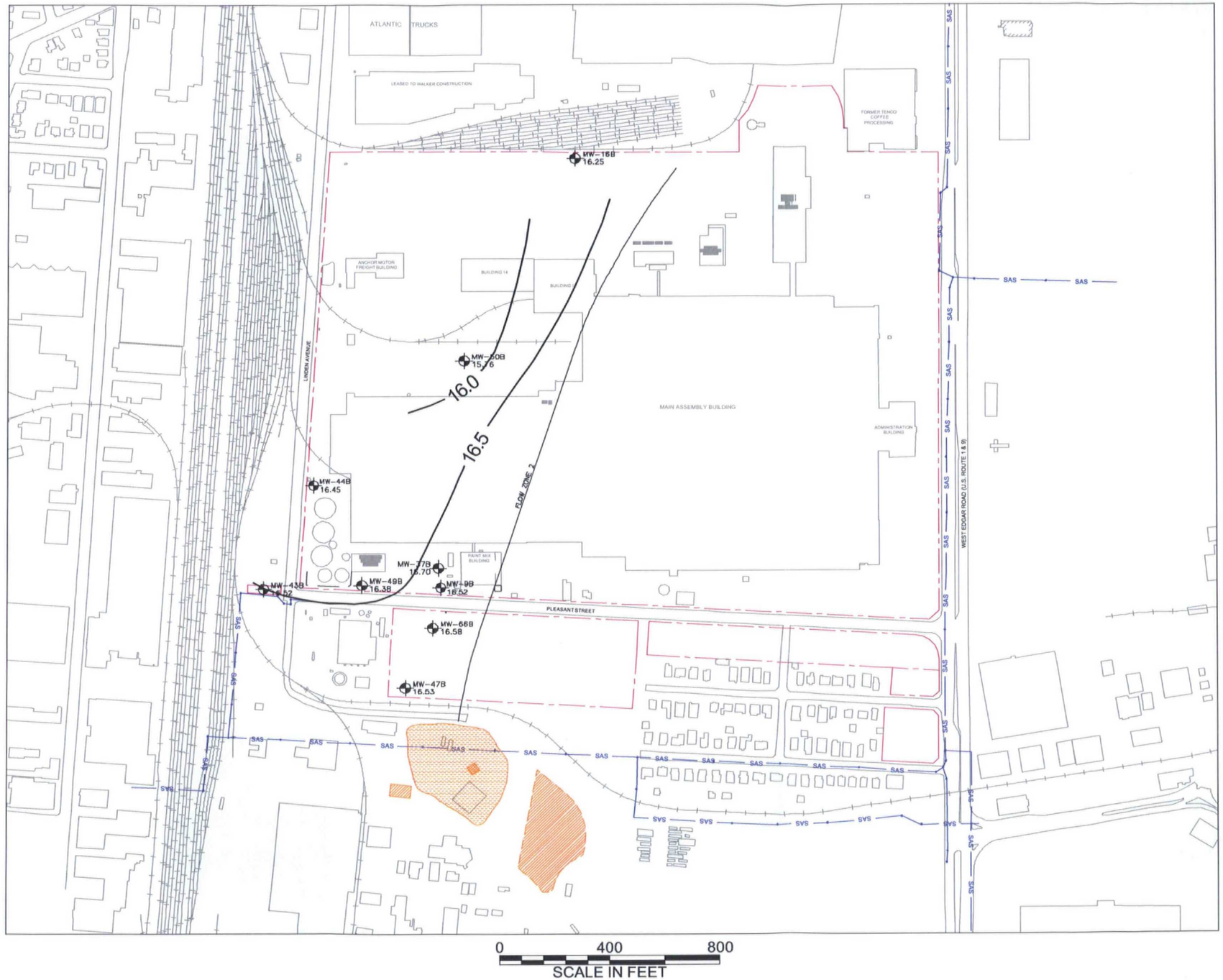
GROUNDWATER CONTOURS
BEDROCK UNIT–2
JUNE 2005

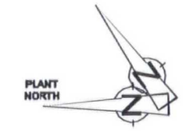
SCALE: AS SHOWN

JUNE 13, 2005

FIGURE 15B

G:\28499\308\CA750\Figures\28499-GW_CONT_JUNE-2005.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JULY 11, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

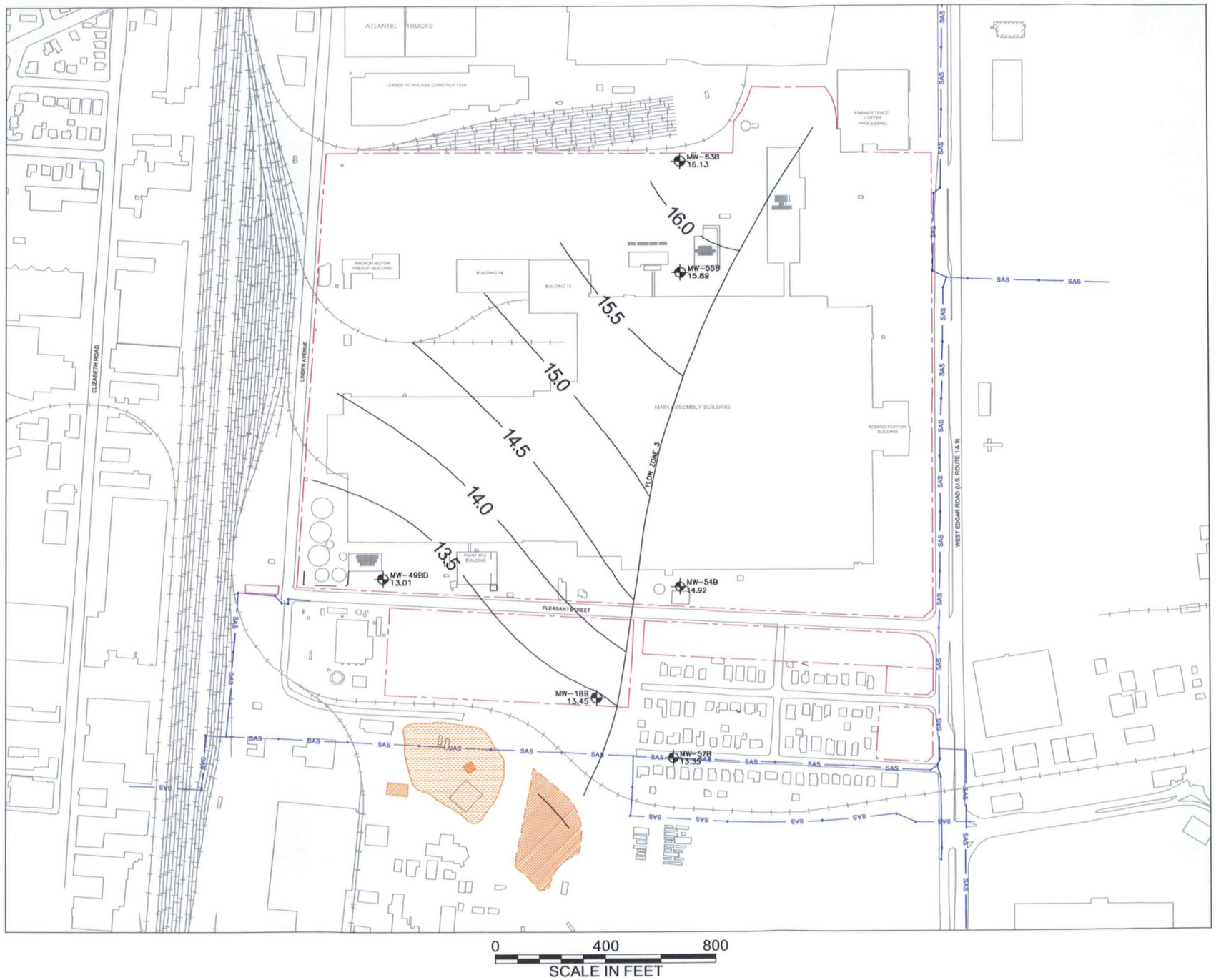
GROUNDWATER CONTOURS
BEDROCK – UNIT 2
JULY 2005

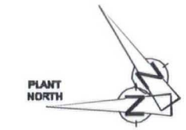
SCALE: AS SHOWN

JULY 27, 2005

FIGURE 15C

G:\28499\308\CA750\Figures\28499-GW_CONTOURS-JULY05.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MAY 9, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

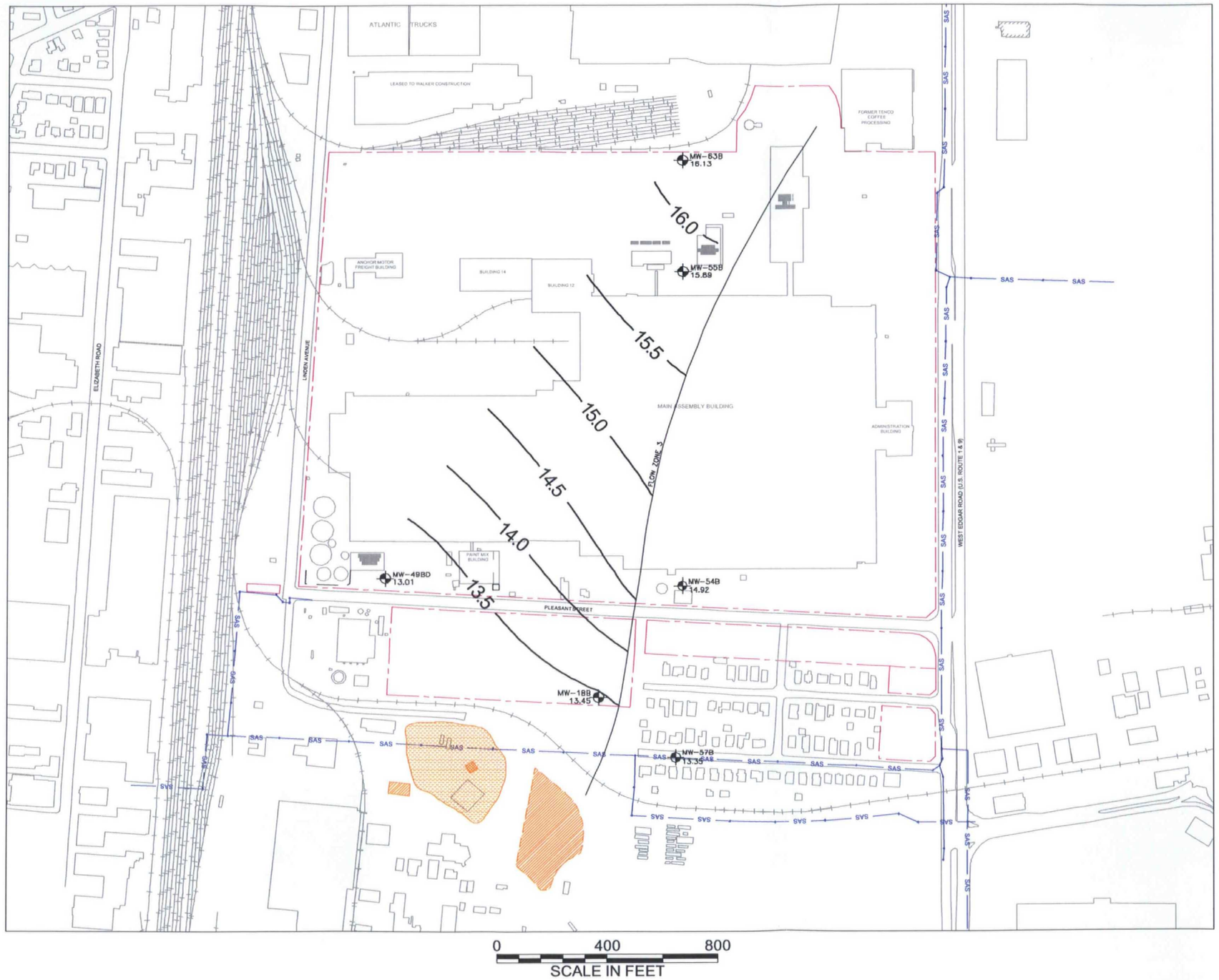
GROUNDWATER CONTOURS
BEDROCK – UNIT 3
MAY 2005

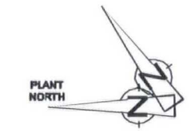
SCALE: AS SHOWN

JULY 29, 2005

FIGURE 16A

G:\28499\308\CA750\Figures\28499-GW_CONT-MAY_2005_R3.dwg





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JUNE 20, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

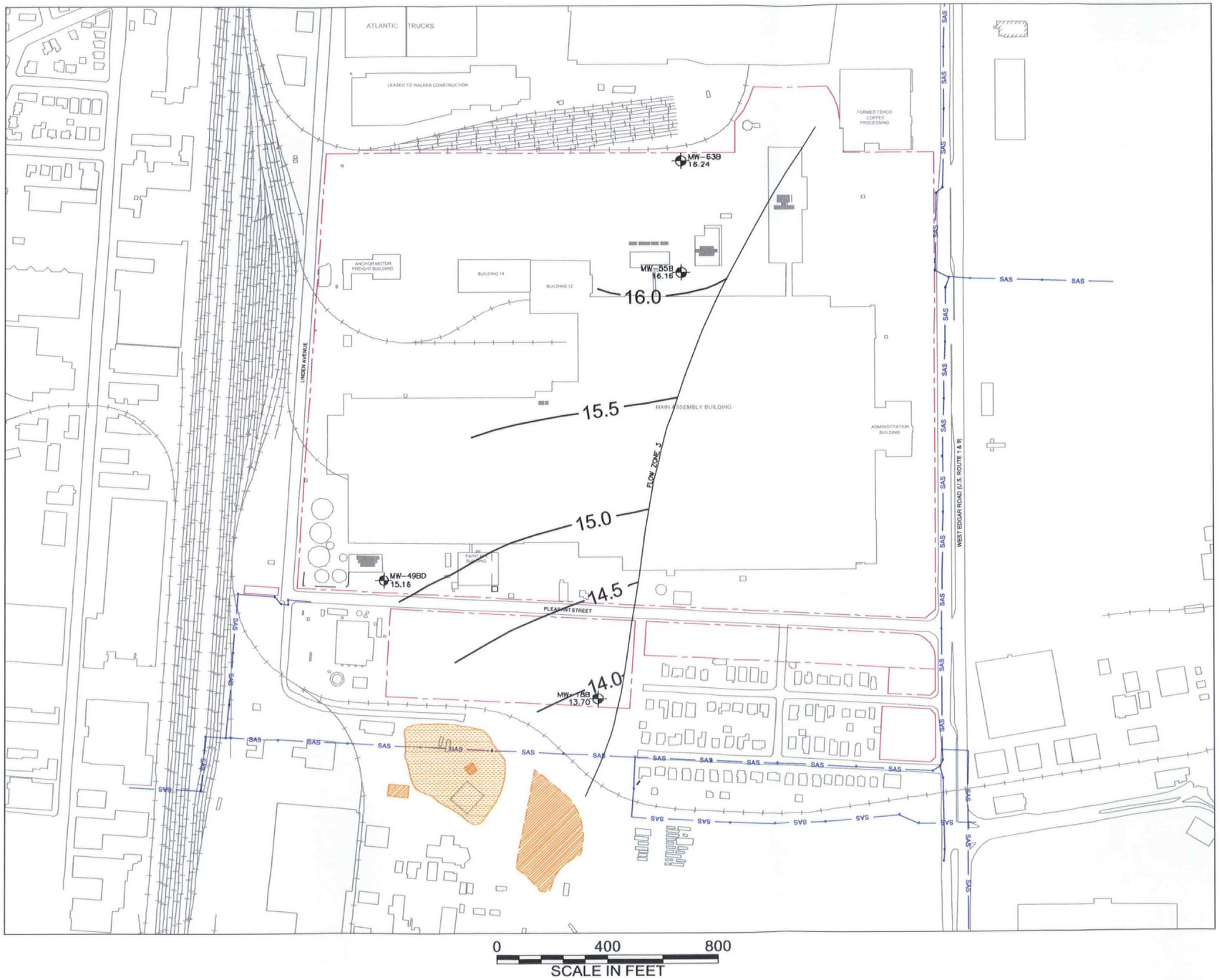
GROUNDWATER CONTOURS
BEDROCK – UNIT3
JUNE 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 16B

G:\28499\308\CA750\Figures\28499-CONT_BEDROCK-JUNE_2005.dwg



PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JULY 11, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

GROUNDWATER CONTOURS
BEDROCK – UNIT 3
JULY 2005

SCALE: AS SHOWN

JULY 27, 2005

FIGURE 16C

G:\28499\308\CA750\Figures\28499-GW_CONTOURS-JULY05.dwg

PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1 FOOT)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON MAY 9, 2005.
2. NM – NOT MEASURED.

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GENERAL MOTORS VEHICLE MANUFACTURING
LINDEN ASSEMBLY
LINDEN, NEW JERSEY

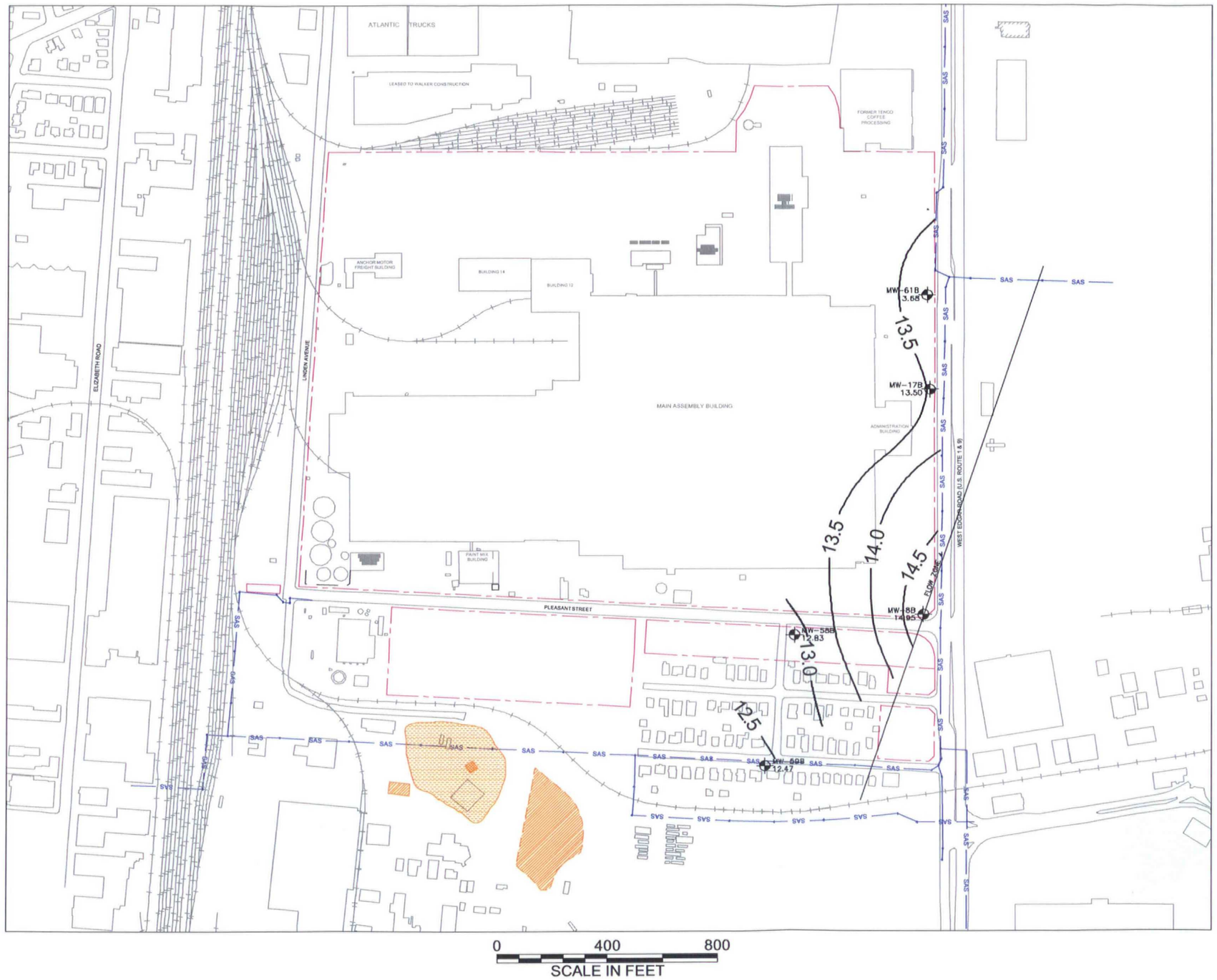
GROUNDWATER CONTOURS
BEDROCK – UNIT 4
MAY 2005

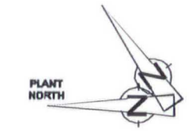
SCALE: AS SHOWN

JULY 29, 2005

G:\28499\308\CA750\Figures\28499-GW_CONT-MAY_2005_R3.dwg

FIGURE 17A





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 1.0 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JUNE 20, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

GROUNDWATER CONTOURS
BEDROCK – UNIT 4
JUNE 2005

SCALE: AS SHOWN

JULY 29, 2005

FIGURE 17B

G:\28499\308\CA750\Figures\28499-CONT_BEDROCK-JUNE_2005.dwg

PLANT NORTH

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- RAILROAD
- MONITOR WELL LOCATION
- 17.0 — GROUNDWATER ELEVATION CONTOUR (CONTOUR INTERVAL: 0.5 FEET)
- (16.30) GROUNDWATER ELEVATION (FEET MSL)
- SAS — SANITARY SEWERS
- SWMU 67 LANDFILL NORTH
- SWMU 27 (APPROXIMATE LOCATION) CONTAINER STORAGE
- SWMU 72 PIPE LEAK AREA

NOTES:
1. WATER LEVELS OBTAINED ON JULY 11, 2005.
2. NM – NOT MEASURED.

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LINDEN, NEW JERSEY

GROUNDWATER CONTOURS
BEDROCK – UNIT 4
JULY 2005

SCALE: AS SHOWN

JULY 27, 2005

FIGURE 17C

G:\28499\308\CA750\Figures\28499-GW_CONTOURS-JULY05.dwg

Appendix A

APPENDIX A

CA750 Form
(TO BE COMPLETED)

Draft