PROPOSED PLAN OF REMEDIAL ACTION

Chrysler Newark Assembly Plant Site – Operable Unit 1
(-AKA- University of Delaware's Science and Technology Campus)
Newark, Delaware
DNREC Project No. DE-0105

July 2011

Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Site Investigation & Restoration Section
391 Lukens Drive
New Castle, Delaware 19720

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Newark, Delaware
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Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

Marjorie A. Crofts, Director
Division of Waste and Hazardous Substances

7.8.11

Date

Chrysler Newark Assembly Plant Site (OU-1)

What is the Chrysler Newark Assembly Plant Site (OU-1)?

The Site is the former location of the Chrysler Newark Assembly Plant. The Site is depicted on Figure 1. It is currently owned by 1743 Holdings, LLC, a wholly-owned subsidiary of the University of Delaware. 1743 Holdings, LLC entered into a Brownfields Development Agreement (BDA) with the Department of Natural Resources and Environmental Control (DNREC) – Site Investigation and Restoration Section (SIRS) to perform a Brownfield Investigation and address contamination determined to be present on the Site. The Site has been divided into operable units or smaller areas to effectively manage its investigation and cleanup. **This proposed plan specifically addresses Operable Unit 1 (OU-1) of the Site. The boundaries of OU-1 are depicted on Figure 2.**

Tax Parcel Number: 18-039.00-002 (See Figure 2 for OU-1 boundaries)
Address: 550 South College Avenue; Newark, Delaware
Nearest major intersection: Route 4 (Christina Parkway) and South College Avenue (Route 896)
Area: 13.2 acres
Surrounding Property: OU-1 is bounded to the southwest by Christina Parkway, a former paint building to the north and a former wastewater building to the east.
Zoning: MI- General Industrial
Site Utilities: There are electric lines beneath the parking lot. The New Castle County Cool Run sewer interceptor extends across a portion of OU-1 in the SE corner near Route 4.
Surface water: There are no surface water bodies present on OU-1.
Topography: The OU-1 portion of the Site has elevations which range from 82 to 128 feet. The Site cover consists of approximately 3 acres of bituminous paved parking lot, a stormwater management basin, a few small trees and low lying vegetation.
Groundwater: Groundwater was encountered at depths ranging from 7 to 20 feet below ground surface. Flow direction beneath OU-1 is generally southwest toward the Christina River. (Figure 3)

What happened at the Chrysler Newark Assembly Plant Site (OU-1)?

Prior to the late 1940s/early 1950s, the Site was utilized for agricultural purposes. Subsequently, military tanks, and later, automobiles were assembled at the Site. Historical property uses specifically for OU-1 have included vehicle testing, vehicle parking, stormwater management, as well as an access road constructed sometime between 1968 and 1992.

What is the environmental problem at the Chrysler Newark Assembly Plant Site (OU-1)?

Environmental investigations conducted on the OU-1 portion of the Site indicated that contaminants of concern (COCs) in soil for an unrestricted use (residential) exposure scenario are isolated to two "hot spot" areas. The following constituents were determined to be COCs for soil in these areas because they were detected at concentrations exceeding the corresponding Delaware Uniform Risk-Based Remediation Standards (URS) values for unrestricted use in the soil samples collected in two limited areas of OU-1: benzo(a)pyrene, dibenz(a,h)anthracene, antimony, barium, cadmium, and vanadium. The following constituents were detected at concentrations exceeding the URS for groundwater: aluminum, atrazine, naphthalene, aldrin, iron, and manganese.

The following environmental investigations were performed on the OU-1 portion of the Site:

- 1985: DNREC conducted a Preliminary Assessment on behalf of the United States Environmental Protection Agency (US EPA).The assessment recommended further investigation at the Site due to repeated detections of perchloroethylene (PCE) and trichloroethylene (TCE) in the City of Newark municipal wells to determine if the Site was a contributor to the contamination.

- 1986: DNREC conducted a Desktop Site Inspection (SI). There were no soil or groundwater samples collected on the OU-1 portion of the Site during this investigation. The investigation did not recommend any follow-up activities at the Site.

- 2008: ATC conducted a Phase I and Phase II on the entire Site on behalf of Chrysler. The investigation did not indicate that subsurface soil and groundwater conditions within OU-1 were environmentally impacted with regulated substances of concern.

- 2008: Duffield Associates conducted an Environmental Site Assessment on behalf of the University of Delaware. The investigation did not indicate that subsurface soil and groundwater conditions within OU-1 were environmentally impacted with regulated substances of concern.

- 2010: Duffield Associates conducted a Brownfield Investigation (BFI) on the OU-1 portion of the Site on behalf of the 1743 Holdings, LLC. The purpose of the BFI was to characterize general conditions of OU-1, supplementing earlier environmental assessments of soil and groundwater. The following constituents were determined to be COCs because they were detected at concentrations exceeding the corresponding Delaware URS values for unrestricted use in the soil samples collected in two limited areas of OU-1: benzo(a)pyrene, dibenz(a,h)anthracene, antimony, barium, cadmium, and vanadium.

- 2011: Duffield Associates conducted a Supplemental Soil "Hot Spot" and Soil Assessment in OU-1 to further evaluate the detections of metals and semi-volatile organic compounds (SVOCs) in soil and volatile organic compounds (VOCs) in groundwater above corresponding DNREC URS values. The soil data collected during this assessment verified the presence of metals and SVOCs in soil in the two localized "hot spot" areas. Fill material in these areas were found to contain fragments of coal. The groundwater data collected also verified low concentrations of VOCs in groundwater.

What does the owner want to do at the Chrysler Newark Assembly Plant Site (OU-1)?

The entire Site is the location of the University of Delaware's Science and Technology Campus. The OU-1 portion, specifically, is the future location for light industrial/manufacturing development, which will include associated buildings, underground utilities and parking.

What remedial actions are proposed at the Chrysler Newark Assembly Plant Site (OU-1)?

Two (2) shallow soil locations within OU-1 (GP-5 and GP-17) have been identified as potential "hot spots" and are impacted with benzo(a)pyrene, dibenz(a,h)anthracene, antimony, barium, cadmium, and vanadium at concentrations that exceed the Unrestricted URS values, as well as arsenic concentrations above the DNREC default background standard value. An Environmental Covenant will be recorded to restrict the property to non-residential use. With regard to groundwater in OU-1, the Environmental Covenant will also prohibit the installation of groundwater wells for a drinking water supply without the prior written approval of DNREC.

DNREC requires the following remedial actions be performed on the Former Chrysler Newark Assembly Plant Site (OU-1):

1. Recording of an Environmental Covenant consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA) on the property deed. The Covenant will 1) restrict the installation and use of groundwater wells for drinking water supply, 2) identify the Site as located within a Groundwater Management Zone and 3) restrict property to non-residential use.

2. Development and implementation of a DNREC-approved Long Term Stewardship (LTS) Plan. The LTS Plan will detail the groundwater monitoring network and schedule to be followed in order to monitor the attenuation of groundwater COCs.

3. Development and implementation of a Contaminated Materials Management Plan (CMMP) to ensure that contaminated materials encountered during intrusive activities are handled properly.

What are long-term stewardship requirements are proposed for the Chrysler Newark Assembly Plant Site (OU-1)?

The long-term stewardship requirements proposed for the OU-1 portion of the Site include: continued adherence to the Environmental Covenant recorded on the property deed, as well as, following the groundwater monitoring schedule set forth in the DNREC-approved LTS Plan.

DNREC will issue a Certification of Completion of Remedy (COCR) for the Chrysler Newark Assembly Plant Site (OU-1) following the completion of the aforementioned remedial actions.

How can I find additional information and/or comment on the Proposed Plan?

The complete file on the Site, including the Environmental Site Assessment and the Brownfield Investigation report, is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

http://www.nav.dnrec.delaware.gov/DEN3/

The 20-day public comment period begins on Sunday, July 17, 2011, and ends at close of business (4:30 pm) on Monday, August 8, 2011. Please send written comments to the DNREC office or call Lindsay Hall or Wendy March, Project Managers, at: 302-395-2600.

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Glossary of Terms Used in this Proposed Plan

Contaminants of Concern (COC)	These are potentially harmful substances at concentrations above acceptable levels (e.g. metals and PAHs).
Certification of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Proposed Plan of Remedial Action	DNREC's initial plan for cleaning up a hazardous site, which is subject to public comment before being adopted as final.
Site Inspection (SI)	Environmental study of a site which includes the sampling of soils, groundwater, surface water, sediment and/or wastes on the property, as appropriate. This evaluation is performed on behalf of the United States Environmental Protection Agency (U.S. EPA).
Brownfield Investigation (BFI)	Thorough environmental study of a site which includes 1) sampling of site environmental media and/or wastes on the property and 2) conducting a preliminary risk assessment using the data collected to determine the risk posed to human health and the environment.
Risk	Likelihood or probability of injury, disease, or death.
Brownfield Development Agreement (BDA)	This legal agreement is between a potential developer of a Delaware-certified Brownfields Site and the DNREC. The developer agrees to investigate and cleanup a Brownfields property under the oversight of the Department in exchange for liability protection.
Uniform Environmental Covenant Act (UECA)	Deed restrictions on the site. These can include restrictions on soil intrusion, groundwater usage or usage of the site based on the extent of the cleanup.
Uniform Risk-Based Remediation Standards (URS)	A set of concentration criteria for various contaminants potentially present in site media that are developed for protection of human health and the environment

What is a *Proposed Plan?*

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan after all comments made by the public, within the comment period of twenty days, have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the cleanup of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRS or at DNREC's Delaware Environmental Navigator website:

http://www.nav.dnrec.delaware.gov/DEN3/

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held during a weekday evening, at a location near the site. Citizens can request a public meeting if DNREC did not already schedule one.

The public may comment on the Proposed Plan by letter or email, or at the public meeting. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.

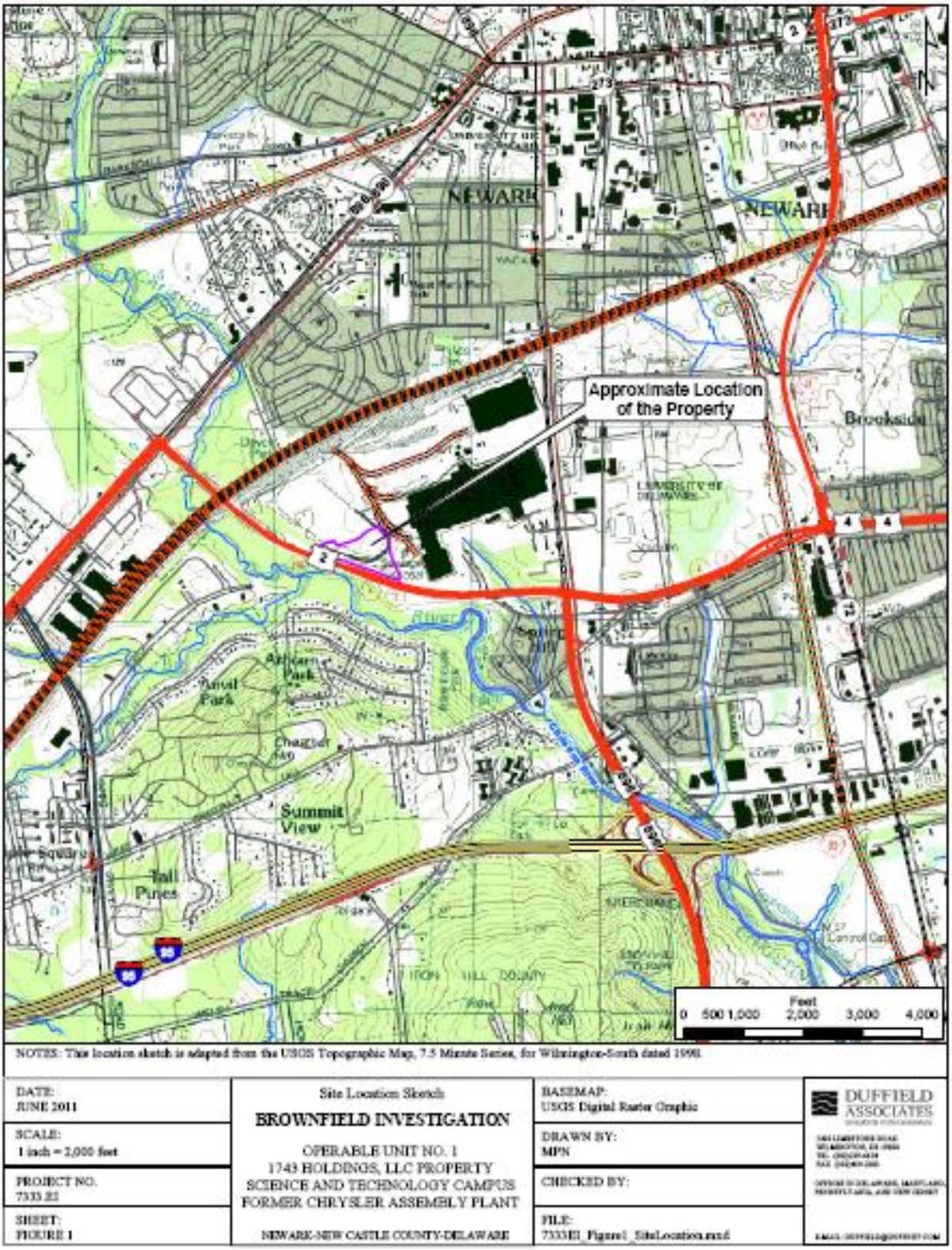

Figure 1: Site Location Map

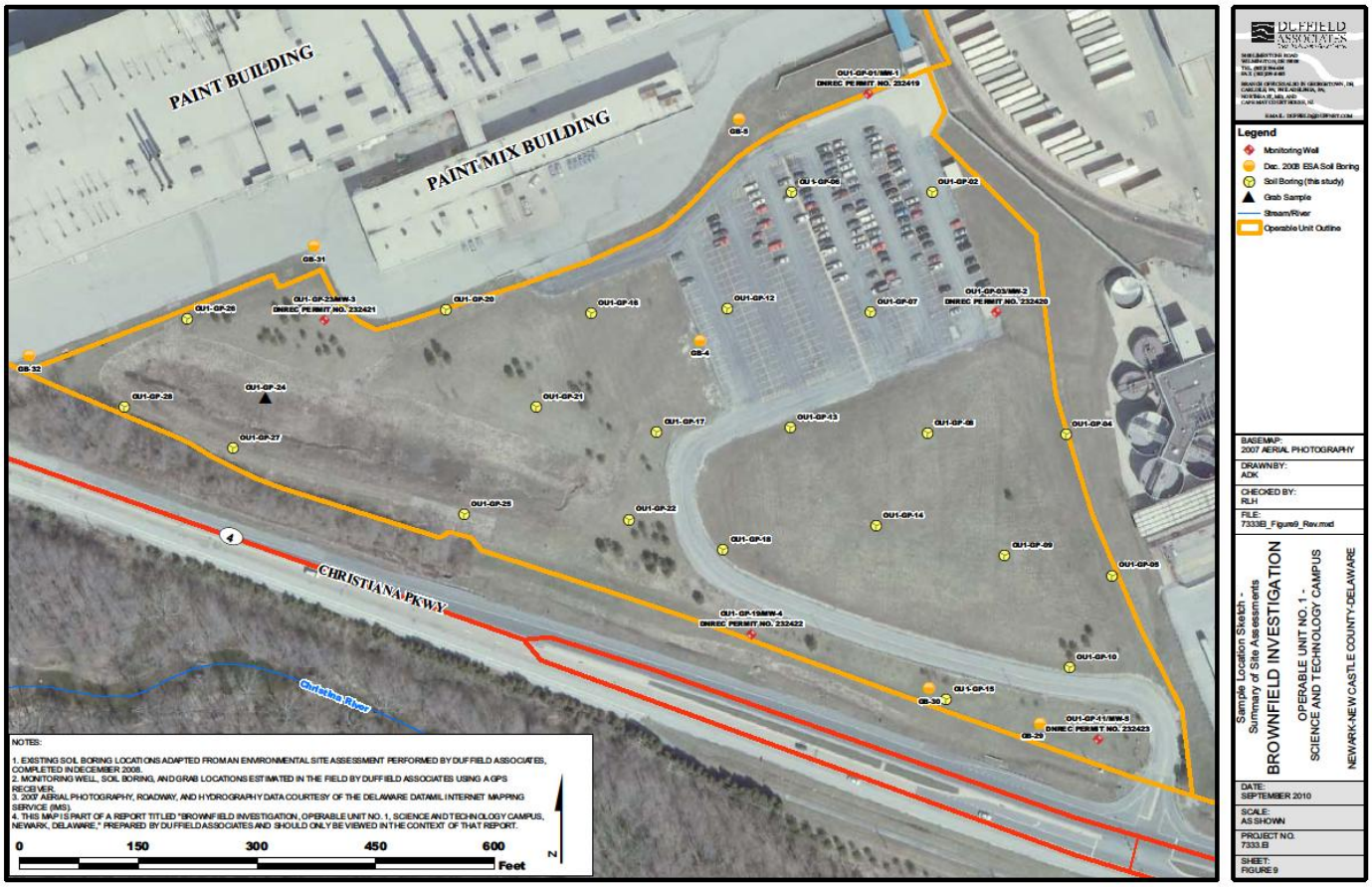

Figure 2: OU-1 Location Map

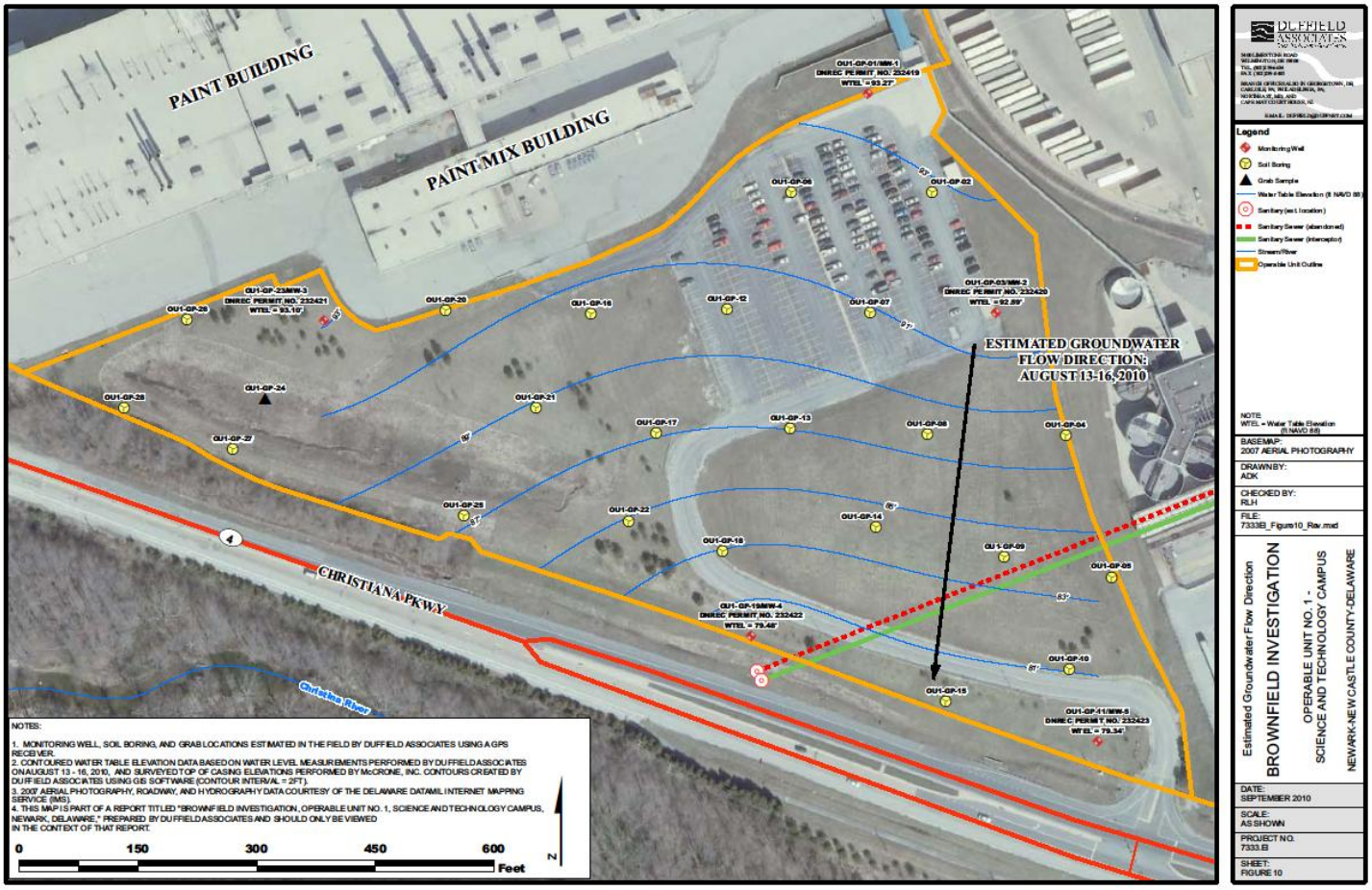

Figure 3: OU-1 Groundwater Contour Map