FINAL CORRECTIVE MEASURES

AND

RESPONSE TO COMMENTS ON THE STATEMENT OF BASIS

Summit Research Labs, Inc.
Huguenot, New York
EPA RCRA ID NYD001391200 / DEC Site No. 336079

March 2013

INTRODUCTION

This document presents the final corrective measures for the Summit Research Labs, Huguenot site. The final corrective measures were selected in accordance with 6 NYCRR 373 and 6 NYCRR 375. This decision is based on the Administrative Record for the New York State Department of Environmental Conservation (the Department) for the Summit Research Labs, Inc, Huguenot site (see Appendix B and the public's input to the proposed corrective measures presented in the Statement of Basis (SB).

PUBLIC PARTICIPATION AND RESPONSE TO COMMENTS

The public comment period for the SB started on February 26, 2013 and ended on March 28, 2013. All comments were required to be submitted no later than March 28, 2013.

Comments received from the public on the corrective measures proposed in the SB together with the Department's responses are provided in Appendix A.

FINAL CORRECTIVE MEASURES

The elements of the final corrective measure for the site are as follows:

No Further Action and the implementation of institutional controls (ICs)/engineering controls (ECs).

The SB contained remedial recommendations for 20 Solid Waste Management Units (SWMUs) and six Areas of Concern (AOCs). The Department has determined that the remedy for the 20 SWMUs and six AOCs is no Further Action and the implementation of institutional controls (ICs) and engineering controls (ECs).

Declaration

The proposed corrective measures are protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant, appropriate to the remedial action to the extent practicable, and is/are cost effective. This remedy utilizes permanent solutions and alternative treatment, or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 29,2013

Date

Robert W. Schick, P.E., Director
Division of Environmental Remediation

Final Statement of Basis

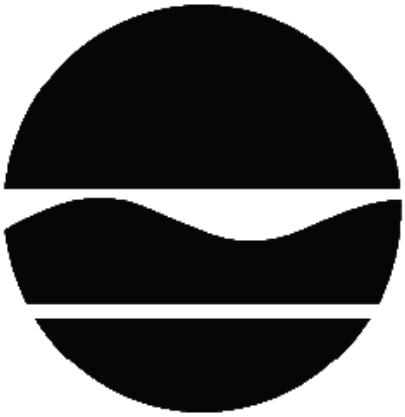
Summit Research Labs, Inc.

Huguenot, New York

Site Number 336079

EPA RCRA ID NYD001391200

March 2013



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

Final Statement of Basis

Summit Research Labs, Inc.
Huguenot, New York
Site No. 336079

March 2013

SECTION 1: SUMMARY AND PURPOSE OF THIS FINAL STATEMENT OF BASIS

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The release of hazardous wastes at the site resulted in threats to public health and the environment that were addressed by an action known as an interim corrective measure (ICM), which was undertaken at the site. An ICM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the Statement of Basis.

The ICM undertaken at this site is discussed in Section 6.2.

Based on the implementation of the ICM and the data from more than 20 years of groundwater monitoring, the site no longer poses a threat to human health or the environment; therefore No Further Action is the remedy selected in this Final Statement of Basis (FSB). A No Further Action remedy may include site management, which may include continued operation of any remedial system installed during the ICM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the selected remedy for the site. This FSB identifies the ICM conducted at the site and discusses the basis for No Further Action.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 373 and, where applicable, Part 375 Regulations. This document is a summary of the information that can be found in the site-related reports and documents in the document repository identified in Section 2 of this FSB.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comments on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Port Jervis Library
138 Pike Street
Port Jervis, NY 12771
Telephone: (845) 856-7373

A public meeting was also conducted. At the meeting, the findings of the remedial investigations and the remedial history of the site were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the Final Statement of Basis.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: Summit Research Labs, Inc. (Summit) operates a manufacturing plant at 15 Big Pond Road, Huguenot, Orange County, NY 12746 (Figure 1). The site is in a the Town of Deerpark, five miles northeast of Port Jervis, New York, and just west of Highway 209.

Site Features: The plant occupies about 10.9 acres, and is comprised of main operations and manufacturing building, three warehouses, a building and grounds garage, a water supply building, a maintenance shop, a water lagoon, and the tank farm. Most of the site is surfaced with asphalt pavement, landscaped areas and gravel pavement. A portion of the site is wooded on the northwest side.

Current Zoning / Uses: The property is zoned Hamlet, Mixed Use. It is currently used as an industrial manufacturing facility.

Historic use: The plant began operations at this site in 1961, and was owned and operated by Wickhen Products (Wickhen). In the early years of operation, 1961–1988, the plant manufactured cosmetic-grade emollients along with ingredients for antiperspirants. During Wickhen's time on-site, benzene was reportedly used in some processes from 1970 to 1978. Dow Corning Corporation (Dow Corning) purchased the plant in 1986 and operated it until 1992, at which time it was sold to Summit.

Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs): In 1995, USEPA completed a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) of the site, and NYSDEC followed up with the Visual Site Inspection (VSI). The RFA/VSI identified 20 SWMUs and 6 AOCs. The final determination for all but one of the SWMUs and one of the AOCs was no further action. As stated in the RFA this determination was made because "No evidence of release was observed during the VSI or identified in the available file material." The SWMU and AOC that required further action were the Soil Vapor Extraction (SVE) system and the former benzene underground pipeline. For these, the recommendation was that the SVE system continue operation to remediate the releases from the former pipeline. These are discussed further in Exhibit A.

Site Geology and Hydrology: Geologic materials on the site consist of 87 to 105 feet of ice contact/glacial outwash deposits over highly fractured gray shale. Groundwater is approximately 35 feet below the ground surface. Groundwater flow is to the east southeast with a downward gradient over most of the site. Contaminant flow is partially controlled by preferential pathways and fine-grained confining layers.

SECTION 4: LAND USE AND PHYSICAL SETTING

The current use of the property is industrial. The surrounding properties are a mix of residential, commercial and industrial uses. (Figure 2)

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, an alternative that restrict(s) the use of the site to commercial use as described in Part 375-1.8(g) is being evaluated.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

6 NYCRR Part 373 requires owners and/or operators of hazardous waste treatment, storage and disposal facilities to undertake RCRA Corrective Action to investigate and, when appropriate, remediate releases of hazardous wastes and/or constituents to the environment. In relation to this facility, the Department and Somerville Investment Limited Partnership, owner of the site, entered into an Administrative Order on Consent (Order) pursuant to Section 3008(h) of RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §6901, and Article 27, Title 9 and Section 71-2727 of the New York State Environmental Conservation Law. This order, which was effective December 23, 2011, requires Somerville Investment Limited Partnership to complete its corrective action obligations under RCRA.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Investigation

A RCRA Facility Investigation (RFI) has been conducted. The purpose of the RFI was to define the nature and extent of any contamination resulting from previous activities at the site. The analytical data collected by the RFI includes data for:

- soil vapor / indoor and ambient outdoor air
- groundwater
- soil

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RFI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RFI Results

The data have identified one contaminant of concern, benzene. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media

requiring action are summarized in Exhibit A. Additionally, the RFI Report contains a full discussion of the data. Benzene exceeds the applicable SCGs for soil and groundwater.

6.2: Interim Corrective Measures

An Interim Corrective Measure (ICM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

An SVE system was operated from 1992–1997 as an ICM to reduce benzene concentrations in soil within the source area. An SVE system works by pulling air through ground that has been contaminated with volatile contaminants; in this case benzene. This causes the volatile contaminants to vaporize and to get carried through the extraction well ductwork to the surface where it is appropriately treated. At startup, the maximum benzene concentration in the exhaust was 1,402 parts per million by volume (ppmv). It quickly dropped, averaging 10 ppmv for 28 monitoring events from 1992 through 1997. The benzene concentrations in groundwater also dropped dramatically in monitor wells outside the immediate source area. The system was shut down in November 1997, at which time the benzene concentration in the exhaust was 1.3 ppmv. Based on the operational history and monitoring data, the Department determined that the SVE system was has reached its limit of effectiveness in reducing the total mass of benzene contamination in the source area. Residual groundwater contamination was to be addressed through natural attenuation and groundwater monitoring.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Nature and Extent of Contamination:

In 1995, USEPA completed a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) of the site, and NYSDEC followed up with the Visual Site Inspection (VSI). The RFA/VSI identified 20 solid waste management units (SWMUs) and six areas of concern (AOCs). All of the SWMUs and AOCs, except the SVE system and the former benzene underground pipeline were considered no further action (NFA). The report concluded that the SVE system should continue operation to remediate the releases from the former benzene underground pipeline. (See Exhibit A) These releases constitute the only source of contaminants being addressed at the site.

Prior to Remediation

Based upon investigations conducted to date, the primary contaminant of concern in soil and groundwater is benzene.

The highest concentration of benzene in groundwater in the source area (Figure 3) was as high as 15 ppm. Contaminated groundwater above water quality standards extended downgradient as far as well 10 with a maximum concentration of 570 parts per billion (ppb) in 1994. However, it was not moving off-site or discharging to nearby water bodies.

Post-Remediation

Based on recent soil sampling, levels of benzene in soils as high as 68 ppm were found, however these were restricted to individual clay rich layers in the source area. These clay layers, and the impermeable cap made by the pavement and buildings overlie the contaminated area and serve as a cover that reduces benzene migration in this area. Benzene levels seen in the more permeable soils in the source area are now non-detect.

While groundwater standards have not been met, the concentration of benzene in groundwater has dramatically reduced. The highest benzene concentration in the 2012 round of sampling was found in the source area with benzene at 130 ug/l. (Figure 4) Detections in groundwater close to the source area are typically less than 10 ug/l, and non-detect in wells further away from the source area. Groundwater contamination is not found in the sentinel well between the source area and the property line, showing that contaminated groundwater is not migrating off the site. Because the overall pattern of groundwater contamination throughout the site has been consistent for more than 13 years groundwater sampling is no longer considered necessary.

Investigations after the remediation was completed found no significant impacts to indoor and sub slab air, and surface soils. Because contaminants did not reach surface waters, sediment and surface water samples were not taken.

A detailed discussion of the nature and extent of the contamination can be found in Exhibit A.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as exposure.

Since the site is fenced and covered by asphalt or concrete, people will not come into contact with site-related contaminants in soil or groundwater unless they dig below the surface. People are not drinking the contaminated groundwater because the on-site facility is supplied with bottled water for drinking purposes. Additionally, contaminated groundwater is not migrating

off-site and residential drinking water wells have been tested and no site-related contaminants were present.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

Remedial action objectives chosen for this site are as follows.

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated subsurface soils and groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure from contaminants volatilizing from contaminants in soil

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

SECTION 7: SUMMARY OF THE SELECTED REMEDY

To be selected, the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. The ICM has effectively reduced contaminant concentrations to a level where no further actions are required to protect Human health and the environment.

The nature and extent of the contamination at the site is set forth at Exhibit A.

Based on the results of the investigations at the site, the ICM that has been performed, and the evaluation presented here, the Department has selected No Further Action and the implementation of institutional controls (ICs)/engineering controls (ECs) as the selected remedy for the site, which includes the following:

1. Institutional Controls

Imposition of an institutional control in the form of a deed restriction for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allows the use and development of the controlled property for commercial / industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- restricts the use of groundwater as a source of potable without necessary water quality treatment as determined by the NYSDOH or County DOH;

- requires compliance with the Department approved Site Management Plan.

2. Site Management

A Site Management Plan is required which includes, but is not limited to the following:

- An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

    - The Deed Restriction discussed in item 1 above.

    - Engineering Controls: Maintain and periodically inspect the pavement covering the source area to prevent surface water infiltration and human exposure.

- Requirements for maintenance of the pavement that acts as a cover over the contaminated area;

- An Excavation Plan which details the provisions for management of future excavations or removal of the pavement cover in areas of remaining contamination;

- Descriptions of the provisions of the deed restriction including any land use, groundwater use restrictions;

- A provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- Provisions for the management and inspection of the identified engineering controls;

- Maintaining site access controls and Department notification; and

- The steps necessary for the periodic reviews and certification of the institutional and/or engineering control; and providing the Department access to the site and O&M records.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the RFI for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The only contaminant of concern at the site is Benzene. For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 6.1.1 are also presented.

Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs)

In 1995, USEPA completed a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) of the site, and NYSDEC followed up with the Visual Site Inspection (VSI). The RFA/VSI identified 20 SWMUs and six AOCs. The release history discussion in the RFA indicated that "No evidence of release was observed during the VSI or identified in the available file materials." One of the SWMUs was the SVE system installed in 1991 to remediate soil and groundwater, and one of the AOCs was the former wastewater underground pipeline that was presumably the source of benzene impacts to soil and groundwater. The report concluded that the SVE system should continue operation to remediate the releases from the former pipeline. The SWMU and AOC Recommendation Chart from the VSI, follows. Acronyms used in this chart are as follows:

AST - Above Ground Storage Tank

CSA - Container Storage Area

SAA - Satellite Accumulation Area

HCL - Hydrochloric Acid

SWMU and AOC Recommendation Chart

SWMU	Recommendation
4,400 gallon AST	No Further Action
Former CSA	No Further Action
SAA (QC Lab)	No Further Action
Former Elementary Neutralization Unit	No Further Action
Tank Farm Secondary Containment Pits	No Further Action
Solid Waste Roll-Off	No Further Action
700 gallon AST	No Further Action
2,000 gallon AST	No Further Action
6,000 gallon AST	No Further Action
SAA (Maintenance Shop)	No Further Action
Former SAA (R&D)	No Further Action
SAA (Instrument Room)	No Further Action
6,800 gallon AST	No Further Action
Former <90 day CSA	No Further Action
Active <90 day CSA	No Further Action
SAA (Process Lab)	No Further Action
Container Storage Area (Waste Oil)	No Further Action
Former Surface Impoundment	No Further Action
SAA (R&D)	No Further Action
Soil Vapor Extraction Unit	Continue Operation

SWMU and AOC Recommendation Chart (cont.)

AOC	Recommendation
North Loading/Unloading Dock	No Further Action
West Loading/Unloading Dock	No Further Action
Former Outdoor CSA	No Further Action
Former Concrete Pad	No Further Action
HCL Unloading Station	No Further Action
Former Benzene Underground Pipeline	Operate SVE System and Monitor Groundwater

The recommendation for the SVE System was followed until the system was shut down (ref. Section 6.2 of this FSB).

Waste/Source Areas

As described in the RFI report, waste/source materials were identified at the site and are impacting groundwater, and sub-surface soils.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site were substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. The source area was identified at the site in the production area where benzene from an underground wastewater pipeline was found. The contaminated area was roughly 180 feet long and 120 feet wide, extending vertically from the surface down to the water table at 34 feet. The center of this area is in the vicinity of monitoring wells MW-12 and MW-8. It extends beneath the tank farm and production buildings to the north and south to roughly 20 – 30 feet north of monitoring well nos. 2 and 9. (Figure 3) The greatest concentrations of benzene in unsaturated soils were found between 20 feet below grade and the water table. This zone is believed to be the source of benzene detected in groundwater beneath the site.

The wastewater pipeline was decommissioned by capping at both ends.

The source area was addressed by the ICM described in Section 6.2.

Groundwater

Benzene is the only contaminant of concern at the site. SCGs are still being exceeded, with the highest levels found in the source area. (Figure 4). However, the concentration of benzene in groundwater has been dramatically reduced in the source area by the ICM, and has been stable for the past ten years. (Figure 5) Benzene concentrations in wells outside the source area have also declined and have been stable at very low levels or not detected at all since 1997 when the ICM was completed. Benzene has never been detected in the on-site sentinel well (MW-11R) or in the Firehouse well; showing that the plume is not migrating off-site. (The firehouse well is plumbed to an historic school house, on property owned by the Town of Deerpark. The water is only used to flush the toilet.) Current groundwater concentrations are shown in Table 1, below:

Table #1 - Groundwater

Detected Constituents 2012 Sampling Event	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
Source Area			
Benzene	71 – 130	1	2/2
Downgradient Wells			
Benzene	Non-detect - 13	1	2/5

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

Groundwater contamination identified during the RFI was addressed during the ICM described in Section 6.2.

Soil

Three surface and three subsurface soil samples were collected at the site during the RI. Because there were no SWMUs in unpaved areas where soil exposure is possible, the Department selected sampling locations like equipment storage and other areas that may have been impacted. Surface soil samples were collected from a depth of 0-3 inches to assess direct human exposure. Three subsurface soil samples were collected in the source area from a depth of 4-29 feet to assess soil contamination impacts to groundwater. The results indicate that surface soils at the site do not exceed SCGs. One of the subsurface samples in the source area exceeds the SCG for protection of groundwater. The locations of the surface and subsurface soil samples are shown on Figure 6. These contaminated soils are covered by pavement and/or buildings at the site and are not accessible to workers or visitors at the site.

Table #2 - Soils

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Commercial Use SCG[d] (ppm)	Frequency Exceeding Restricted SCG
Surface Soils					
VOCs					
Benzene	Non detect	0.06	0/3	44	0/3
Subsurface Soils					
VOCs					
Benzene	Non detect - 68	0.06	1/3	44	1/3

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Use, unless otherwise noted.
d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.

Soil contamination identified during the RFI was addressed during the ICM described in Section 6.2. The sub-surface contaminants found in the source area will be addressed by a Site Management Plan as part of the final remedy.

Surface Water

Contaminants on the site have not migrated into any surface waters.

Soil Vapor

The potential for soil vapor intrusion resulting from the presence of site related soil or groundwater contamination was evaluated by the sampling of sub-slab soil vapor under structures, and indoor air inside structures. At this site, due to the presence of buildings in the impacted area, samples were collected to evaluate whether actions are needed to address exposures related to soil vapor intrusion.

Sub-slab vapor samples were collected from beneath occupied structures located on the Summit Research plant property. Indoor air and outdoor air samples were also collected to assess the potential for soil vapor intrusion. The results indicate that no actions are needed to address exposures related to soil vapor intrusion in the on-site building. All detected concentrations of VOCs in indoor air were below applicable guidance values, or background levels.

Based on the concentration detected, and in comparison with the New York State's Soil Vapor Intrusion Guidance, no site-related soil vapor contamination of concern was identified during the RFI. Therefore, no remedial alternatives need to be evaluated for soil vapor.

Figures

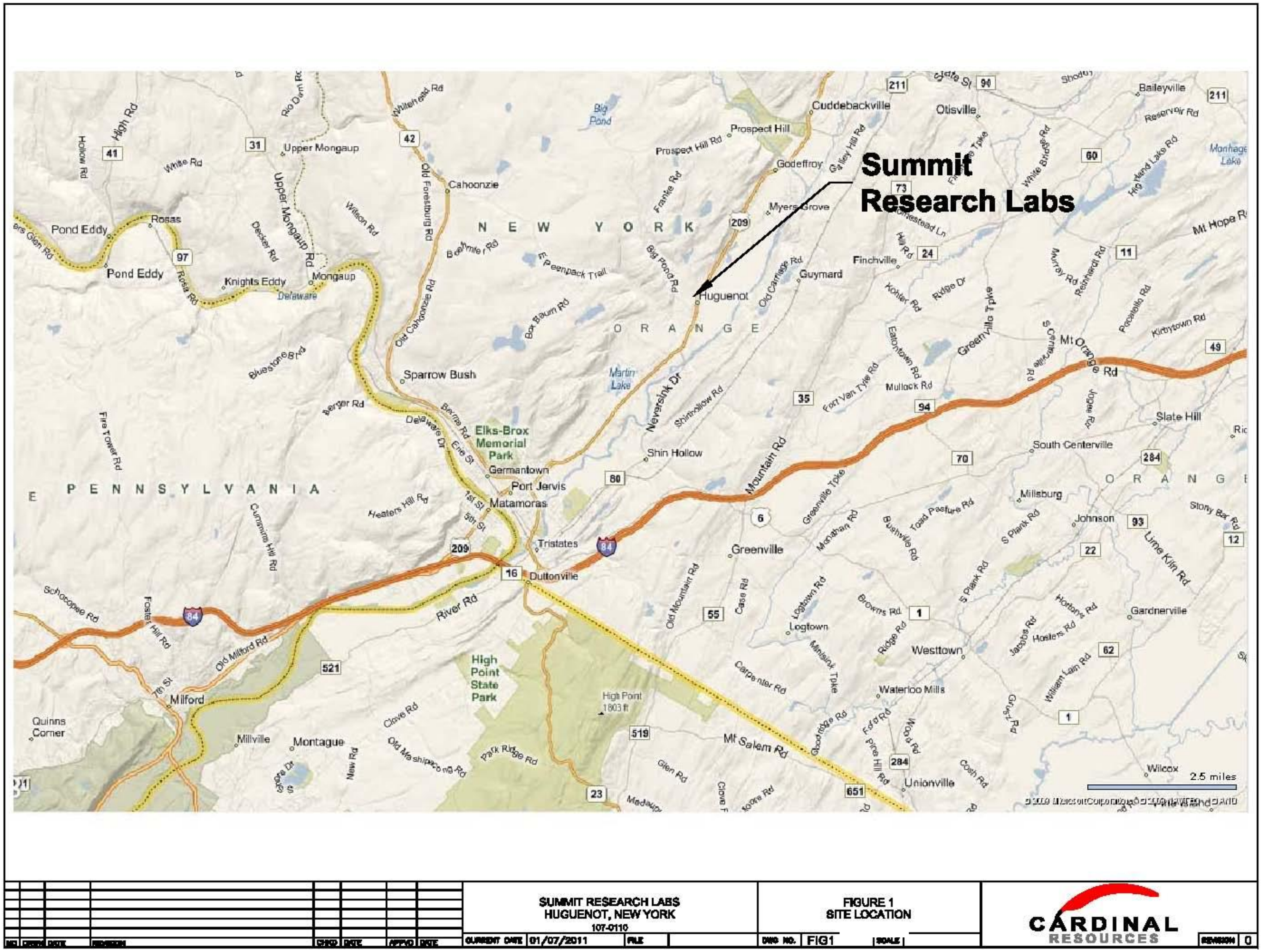

Summit Research Labs
Huguenot
N E W Y O R K
O R A N G E
P E N N S Y L V A N I A
Port Jervis
Matamoras
Milford
Cuddebackville
Otisville
Prospect Hill
Godeffroy
Myers Grove
Guymard
Finchville
Sparrow Bush
Germantown
Elks-Brox Memorial Park
Tristates
Duttonville
Greenville
Westtown
Slate Hill
South Centerville
High Point State Park
Pond Eddy
Knights Eddy
Mongaup
Upper Mongaup
Cahoonzie
Shin Hollow
Montague
Unionville
2.5 miles
SUMMIT RESEARCH LABS
HUGUENOT, NEW YORK
107-0110
CURRENT DATE 01/07/2011
FIGURE 1
SITE LOCATION
DWG NO. FIG1
CARDINAL RESOURCES
REVISION 0

Figure 1


Big Pond Rd
15 Big Pond Rd, NY 12746
Summit\
Research Labs
209
Grange Rd
Peenpack Trail
© 2009 Tele Atlas
Image © 2009 DigitalGlobe
Huguenot
Swartwout Rd
Google
SUMMIT RESEARCH LABS
HUGUENOT, NEW YORK
FIGURE 2
SITE VICINITY
CARDINAL
RESOURCES

Figure 2

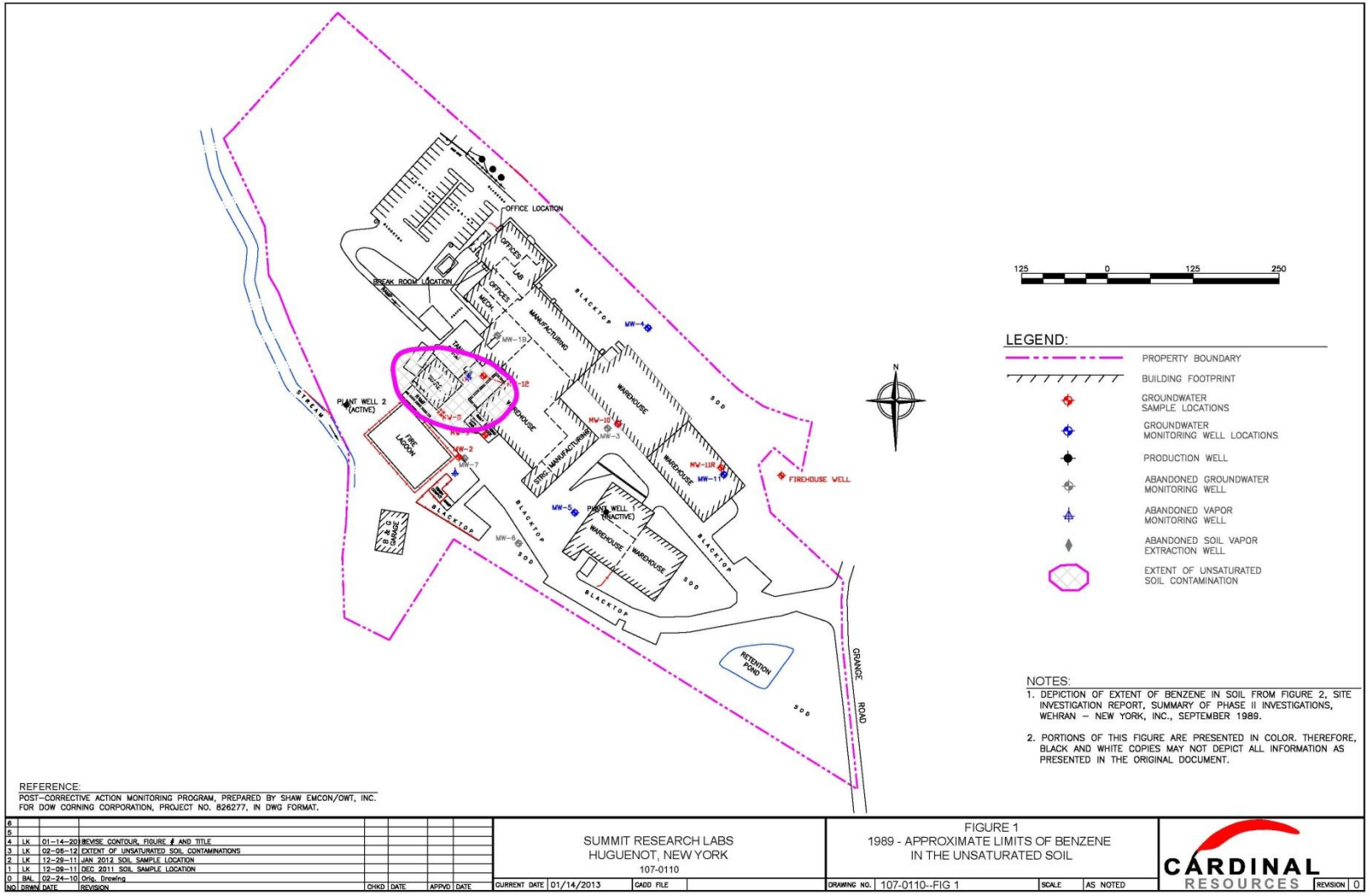

OFFICE LOCATION
BREAK ROOM LOCATION
OFFICES
LAB
MECH.
MANUFACTURING
WAREHOUSE
BLACKTOP
SOD
STREAM
PLANT WELL 2 (ACTIVE)
FIRE LAGOON
MW-1B
MW-4
MW-12
MW-10
MW-3
MW-2
MW-7
MW-11R
MW-11
MW-5
MW-6
PLANT WELL (INACTIVE)
FIREHOUSE WELL
RETENTION POND
GRANGE ROAD
N
125 0 125 250
LEGEND:
PROPERTY BOUNDARY
BUILDING FOOTPRINT
GROUNDWATER SAMPLE LOCATIONS
GROUNDWATER MONITORING WELL LOCATIONS
PRODUCTION WELL
ABANDONED GROUNDWATER MONITORING WELL
ABANDONED VAPOR MONITORING WELL
ABANDONED SOIL VAPOR EXTRACTION WELL
EXTENT OF UNSATURATED SOIL CONTAMINATION
NOTES:
1. DEPICTION OF EXTENT OF BENZENE IN SOIL FROM FIGURE 2, SITE INVESTIGATION REPORT, SUMMARY OF PHASE II INVESTIGATIONS, WEHRAN – NEW YORK, INC., SEPTEMBER 1989.
2. PORTIONS OF THIS FIGURE ARE PRESENTED IN COLOR. THEREFORE, BLACK AND WHITE COPIES MAY NOT DEPICT ALL INFORMATION AS PRESENTED IN THE ORIGINAL DOCUMENT.
REFERENCE:
POST–CORRECTIVE ACTION MONITORING PROGRAM, PREPARED BY SHAW EMCON/OWT, INC. FOR DOW CORNING CORPORATION, PROJECT NO. 826277, IN DWG FORMAT.
NO | DRWN | DATE | REVISION | CHKD | DATE | APPVD | DATE
4 | LK | 01-14-20 | REVISE CONTOUR, FIGURE # AND TITLE
3 | LK | 02-06-12 | EXTENT OF UNSATURATED SOIL CONTAMINATIONS
2 | LK | 12-29-11 | JAN 2012 SOIL SAMPLE LOCATION
1 | LK | 12-09-11 | DEC 2011 SOIL SAMPLE LOCATION
0 | BAL | 02-24-10 | Orig. Drawing
SUMMIT RESEARCH LABS
HUGUENOT, NEW YORK
107-0110
CURRENT DATE 01/14/2013
CADD FILE
FIGURE 1
1989 - APPROXIMATE LIMITS OF BENZENE IN THE UNSATURATED SOIL
DRAWING NO. 107-0110--FIG 1
SCALE AS NOTED
CARDINAL RESOURCES
REVISION 0

Figure 3

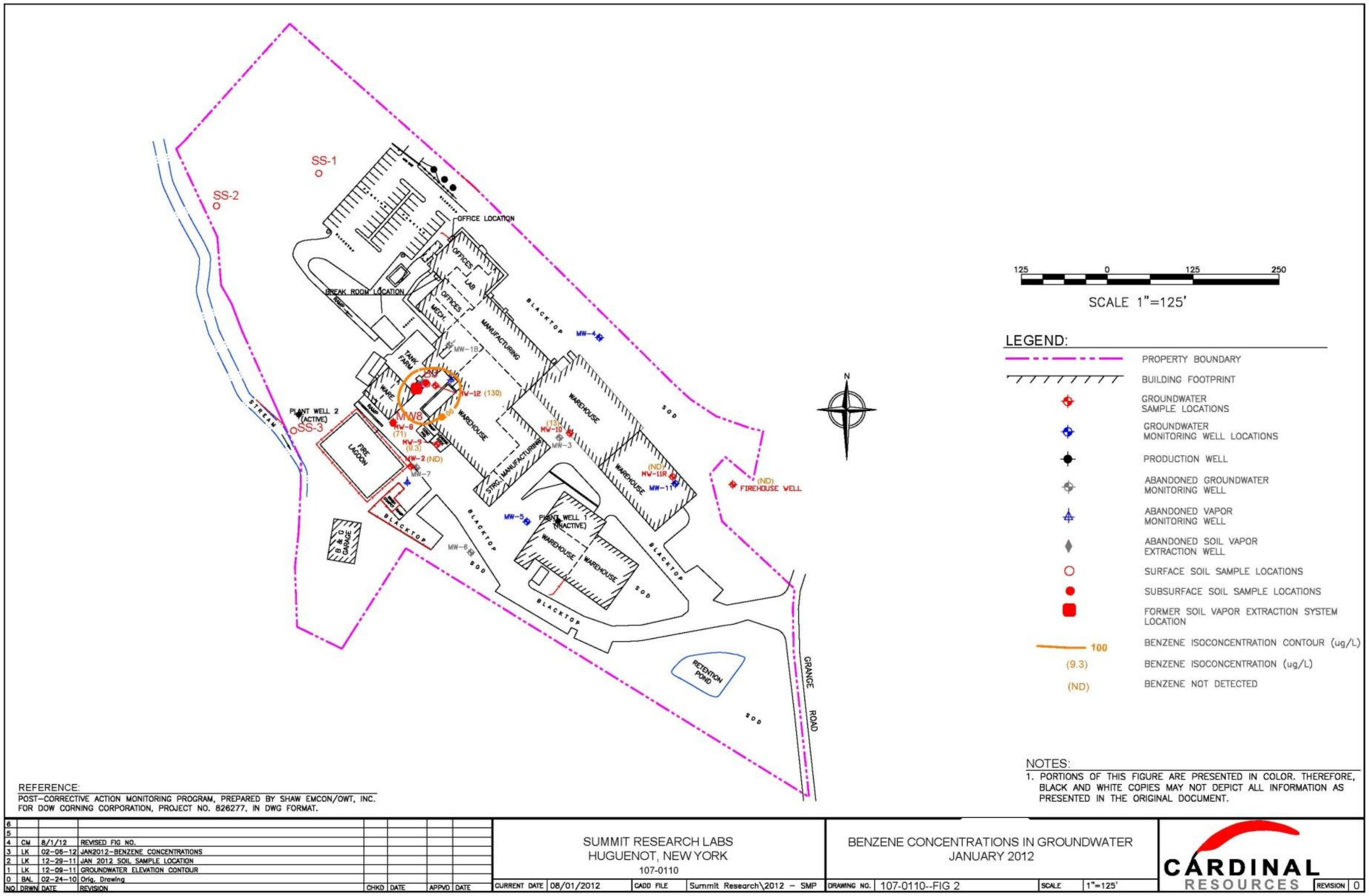

SS-1
SS-2
SS-3
OFFICE LOCATION
BREAK ROOM LOCATION
OFFICES
LAB
MECH
MANUFACTURING
TANK FARM
WAREHOUSE
STRG. MANUFACTURING
FIRE LAGOON
B & G GARAGE
RETENTION POND
BLACKTOP
SOD
STREAM
GRANGE ROAD
PLANT WELL 2 (ACTIVE)
PLANT WELL 1 (INACTIVE)
FIREHOUSE WELL
MW-1B
MW-2 (ND)
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9 (9.3)
MW-10 (13)
MW-11
MW-11R (ND)
MW-12 (130)
(71)
(ND)
125 0 125 250
SCALE 1"=125'
N
LEGEND:
PROPERTY BOUNDARY
BUILDING FOOTPRINT
GROUNDWATER SAMPLE LOCATIONS
GROUNDWATER MONITORING WELL LOCATIONS
PRODUCTION WELL
ABANDONED GROUNDWATER MONITORING WELL
ABANDONED VAPOR MONITORING WELL
ABANDONED SOIL VAPOR EXTRACTION WELL
SURFACE SOIL SAMPLE LOCATIONS
SUBSURFACE SOIL SAMPLE LOCATIONS
FORMER SOIL VAPOR EXTRACTION SYSTEM LOCATION
100 BENZENE ISOCONCENTRATION CONTOUR (ug/L)
(9.3) BENZENE ISOCONCENTRATION (ug/L)
(ND) BENZENE NOT DETECTED
NOTES:
1. PORTIONS OF THIS FIGURE ARE PRESENTED IN COLOR. THEREFORE, BLACK AND WHITE COPIES MAY NOT DEPICT ALL INFORMATION AS PRESENTED IN THE ORIGINAL DOCUMENT.
REFERENCE:
POST-CORRECTIVE ACTION MONITORING PROGRAM, PREPARED BY SHAW EMCON/OWT, INC. FOR DOW CORNING CORPORATION, PROJECT NO. 826277, IN DWG FORMAT.
4 CM 8/1/12 REVISED FIG NO.
3 LK 02-08-12 JAN2012-BENZENE CONCENTRATIONS
2 LK 12-29-11 JAN 2012 SOIL SAMPLE LOCATION
1 LK 12-09-11 GROUNDWATER ELEVATION CONTOUR
0 BAL 02-24-10 Orig. Drawing
NO DRWN DATE REVISION CHKD DATE APPVD DATE
SUMMIT RESEARCH LABS
HUGUENOT, NEW YORK
107-0110
BENZENE CONCENTRATIONS IN GROUNDWATER
JANUARY 2012
CURRENT DATE 08/01/2012
CADD FILE Summit Research\2012 - SMP
DRAWING NO. 107-0110--FIG 2
SCALE 1"=125'
CARDINAL RESOURCES
REVISION 0

Figure 4

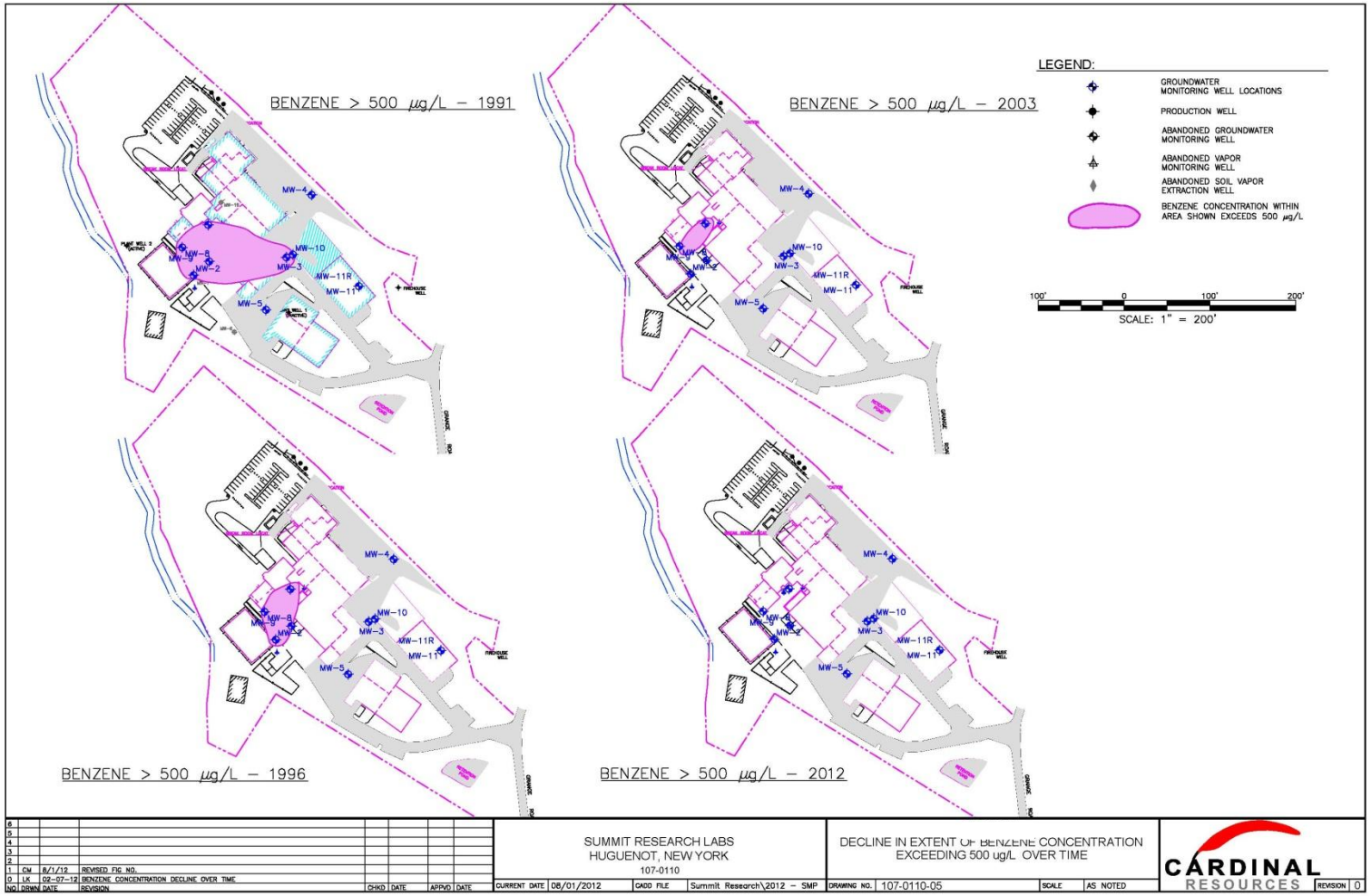

BENZENE > 500 µg/L – 1991
BENZENE > 500 µg/L – 2003
BENZENE > 500 µg/L – 1996
BENZENE > 500 µg/L – 2012
LEGEND:
GROUNDWATER MONITORING WELL LOCATIONS
PRODUCTION WELL
ABANDONED GROUNDWATER MONITORING WELL
ABANDONED VAPOR MONITORING WELL
ABANDONED SOIL VAPOR EXTRACTION WELL
BENZENE CONCENTRATION WITHIN AREA SHOWN EXCEEDS 500 µg/L
100' 0 100' 200'
SCALE: 1" = 200'
SUMMIT RESEARCH LABS
HUGUENOT, NEW YORK
107-0110
DECLINE IN EXTENT OF BENZENE CONCENTRATION EXCEEDING 500 ug/L OVER TIME
CARDINAL RESOURCES
1 CM 8/1/12 REVISED FIG NO.
0 LK 02-07-12 BENZENE CONCENTRATION DECLINE OVER TIME
CURRENT DATE 08/01/2012
CADD FILE Summit Research\2012 – SMP
DRAWING NO. 107-0110-05
SCALE AS NOTED
REVISION 0

Figure 5

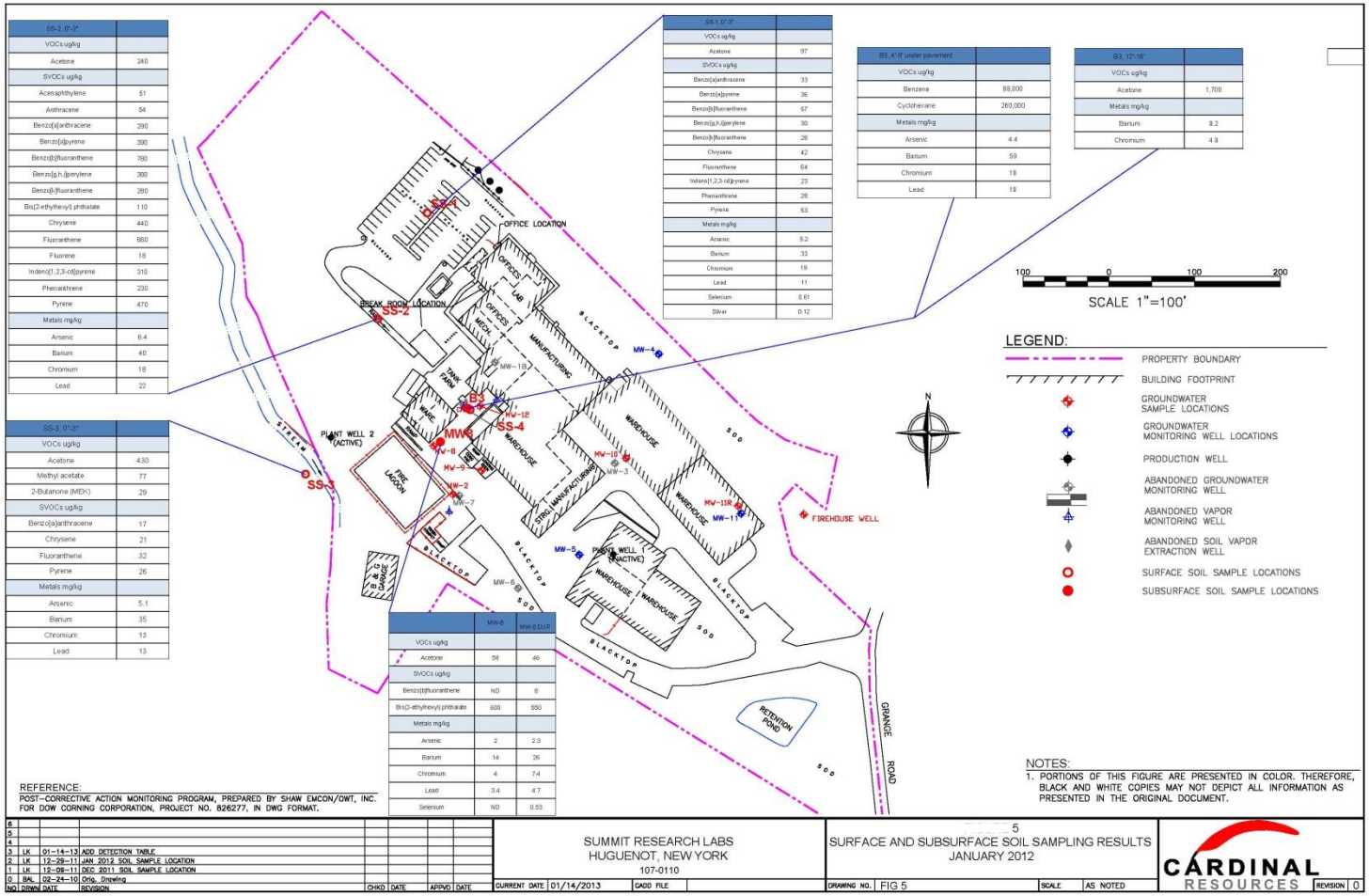

SS-2, 0'-3"
VOCs ug/kg
Acetone 240
SVOCs ug/kg
Acenaphthylene 51
Anthracene 54
Benzo[a]anthracene 290
Benzo[a]pyrene 390
Benzo[b]fluoranthene 780
Benzo[g,h,i]perylene 380
Benzo[k]fluoranthene 280
Bis(2-ethylhexyl) phthalate 110
Chrysene 440
Fluoranthene 660
Fluorene 18
Indeno[1,2,3-cd]pyrene 310
Phenanthrene 230
Pyrene 470
Metals mg/kg
Arsenic 6.4
Barium 40
Chromium 18
Lead 22
SS-3, 0'-3"
VOCs ug/kg
Acetone 430
Methyl acetate 77
2-Butanone (MEK) 29
SVOCs ug/kg
Benzo(a)anthracene 17
Chrysene 21
Fluoranthene 32
Pyrene 26
Metals mg/kg
Arsenic 5.1
Barium 35
Chromium 13
Lead 13
SS-1, 0'-3"
VOCs ug/kg
Acetone 97
SVOCs ug/kg
Benzo(a)anthracene 33
Benzo(a)pyrene 36
Benzo(b)fluoranthene 57
Benzo(g,h,i)perylene 30
Benzo(k)fluoranthene 28
Chrysene 42
Fluoranthene 64
Indeno[1,2,3-cd]pyrene 23
Phenanthrene 28
Pyrene 53
Metals mg/kg
Arsenic 6.2
Barium 33
Chromium 19
Lead 11
Selenium 0.61
Silver 0.12
B3, 4'-8' under pavement
VOCs ug/kg
Benzene 88,000
Cyclohexane 260,000
Metals mg/kg
Arsenic 4.4
Barium 59
Chromium 19
Lead 18
B3, 12'-16'
VOCs ug/kg
Acetone 1,700
Metals mg/kg
Barium 8.2
Chromium 4.8
MW-6
MW-6 DUP
VOCs ug/kg
Acetone 58 46
SVOCs ug/kg
Benzo[b]fluoranthene ND 8
Bis(2-ethylhexyl) phthalate 600 550
Metals mg/kg
Arsenic 2 2.3
Barium 14 26
Chromium 4 7.4
Lead 3.4 4.7
Selenium ND 0.53
OFFICE LOCATION
BREAK ROOM LOCATION
SS-1
SS-2
SS-3
SS-4
B3
MW-6
PLANT WELL 2 (ACTIVE)
FIRE LAGOON
STREAM
FIREHOUSE WELL
PLANT WELL (ACTIVE)
RETENTION POND
GRANGE ROAD
BLACKTOP
SOD
WAREHOUSE
MANUFACTURING
OFFICES
LAB
MECH.
TANK FARM
SCALE 1"=100'
LEGEND:
PROPERTY BOUNDARY
BUILDING FOOTPRINT
GROUNDWATER SAMPLE LOCATIONS
GROUNDWATER MONITORING WELL LOCATIONS
PRODUCTION WELL
ABANDONED GROUNDWATER MONITORING WELL
ABANDONED VAPOR MONITORING WELL
ABANDONED SOIL VAPOR EXTRACTION WELL
SURFACE SOIL SAMPLE LOCATIONS
SUBSURFACE SOIL SAMPLE LOCATIONS
NOTES:
1. PORTIONS OF THIS FIGURE ARE PRESENTED IN COLOR. THEREFORE, BLACK AND WHITE COPIES MAY NOT DEPICT ALL INFORMATION AS PRESENTED IN THE ORIGINAL DOCUMENT.
REFERENCE:
POST-CORRECTIVE ACTION MONITORING PROGRAM, PREPARED BY SHAW EMCON/OWT, INC. FOR DOW CORNING CORPORATION, PROJECT NO. 826277, IN DWG FORMAT.
3 LK 01-14-13 ADD DETECTION TABLE
2 LK 12-28-11 JAN 2012 SOIL SAMPLE LOCATION
1 LK 12-09-11 DEC 2011 SOIL SAMPLE LOCATION
0 BAL 02-24-10 Orig. Drawing
SUMMIT RESEARCH LABS
HUGUENOT, NEW YORK
107-0110
SURFACE AND SUBSURFACE SOIL SAMPLING RESULTS
JANUARY 2012
CARDINAL RESOURCES
CURRENT DATE 01/14/2013
DRAWING NO. FIG 5
SCALE AS NOTED
REVISION 0

Figure 6

APPENDIX A

Responsiveness Summary

Responsiveness Summary

Summit Research Labs Inc.
Huguenot, New York
Site Number 336079
EPA ID NYD001391200

The Draft Statement of Basis (DSB) for Summit Research was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 26, 2013. The DSB outlined the remedial measure proposed for the contaminated soil and groundwater at the Summit Research site.

The release of the DSB was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy. A public meeting was held on March 06, 2013, which included a presentation of the RCRA Facility Investigation (RFI) that described the nature and extent of the on-site contamination, the Interim Remedial Measure (IRM) taken on the site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the DSB ended on March 28, 2013.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received at the public meeting, with the Department's responses:

COMMENT 1: Will the final Statement of Basis (FSB) be sent to the site contact list?

RESPONSE 1: No. A notice of availability will be sent out to those on the site contact list. Copies of the FSB will be available in the site document repositories at the Port Jervis Library and at the NYSDEC Region 3 headquarters.

COMMENT 2: Does benzene cause cancer?

RESPONSE 2: There is sufficient evidence to conclude that benzene causes cancer in humans. Studies of people exposed for long periods of time to high levels of benzene report a link between benzene exposure and increased risk of leukemia. Based on these studies, the EPA has concluded that benzene can cause cancer in humans.

COMMENT 3: Has there been a cancer study in the vicinity of the site?

RESPONSE 3: A cancer study has not been conducted in the vicinity of the site. The possibility of exposure to site-related contamination was low since the release occurred below ground and in a small area. Site-related contamination has not been detected in soil or groundwater off-site, limiting potential routes of exposure. If a health study was conducted, because of the relatively small number of people living in the area, a health study would not show any health effects that could be directly linked to the facility. Even if a few cases of disease were found, it would be difficult to determine whether they were related to a specific environmental cause or to the natural incidence of disease within the general population. Therefore, a health study would not provide definitive answers to persons working at or living near the site.

COMMENT 4: During significant rain events, like Hurricane Irene, can my well be impacted?

RESPONSE 4: While it is possible that an event such as a hurricane might cause changes to contaminant concentrations, they would likely be short lived and not have an appreciable impact on plume size, as evidenced by the fact that the benzene levels seen in on-site monitoring wells in the January 2012 monitoring event, just five months after Hurricane Irene, were all within the ranges seen in groundwater monitoring results obtained in previous years.

COMMENT 5: Is Soil Vapor Extraction (SVE) like a reverse deep well injection system?

RESPONSE 5: The principal is the same. Air is extracted from the soil, which removes the contaminants. Think of it as a vacuum cleaner for soil.

COMMENT 6: Linda Kozak of Summit Research submitted an email dated March 6, 2013 which included the following comment:

"Today in reading thru the most recent copy of the Statement of Basis, we found an inaccurate statement in section 6.4 (Summary of Human Exposure Pathways). It looks like the second paragraph in that section was changed significantly from the wording that was in the copy you sent me on 2/12. Problem with the new version, is that you mention a public water supply for drinking water. There is no public supply of water in this area. All the residences and businesses in Huguenot have site wells, as Summit does. Here at Summit we do not use our well water for drinking - we provide bottled water for our employees (as I mentioned to you this is not because of the benzene issue - but rather that Summit has never wanted to have to treat their well water to meet drinking water standards - much simpler for us to provide bottled water at our facility)."

RESPONSE 6: Agreed, this will be corrected in the FSB. This correction does not change the proposed remedy because the area of groundwater contamination has remained within the boundaries of the plant site.

APPENDIX B

Administrative Record

Summit Research Labs Inc.

Statement of Basis

Huguenot, NY

Site No. 336079

RCRA Corrective Action Project

1. Order on Consent, Index No. A3-0779-10-11, between the Department and Sommerville Investors Limited Partnership, executed on 11/23/2011.
2. "Phase 1 Site Investigation Report," December 1987, Wehran Engineering
3. "Site Investigation report, Summary of Phase II Investigations," September, 1989, Wehran – New York Inc.
4. "Natural Attenuation of Benzene in Ground Water: The DOW Corning Huguenot Site," April 2, 1992, DOW Corning Health & Environment Sciences.
5. "Draft RCRA Facility Assessment Report," A.T. Kearney, July 25, 1995.
6. "Dow Corning, Huguenot Site, SVE System Evaluation," January 18, 2000, EMCON.
7. "Sub-slab and Ambient Air Sampling Report," February 2010 Revised June 2010, Cardinal Resources.
8. "Supplemental Soil and Groundwater Sampling Report, Summit Research Labs, Inc.," February, 2012, Cardinal Resources.
9. Email dated 3/6/2013 from Linda Kozak, Summit Research, Inc.