SAMPLING AND ANALYSIS PLAN FOR THE MOHAWK SUB-AREA

BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

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I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

June 25, 2008

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ACRONYMS AND ABBREVIATIONS

Aa	alluvial aquifer
AOC3	Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3
APA	air pathway analysis
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
BRC	Basic Remediation Company
CAMU	Corrective Action Management Unit
CAP	Corrective Action Plan
COPC	chemical of potential concern
CSM	conceptual site model
DAF	dilution attenuation factor
DQA	data quality assessment
DQOs	data quality objectives
DVSR	Data Validation Summary Report
ECI	Environmental Conditions Investigation
FSSOP	Field Sampling and Standard Operating Procedures
GPS	global positioning system
HSA	Hollow Stem Auger
IRMs	interim remedial measures
MCL	maximum contaminant level
MDLs	method detection limits
MSSLs	medium-specific screening levels
NDEP	Nevada Division of Environmental Protection
NFAD	no further action determination
PCBs	polychlorinated biphenyls
PIDs	photoionization detectors
PSQs	Principal Study Questions
QA/QC	Quality Assurance/Quality Control
Qal	Quaternary alluvium
QAPP	Quality Assurance Project Plan
RAP	Remedial Action Plan
SAP	Sampling and Analysis Plan
SOPs	Standard Operating Procedures
SRC	Site-related chemicals
SSL	Soil Screening Level
SVOCs	semi-volatile organic compounds
TDS	total dissolved solids
TEQ	toxic equivalency
TMCf	Muddy Creek formation
TPH	total petroleum hydrocarbons
UCL	upper confidence limit
USCS	Unified Soil Classification System
USEPA	U.S. Environmental Protection Agency
VOCs	volatile organic compounds

1.0 INTRODUCTION

Basic Remediation Company (BRC) has prepared this Sampling and Analysis Plan (SAP) for the Mohawk sub-area. The SAP describes tasks for performance of confirmation sampling in order to obtain a no further action determination (NFAD) for this area. The term NFAD is defined in the *Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3* (AOC3; Nevada Division of Environmental Protection [NDEP] 2006) in Section XVII. This revision of the SAP, Revision 2, incorporates (1) comments received from the NDEP, dated 19 September 2007, on Revision 0 of the SAP, dated August 2007; (2) comments received from the NDEP, dated 30 January 2008, on SAP text revisions, dated October 2007, and (3) comments received from the NDEP, dated 10 June 2008, on Revision 1 of the SAP, dated May 2008. The NDEP comments and BRC's response to these comments are included in Appendix A. Also included in Appendix A is a redline/strikeout version of the text showing the revisions from the May 2008 version of the SAP. An electronic version of the entire report, as well as original format files (MS Word and MS Excel) of all text and tables are included in Appendix B.

The Mohawk sub-area (hereinafter "the Site") is one of several sub-areas of the BMI Common Areas (Eastside) located in Clark County, Nevada (Figure 1). The Site encompasses an area of approximately 54.7 acres (Figure 2). The Site includes unexcavated ponds, previously excavated ponds, and areas that were not used for any known waste disposal. This SAP relies upon information provided in the *BRC Closure Plan* for the BMI Common Areas (BRC *et al*. 2007; hereinafter "Closure Plan"). The main text of the Closure Plan provides discussions of the following elements relative to the BMI Common Areas project as a whole:

- The project history, including cleanup goals and project objective (Closure Plan Sections 1 and 2);
- The list of site-related chemicals (Closure Plan Section 3);
- The conceptual site model (CSM) addressing potential contaminant sources, the nature and extent of chemical of potential concern (COPC) occurrence, and potential exposure pathways (Closure Plan Section 4; a CSM discussion specific to the Site is provided in Section 2 of this SAP);
- Data verification and validation procedures (Closure Plan Section 5);
- The procedures used to evaluate the usability and adequacy of data for use in the risk assessment (Closure Plan Sections 6 and 9);

- The data quality objectives (DQOs; Closure Plan Section 7; a DQO discussion specific to the Site is provided in Section 3 of this SAP);
- Data quality assessment (DQA; Closure Plan Section 5);
- The remedial alternative study process for the Site (Closure Plan Section 8); and
- Risk assessment procedures that will be used for Site closure (Closure Plan Section 9 for human health and Section 10 for ecological).

Baseline remediation will occur prior to implementing the procedures described in this SAP. Many of the previous samples were composite sampling, all previous soil samples (other than limited soil samples collected during the 2006 waste characterization sampling) were collected at least seven years ago, and none of the previous samples have been analyzed for all of the major chemicals or chemical families and several used different analytical methods. Therefore, because of these various factors, and because the post-remediation investigation results are considered representative of site conditions, risk assessments for the Site will be conducted using the data collected as part of this SAP. In general historical data will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data are useful for CSM purposes and are discussed in Section 2.0.

Sampling performed for this purpose as described in this SAP relies on the statistical methodologies presented in the *Statistical Methodology Report* (NewFields 2006). The *Statistical Methodology Report* describes the statistical methods that will be used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas.

The SAP addresses sampling procedures such that remaining contaminants and their potential impacts to future Site uses (as discussed in the Closure Plan) can be determined. In this SAP, as recommended in the *Statistical Methodology Report*, samples will be collected throughout the Site on a systematic sampling basis, consisting of a regular grid overlay across the property with a randomly placed sample within each grid cell to provide enough samples for completion of a statistically robust assessment of contaminant distribution, and subsequently, to provide a robust data set upon which to perform a human health risk assessment. Additional biased sampling locations will be selected within or near small-scale contamination points of interests, including

but not limited to previous debris locations, ponds, and berm walls near previously excavated ponds.

1.1 PURPOSE OF THE SAP

The purpose of this SAP is to evaluate soil and soil vapor conditions (including any indirect impacts from underlying groundwater) that may have been impacted at the Site from former activities and adjoining lands. The scope of this investigation is limited to soil and soil vapor flux sampling in an effort to assess issues that might directly impact Site development potential consistent with the Closure Plan. However, the data will be used to determine any impacts to groundwater from future site uses. That is, data will be collected to evaluate the soil-to-groundwater leaching pathway. The objective of the field investigation is to identify and characterize the distribution of Site-related chemicals (SRC). Surface and subsurface samples that will be collected are depth-discrete soil matrix samples and surface vapor flux samples. Although this SAP does include data collection for evaluating groundwater as a potential source to the vapor intrusion pathway, it does not address potential groundwater issues, which are being investigated separately by BRC pursuant to AOC3 (NDEP 2006) as part of an overall evaluation of the BMI Common Areas. The investigation is designed to provide sufficient data to support risk-based decisions (including decisions to seek an NFAD) for the Site. BRC anticipates that, if needed, the NFAD for the Site will contain a deed restriction precluding potable use of groundwater beneath the Site.

2.0 CONCEPTUAL SITE MODEL

The following sections provide information about the Site, previous investigations that have been conducted at the Site, interim remedial measures (IRMs) that have occurred, and the existing Site dataset. An overview of the CSM for the Site is provided in the Closure Plan. This section includes a summary of the investigations performed at the Site during the following primary project phases: prior to IRM performance (Section 2.4); during or immediately following the IRM (Section 2.6); and subsequent to IRM performance (Section 2.7).

2.1 SITE DESCRIPTION

The Site (Figure 2) comprises approximately 54.7 acres of undeveloped land with very little surface relief that is gently sloping to the northwest. The Site is currently undeveloped, except for a portion of the temporary informational kiosk, and Mohawk Drive which passes through the Site. Site conditions within the Site are variable. As depicted in Figure 2, the northern portion of the Site has no features of historical use; this portion of the Site has historically been undeveloped and is not known to have been associated with industrial operations at the BMI Complex. In contrast, the southern portion of the Site contains a portion of the Upper Ponds, which were once associated with historical conveyance and/or disposal of operations effluent and cooling water by companies operating at the BMI Complex. The individual ponds are distinct and defined by berms along the north, east, and west sides. In general, the berms are relatively uniformly-shaped, often with angular corners showing little evidence of erosion. The berms are typically 4 to 6 feet tall.

The native soils within the ponds are compacted, poorly-sorted, non-plastic, light brown to red silty sand with varying amounts of gravel. However, prior to 2001, within portions of several ponds, the surficial material consisted of very fine material that graded in color from greenish-gray to light yellowish-brown; in places, the ground surface was white. This discolored material was interpreted to be residual sediment associated with historic effluent disposal in the ponds. As discussed below, this material has been removed from these ponds.

Exposures to current receptors are being managed through site access control. Under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing, parks, schools, commercial development, and streets. The entire Site will be enhanced by restoration and redevelopment once remediation is complete. Therefore, exposures to ecological receptors will be mitigated or removed. Future receptors identified as “on-site receptors” are defined as receptors located within the current Site boundaries (Figure 2),

while future "off-site receptors" are those located outside the current Site boundaries. Many potential human receptors are possible at the Site in the period during and after redevelopment. The potentially exposed populations and their potential routes of exposure are discussed in Section 9 of the Closure Plan.

The current development plan for the Site is shown on Figure 3. To construct parks, commercial structures and residences, the land will be cut and/or filled, paved with roads or foundations, and nurtured with imported top soils[1] as needed. Figure 4 shows the current grading plan for the Site, indicating which areas will be filled and which areas will be cut.

Because the background general water quality (*i.e.*, high salt concentrations) of the groundwater beneath the Site and in the surrounding area is poor and because BRC will place institutional controls in the form of a deed restriction to prevent future users from utilizing groundwater beneath the Site, the use of private water wells by residents, businesses, or parks for drinking water, irrigation water, or other non-potable uses (*e.g.*, washing cars, filling swimming pools) will not occur in the post-redevelopment phase.

Although direct exposures to groundwater will not occur; indirect exposures are possible. The primary indirect exposure pathway from groundwater is the infiltration of volatile organic compounds (VOCs) from soil and groundwater to indoor air. In addition, residual levels of chemicals in soil may leach and impact groundwater quality beneath the Site. Collection of data to evaluate both of these migration pathways at the Site is presented in this SAP.

The First Eight Rows sub-area encompasses an area of approximately 208.2 acres immediately to the west of the Site. Metals, asbestos, dioxins/furans, organochlorine pesticides, perchlorate, radionuclides, and semi-volatile organic compounds (SVOCs) have been detected at elevated levels in this sub-area. The Upper Ponds sub-area, which encompasses an area of approximately 284.5 acres, is also immediately to the west of the Site. Similar chemicals have been detected in this sub-area, but at lesser concentrations than those found in the First Eight Rows sub-area. Although these adjacent sub-areas contain elevated chemicals in soil, and remediation of these sub-areas is scheduled to occur after remediation of the Site, impacts from these areas to the Site are considered negligible because dust palliative measures have been implemented for the IRM soil storage areas, and dust suppression/mitigation measures will be implemented during remediation activities.

[1] Note: Imported soil data will not be included in risk assessment calculations. However, the chemical data for fill material from the Site may be useful for evaluating sub-areas to receive this fill.

Immediately to the south and east of the Site is the Parcel 4B sub-area. The NDEP concluded in 1997 that no further characterization of this sub-area was required and that development could proceed without environmental restriction. However, subsequent to this decision, additional sampling and analysis was conducted in 2007, supplemented by additional sampling in 2008. Following the first round of sampling in 2007, surface soil was scraped and removed from several areas within the Parcel 4B sub-area followed by additional sampling. Currently a screening-level human health risk assessment is being conducted for this sub-area to determine whether re-affirmation of the NFAD for Parcel 4B is warranted.

Analytical results for each of the three sub-areas surrounding the Site are presented further in Section 2.8 below.

2.2 SURFACE WATER

Surface water flow occurs for brief periods of time during periodic precipitation events. Because of the nature of the ponds and their construction, it is unlikely that surface waters drain to the Las Vegas Wash from the Site.

2.3 GEOLOGY/HYDROGEOLOGY

As is common throughout the Las Vegas Valley, Site soils are primarily sand and gravel, with occasional cobbles. This is consistent with the depositional environment of an alluvial fan. The Site is located on alluvial fan sediments, with a surface that slopes to the north-northeast at a gradient of approximately 0.02 foot per foot (ft/ft) towards the Las Vegas Wash. Regional drainage is generally to the east.

The uppermost strata beneath the Site consist primarily of alluvial sands and gravels derived from the River Mountains and from the volcanic source rocks in the McCullough Range, located to the southeast and southwest of the Site, respectively. These uppermost alluvial sediments were deposited within the last two million years and are of Quaternary age, and are thus mapped and referred to as the Quaternary alluvium (Qal; Carlsen *et al*. 1991). The Qal is typically on the order of 50 feet thick at the Site with variations due, in part, to the non-uniform contact between the Qal and the underlying Tertiary Muddy Creek Formation (TMCf).

The TMCf underlies the Qal. The Muddy Creek formation, of which the TMCf is the uppermost part, is a lacustrine deposition from the Tertiary Age, and it underlies much of the Las Vegas Valley. It is more than 2,000 feet thick in places. The lithology of the TMCf underlying the Site

is typically fine-grained (sandy silt and clayey silt), although layers with increased sand content are sporadically encountered. These TMCf materials have typically low permeability, with hydraulic conductivities on the order of 10^{-6} to 10^{-8} centimeters per second (Weston 1993). The TMCf in the vicinity of the Site was encountered to the maximum explored depth of 430 feet below ground surface (bgs). Lithologic cross sections are shown on Figures 5 and 6.

Two distinct, laterally continuous water-bearing zones are present within the upper 400 feet of the Site subsurface: (1) an upper, unconfined water-bearing zone primarily within the Qal referred to herein as the alluvial aquifer (Aa) and (2) a deep, confined water-bearing zone that occurs in a sandier depth interval within the silts of the deeper TMCf. Both of these water-bearing zones contain high concentrations of total dissolved solids (TDS). Between these two distinct water-bearing zones, a series of saturated sand stringers were sporadically and unpredictably encountered during drilling.

Alluvial Aquifer. The Aa is an unconfined, shallower, water-bearing zone that occurs across the Site. For the most part, water in the Aa occurs in the Qal. The water surface in the Aa generally follows topography, with the water surface sloping towards the Las Vegas Wash. The depth from the surface to first groundwater at the Site is approximately 45 feet bgs. Wells completed in the Aa are not highly productive, with sustainable flows typically less than five gallons per minute.

2.4 INVESTIGATIONS PRIOR TO IRM PERFORMANCE

Shallow soil samples were collected within the Site prior to October 1999 (*i.e.*, initiation of the IRM) during the following three separate events (see Figure 2 for sample locations; sample locations are differentiate between pre and post-IRM.):

- The BMI Common Areas Environmental Conditions Investigation (ECI) conducted during March and April 1996 (dataset 1a). The soil investigation activities were performed in accordance with a workplan approved by NDEP in February 1996 (ERM, February 1996). The soil sampling results for the investigation activities were presented in the ECI report (ERM, August 1996);

- Additional soil sampling conducted in December 1998 to better delineate the extent of soil requiring remediation (data were not validated, all soil removed during IRM). These data were for internal purposes only, and were not collected under a formal NDEP-approved workplan. The results were summarized in the IRM Completion Report (ERM, May 2000); and

- Additional soil sampling conducted in May 1999 to establish the extent of antimony, manganese and thallium occurrence in site soils (dataset 6c). These data were also not collected under a formal NDEP-approved workplan. The results were summarized in the IRM Completion Report (ERM, May 2000).

During these investigations, soil samples at various depths were collected and analyzed for VOCs, SVOCs, organochlorine pesticides, polychlorinated biphenyls (PCBs), metals, perchlorate, radionuclides, and/or asbestos. The data from these investigations have been validated, except as noted above. Data validations are presented in the respective Data Validation Summary Reports (DVSRs) for each of the datasets, which have been approved by NDEP (12 September 2006 for dataset 1a and 10 October 2006 for dataset 6c). The results of these field sampling events are summarized in the database excerpt provided in Appendix B.

The following compounds were detected in soils collected during the various sampling events at the Site at concentrations greater than U.S. Environmental Protection Agency (USEPA) Region 6 residential soil medium-specific screening levels (MSSLs; USEPA 2007):

Pond ID	Site-Related Chemical	Residential Soil MSSL (mg/kg)	Maximum Detection (mg/kg)
UA-01	4,4'-DDE	1.7	4.3
	4,4'-DDT	1.7	1.8
	Antimony	31	72
	Arsenic	7.2*	220
	Chromium (Hexavalent)	30	48
	Lead	400	700
	Manganese	3,500	15000
	Vanadium	390	750
UA-03	4,4'-DDE	1.7	16
	4,4'-DDT	1.7	3.0
	Antimony	31	150
	Arsenic	7.2*	80
	Lead	400	3700
	Manganese	3,500	8700
	Vanadium	390	7100
UB-01	Antimony	31	40
	Arsenic	7.2*	36
	Lead	400	480
	Vanadium	390	2600
UB-02	Antimony	31	62
	Arsenic	7.2*	32
	Lead	400	1500
	Thallium	5.2	9.5
	Vanadium	390	3300

Pond ID	Site-Related Chemical	Residential Soil MSSL (mg/kg)	Maximum Detection (mg/kg)
UC-01	Arsenic	7.2*	25
	Vanadium	390	1300
UD-02	Antimony	31	35
	Arsenic	7.2*	47
	Lead	400	850
	Manganese	3,500	3700
	Vanadium	390	2300
UE-01	Arsenic	7.2*	11.6
	Vanadium	390	563

*Indicates maximum background concentration.

Ultimately, the NDEP concluded that remediation was warranted for the following 10 Site ponds: UA-01 through UA-03, UB-01 through UB-03, UC-01 and UC-02, and UD-01 and UD-02.

2.5 INTERIM REMEDIAL MEASURES (IRMs)

To expedite restoration of the Site, BRC elected to perform an IRM for these areas. This IRM was performed following the procedures specified in the NDEP-approved *Mohawk Area IRM Workplan* (ERM 1999). The IRM workplan was approved by NDEP on 23 July 1999. IRM activities consisted of excavation of the impacted shallow soils, transportation to a secured location within the Upper Ponds outside the Site boundaries, and treatment to prevent generation of wind-blown dusts and runoff.

The majority of soil excavation in the Site was performed during October and November of 1999, with the balance completed by March 2000. Excavation was conducted in ponds UA-01 through UA-03, UB-01 through UB-03, UC-01 and UC-02, and UD-01 and UD-02. In addition to the removal of discolored sediments, a minimum of six inches of soil was removed throughout the IRM area. Based on the results of confirmation sampling following the IRM, an additional six inches of soil were excavated and removed from ponds UC-01 and UC-02. A total estimated 16,000 cubic yards of soil were excavated and removed from the Site. Results of the IRM for the Site were presented in the IRM completion report (ERM, May 2000); this report has not been approved by NDEP. Areas of soil removal during the IRM are shown on Figure 7.

2.6 IRM-RELATED CONFIRMATION SAMPLING

As soon as practical following excavation within a given former pond cell, soil samples were collected to confirm that the residual chemical concentrations were below screening levels. The

confirmation samples were collected from 0 to 1 foot below the post-excavation grade in each former pond cell using hand trowel techniques. Two three-point composite samples were collected from each former pond cell. One composite sample was collected to represent the downgradient (northern) half of the pond, which typically contained thicker accumulations of the discolored material and one sample was collected to represent the upgradient (southern) half of the pond, which typically contained limited accumulations of discolored material. For each composite sample, subsamples were collected (1) at the approximate east-west midpoint of each pond, (2) half way between the midpoint sample and the eastern berm, and (3) half way between the midpoint sample and the western berm.

The confirmation samples collected from each former pond were analyzed for the following: metals, perchlorate, organochlorine pesticides, radionuclides, and asbestos. Soil sampling was conducted during October 1999 (dataset 7a). As noted above, the soil sampling activities were performed in accordance with ERM's workplan dated June 1999, and approved by NDEP on 23 July 1999. The soil sampling results for the investigation activities were presented in the IRM completion report (ERM, May 2000). All data from this investigation have been validated. Data validation results are presented in the DVSR for dataset 7a, which was approved by NDEP on 17 October 2006. The post-IRM data are also included in the database excerpt provided in Appendix B. SRC concentrations in Site soils were reduced as follows:

Pond ID	Site-Related Chemical	Pre-IRM Maximum Detection (mg/kg)	Post-IRM Maximum Detection (mg/kg)
UA-01	4,4'-DDE	4.3	< 0.005 U
	4,4'-DDT	1.8	< 0.005 U
	Antimony	72	< 0.52 U
	Arsenic	220	5.1
	Chromium (Hexavalent)	48	NA
	Lead	700	12
	Manganese	15000	440
	Vanadium	750	650
UA-03	4,4'-DDE	16	0.022
	4,4'-DDT	3.0	0.023
	Antimony	150	< 0.52 U
	Arsenic	80	4.7
	Lead	3700	69
	Manganese	8700	460
	Vanadium	7100	480
UB-01	Antimony	40	< 0.52 U
	Arsenic	36	6.3
	Lead	480	15
	Vanadium	2600	31

Pond ID	Site-Related Chemical	Pre-IRM Maximum Detection (mg/kg)	Post-IRM Maximum Detection (mg/kg)
UB-02	Antimony	62	0.81
	Arsenic	32	6.2
	Lead	1500	14
	Thallium	9.5	0.79
	Vanadium	3300	54
UC-01	Arsenic	25	35
	Vanadium	1300	390
UD-02	Antimony	35	0.66
	Arsenic	47	5.5
	Lead	850	14
	Manganese	3700	990
	Vanadium	2300	62

NA = not analyzed.

2.7 INVESTIGATIONS SUBSEQUENT TO IRM

Shallow soil samples were collected within the Site after conducting the IRM (*i.e.*, 2000 and later) during the following three separate events (see Figure 2 for sample locations):

- Discrete/composite soil investigation conducted in July 2000 (dataset 8a). The soil investigation activities were performed in accordance with ERM's workplan submitted in July 2000 and approved by NDEP on 18 July 2000. The soil sampling results for the investigation activities were presented in letters to NDEP dated 11 August 2000 (soil sampling results) and 28 August 2000 (statistical analysis of results). Data validation results are presented in the DVSR for dataset 8a, which was approved by NDEP on 10 October 2006;

- Supplemental soil investigation conducted in May 2001 (datasets 19 and 20c). These data were not collected under a formal NDEP-approved workplan. The results are provided in Appendix B. Data validation results are presented in the DVSRs for datasets 19 and 20c, which were approved by NDEP on 8 December 2006 and 5 February 2007, respectively; and

- Waste characterization conducted in July and August 2006 (dataset 39). The soil investigation activities were performed in accordance with BRC's sampling and analysis plan submitted on 29 June 2006 and approved by NDEP in July 2006. The soil sampling results for the investigation activities were presented in the *Remedial Action Plan* (RAP; BRC 2007). Data validation results are presented in the DVSR for dataset 39, which was approved by NDEP on 3 November 2006.

During these investigations, soil samples at various depths were collected and analyzed for VOCs, SVOCs, organochlorine pesticides, organophosphorous pesticides, PCBs, chlorinated herbicides, dioxins/furans, metals, perchlorate, radionuclides, and/or asbestos. The data associated with these investigations subsequent to the IRM are also included in the database excerpt provided in Appendix B.

2.8 CURRENT CHEMICAL DISTRIBUTION WITHIN SOILS

A summary of historic post-IRM soil chemical data from surface to 10 feet bgs, excluding excavated sample results, is presented in Table 1. All historical sampling results collected from the Site, including those sample locations that were excavated during the IRM, are shown in Appendix B, Tables B-1 through B-9, and included electronically in Appendix B. Individual chemicals analyzed for and the analytical method used in each of the investigations are include in Appendix B. Sample locations are shown on Figure 2. Figures showing the distribution of several chemicals for post-IRM soil samples collected at the Site are presented in Appendix C. These figures also include samples from the surrounding sub-areas (within 1,000 feet of the Site) to provide information on the current upgradient, downgradient, and cross-gradient conditions. Chemical occurrence patterns for the chemicals detected at concentrations in excess of screening levels, in samples collected from surface to 10 feet bgs, are provided below.

Arsenic. Arsenic was detected in all 90 soil samples analyzed. Of the arsenic detections, eight surface samples, one subsurface sample, and three deep (TMCf) samples had reported arsenic concentrations in excess of the maximum shallow soil background level (from BRC/TIMET 2007). Background has not yet been determined for the TMCf soils. In addition, a supplemental soil background dataset has been collected and is currently undergoing data validation. This supplemental background dataset was collected to evaluate background conditions for a particular geologic formation found in the eastern portion of the Eastside, including the Site. The distribution of arsenic for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-1 through C-3.

Vanadium. Vanadium was detected in all 74 soil samples analyzed. Of the vanadium detections, six surface samples had reported vanadium concentrations in excess of the USEPA Region 6 residential soil MSSLs. The distribution of vanadium for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-4 through C-6.

Other Inorganics. Lead and manganese were detected in all soil samples analyzed. Thallium was detected in 10 of 70 soil samples analyzed. Of these detections, one surface sample had a

reported lead concentration in excess of the USEPA Region 6 residential soil MSSL; one surface sample had reported manganese concentrations in excess of the USEPA Region 6 residential soil MSSL; and one surface sample had a reported thallium concentration in excess of the USEPA Region 6 residential soil MSSL. The distribution of lead for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-7 through C-9. Perchlorate was detected in 75 of the 85 soil samples analyzed, with none of the detections exceeding screening levels.

Dioxins and Furans. Four surface soil samples were analyzed for dioxins and furans, with 68 individual congener analyses reported. Forty-six individual dioxins and furans congener detections were reported, although none were above screening levels. No dioxin or furan analyses were performed on samples collected from subsurface soils in the Site. Dioxins/furans toxic equivalency (TEQ) concentrations were compared to the Agency for Toxic Substances and Disease Registry (ATSDR) screening value of 50 parts per trillion (ppt). No TCDD TEQs for samples collected from the Site exceeded this screening level.

Radionuclides. Several radionuclides were detected in all soil samples analyzed. Of these detections, two surface samples had reported radium-226 activity in excess of the maximum shallow soil background level; one surface sample had a reported radium-228 activity in excess of the maximum shallow soil background level; four surface samples had reported thorium-228 activity in excess of the maximum shallow soil background level; one surface sample had a reported thorium-230 activity in excess of the maximum shallow soil background level; three surface samples had reported thorium-232 activity in excess of the maximum shallow soil background level; one surface sample had a reported uranium-233/234 activity in excess of the maximum shallow soil background level; two surface samples had reported uranium-235/236 activity in excess of the maximum shallow soil background level; and one surface sample had a reported uranium-238 activity in excess of the maximum shallow soil background level. The distribution of radium-226, representative of radionuclides, for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-10 through C-12.

Organochlorine Pesticides. Ninety soil samples were analyzed for organochlorine pesticides, with 1,907 individual analyses reported. Analytic detections of organochlorine pesticides were reported in 95 of the 1,907 analyses performed on soils, with eight of the detections above the Soil Screening Level (SSL) based on a dilution attenuation factor (DAF) of 20 (all beta-BHC); 10 of the detections above the SSL based on a DAF of 1; and none of the detections above the USEPA Region 6 residential soil MSSL. The distribution of 4,4'-DDE, representative of

organochlorine pesticides, for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-13 through C-15.

Other Organic Compounds. Fifty-one soil samples were analyzed for SVOCs, with 3,222 individual analyses reported. Analytic detections of SVOCs were reported in 19 of the 3,222 analyses performed on soils, with none of the detections exceeding screening levels. Ten soil samples were analyzed for VOCs, with 409 individual analyses reported. Analytic detections of VOCs were reported in 7 of the 409 analyses performed on soils, with none of the detections exceeding USEPA Region 6 residential soil MSSLs or SSLs based on a DAF of 20. Three of the VOC detections exceeded SSLs based on a DAF of 1 (carbon tetrachloride, dichloromethane, and trichloroethylene in surface soil at location WC-MH01).

Summary of Soil Exceedances. For samples collected from the Site, more than 9,700 individual analyses were reported and reviewed. Of the 1,646 detections, 124 were of organic chemicals (that is, not metals and radionuclides) and none exceeded their respective USEPA Region 6 residential soil MSSLs, eight (two percent) exceeded SSL levels based on a DAF of 20, and 13 (eight percent) exceeded SSL levels based on a DAF of 1. Of the 1,436 detections of metals and radionuclides, 158 (11 percent) were reported at concentrations in excess of their respective maximum shallow soil background level.

2.9 CHEMICAL DISTRIBUTION WITHIN GROUNDWATER

There is limited groundwater data available for the Site. The closest wells are greater than 300 feet from the Site. Monitoring well DM-8 is greater than 380 feet to the east of the Site, MCF-12 monitoring wells are greater than 800 feet to the east of the Site, monitoring well DM-7 is greater than 900 feet to the northwest of the Site, and monitoring well AA-18 is greater than 1,400 feet to the northwest of the Site. Nevertheless, data for the alluvial aquifer wells from the most recent groundwater monitoring event are presented in Table 2. Alluvial aquifer water quality data are only available for monitoring wells AA-18 and MCF-12B (monitoring wells DM-7 and DM-8 were dry). Chemical occurrence patterns for the chemicals detected in groundwater from these wells are provided below.

Organic Compounds. Chloroform and tetrachloroethylene were the only VOCs detected during the 4th quarterly groundwater monitoring event, at maximum concentrations of 7.7 and 0.24 parts per billion (ppb), respectively. Acetaldehyde was detected at 4.1 ppb. No other organic chemicals were detected in these monitoring wells. These relatively low detections are below human health screening levels for ingestion exposure routes (*i.e.*, maximum contaminant levels

[MCLs]) and indoor air intrusion (*i.e.*, USEPA generic groundwater to indoor air screening level).

Inorganic Compounds. Several inorganic compounds, including perchlorate, TDS, nitrite, and arsenic, were detected above their respective MCLs. However, these exceedances are consistent with groundwater concentrations across the Eastside, and are not necessarily higher in the vicinity of the Site. In addition, there is no apparent correlation between those metals with higher levels found in soil (for example, arsenic and vanadium), with their levels in groundwater.

3.0 DATA QUALITY OBJECTIVES

A general overview of USEPA and NDEP's 7-step DQO process is provided in the Closure Plan. One of the key decision inputs to the DQO process, namely the Step 2 Principal Study Questions (PSQs) is also provided in the Closure Plan. The PSQs are the central Eastside Area-wide questions that provide a basis for the overall closure effort. Per discussions with the NDEP, the other steps of the DQO process are to be addressed, on an Eastside Area sub-area basis (for soils), in the respective sub-area SAPs. For the sake of continuity, BRC is providing a discussion of Steps 1 through 5 of the DQOs for this Site. BRC is not addressing DQO Steps 6 and 7 based on prior discussions with the NDEP.

The DQO process is a seven-step iterative planning approach used to prepare plans for environmental data collection activities. It provides a systematic approach for defining the criteria that a data collection design should satisfy, including when, where, and how to collect samples or measurements; determination of tolerable decision error rates; and the number of samples or measurements that should be collected. DQOs define the purpose of the data collection effort, clarify what the data should represent to satisfy this purpose, and specify the performance requirements for the quality of information to be obtained from the data. The DQO process, as defined by USEPA's *Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4* (USEPA 2006), consists of 7 steps:

Step 1 - State the Problem;

Step 2 - Identify the Goal of the Study;

Step 3 - Identify Information Inputs;

Step 4 - Define the Boundaries of the Study;

Step 5 - Develop the Analytical Approach;

Step 6 - Specify Performance or Acceptance Criteria; and

Step 7 - Develop the Plan for Obtaining Data.

Steps 1 through 5, along with sub-activities that comprise each step, are outlined below.

3.1 STATE THE PROBLEM (STEP 1)

The first step in the DQO process is to define the problem that initiated the study in such a way that that the focus of the study is unambiguous. This section provides the following information: a summarization of the problem being addressed; identification of the assessment team; identification of the key decision-makers and stakeholders; and a presentation of the schedule.

3.1.1 Problem Statement

1. As presented in the Closure Plan, the Site consists mostly of open land that has been modified to accept waste water discharges from the BMI Complex through various trenches and evaporation ponds from 1942 through 1976. Wastes from the BMI Complex were discharged to portions of the Site (namely the previously used ponds) through various trenches into the evaporation ponds from 1942 to 1976. Current land use at the Site includes previous former unlined evaporation ponds (approximately 25.9 acres), and undeveloped areas (approximately 28.8 acres). The industrial activity on this site has resulted in concentrations of chemicals that drive unacceptable human health risk. Residual contamination remains at the site as a consequence of these discharges and the interim remediation measures that have been taken previously. The goal of this work is to remediate the Site such that chemical concentrations in all relevant media do not pose an unacceptable risk to human health and the environment under current and future land use scenarios. The problem that needs to be addressed is one of returning the upper 10 feet of soils at the Site to conditions that pass a human health risk assessment, with restrictions on access to deeper soils and on the use of groundwater. Risk assessment at the Site includes exposure to soils, but also exposure from vapor intrusion from volatile organic chemicals and radon, which might emanate from the vadose zone or from groundwater. A further consideration is the potential for leaching contaminants into groundwater.

The Site is currently vacant except for the area of the temporary informational kiosk. The potential on-site and off-site receptors are currently trespassers/visitors, occasional on-site workers, and off-site residents. Risks to current receptors are being managed through site access control. Under the current, prospective redevelopment plan, the Site will be used for a variety of purposes, including residential housing, parks, schools, commercial development, and streets, although only a residential exposure scenario is assumed for this problem. The current and future potential exposure pathways of concern are being addressed by this SAP and any subsequent remediation. The potentially exposed populations for the Site and their potential routes of exposure are presented in Figure 8 and are summarized in Section 9 of the Closure Plan.

2. As described in the Closure Plan, remediation for all media will be to risk-based levels protective of human health and the environment, under current and future land use scenarios. Therefore, appropriate risk-based cleanup goals for the protection of human health, ground water protection, and surface water protection must be established. These criteria shall apply to all affected media (*i.e.*, soil, soil vapor). Where background levels exceed risk-based goals, metals and radionuclides in Site soils are targeted to have risks no greater than those associated with background conditions.

The problem will be addressed through iterative remediation until sufficient remediation (removal of soil) has been performed that acceptable human health risks have been attained. The final site conditions will include regrading of on-site soils (post-remediation), so that the future surface will not consist of the same soil as the current surface. Imported fill material is not expected to be needed. It should be noted that information regarding the specific locations that will be covered with fill may not be known at the time of risk assessment for closure purposes; however, the current grading plan (Figure 4) is being used in this SAP for the Site.

Although the primary focus is human health risk assessment for a residential scenario, secondary issues that will be addressed include contamination of deeper soils and of groundwater beneath the site. In addition, the impact to off-site receptors will be addressed; however, because remediation of the Site will be to on-site residential standards, risks to off-site receptors will be minimal.

3.1.2 Proposed Assessment Team

A multidisciplinary approach is being and will be followed with participation by qualified geologists, chemists, radiochemists, hydrogeologists, biologists, ecologists, engineers, remediation specialists, toxicologists, risk assessors (human health and ecological), statisticians, field sampling personnel, community relations personnel, risk communications specialists, project developers, and project managers. BRC maintains an active roster of key team members, which will be periodically updated as appropriate throughout the project term. Key team members are identified in Section 1.4 of the Closure Plan.

3.1.3 Key Decision Makers and Stakeholders

The NDEP is the primary and the ultimate decision-maker for the project. Stakeholders include BRC, the City of Henderson, Clark County, the State of Nevada, the United States Government, the local public, site developers, and other interested persons.

3.1.4 Schedule

BRC has established a phased schedule for the Site in which the Site is addressed first (closure in 2008), followed by the Sunset North and the remaining Upper Ponds (closure in late 2008 through early 2010). The timing of the phased closures is closely spaced to avoid potential complications associated with the presence of contaminated soils near areas that have been successfully remediated and closed and to mitigate potential impacts on adjacent residential housing development.

Surface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks. Once these data have been collected and preliminary risk calculations have been completed, BRC will determine whether the acceptable chemical concentrations and/or risk levels defined for the Site have been attained and will discuss this determination with the NDEP. If it is determined that acceptable risk levels have not been attained, BRC will perform additional remediation activities consistent with the *Corrective Action Plan* (CAP; BRC 2006) and will repeat the assessment process until risk-based goals are achieved. Each iterative remediation and data collection process is expected to take place over a one to two month period, but may extend into a slightly longer period.

3.2 IDENTIFY THE GOAL OF THE STUDY (STEP 2)

The purpose of this step is to define the Site-specific PSQs that need to be resolved in order to address the problem identified in Step 1, and to identify alternative actions that may be taken, depending on the answers to the PSQs. As noted above, the project PSQs are presented in the Closure Plan. The primary PSQ associated with this SAP for the Site is: Are the current (post-remediation, pre-development) and future (post-development) incremental risks to human health or the environment in the Site soil and soil vapor flux under investigation sufficiently low that they are acceptable? If the incremental risks are not sufficiently low, then reasonable further action will be taken; otherwise, no further action will be taken. A secondary PSQ deals with groundwater quality in the context of the overall site, and on the impact of site contamination on off-site human receptors.

The following fundamental assumptions apply:

1. The PSQs will be assessed only after BRC has remediated Site soils such that achievement of Site cleanup goals is expected. Cleanup goals for the project are defined in Sections 1.1 and 9.1.1 of the Closure Plan. The data pool employed in the risk assessment will comprise only

those data collected in accordance with this SAP[2], after baseline remediation has been performed or after subsequent remediation phases performed iteratively during the closure process, as and if such occur(s). Therefore, although there are data gaps related to the nature and extent of existing impacts to Site soils, no further characterization of impacted soils will be performed to support Site closure, because the impacted soils will be removed from the Site.

2. The data used in PSQ assessment will undergo a rigorous Quality Assurance/Quality Control (QA/QC) review prior to that assessment, in accordance with the procedures described in the *BRC Quality Assurance Project Plan* (QAPP; BRC and ERM 2008). Only those data determined as a result to be suitable for use will be included in the closure data pool. Furthermore, the adequacy of the data pool will be evaluated following the procedures provided in Section 9.3 of the Closure Plan. If found to be inadequate, additional sampling and analysis may be performed.

Stated another way, the decision is to determine whether or not excavation of impacted soils and their disposal outside the Site results in acceptable human health risks and risks to the environment for future land uses. This will be determined through human health risk assessment for future on-site receptors. Potential alternative actions that may be taken include: (a) No Action (in this context No Action means no additional action beyond removal of contaminated soils presently located on Site), (b) institutional controls/limited action, (c) importation and use of clean fill, and (d) excavation of soils and on-site landfill disposal at the project Corrective Action Management Unit (CAMU). How the study decisions will be made for the Site, including how the risk assessment will be performed, are presented in the Closure Plan.

3.3 IDENTIFY INFORMATION INPUTS (STEP 3)

The purpose of this step is to identify the information needed to resolve the PSQs identified in Step 2. The data inputs for the primary PSQ are listed below. As previously discussed, risk assessment will be the primary means of answering the PSQs as discussed in the Closure Plan, and will incorporate the various data inputs listed, as discussed in the Closure Plan. These data inputs either 1) are already established (as presented in the Closure Plan), 2) will be obtained

[2] Data collected prior to SAP approval, including data collected after IRM implementation and expected to be representative of current Site conditions will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data may be used to help develop the CSM for both this Site and the overall Eastside.

during the post-baseline remediation soil and soil vapor flux sampling program – that is, this SAP (Section 5), or 3) currently exist as data gaps that will be resolved prior to performing risk assessment. A comprehensive list of the necessary data inputs for addressing the primary PSQ is provided below.

- Input parameters for human health risk assessment and assessment of impacts to groundwater considering relevant exposure pathways associated with potential future land uses (see Closure Plan).
- Toxicity inputs parameters consistent with USEPA hierarchy guidance (see Closure Plan).
- Input parameters for all fate and transport models (see Closure Plan and data to be collected as determined by this SAP).
- Site soil and soil vapor flux characterization data (to be collected as determined by this SAP in accordance with the most recent NDEP-approved version of Standard Operating Procedure [SOP]-16) in case Site materials are used in other portions of the Site as fill materials.
- Identified locations/depth intervals where contaminant concentrations could affect future land users.
- Characterization data for imported fill if such fill is considered for use at the Site. At this point, it is not expected that imported fill materials will be used on Site.
- To address the secondary PSQs, soil data from depths greater than 10 feet bgs, and groundwater data will be used to address issues related to further understanding of vadose zone and groundwater contamination beneath the site.

3.4 DEFINE THE BOUNDARIES OF THE STUDY (STEP 4)

The purpose of this step is to define the aspects of the project that affect the decision making process, including:

- The populations to be sampled;
- The geographical area applicable for decision making;
- The temporal boundary for decision making;

- Any practical constraints that may interfere with data collection; and
- The scale for decision-making purposes.

Each of these portions of this step is presented below.

3.4.1 Sample Populations

Based on the primary PSQ and the necessary information listed in Step 3, there are several target populations to be sampled for this project, including surface soils (*i.e.*, less than 10 feet bgs), subsurface soils (*i.e.*, greater than 10 feet bgs), groundwater, and soil vapor flux. These populations were segregated based on their differences in media type and pathways for potential human residential exposure following redevelopment. For this project, samples will be collected to assess chemical concentrations and/or human health risks associated with each of these populations, and for cumulative risk across these media types and pathways. Ultimately, these chemical concentrations and risk-based levels will be compared to project cleanup goals that are consistent with regulatory-defined acceptable concentrations and/or risk levels appropriate for the planned redevelopment of the Site and will ensure protection of human health and the environment.

3.4.2 Spatial Boundaries

The spatial boundaries of interest for the risk assessment are the spatial extent of the Site boundary to a depth of 10 feet bgs or deeper if construction activities are below this level. However, impacts to receptors exposed to these soils can also occur from vapor intrusion from the deeper vadose zone and groundwater. Consequently, the vertical extent of the site that encompasses vadose zone and groundwater is of interest. Based on expected land use, construction activities are not expected to occur at depths greater than 10 feet bgs. It should be noted that there could be more than one set of surface spatial boundaries ultimately identified. For example, data may need to be grouped for areas within the Site in order to appropriately address the decision units (*e.g.*, exposure areas). Also, data may ultimately be grouped by soil depth to appropriately address different soil exposure points. These spatial boundaries might be important if residual contamination varies across the site either in the surface soils or by depth.

3.4.3 Temporal Boundaries

The temporal boundaries of interest for this project are defined by the timeframe associated with decision making for each spatially distinct region of interest. Specifically, for each different land-use scenario, within each decision or exposure unit, both current and potential future risk needs to be considered and quantified.

Surface Soil

Because sub-areas within the Eastside are adjacent to each other, to assess or avoid potential impacts from other sub-area sources, risk assessment could be performed across sub-area boundaries, and/or adjacent sub-areas will be remediated in the same general time frame. To some extent this will depend on the spatial homogeneity of concentrations once remediation has been performed. The IRM performed for the Site addressed the full footprint of each former pond along Mohawk Drive, including the portions falling within the adjacent First Eight Rows and Upper Ponds sub-areas. In addition, future remediation at adjacent sub-areas will involve dust suppression activities. Therefore, risk assessment or additional remediation across sub-areas should not be necessary to assess or avoid potential impacts due to cross-contamination.

Subsurface Soil and Groundwater

As noted BRC does not expect that subsurface soils (greater than 10 feet bgs) will be at issue from a human exposure standpoint. However, subsurface soils will be sampled in order to determine potential impacts to groundwater in accordance with the secondary PSQ relating to the deeper vadose zone and groundwater in the context of the entire Site. These subsurface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) impacts to groundwater. Data to support the evaluation of potential impacts to groundwater will be collected. These data will be collected to support the migration to groundwater calculations included in the Closure Plan, as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Any indirect impacts from underlying groundwater will be addressed via the proposed surface flux measurements.

Soil Vapor Flux

The soil vapor flux concentrations used in the risk assessment will be derived from post-baseline remediation (*i.e.*, current) soil conditions and existing groundwater conditions. BRC assumes that these will reflect the maximum concentration ranges for the project lifetime, and those data will be relied upon throughout the redevelopment process and in assessing risks under current

and future land use scenarios. Given the soil and groundwater data for the area (see Section 2 and Appendix B) this assumption is considered appropriate. The timeframe for data collection, assessment, and decision-making will be from one to three months for surface soils. These soil vapor flux data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks.

3.4.4 Practical Constraints for Data Collection

Since the Site is currently unoccupied, there are no access constraints for collecting soil or soil vapor flux samples from BRC's property. Due to the large area of the Site, the primary constraint will be the cost to collect a representative, statistically sufficient number of soil and soil vapor flux samples to assess chemical concentrations against the project-specific risk-based cleanup goals. This constraint is not expected to be such that data quantity and quality will be insufficient.

Following redevelopment, access constraints may be an issue pertaining to sample collection at the Site. No surface soil, subsurface soil, or soil vapor flux sampling is anticipated to be required following redevelopment; therefore, no constraints are anticipated. For ground water, additional and/or routine sampling activities (such as ground water sampling from monitoring wells) may be required following redevelopment. However, these constraints will be dealt with at a later time.

3.4.5 Scale of Decision-Making

The scale for decision-making varies based on the target sample population of interest, as described below.

<u>Surface Soil</u>

Redevelopment of the Site following remediation includes significant changes in land uses, including residential housing. However, the final redevelopment plans for the Site have not been completed and may change depending upon the results of post-remediation sampling. To facilitate the redevelopment of the Site with the fewest practical constraints due to residual contamination, the nominal scale for decision-making for the proposed residential exposure scenario will be consistent with a typical residential lot size, which is 1/8th acre. However, if, as expected, the concentration distribution across the site is statistically homogeneous representing a single population of concentrations for each chemical, then the decision unit will be the entire

site. Smaller decision units will only be defined if the spatial distribution of concentrations suggests the need to break the site into smaller areas for risk-based decision making. Post-remediation data will be used in a risk assessment to determine if further remediation is needed. This will allow for maximum flexibility in the redevelopment of the Site, without concern for residual concentrations to pose a threat to human health and the environment. This issue of correlated versus uncorrelated data for the Site and how it apples to the decision-making is discussed in the *Statistical Methodology Report* (NewFields 2006). The same approach will be used for soil vapor flux, subsurface soils and groundwater as they feed into the human health risk assessment.

3.5 DEVELOP THE ANALYTICAL APPROACH (STEP 5)

The purpose of this step is to define the population parameter (mean, median, etc.) of interest for each population (surface soil, etc.), identify the appropriate action level (target concentration or risk level) for each population, and select measurement and analysis methods that can be used to properly evaluate the parameters against the action levels (*i.e.*, ensure detection limits do not exceed action levels, etc.). Once these actions are completed, decision rules (if-then statements) are developed for each population that state the alternative actions that would be taken depending upon the true value of the parameter relative to the specified action levels.

The PSQ-specific decision rules for the Site are presented below.

- If, after baseline remediation per Alternative (d) in Section 3.2 (*i.e.*, removal of known or suspected contaminated sediments – already completed at the Site), confirmation sampling conducted per the Closure Plan and this SAP, and subsequent risk assessment following procedures per the Closure Plan, it is deemed that the risk goals for the project (as discussed in Section 1 of the Closure Plan) are not met, then additional remediation per Alternative (d) in Section 3.2 will be conducted to satisfy the risk goals. The risk assessment methodology for the project is presented in Section 9 of the Closure Plan.

- If, after implementation of the Decision Rule above it is determined that there are specific locations in the Site for which additional and continued remediation will not be practical or effective, then other alternatives such as (b) and (c) will be evaluated considering overall protection, effectiveness, permanence, implementability, cost, regulatory acceptance, and community acceptance.

- If, after implementation of the Decision rule above it is determined that no further action needs to be taken in the top 10 feet of soils, a proposal for NFAD will be made. This proposal will be made only after consultation with NDEP.

Data for the secondary PSQs (deeper soils and groundwater) will be evaluated for obvious issues that might require immediate action, and will be included in analysis of objectives related to the groundwater program for the entire site.

4.0 SCOPE OF WORK

The IRM soil remediation approach discussed in Section 2 consisted of excavation of contaminated shallow soils and their temporary placement adjacent to the Site pending ultimate disposal in a CAMU designated solely for these soils as discussed more fully in the CAP (BRC 2006). Recently BRC performed additional excavation prior to implementation of this SAP. The recent additional excavation, shown on Figure 7, was at pond PUE-01 which was not excavated during the 1999/2000 IRM and which had residual discolored sediments. Approximately six to 12 inches of sediments/soil were excavated and removed from both the western and eastern portions of PUE-01, which is now bisected by Mohawk Drive. This excavation and soil removal occurred from 16 through 23 May 2008. As such the IRM and the additional excavation at pond PUE-01 constitute the baseline remediation for this Site.

Because the previous data that indicate residual contamination still exists is primarily composite data, no additional remediation is proposed prior to sampling. Decisions for additional excavation will be based on the initial data to be collected based on this SAP as discussed in this section.

The risks posed to human health and the environment by chemicals remaining in Site soils will be assessed in accordance with the Risk Assessment Methodology provided in the Closure Plan. If this assessment indicates that risk-based cleanup goals established for the Site have not been achieved by the IRM or baseline remediation, additional phases of remediation, sampling/analysis and assessment will be performed as discussed in the CAP and the Closure Plan. Development may only proceed after attainment of acceptable risk levels under the future planned land uses – *i.e.*, after obtaining the NFAD from the NDEP.

The following is the proposed scope of work for investigating the Site and meeting the SAP objectives. Much of the discussion below regarding confirmation soil sampling is taken from the *Statistical Methodology Report* (NewFields 2006).

4.1 INITIAL CONFIRMATION SOIL SAMPLING

As per the *Statistical Methodology Report*, the initial confirmation sampling in the Site will be conducted on the basis of combined random and biased (judgmental) sampling, as follows:

- **Stratified Random Locations:** For this purpose, the Site is covered by a 3-acre cell grid network. Within each 3-acre cell, a sampling location is randomly selected. Sampling

locations are randomly selected within both full and partial grid cells if they are greater than 50 percent of the total grid cell area (based on the project-wide grid cell network and the Site boundaries; those partial grid cells that contain less than 50 percent of their area within the Site will be included in the adjacent sub-area SAPs). The main objective of this stratified random sampling is to provide uniform coverage of the Site.

- **Biased Locations:** Additional sampling locations are selected within or near small-scale contamination points of interests, including but not limited to previous debris locations, ponds, and berm walls near excavated ponds. For this purpose, the randomly selected location within a corresponding 3-acre cell may also be adjusted in order to cover a nearby point of interest.

A reconnaissance of the Site has been performed to check the Site for environmentally significant features such as debris piles or stained soil. Biased sampling locations for the Site are based on the outcome of this reconnaissance. Figure 9 and accompanying Table 3 show the random discrete sampling locations that are proposed to be collected within the Site. No debris piles or other stained soil locations were observed on the Site. Rationale for each of the biased sampling locations is presented below:

• MC1-J01; PUE-01 pond sample (east of Mohawk Dr.)	• MC1-J11; PUA-03 pond sample
• MC1-J02; pond berm (fill material) sample	• MC1-J12; PUB-02 pond sample
• MC1-J03; pond berm (fill material) sample	• MC1-J13; PUB-03 pond sample
• MC1-J04; pond berm (fill material) sample	• MC1-J14; PUC-01 pond sample
• MC1-J05; drainage channel sample	• MC1-J15; PUC-02 pond sample
• MC1-J06; pond berm (fill material) sample	• MC1-J16; PUD-01 pond sample
• MC1-J07; pond berm (fill material) sample	• MC1-J17; PUB-01 pond sample
• MC1-J08; pond berm (fill material) sample	• MC1-J18; PUE-01 pond sample (west of Mohawk Dr.)
• MC1-J09; PUA-01 pond sample	• MC1-J19; PUD-02 pond sample
• MC1-J10; PUA-02 pond sample	• MC1-J20; drainage channel sample

At each selected location, multi-depth soil samples will be collected and analyzed for the SRC list as follows. Proposed sample depths are 0 (surface) and 10 ft bgs at each sampling location. In addition, sample locations with grading greater than two ft bgs will also be sampled at the anticipated post-grading soil surface. Additionally, at two sample locations, one within a pond and one outside the ponds, soil physical parameter data will be collected at 20 feet and every subsequent 10 feet until groundwater is reached or 50 feet deep, whichever is shallower.

Samples will be collected at:

1. Existing surface (0' bgs) and 10 ft bgs for sample locations in relatively flat (un-graded) locations;

2. Existing surface (0' bgs), post-grading surface, and post-grade 10' bgs for sample locations with substantial grading (that is, cut depths greater than two feet[3]) and the uppermost sampled soil is expected to be used as surface fill;

3. Existing surface (0' bgs) and 10' bgs for sample locations with minimal grading (that is, cut depths less than two feet) and the uppermost sampled soil is expected to be used as surface fill; and

4. Existing surface (0' bgs) and 10' bgs for sample locations in an area expected to be covered by fill material.

The analytical sample results will then be divided into surface (0-2' depth), subsurface (2'-10' depth), and deep (>10' depth) layers, according to the following rules:

- **Rule 1: IF** the sample is collected in a relatively flat (un-graded) part of the Site (*i.e.*, an area not targeted for substantial grading), **THEN** the depth of the collected soil sample will be used to designate its soil layer grouping.

- **Rule 2: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is located in an area expected to be covered by fill material (*e.g.*, exposed excavated surfaces of ponds), **THEN** the current surface soil sample will be classified as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil

[3] Because sample collection will be over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet will only be sampled at the surface and one post-grade subsurface depth.

will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

- **Rule 3: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be greater than two feet, **THEN** the current surface soil sample will be classified as a fill material sample, a final (post-graded) surface sample will be classified as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

- **Rule 4: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be less than two feet, **THEN** the current surface soil sample will be classified as both a fill material sample and as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

A schematic example of these rules is shown on Figure 10. The current site grading plan is shown on Figure 4. It should be noted that this is the most current plan available, but not necessarily the final grading plan. The sample-specific collection depths are presented in Table 3.

All soil samples will be tagged in the database with numeric designations of their corresponding assigned soil layer grouping based on these rules. Initially, 93 soil samples will be collected from 38 soil boring locations (not including deep samples to be collected for soil physical parameter data). This includes 18 random and 20 biased sample locations; with 33 fill material, 38 surface, and 38 subsurface soil samples. BRC will ensure that enough samples are collected from each post-grade type of soil to be representative (*e.g.*, fill material, surface soil, and subsurface soil) of that material for data adequacy.

It should be noted that, as discussed with NDEP, once a particular sub-area receives an NFAD from the NDEP, the cut material that is slated to be used as fill material elsewhere would not require additional testing. However, the chemical data for this fill material may be useful for evaluating sub-areas to receive fill (for example, if there is deeper contamination).

4.2 INTERMEDIATE SAMPLING AND CLEANUP

Upon layer-designation of confirmation soil samples, a series of tests will be conducted to determine whether sampled locations within a given layer include "exceeding" samples. An exceeding sample is one that warrants further investigation, which may include additional localized soil removal. Exceeding samples will be defined consistent with the following rules:

- **Chemicals without background concentrations:** For chemicals without corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. The 95 percent UCL of these distributions will also be computed. **IF** the constructed distribution indicates the presence of anomalous concentrations (*e.g.*, high values at the end of an elongated tail of a uni-modal distribution, or values forming an elevated sub-population of a multi-modal distribution), **AND** the inclusion of these anomalous values causes the computed UCL to exceed 1/10 of the risk-based screening level of the chemical, **THEN** samples associated with anomalous values will be considered as potential exceeding samples. **IF** the constructed distribution indicates no presence of anomalous concentrations and the computed UCL exceeds 1/10 of the risk-based screening level of the chemical, **THEN** all samples associated with the layer will be considered as potential exceeding samples.

- **Chemicals with background concentrations:** For chemicals with corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. These concentration distributions will then be statistically compared to the background concentration distributions. Appropriate two-sample tests, including Quantile test, Slippage test, *t*-Test and the Wilcoxon rank sum test with Gehan modification, will be used to identify exceeding samples through comparison of Site and background distributions. **IF** inclusion of elevated measured values in a given layer causes the rejection of the appropriate two-sample test, **THEN** samples associated with such elevated values will be considered as potential exceeding samples.

Areas with potential exceeding samples may be subjected to re-sampling prior to the confirmation of the location as an exceeding sample. After any such re-sampling, the above process will be repeated to confirm the exceeding status of the targeted sample location. It should be noted that if the data indicate a more widespread or Site-wide contamination, then it might be important to look at the effect on a sub-area basis rather than a sample basis. That is, additional alternatives, such as, changing the future land use, further division into smaller sub-areas, or more extensive remediation, would need to be considered and evaluated.

Upon confirmation of an exceeding sample, additional neighboring delineation sampling will be conducted based on a "step-out" approach. Step sizes and directions will be dependent on the location of the exceeding sample and perhaps the magnitude of the exceedance. Additional biased step-out or step-in sampling may be conducted to further refine the extent of the required removal. Each removal will be followed by confirmatory sampling. More detail on this approach is provided in the *Statistical Methodology Report* (NewFields 2006).

After the above intermediate removals, results associated with removed exceeding samples will be marked as excluded from the dataset, while non-exceeding delineation and confirmation data will be included in the dataset. The revised dataset will then be subjected to the above exceeding sample determination process, which will be repeated until all exceeding samples are adequately addressed.

4.3 FINAL CONFIRMATION DATASET

At this stage, the final confirmation soil dataset for the Site, consisting of: 1) the original non-exceeding confirmation data collected in accordance with this SAP[4] for the Site; 2) the non-exceeding data generated after intermediate sampling and cleanup, and 3) additional biased and random samples collected for confirmation, will be subjected to a series of statistical analyses in order to determine representative exposure concentrations for that sub-area, as described in the *Statistical Methodology Report*.

4.4 SOIL VAPOR FLUX SAMPLING

Concurrent with the confirmation soil sampling, BRC will implement soil vapor flux sampling across the Site. This SAP refers to and relies on the most recent NDEP-approved version of SOP-16 for technical description of sampling and analytical methodology, QA/QC protocols, and project procedural description. The sampling procedure for the effort includes the USEPA surface emission isolation flux chamber (flux chamber) and static chamber sampling to perform an air pathway analysis (APA) for the Site. A description of the history, background, and operation of the USEPA-recommended flux chamber and radon flux approach is provided in SOP-16.

[4] As distinguished from the historical "confirmation" sampling data collected as part of or immediately after the IRM, which will not be included in the risk assessment dataset.

The flux chamber sample collection rationale is based on the project goal of obtaining a representative dataset of air emissions per sub-area. Flux chamber samples will be collected from each of the initial 20 biased sample locations. Because the biased samples are to be collected primarily from the pond areas, which are primarily in the southern portion of the Site, and because the shallowest groundwater at the Site is in the northern portion of the Site, an additional flux chamber sample will be collected in the north part of the Site, at random sample location MC1-BA36 (see Figure 9). All of the flux chamber samples will be tested for both VOC flux and radon flux, and this density of sample collection should be adequate for sub-area characterization given: the biased nature of the sample locations, the size of the sub-area, and the number of sample locations suggested by the USEPA (1986) in the flux chamber User's Guide for assessing zones of homogeneous site properties. A higher density of sample collection for VOCs is not warranted given that sample collection will be post-remediation and groundwater beneath the Site is greater than 40 feet bgs. Similarly, there is no information available to suggest that sampling of every initial biased sample location should not provide for a thorough evaluation of potential radon emissions.

In subsequent SAPs, where sub-areas generate fewer that six sample locations, a minimum of biased sample locations will be tested per sub-area. Note that if the data suggest additional data needs, follow-up testing will be conducted as agreed upon by all parties.

4.5 CHEMICALS SELECTED FOR ANALYSIS

The proposed analyte list for soil samples is comprised of the BRC project SRC list, as presented in the Closure Plan[5] and Table 4, with the following exceptions for this Site:

- Asbestos and dioxins/furans will only be analyzed for in surface soil samples;
- USEPA Method 8141A for organophosphorous pesticides will not be conducted. There have been only 47 detections of these compounds in over 10,000 soil sample records (<0.5 percent) from throughout the Eastside, and no detections in over 1,000 soil sample records within the Site. The few detections are well below USEPA Region 6 residential soil MSSLs;
- USEPA Method 8151A for chlorinated herbicides will not be conducted. There have been no detections of these compounds in over 1,400 soil sample records from throughout the Eastside. Detection limits are below USEPA Region 6 residential soil MSSLs;

[5] Specific analytes and analyte-specific reporting limits for each analysis are listed in Table 4 of the QAPP.

- HPLC Method for organic acids will not be conducted. There have been only three detections of these compounds in 567 soil sample records (<0.5 percent) from throughout the Eastside. USEPA Region 6 residential soil MSSLs have not been established for these compounds;

- USEPA Method 8015B for nonhalogenated organics will not be conducted. There have been only five detections of these compounds in 420 soil sample records (one percent) from throughout the Eastside. The few detections have been well below USEPA Region 6 residential soil MSSLs levels;

- USEPA Method 8015 for total petroleum hydrocarbons (TPH) will not be conducted. There have been only three detections of these compounds in over 299 soil sample records (one percent) from throughout the Eastside. The few detections have been below 100 mg/kg, which is the typical low-end aesthetic threshold used for these compounds There are no indications of possible TPH source areas, for example, debris, abandoned vehicles, in the Site. While TPH is not proposed for analysis, its components are via other methods. In addition, TPH cannot be included in a risk assessment while its components can; and

- Consistent with the current project analyte list, the following radionuclides will be analyzed for: radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238. Activities for other radionuclides on the SRC list will be back-quantitated.

The analyte list, as proposed in this SAP for the Site, consists of 319 of the 418 compounds (including water only parameters) on the project SRC list as well as physical parameters (Section 5.2.3) to support the evaluation of potential impacts to groundwater from migration of chemicals from soil. The analytical and preparatory methods used in accordance with this SAP adhere to the most recent version of the QAPP (BRC and ERM 2008), which has been revised to ensure appropriate comparisons to the background dataset. The proposed analyte list for soil vapor flux samples is comprised of the list provided in the most recent NDEP-approved version of SOP-16 (see the *BRC Field Sampling and Standard Operating Procedures* [FSSOP]; BRC, ERM and MWH 2007), including radon. This analyte list is provided in Table 5.

5.0 FIELD AND LABORATORY METHODS

5.1 FIELD METHODS

All Site work will be performed under the responsible control and direction of a Nevada State Certified Environmental Manager. All sampling and sample handling procedures will be consistent with the NDEP-approved BRC FSSOP BRC, ERM and MWH 2007). In accordance with applicable federal regulation (29 CFR 1910.120) all field activities will be performed in compliance with the *BRC Health and Safety Plan* (BRC and MWH 2005).

Pre-field and field activities will be conducted in accordance with the most recent NDEP-approved versions of applicable SOPs (BRC, ERM and MWH 2007). These SOPs include SOP-1 (Drilling Methods), SOP-6 (Sample Management and Shipping), SOP-7 (Soil Sampling), SOP-10 (Surveying), SOP-12 (Asbestos Soil Sampling), SOP-13 (Field Equipment Calibration Procedures), SOP-14 (Field Documentation), SOP-15 (Field Logbook), SOP-16 (Flux Chamber Source Testing), SOP-17, (Soil Logging), SOP-23 (Split Spoon Sampling), SOP-26 (Soil Grab Sampling), and SOP-39 (Photoionization Detector Screening).

The BRC QAPP (BRC and ERM 2008) and Health and Safety Plan (BRC and MWH 2005) prepared for the BMI Common Areas will be used for this proposed scope of work. The selected driller will notify the Underground Services Alert one-call notification system at least 48 hours before implementing any subsurface activities. BRC will also notify the NDEP at least one week prior to commencing field activities. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40.

Soil cuttings generated during soil sampling and Hollow Stem Auger (HSA) drilling activities will be collected on visqueen, managed as hazardous waste pending analysis of the soil data from the appropriate borings, and appropriately disposed of. In addition, as agreed with NDEP, excavated pavement from Mohawk Drive (when it is removed) can go off-site to be recycled or could go to the CAMU.

5.2 LABORATORY METHODS

Samples submitted for laboratory analysis will be analyzed in accordance with approved methodologies by a State of Nevada-certified analytical laboratory. Samples not specified for analysis will be placed on hold pending the results of the initial analysis.

5.2.1 Soil Chemical Analyses

BRC's complete SRC list as approved by the NDEP is presented in Table 4 of the QAPP. Table 4 of this SAP identifies the complete list of analytes proposed for analysis of soil samples along with the appropriate analytical methods. An explanation for the exclusion of a chemical for analysis is provided in Table 4 of this SAP.

5.2.2 Soil Vapor Flux Analyses

As indicated in Table 5, all flux chamber samples will be analyzed by USEPA Method TO-15 full scan, and selective ion mode analyses on a sub-set of VOCs to achieve the lowest attainable method detection limits for the target list of study compounds (see most recent version of SOP-16). All samples will be analyzed for the target list with optimum method detection limits (MDLs) so that these data can be used to satisfy the sensitivity requirements of the human health risk assessment.

5.2.3 Soil Physical Parameters

In addition to chemical data, to support the evaluation the potential impacts to groundwater, soil physical properties will also be measured. These parameters will be collected to support the migration to groundwater calculations included in the Closure Plan, consistent with the USEPA Soil Screening Guidance (1996; 2000; 2002), as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Site-specific soil physical parameters to be measured include pH (USEPA Method 9045C), cation exchange capacity, dry bulk density, Soil permeability/saturated hydraulic conductivity, specific gravity, total porosity, volumetric water content, grain size analysis by sieve and hydrometer, and fractional organic carbon content (see Table 4). These soil physical parameters will be measured from each of the subsurface samples collected from the two deep sample locations at the Site (see Figure 9). This will ensure that soil physical parameters will be measured at various depths from across the Site so that all sample depths are represented. In addition, samples will be collected from two subsurface sample locations (see Figure 9 and Table 4) from within the pond area for conducting the synthetic precipitation leaching procedure (SPLP; USEPA Method 1312) with the extract analyzed for metals, organochlorine pesticides, semi-volatile organic compounds, radium-226, radium-228, and perchlorate. These analytes are considered those of greatest concern for potential migration and impacts to groundwater.

6.0 REPORTING AND SCHEDULING

After approval of the SAP by NDEP, BRC is prepared to promptly initiate field activities. BRC will be directly in charge of sampling with oversight conducted by NDEP. As discussed in Section 3.4.3 sampling activities are anticipated to be completed over a one to three month period, and laboratory analyses to be completed within a five to six-week period following field work completion. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40. Only those data determined by the QA/QC review to be suitable for use will be considered for the site data set. A separate Data Validation Summary Report will be prepared and submitted to NDEP.

Upon receipt of laboratory analytical results and following data validation, a risk assessment will be conducted by BRC (in consultation with NDEP) to evaluate the risks posed to human health and the environment by chemicals remaining in Site soils following baseline remediation. The risk assessment will be conducted in accordance with the Risk Assessment Methodology provided in the Closure Plan. As stated in the Closure Plan:

> …risk assessment will not be initiated unless proper data sufficiency, representativeness, and adequacy analysis is first achieved. If necessary, additional data will be gathered or analyzed to meet the goals of data quality required for risk assessment. The risk assessment will, in turn, help to assure that these data characteristics are properly evaluated. Once risk assessment is completed, the assessment will be made as to whether the remediation conducted meets cleanup goals. If cleanup goals are not achieved, additional remediation, associated confirmation sampling, and assessment cycles will be conducted until a decision end point is reached – namely that the cleanup goals are either met (and the NFAD is issued or Site Closure is achieved, as the case may be) or proven infeasible because it is technically impractical or too costly, in which case changes in land use or institutional controls may be considered.

BRC will perform risk assessment calculations to justify additional remediation or sampling; however, these interim risk assessments will not be submitted to the NDEP. It is expected that the interim decisions (to support additional sampling or remediation) will be discussed with the NDEP on an informal but regular basis. Any additional sampling and remediation will be addressed as an addendum to this SAP.

The risk assessment report will be an inclusive report that will also contain the following items:

- A summary of the sampling procedures conducted;
- Sampling location map;
- Soil boring logs;
- An evaluation and summary of the collected data;
- Tables(s) summarizing soil results; and
- If appropriate, plan view maps indicating the locations of detected constituents in soil.

As noted above, completion of the risk assessment will be an iterative process. Once the risk assessment passes internal BRC review, with NDEP consultation, and meets the risk goals stated in the Closure Plan, the risk assessment report will be submitted to the NDEP, along with an NFAD request for the Site, in accordance with AOC3. That is, the risk assessment report will be prepared and submitted to the NDEP only when BRC is comfortable that acceptable human health risks have been attained.

7.0 REFERENCES

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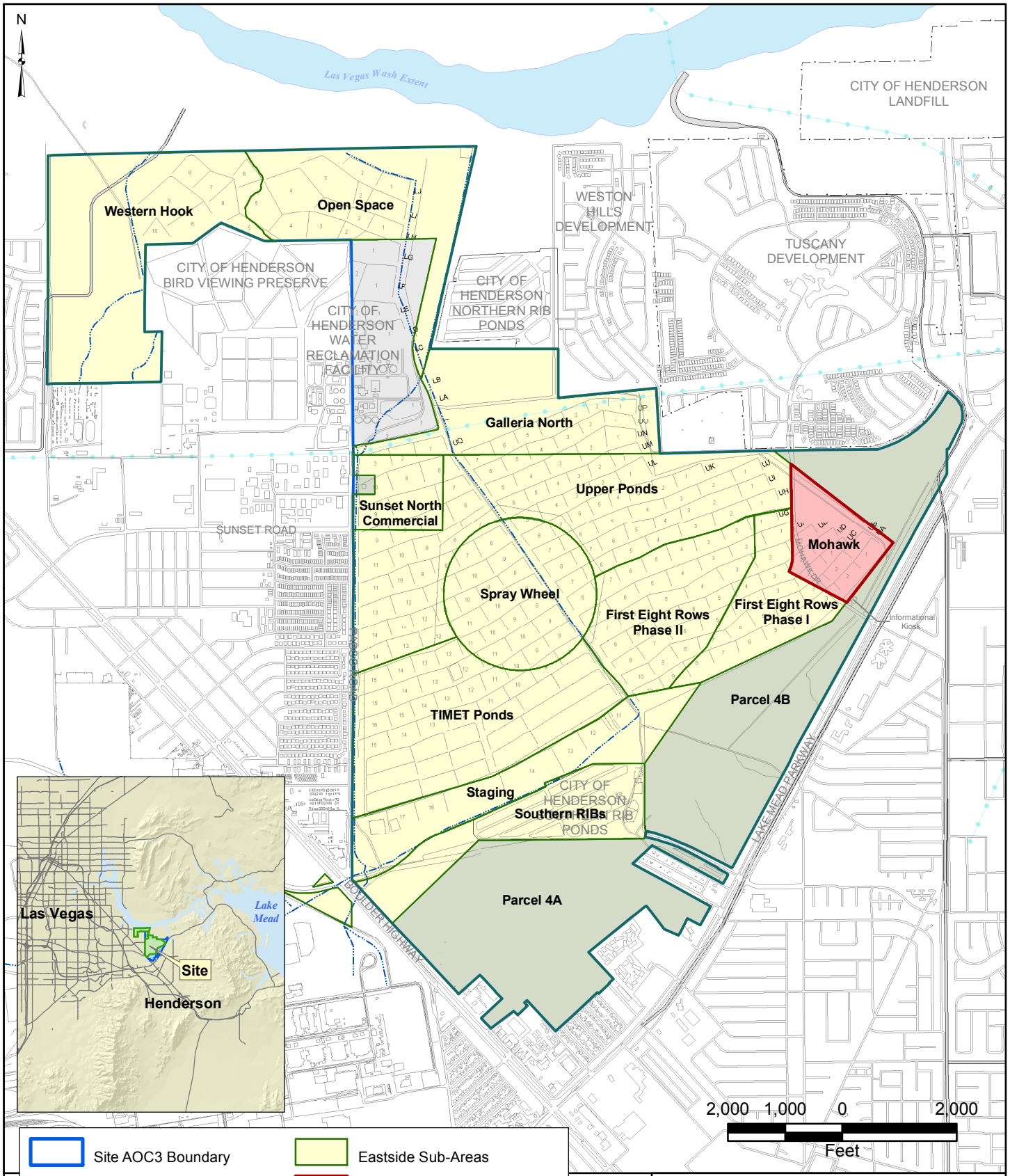
FIGURES



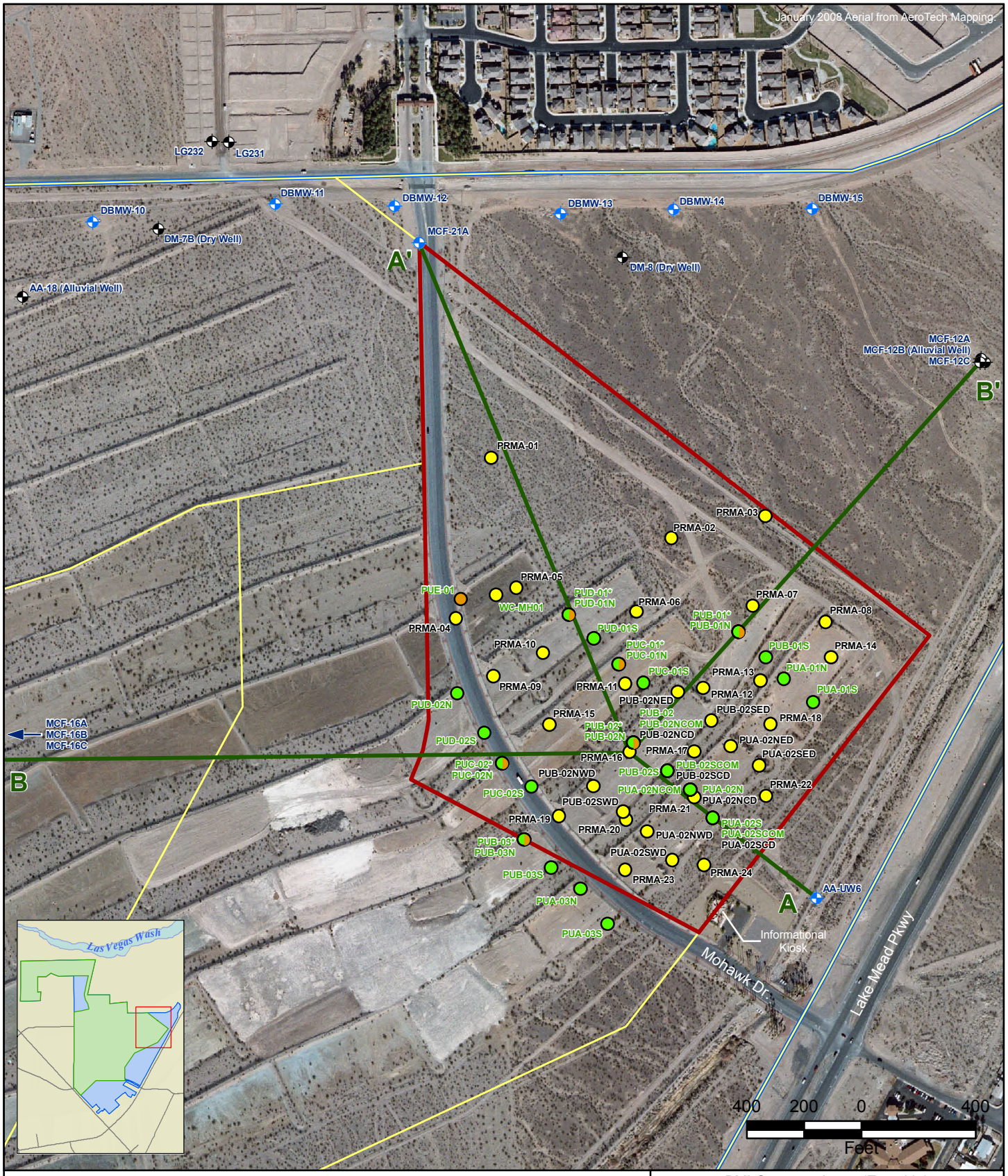
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 1

MOHAWK SUB-AREA LOCATION

Basic Remediation COMPANY

Prepared by MKJ (ERM)	Date 06/23/08	JOB No. 0064276 FILE: GIS/BRC/MOHAWK_SAP/FIGURE_1.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Cross-Section Location

Historical Soil Sample Location

Pre-IRM Location

IRM Location

Post-IRM Location

Monitoring Wells

Existing Well

New Well (No Data)

PRMA-19 - Discrete Sample
PUA-03S - Composite Sample

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 2

SITE PLAN WITH HISTORIC SOIL SAMPLE LOCATIONS AND MONITORING WELLS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/FIGURE_2.MXD

Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Current Development Plan

High Density Residential

Medium Density Residential

Low Density Residential

Parks & Trails

Roads

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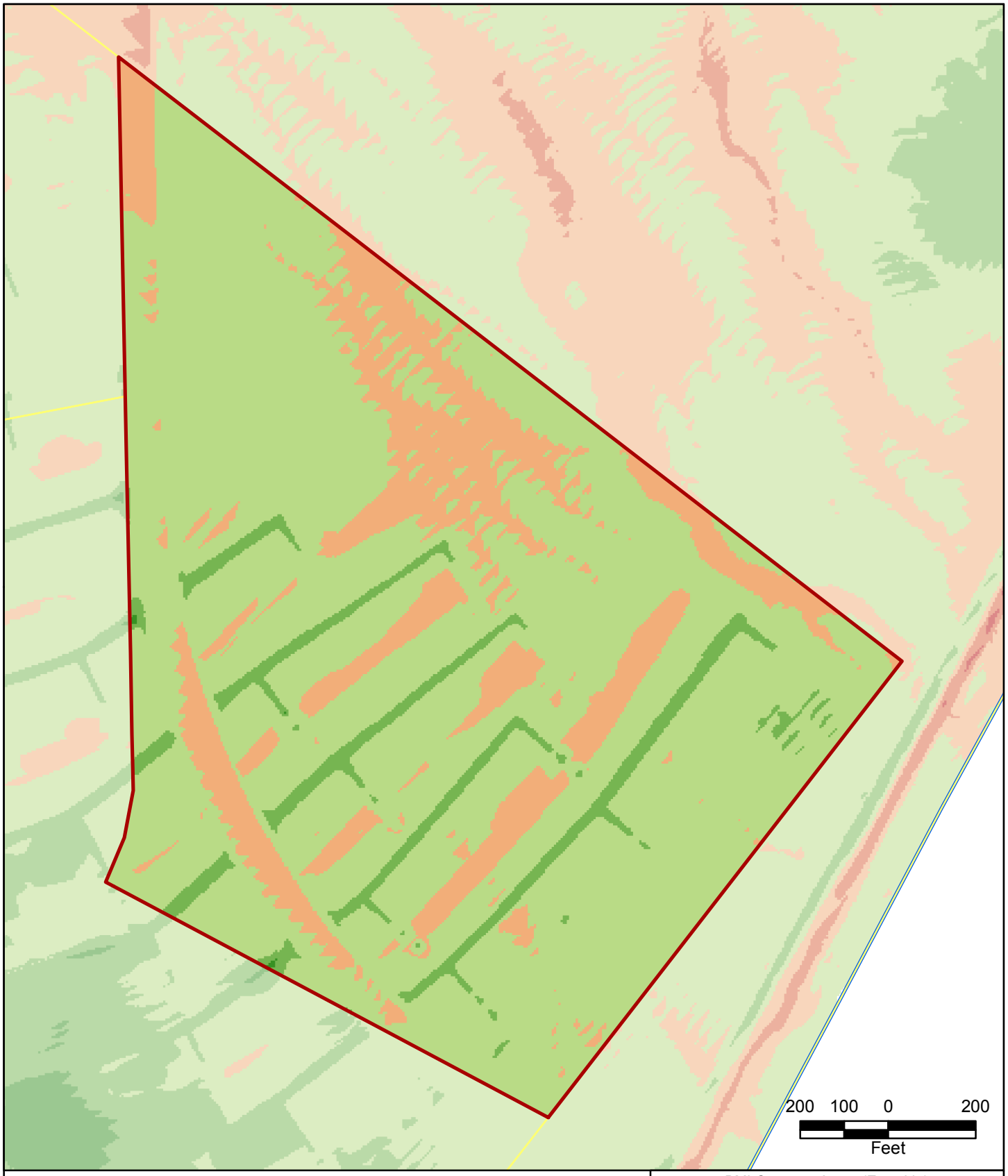
Clark County, Nevada

FIGURE 3

CURRENT DEVELOPMENT PLAN

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK_SAP/FIGURES_3-4.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Development Cut/Fill Areas

- > 10 Ft Fill
- 5 to 10 Ft Fill
- 0 to 5 Ft Fill
- No Change
- 0 to 5 Ft Cut
- 5 to 10 Ft Cut
- > 10 Ft Cut

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Clark County, Nevada

FIGURE 4

CURRENT GRADING PLAN

Basic Remediation COMPANY

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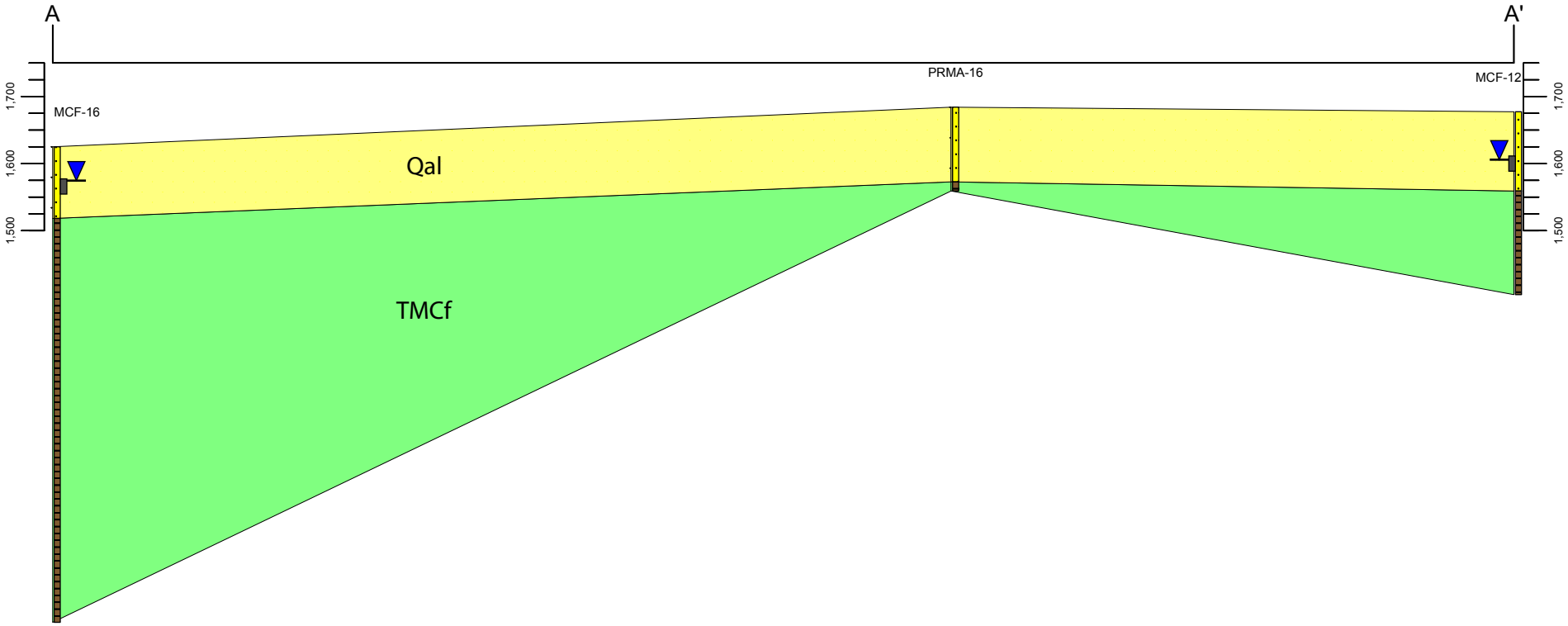
Cross-Section A-A'



= Screen Interval
= Qal Water Level
= Qal = Quaternary alluvium
= TMCf = Tertiary Muddy Creek formation
Vertical Scale = 5x Horizonal Scale
For soil lithology details, please see the individual boring logs.
See Figure 2 for cross-section location.

BMI Common Areas (Eastside)
Clark County, Nevada

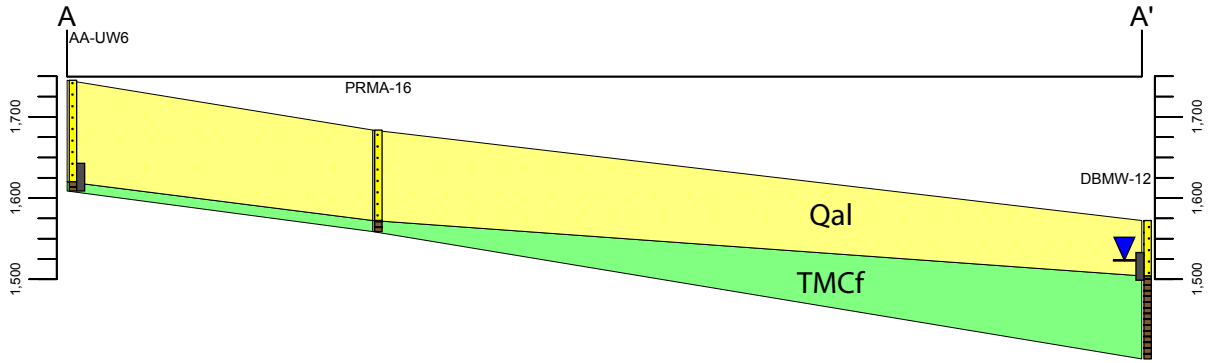
FIGURE 5

MOHAWK SUB-AREA
CROSS-SECTION A-A'

Basic Remediation COMPANY

Prepared by MKJ (ERM)	Date 05/19/08	JOB No. 0064276 FILE: GIS/BRC/MOHAWK_SAP/FIGURE_5.AI

Cross-Section B-B'



= Screen Interval
= Qal Water Level
= Qal = Quaternary alluvium
= TMCf = Tertiary Muddy Creek formation
Vertical Scale = 5x Horizonal Scale
For soil lithology details, please see the individual boring logs.
See Figure 2 for cross-section location.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 6

MOHAWK SUB-AREA
CROSS-SECTION B-B'

Basic Remediation COMPANY

Prepared by MKJ (ERM)	Date 05/19/08	JOB No. 0064276 FILE: GIS/BRC/MOHAWK_SAP/FIGURE_6.AI

Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

May 2008 Soil Removal Area

Interim Remedial Measure Areas

Interim Remedial Measure Areas

Excavated Soil Holding Areas

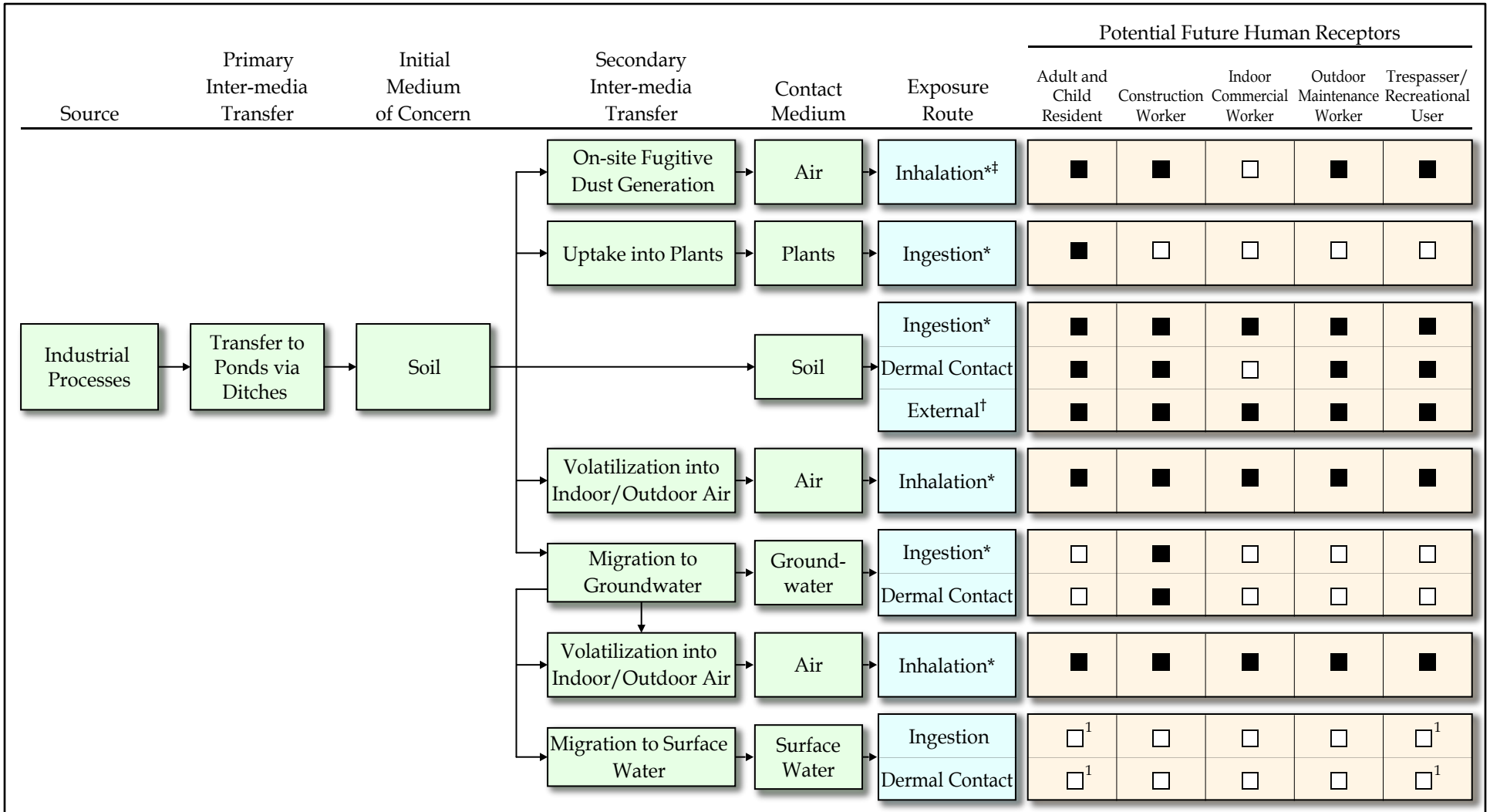
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 7

HISTORICAL AND RECENT SOIL REMOVAL AREAS

Basic Remediation COMPANY

Prepared by MKJ (ERM)	Date 06/24/08	JOB No. 0064276 FILE: GIS/BRC/MOHAWK_SAP/FIGURE_7.MXD



□ - Incomplete or insignificant exposure pathway.

■ - Complete or potentially complete exposure pathway.

[1]Potentially complete exposure pathway following discharge to Las Vegas Wash and Lake Mead.

*Includes radionuclide exposures.

†Only radionuclide exposures.

‡Includes asbestos exposures.

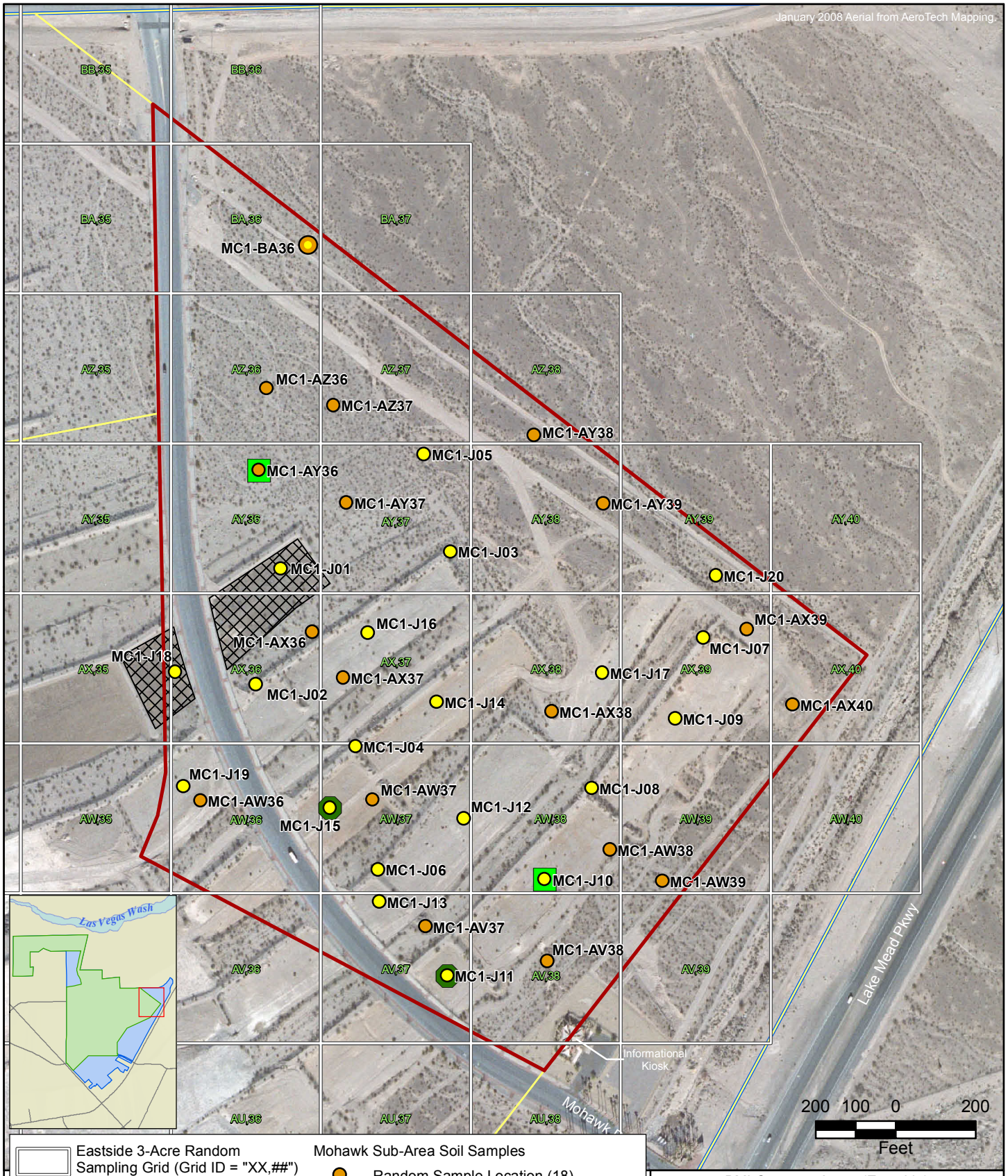
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 8

CONCEPTUAL SITE MODEL DIAGRAM FOR POTENTIAL HUMAN EXPOSURES

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/FIGURE_8.AI



Eastside 3-Acre Random Sampling Grid (Grid ID = "XX,##")

Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

May 2008 Soil Removal Area

Mohawk Sub-Area Soil Samples

Random Sample Location (18)

Biased Sample Location with Flux (20)

Random Sample Location with Flux (1)

Deep Sample Location (2; to GW). Deep sample locations will be analyzed for soil physical parameters (see Table 4).

SPLP Sample Location (2; subsurface)

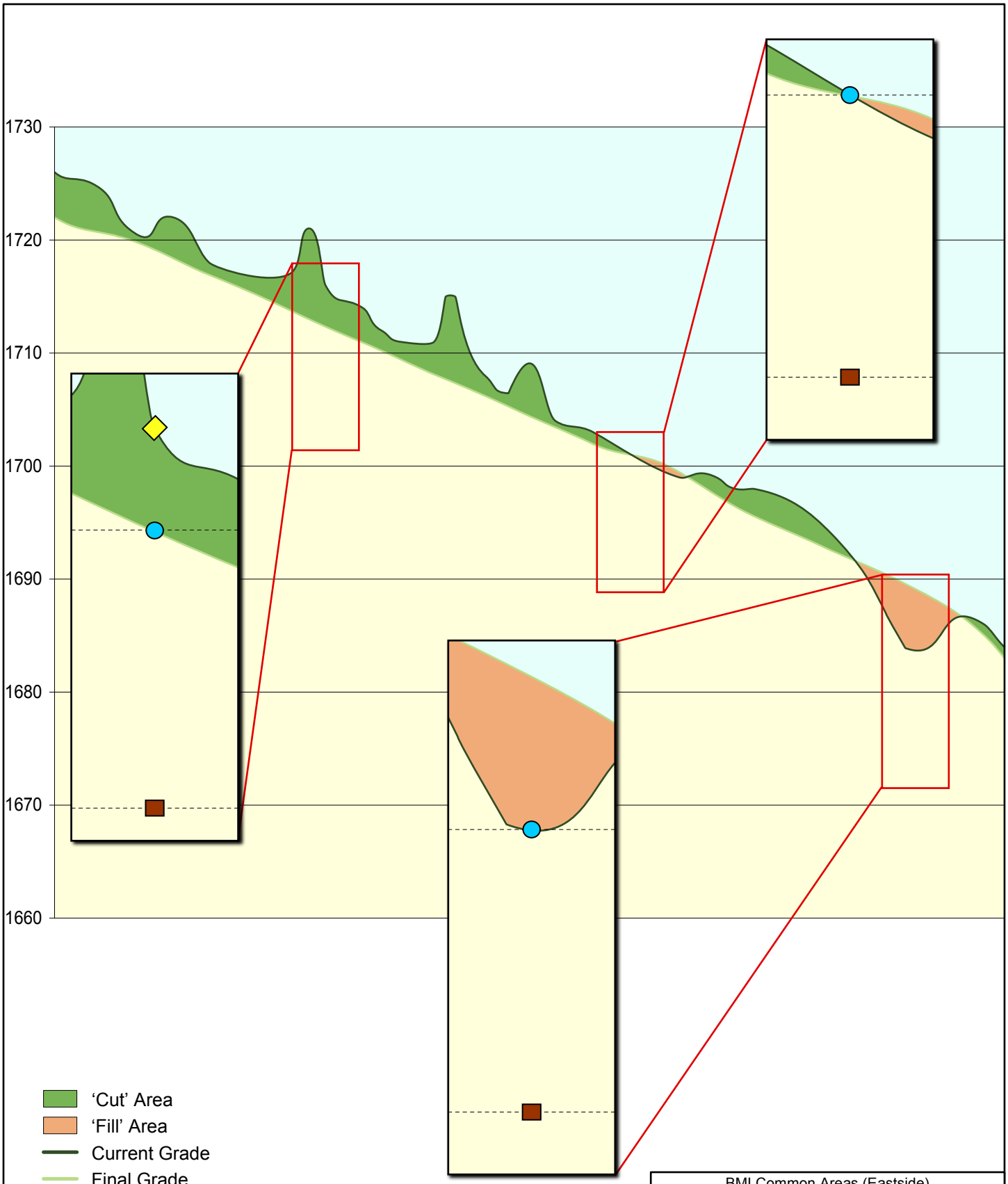
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 9

PROPOSED SOIL AND SOIL VAPOR FLUX SAMPLING LOCATIONS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 06/24/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/FIGURE_9.MXD



'Cut' Area
'Fill' Area
Current Grade
Final Grade
Surface (0-2' depth) sample
Subsurface (2'-10' depth) sample
Fill material sample
Vertical scale exaggerated 5x.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 10

SAMPLE DEPTH
RULES SCHEMATIC

Basic Remediation COMPANY

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TABLES

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
MOHAWK SUB-AREA
(Page 1 of 5)

Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Min. Non-Detect Limit[b]	Max. Non-Detect Limit[b]	USEPA Region 6 Residential Soil MSSL[c]	Count of Detects > MSSL	USEPA SSL (DAF 1)[d]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[d]	Count of Detects > DAF 20	Max. Bkgrnd[e]	Count of Detects > Bkgrnd
Dioxins/Furans	TCDD TEQ	pg/g	4	3	75%	0.52	46.7	--	--	50[f]	0	--	--	--	--	--	--
General Chemistry	Chlorate	mg/kg	3	2	67%	0.042	0.3	0.003	0.052	--	--	--	--	--	--	--	--
	Chloride	mg/kg	3	3	100%	3.7	23	0.2	0.21	--	--	--	--	--	--	1110	0
	Cyanide (Total)	mg/kg	53	3	6%	0.27	1.4	0.25	0.85	1220	0	2	0	40	0	--	--
	Perchlorate	mg/kg	86	76	88%	0.0276	3.45	0.04	0.564	54.8	0	--	--	--	--	--	--
Chlorinated Herbicides	2,4,5-T	mg/kg	1	0	0%	--	--	0.02	0.02	611	--	--	--	--	--	--	--
	2,4,5-TP	mg/kg	1	0	0%	--	--	0.02	0.02	489	--	--	--	--	--	--	--
	2,4-D	mg/kg	1	0	0%	--	--	0.081	0.081	686	--	--	--	--	--	--	--
	Dinitrobutyl phenol	mg/kg	1	0	0%	--	--	0.025	0.025	61.1	--	--	--	--	--	--	--
Metals	Aluminum	mg/kg	49	49	100%	5280	15600	20.3	34	77300	0	--	--	--	--	15300	1
	Antimony	mg/kg	70	16	23%	0.17	1.8	0.51	6.2	31.3	0	0.3	13	6	0	0.5	12
	Arsenic	mg/kg	90	90	100%	2.4	38.6	0.51	31.2	0.39	90	1	90	20	2	7.2	11
	Barium	mg/kg	74	74	100%	203	1400	0.2595	42	15600	0	82	74	1640	0	836	4
	Beryllium	mg/kg	69	69	100%	0.27	23	0.2595	0.85	156	0	3	1	60	0	0.89	4
	Cadmium	mg/kg	53	51	96%	0.05	1.7	0.51	2.1	39	0	0.4	4	8	0	0.16	9
	Chromium (Total)	mg/kg	74	74	100%	3.6	420	0.4	2.1	100000	0	--	--	--	--	16.7	31
	Chromium (VI)	mg/kg	41	12	29%	0.005	0.03	0.005	0.04	30.1	0	2	0	40	0	0.251	0
	Cobalt	mg/kg	49	49	100%	2.4	18.9	5.1	8.5	903	0	--	--	--	--	16.3	1
	Copper	mg/kg	69	69	100%	2.1	64	0.2595	4.3	2910	0	--	--	--	--	30.5	7
	Iron	mg/kg	49	49	100%	7160	18100	10.2	17	54800	0	--	--	--	--	19700	0
	Lead	mg/kg	90	90	100%	7.7	628	0.3	10.4	400	1	--	--	--	--	35.1	9
	Magnesium	mg/kg	49	49	100%	4040	49700	508	2610	--	--	--	--	--	--	17500	1
	Manganese	mg/kg	86	86	100%	177	5400	0.25	2.6	3470	1	--	--	--	--	1090	4
	Mercury	mg/kg	53	14	26%	0.01	0.1	0.03	0.11	23.5	0	--	--	--	--	0.11	0
	Molybdenum	mg/kg	49	44	90%	0.21	2.6	4.1	6.8	391	0	--	--	--	--	2	2
	Nickel	mg/kg	69	69	100%	6.4	54	2.076	6.8	1560	0	7	66	140	0	30	4
	Selenium	mg/kg	53	37	70%	0.04	0.29	0.51	6.2	391	0	0.3	0	6	0	0.6	0
	Silver	mg/kg	53	42	79%	0.03	1.3	1	2.1	391	0	2	0	40	0	0.2609	3
	Thallium	mg/kg	70	10	14%	0.61	6.5	0.51	208	5.5	1	0.4	10	8	0	1.8	6
	Titanium	mg/kg	49	49	100%	270	1970	5.1	8.5	100000	0	--	--	--	--	1010	3
	Vanadium	mg/kg	74	74	100%	11.9	650	0.2595	11	391	6	300	10	6000	0	59.1	26
	Zinc	mg/kg	69	69	100%	19.9	174	2	5.35	23500	0	620	0	12400	0	121	1
Organochlorine Pesticides	2,4-DDD	mg/kg	1	0	0%	--	--	0.0017	0.0017	2.4	--	0.8	--	16	--	--	--
	2,4-DDE	mg/kg	1	1	100%	0.39	0.39	0.17	0.17	1.7	0	3	0	60	0	--	--
	4,4-DDD	mg/kg	90	0	0%	--	--	0.0017	0.087	2.4	--	0.8	--	16	--	--	--
	4,4-DDE	mg/kg	90	36	40%	0.0014	0.94	0.0017	0.17	1.7	0	3	0	60	0	--	--
	4,4-DDT	mg/kg	90	33	37%	0.0019	0.17	0.0017	0.099	1.7	0	2	0	40	0	--	--
	Aldrin	mg/kg	90	0	0%	--	--	0.0017	0.087	0.028	--	0.02	--	0.4	--	--	--
	alpha-BHC	mg/kg	90	0	0%	--	--	0.0017	0.087	0.09	--	0.00003	--	0.0006	--	--	--
	alpha-Chlordane	mg/kg	90	0	0%	--	--	0.0017	0.087	1.6	--	0.5	--	10	--	--	--
	beta-BHC	mg/kg	90	8	9%	0.0021	0.0038	0.0017	0.087	0.32	0	0.0001	8	0.002	8	--	--
	Chlordane	mg/kg	40	0	0%	--	--	0.02022	0.06	1.6	--	0.5	--	10	--	--	--
	delta-BHC	mg/kg	90	0	0%	--	--	0.0017	0.087	--	--	--	--	--	--	--	--
	Dieldrin	mg/kg	90	0	0%	--	--	0.0017	0.087	0.03	--	0.0002	--	0.004	--	--	--
	Endosulfan I	mg/kg	90	5	6%	0.0019	0.51	0.0017	0.087	367	0	0.9	0	18	0	--	--
	Endosulfan II	mg/kg	90	2	2%	0.002	0.013	0.0017	0.087	367	0	0.9	0	18	0	--	--
	Endosulfan sulfate	mg/kg	90	1	1%	0.0072	0.0072	0.0017	0.087	--	--	--	--	--	--	--	--
	Endrin	mg/kg	90	3	3%	0.0062	0.22	0.0017	0.087	18.3	0	0.05	1	1	0	--	--
	Endrin aldehyde	mg/kg	90	3	3%	0.0024	0.013	0.0017	0.087	--	--	--	--	--	--	--	--
	Endrin ketone	mg/kg	65	0	0%	--	--	0.0017	0.087	--	--	--	--	--	--	--	--
	gamma-Chlordane	mg/kg	90	1	1%	0.0019	0.0019	0.0017	0.087	1.6	0	0.5	0	10	0	--	--
	Heptachlor	mg/kg	90	0	0%	--	--	0.0017	0.087	0.11	--	1	--	20	--	--	--
	Heptachlor epoxide	mg/kg	90	0	0%	--	--	0.0017	0.087	0.053	--	0.03	--	0.6	--	--	--
	Lindane	mg/kg	90	1	1%	0.0027	0.0027	0.0017	0.087	0.44	0	0.0005	1	0.01	0	--	--
	Methoxychlor	mg/kg	90	1	1%	0.0061	0.0061	0.0033	0.17	306	0	8	0	160	0	--	--
	Toxaphene	mg/kg	90	0	0%	--	--	0.06	3.4	0.44	--	2	--	40	--	--	--

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Organo-phosphorous Pesticides	Azinphos-ethyl	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Azinphos-methyl	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Carbophenothion	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Chlorpyrifos	mg/kg	41	0	0%	--	--	0.10152	0.137	183	--	--	--	--	--	--	--
	Coumaphos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Demeton-O	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Demeton-S	mg/kg	40	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Diazinon	mg/kg	41	0	0%	--	--	0.10152	0.137	55	--	--	--	--	--	--	--
	Dichlorvos	mg/kg	41	0	0%	--	--	0.10152	0.137	1.7	--	--	--	--	--	--	--
	Dimethoate	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Disulfoton	mg/kg	41	0	0%	--	--	0.048	0.137	2.4	--	--	--	--	--	--	--
	Ethoprophos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Ethyl p-nitrophenyl phenylphosphorothioate	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Famphur	mg/kg	42	0	0%	--	--	0.013	0.137	--	--	--	--	--	--	--	--
	Fenthion	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Malathion	mg/kg	41	0	0%	--	--	0.10152	0.137	1220	--	--	--	--	--	--	--
	Methyl parathion	mg/kg	42	0	0%	--	--	0.02	0.137	15.3	--	--	--	--	--	--	--
	Mevinphos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Naled	mg/kg	41	0	0%	--	--	0.10152	0.137	122	--	--	--	--	--	--	--
	Parathion	mg/kg	42	0	0%	--	--	0.018	0.137	367	--	--	--	--	--	--	--
	Phorate	mg/kg	41	0	0%	--	--	0.02	0.137	--	--	--	--	--	--	--	--
	Phosmet	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Ronnel	mg/kg	41	0	0%	--	--	0.10152	0.137	3060	--	--	--	--	--	--	--
	Stirophos (tetrachlorovinphos)	mg/kg	41	0	0%	--	--	0.10152	0.137	20.3	--	--	--	--	--	--	--
	Sulfotep	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls	Aroclor 1016	mg/kg	53	0	0%	--	--	0.013	0.34	3.9	--	--	--	--	--	--	--
	Aroclor 1221	mg/kg	53	0	0%	--	--	0.013	0.34	0.22	--	--	--	--	--	--	--
	Aroclor 1232	mg/kg	53	0	0%	--	--	0.013	0.34	0.22	--	--	--	--	--	--	--
	Aroclor 1242	mg/kg	53	0	0%	--	--	0.013	0.34	0.22	--	--	--	--	--	--	--
	Aroclor 1248	mg/kg	53	0	0%	--	--	0.013	0.34	0.22	--	--	--	--	--	--	--
	Aroclor 1254	mg/kg	53	0	0%	--	--	0.013	0.34	0.22	--	--	--	--	--	--	--
	Aroclor 1260	mg/kg	53	0	0%	--	--	0.013	0.34	0.22	--	--	--	--	--	--	--
Radionuclides	Actinium-228	pCi/g	4	4	100%	0.98	1.39	0.12	0.69	732	0	--	--	--	--	3.4	0
	Bismuth-212	pCi/g	3	0	0%	1.28	2.1	1.28	2.1	22700	0	--	--	--	--	1.82	2
	Bismuth-214	pCi/g	4	4	100%	0.64	0.92	0.062	0.38	8190	0	--	--	--	--	1.62	0
	Cobalt-57	pCi/g	1	0	0%	0.027	0.027	0.027	0.027	8.79	0	8.4	0	168	0	0.04	0
	Cobalt-60	pCi/g	1	1	100%	0.007	0.007	0.027	0.027	0.036	0	0.1205	0	2.41	0	0.082	0
	Lead-210	pCi/g	3	0	0%	1	2.8	1	2.8	0.45	3	0.00055	3	0.011	3	2.2	1
	Lead-212	pCi/g	4	4	100%	1.06	1.25	0.057	0.29	3700	0	3500000	0	70000000	0	2.11	0
	Lead-214	pCi/g	4	4	100%	0.52	0.85	0.058	0.32	46300	0	1.45E+11	0	2.9E+12	0	1.72	0
	Potassium-40	pCi/g	4	4	100%	26.4	30.5	0.31	0.9	0.14	4	--	--	--	--	35	0
	Radium-226	pCi/g	28	18	64%	0.014	8.78	0.014	0.16	0.0072	28	0.0161	27	0.322	17	2.36	2
	Radium-228	pCi/g	23	23	100%	0.67	3.13	--	--	0.085	23	0.0595	23	1.19	17	2.94	1
	Thallium-208	pCi/g	4	4	100%	0.31	0.47	0.026	--	22600	0	--	--	--	--	0.72	0
	Thorium-228	pCi/g	22	22	100%	1.07	3.95	--	--	0.15	22	3.3	1	66	0	2.28	4
	Thorium-230	pCi/g	24	24	100%	0.85	4.91	--	--	3.8	1	0.303	24	6.06	0	3.01	1
	Thorium-232	pCi/g	24	24	100%	0.85	2.9	--	--	3.4	0	0.303	24	6.06	0	2.23	3
	Thorium-234	pCi/g	1	1	100%	2.8	2.8	4.3	4.3	1370	0	4130	0	82600	0	2.5	1
	Uranium-233/234	pCi/g	24	24	100%	0.5	8.73	--	1.2	4.7	1	112	0	2240	0	2.84	1
	Uranium-235/236	pCi/g	25	17	68%	0.02	0.48	0.064	0.21	0.2	3	0.03885	20	0.777	0	0.21	2
	Uranium-238	pCi/g	25	23	92%	0.3	8.2	0.3	1.2	0.78	12	0.00605	25	0.121	25	2.37	1
Semivolatile Organic Compounds	1,2,4,5-Tetrachlorobenzene	mg/kg	1	0	0%	--	--	0.33	0.33	18.3	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	mg/kg	50	0	0%	--	--	0.34	0.67	143	--	0.3	--	6	--	--	--
	1,2-Dichlorobenzene	mg/kg	54	0	0%	--	--	0.34	0.67	279	--	0.9	--	18	--	--	--
	1,2-Diphenylhydrazine	mg/kg	1	0	0%	--	--	0.33	0.33	0.61	--	--	--	--	--	--	--
	1,3-Dichlorobenzene	mg/kg	54	0	0%	--	--	0.34	0.67	68.5	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	mg/kg	54	0	0%	--	--	0.34	0.67	3.2	--	0.1	--	2	--	--	--
Semivolatile Organic Compounds	1,4-Dioxane	mg/kg	1	0	0%	--	--	0.33	0.33	44.2	--	--	--	--	--	--	--
	2,4,5-Trichlorophenol	mg/kg	51	0	0%	--	--	0.33	0.67	6110	--	14	--	280	--	--	--
	2,4,6-Trichlorophenol	mg/kg	51	0	0%	--	--	0.33	0.67	44.2	--	0.008	--	0.16	--	--	--

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	2,4-Dichlorophenol	mg/kg	51	0	0%	--	--	0.33	0.67	183	--	0.05	--	1	--	--	--
	2,4-Dimethylphenol	mg/kg	51	0	0%	--	--	0.33	0.67	1220	--	0.4	--	8	--	--	--
	2,4-Dinitrophenol	mg/kg	51	0	0%	--	--	1.6	3.3	122	--	0.01	--	0.2	--	--	--
	2,4-Dinitrotoluene	mg/kg	51	0	0%	--	--	0.33	0.67	122	--	0.00004	--	0.0008	--	--	--
	2,6-Dinitrotoluene	mg/kg	51	0	0%	--	--	0.33	0.67	61.1	--	0.00003	--	0.0006	--	--	--
	2-Chloronaphthalene	mg/kg	51	0	0%	--	--	0.33	0.67	3860	--	--	--	--	--	--	--
	2-Chlorophenol	mg/kg	51	0	0%	--	--	0.33	0.67	63.5	--	0.2	--	4	--	--	--
	2-Methylnaphthalene	mg/kg	50	0	0%	--	--	0.34	0.67	--	--	--	--	--	--	--	--
	2-Nitroaniline	mg/kg	51	0	0%	--	--	1.6	3.3	183	--	--	--	--	--	--	--
	2-Nitrophenol	mg/kg	51	0	0%	--	--	0.33	0.67	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	mg/kg	50	0	0%	--	--	1.3	2.7	1.1	--	0.0003	--	0.006	--	--	--
	3-Methylphenol & 4-Methylphenol	mg/kg	1	0	0%	--	--	0.66	0.66	--	--	--	--	--	--	--	--
	3-Nitroaniline	mg/kg	50	0	0%	--	--	1.6	3.3	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	mg/kg	51	0	0%	--	--	0.33	0.67	--	--	--	--	--	--	--	--
	4-Chloro-3-Methylphenol	mg/kg	51	0	0%	--	--	0.33	1.3	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	mg/kg	50	0	0%	--	--	0.34	0.67	--	--	--	--	--	--	--	--
	4-Nitrophenol	mg/kg	51	0	0%	--	--	1.6	3.3	489	--	--	--	--	--	--	--
	Acenaphthene	mg/kg	51	0	0%	--	--	0.33	0.67	3680	--	29	--	580	--	--	--
	Acenaphthylene	mg/kg	51	0	0%	--	--	0.33	0.67	--	--	--	--	--	--	--	--
	Acetophenone	mg/kg	1	0	0%	--	--	0.33	0.33	1740	--	--	--	--	--	--	--
	Aniline	mg/kg	1	0	0%	--	--	0.33	0.33	85.3	--	--	--	--	--	--	--
	Anthracene	mg/kg	51	0	0%	--	--	0.33	0.67	21900	--	590	--	11800	--	--	--
	Benzo(a)anthracene	mg/kg	51	0	0%	--	--	0.33	0.67	0.15	--	0.08	--	1.6	--	--	--
	Benzo(a)pyrene	mg/kg	51	0	0%	--	--	0.33	0.67	0.015	--	0.4	--	8	--	--	--
	Benzo(b)fluoranthene	mg/kg	51	0	0%	--	--	0.33	0.67	0.15	--	0.2	--	4	--	--	--
	Benzo(g,h,i)perylene	mg/kg	51	0	0%	--	--	0.33	0.67	--	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	mg/kg	51	0	0%	--	--	0.33	0.67	1.5	--	2	--	40	--	--	--
	Benzoic acid	mg/kg	1	0	0%	--	--	3.3	3.3	100000	--	20	--	400	--	--	--
	Benzyl alcohol	mg/kg	1	0	0%	--	--	1.3	1.3	18300	--	--	--	--	--	--	--
	Benzyl butyl phthalate	mg/kg	51	0	0%	--	--	0.33	0.67	240	--	810	--	16200	--	--	--
	bis(2-Chloroethoxy) methane	mg/kg	51	0	0%	--	--	0.33	0.67	--	--	--	--	--	--	--	--
	bis(2-Chloroethyl) ether	mg/kg	51	0	0%	--	--	0.33	0.67	0.21	--	0.00002	--	0.0004	--	--	--
	bis(2-Chloroisopropyl) ether	mg/kg	51	0	0%	--	--	0.33	0.67	2.9	--	--	--	--	--	--	--
	bis(2-Ethylhexyl) phthalate	mg/kg	50	13	26%	0.13	1.3	0.34	0.9	34.7	0	180	0	3600	0	--	--
	Carbazole	mg/kg	50	0	0%	--	--	0.34	0.67	24.3	--	0.03	--	0.6	--	--	--
	Chrysene	mg/kg	51	0	0%	--	--	0.33	0.67	14.8	--	8	--	160	--	--	--
	Dibenzo(a,h)anthracene	mg/kg	51	0	0%	--	--	0.33	0.67	0.015	--	0.08	--	1.6	--	--	--
	Dibenzofuran	mg/kg	50	0	0%	--	--	0.34	0.67	145	--	--	--	--	--	--	--
	Dibutyl phthalate	mg/kg	51	3	6%	0.036	0.077	0.33	0.67	6110	0	270	0	5400	0	--	--
	Diethyl phthalate	mg/kg	51	3	6%	0.083	0.26	0.33	0.67	48900	0	--	--	--	--	--	--
	Dimethyl phthalate	mg/kg	51	0	0%	--	--	0.33	0.67	100000	--	--	--	--	--	--	--
	Di-n-octyl phthalate	mg/kg	51	0	0%	--	--	0.33	0.67	--	--	--	--	--	--	--	--
	Fluoranthene	mg/kg	51	0	0%	--	--	0.33	0.67	2290	--	210	--	4200	--	--	--
	Fluorene	mg/kg	51	0	0%	--	--	0.33	0.67	2640	--	28	--	560	--	--	--
	Hexachloro-1,3-butadiene	mg/kg	50	0	0%	--	--	0.33	0.56	6.2	--	0.1	--	2	--	--	--
	Hexachlorobenzene	mg/kg	51	0	0%	--	--	0.33	0.67	0.3	--	0.1	--	2	--	--	--
	Hexachlorocyclopentadiene	mg/kg	51	0	0%	--	--	0.67	2.7	366	--	20	--	400	--	--	--
	Hexachloroethane	mg/kg	51	0	0%	--	--	0.33	0.67	34.7	--	0.02	--	0.4	--	--	--
	Indeno(1,2,3-cd)pyrene	mg/kg	51	0	0%	--	--	0.33	0.67	0.15	--	0.7	--	14	--	--	--
	Isophorone	mg/kg	50	0	0%	--	--	0.34	0.67	512	--	0.03	--	0.6	--	--	--
	Naphthalene	mg/kg	51	0	0%	--	--	0.33	0.67	125	--	4	--	80	--	--	--
	Nitrobenzene	mg/kg	51	0	0%	--	--	0.33	0.67	19.7	--	0.007	--	0.14	--	--	--
	N-nitrosodi-n-propylamine	mg/kg	51	0	0%	--	--	0.33	0.67	0.07	--	0.000002	--	0.00004	--	--	--
	N-nitrosodiphenylamine	mg/kg	51	0	0%	--	--	0.33	0.67	99.3	--	0.06	--	1.2	--	--	--
Semivolatile Organic Compounds	o-Cresol	mg/kg	51	0	0%	--	--	0.33	0.67	3060	--	0.8	--	16	--	--	--
	p-Chloroaniline	mg/kg	51	0	0%	--	--	0.33	1.3	244	--	0.03	--	0.6	--	--	--
	p-Cresol	mg/kg	50	0	0%	--	--	0.34	0.67	306	--	--	--	--	--	--	--
	Pentachlorobenzene	mg/kg	1	0	0%	--	--	0.33	0.33	48.9	--	--	--	--	--	--	--
	Pentachlorophenol	mg/kg	51	0	0%	--	--	1.6	3.3	3	--	0.001	--	0.02	--	--	--
	Phenanthrene	mg/kg	51	0	0%	--	--	0.33	0.67	--	--	--	--	--	--	--	--

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
MOHAWK SUB-AREA

Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Min. Non-Detect Limit[b]	Max. Non-Detect Limit[b]	USEPA Region 6 Residential Soil MSSL[c]	Count of Detects > MSSL	USEPA SSL (DAF 1)[d]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[d]	Count of Detects > DAF 20	Max. Bkgrnd[e]	Count of Detects > Bkgrnd
	Phenol	mg/kg	51	0	0%	--	--	0.33	0.67	18300	--	5	--	100	--	--	--
	Phthalic acid	mg/kg	1	0	0%	--	--	1.6	1.6	61100	--	--	--	--	--	--	--
	p-Nitroaniline	mg/kg	51	0	0%	--	--	1.6	3.3	--	--	--	--	--	--	--	--
	Pyrene	mg/kg	51	0	0%	--	--	0.33	0.67	2310	--	210	--	4200	--	--	--
	Pyridine	mg/kg	1	0	0%	--	--	0.66	0.66	61.1	--	--	--	--	--	--	--
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	mg/kg	1	0	0%	--	--	0.005	0.005	3.01	--	--	--	--	--	--	--
	1,1,1-Trichloroethane	mg/kg	10	1	10%	0.0027	0.0027	0.005	0.0085	1390	0	0.1	0	2	0	--	--
	1,1,2,2-Tetrachloroethane	mg/kg	10	0	0%	--	--	0.005	0.0085	0.38	--	0.0002	--	0.004	--	--	--
	1,1,2-Trichloroethane	mg/kg	10	0	0%	--	--	0.005	0.0085	0.84	--	0.0009	--	0.018	--	--	--
	1,1-Dichloroethane	mg/kg	10	0	0%	--	--	0.005	0.0085	846	--	1	--	20	--	--	--
	1,1-Dichloroethylene	mg/kg	10	0	0%	--	--	0.005	0.0085	285	--	0.003	--	0.06	--	--	--
	1,2,3-Trichloropropane	mg/kg	1	0	0%	--	--	0.005	0.005	0.32	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	mg/kg	1	0	0%	--	--	0.005	0.005	143	--	0.3	--	6	--	--	--
	1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	1	0	0%	--	--	0.01	0.01	0.0026	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	mg/kg	13	0	0%	--	--	0.005	0.0085	279	--	0.9	--	18	--	--	--
	1,2-Dichloroethane	mg/kg	10	0	0%	--	--	0.005	0.0085	0.35	--	0.001	--	0.02	--	--	--
	1,2-Dichloropropane	mg/kg	10	0	0%	--	--	0.005	0.0085	0.35	--	0.001	--	0.02	--	--	--
	1,3-Dichlorobenzene	mg/kg	13	0	0%	--	--	0.005	0.0085	68.5	--	--	--	--	--	--	--
	1,4-Dichlorobenzene	mg/kg	13	0	0%	--	--	0.005	0.0085	3.2	--	0.1	--	2	--	--	--
	Acetone	mg/kg	10	1	10%	0.016	0.016	0.011	0.05	14200	0	0.8	0	16	0	--	--
	Acetonitrile	mg/kg	1	0	0%	--	--	0.05	0.05	1470	--	--	--	--	--	--	--
	Benzene	mg/kg	10	0	0%	--	--	0.005	0.0085	0.66	--	0.002	--	0.04	--	--	--
	Bromodichloromethane	mg/kg	10	0	0%	--	--	0.001	0.0085	1	--	0.03	--	0.6	--	--	--
	Bromomethane	mg/kg	10	0	0%	--	--	0.0051	0.017	8.7	--	0.01	--	0.2	--	--	--
	Carbon disulfide	mg/kg	10	0	0%	--	--	0.005	0.0085	721	--	2	--	40	--	--	--
	Carbon tetrachloride	mg/kg	10	1	10%	0.0044	0.0044	0.005	0.0085	0.24	0	0.003	1	0.06	0	--	--
	CFC-11	mg/kg	10	0	0%	--	--	0.005	0.017	387	--	--	--	--	--	--	--
	CFC-12	mg/kg	1	0	0%	--	--	0.01	0.01	94.1	--	--	--	--	--	--	--
	Chlorinated fluorocarbon (Freon 113)	mg/kg	1	0	0%	--	--	0.005	0.005	5550	--	--	--	--	--	--	--
	Chlorobenzene	mg/kg	10	0	0%	--	--	0.005	0.0085	273	--	0.07	--	1.4	--	--	--
	Chlorodibromomethane	mg/kg	10	0	0%	--	--	0.005	0.0085	1	--	0.02	--	0.4	--	--	--
	Chloroethane	mg/kg	10	0	0%	--	--	0.0051	0.017	3	--	--	--	--	--	--	--
	Chloroform	mg/kg	10	0	0%	--	--	0.005	0.0085	0.24	--	0.03	--	0.6	--	--	--
	Chloromethane	mg/kg	10	0	0%	--	--	0.0051	0.017	111	--	--	--	--	--	--	--
	cis-1,2-Dichloroethylene	mg/kg	9	0	0%	--	--	0.0026	0.0054	43	--	0.02	--	0.4	--	--	--
	cis-1,3-Dichloropropylene	mg/kg	10	0	0%	--	--	0.005	0.0085	0.7	--	0.0002	--	0.004	--	--	--
	Dibromomethane	mg/kg	1	0	0%	--	--	0.005	0.005	141	--	--	--	--	--	--	--
	Dichloromethane	mg/kg	10	1	10%	0.0076	0.0076	0.005	0.032	8.9	0	0.001	1	0.02	0	--	--
	Ethylbenzene	mg/kg	10	0	0%	--	--	0.005	0.0085	234	--	0.7	--	14	--	--	--
	Hexachloro-1,3-butadiene	mg/kg	1	0	0%	--	--	0.67	0.67	6.24	--	0.1	--	2	--	--	--
	m,p-Xylene	mg/kg	4	0	0%	--	--	0.0051	0.0054	--	--	--	--	--	--	--	--
	Methyl ethyl ketone	mg/kg	10	1	10%	0.003	0.003	0.01	0.034	32100	0	--	--	--	--	--	--
	Methyl iodide	mg/kg	1	0	0%	--	--	0.005	0.005	--	--	--	--	--	--	--	--
	Methyl isobutyl ketone	mg/kg	10	0	0%	--	--	0.01	0.034	5800	--	--	--	--	--	--	--
	Methyl n-butyl ketone	mg/kg	9	0	0%	--	--	0.01	0.034	--	--	--	--	--	--	--	--
	o-Xylene	mg/kg	4	0	0%	--	--	0.0051	0.0054	--	--	--	--	--	--	--	--
	Styrene (monomer)	mg/kg	9	0	0%	--	--	0.0051	0.0085	1730	--	0.2	--	4	--	--	--
	Tetrachloroethylene	mg/kg	10	0	0%	--	--	0.005	0.0085	0.554	--	0.003	--	0.06	--	--	--
	Toluene	mg/kg	10	1	10%	0.0017	0.0017	0.005	0.0085	521	0	0.6	0	12	0	--	--
	trans-1,2-Dichloroethylene	mg/kg	10	0	0%	--	--	0.0026	0.0054	122	--	0.03	--	0.6	--	--	--
	trans-1,3-Dichloropropylene	mg/kg	10	0	0%	--	--	0.005	0.0085	0.7	--	0.0002	--	0.004	--	--	--
Volatile Organic Compounds	Tribromomethane	mg/kg	10	0	0%	--	--	0.005	0.0085	61.6	--	0.04	--	0.8	--	--	--
	Trichloroethylene	mg/kg	10	1	10%	0.0066	0.0066	0.005	0.0085	0.043	0	0.003	1	0.06	0	--	--
	Vinyl acetate	mg/kg	9	0	0%	--	--	0.0052	0.011	988	--	8	--	160	--	--	--
	Vinyl chloride	mg/kg	10	0	0%	--	--	0.005	0.0085	0.043	--	0.0007	--	0.014	--	--	--
	Xylenes (total)	mg/kg	6	0	0%	--	--	0.0052	0.01	214	--	10	--	200	--	--	--
Non-SRCs	2-Chloroethyl vinyl ether	mg/kg	4	0	0%	--	--	0.021	0.022	--	--	--	--	--	--	--	--
	4,6-Dinitro-o-cresol	mg/kg	50	0	0%	--	--	1.6	3.3	--	--	--	--	--	--	--	--
	Aspon	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Bidrin	mg/kg	42	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--

TABLE 1
SUMMARY OF POST-IRM SOIL CHEMICAL DATA
MOHAWK SUB-AREA
(Page 5 of 5)

Parameter of Interest	Compound List	Units	Total Count	Detect Count	Detection Frequency	Min. Detect[a]	Max. Detect[a]	Min. Non-Detect Limit[b]	Max. Non-Detect Limit[b]	USEPA Region 6 Residential Soil MSSL[c]	Count of Detects > MSSL	USEPA SSL (DAF 1)[d]	Count of Detects > DAF 1	USEPA SSL (DAF 20)[d]	Count of Detects > DAF 20	Max. Bkgrnd[e]	Count of Detects > Bkgrnd
	Cesium-134	pCi/g	1	1	100%	0.013	0.013	0.023	0.023	--	--	--	--	--	--	--	--
	Cesium-137	pCi/g	1	1	100%	0.005	0.005	0.03	0.03	--	--	--	--	--	--	--	--
	Chlorfenvinfos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Chloropyrifos-methyl	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Crotoxyphos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Dichlorfenthion	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Dioxathion	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Ethion	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Fensulfothion	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Fonofos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Leptophos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Merphos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Metathione	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Monocrotophos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	o,o-Diethyl o-pyrazinyl phosphorothioate	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Phosphamidon	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Sulprofos	mg/kg	40	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Terbufos	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Tetraethyl pyrophosphite	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Tokuthion (Protothiofos)	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Trichlorfon	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--
	Trichloronate	mg/kg	41	0	0%	--	--	0.10152	0.137	--	--	--	--	--	--	--	--

Note: The values used in this are simply a comparison to Region 6 MSSL values for historical data, for information purposes only. Use of 1/10 of the risk-based screening level in the text on page 4-4 is proposed for the identification exceeding samples for the confirmation dataset. Therefore, these are two different uses of these values and should not be considered the same.

a - Range of detections include estimated values of detect results between the detection limit and reporting limit. As such some minimum detected concentrations may be below the minimum reporting limit. In these cases the respective sample results are flagged in the data set.

b - The quantitation limits shown include samples which had detections.

c - From USEPA Region 6 medium-specific screening levels (MSSLs) table, March 2008 (and the 2007 USEPA radionuclide PRG webpage; http://epa-prgs.ornl.gov/radionuclides). Values used are residential soil MSSLs.

d - From USEPA Region 6 medium-specific screening levels (MSSLs) table, March 2008 (and the 2007 USEPA radionuclide PRG webpage; http://epa-prgs.ornl.gov/radionuclides). Value used is the soil screening level (SSL) with a dilution attenuation factor (DAF) of 1 or 20.

e - Values used are the maximum from the shallow soils background data set presented in the Background Shallow Soil Summary Report, BMI Complex and Common Area Vicinity (BRC/TIMET 2007).

f - Agency for Toxic Substances and Disease Registry (ATSDR) screening value of 50 parts per trillion (ppt).

-- = Not applicable or no value has been established.

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-18 AND MCF-12B
MOHAWK SUB-AREA
(Page 1 of 6)

Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-18 N 2/6/2007	AA-18 FD 2/6/2007	MCF-12B N 2/15/2007
Aldehydes	Acetaldehyde	ug/L	340	--	3.8 J	4.1 J	< 30 U
	Chloral	ug/L	--	--	< 150 U	< 150 U	< 150 U
	Chloroacetaldehyde	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Dichloroacetaldehyde	ug/L	--	--	< 350 UJ	< 350 UJ	< 350 UJ
	Formaldehyde	ug/L	--	--	< 60 U	< 60 U	< 60 U
Alpha Acids	4-Chlorobenzenesulfonic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Benzenesulfonic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Diethyl phosphorodithioic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Dimethyl phosphorodithioic acid	mg/L	--	--	< 0.25 U	< 0.25 U	< 0.25 U
	Phthalic acid	mg/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
Dissolved Gases	Ethane	ug/L	--	--	< 5 U	< 5 U	< 5 U
	Ethylene	ug/L	--	--	< 5 U	< 5 U	< 5 U
	Methane	ug/L	--	--	< 5 U	< 5 U	< 5 U
General Chemistry	Alkalinity	mg/L	--	--	104	104	61
	Ammonia	ug/L	--	--	< 50 UJ	< 50 UJ	< 50 U
	Bicarbonate alkalinity	mg/L	--	--	104	104	61
	Bromide	mg/L	--	--	< 125 U	< 125 U	< 2.5 U
	Bromine	mg/L	--	--	< 250 U	< 250 U	< 5 U
	Carbonate alkalinity	mg/L	--	--	< 5 U	< 5 U	< 5 U
	Chlorate	ug/L	--	--	< 5 UJ	5160 J-	2960 J+
	Chloride	mg/L	--	250	202 J-	**259 J-**	**403 J**
	Chlorine	mg/L	--	--	404 J-	518 J-	806 J
	Chlorite	ug/L	--	1,000	< 400 U	< 10000 U	< 400 U
	Fluoride	mg/L	--	4.0	0.36 J	0.26 J	< 1 U
	Hydroxide alkalinity	mg/L	--	--	< 5 U	< 5 U	< 5 U
	Iodide	mg/L	--	--	< 1 U	< 1 U	< 50 U
	Nitrate (as N)	mg/L	--	10	**10.5**	8.6 J	< 10 UJ
	Nitrite (as N)	mg/L	--	1	< 10 UJ	< 10 UJ	**27.6 J**
	Orthophosphate as P	ug/L	--	--	< 50 U	< 5 UJ	< 50 U
	Perchlorate	ug/L	--	18/24.5[2]	**109**	**109**	**3220**
	Sulfate	mg/L	--	250	**418 J-**	**460 J-**	**1800**
	Total Inorganic Carbon	mg/L	--	--	< 50 U	< 50 U	< 50 U
	Total Kjeldahl Nitrogen (TKN)	mg/L	--	--	< 0.1 U	0.56	< 0.1 U
	Total Organic Carbon	mg/L	--	--	< 1 U	< 1 U	< 1 U
Metals	Aluminum	ug/L	--	50	**98.9 J**	< 300 U	< 600 U
	Antimony	ug/L	--	6	< 50 U	< 50 U	**11.7 J**
	Arsenic	ug/L	--	10	**29 J**	**29.9 J**	**88.6 J**
	Barium	ug/L	--	2,000	25.7	25.1	21.7 J
	Beryllium	ug/L	--	4	< 5 U	< 5 U	< 10 U
	Boron	ug/L	--	--	645	657	1750
	Cadmium	ug/L	--	5	< 5 U	< 5 U	**10.9 J+**
	Calcium	ug/L	--	--	110000	112000	312000
	Chromium (Total)	ug/L	--	100	< 100 U	< 100 U	< 200 U
	Chromium (VI)	mg/L	--	--	0.015	< 0.01 U	0.022
	Cobalt	ug/L	--	--	< 20 U	< 20 U	11.7 J+
	Copper	ug/L	--	1,300	< 10 U	3.1 J	13 J+
	Iron	ug/L	--	300	R	R	< 1000 U
	Lead	ug/L	--	15	< 30 U	< 30 U	11.1 J
	Lithium	ug/L	--	--	108	107	196
	Magnesium	ug/L	--	--	58600	59400	139000
	Manganese	ug/L	--	50	< 20 U	< 20 U	12.3 J
	Mercury	ug/L	--	2	< 0.2 U	< 0.2 U	< 0.2 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-18 AND MCF-12B
MOHAWK SUB-AREA
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Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-18 N 2/6/2007	AA-18 FD 2/6/2007	MCF-12B N 2/15/2007
Metals	Molybdenum	ug/L	--	--	12.5 J	13.1 J	42.3 J
	Nickel	ug/L	--	--	< 50 U	< 50 U	15.7 J
	Niobium	ug/L	--	--	< 250 U	< 250 U	< 500 U
	Palladium	ug/L	--	--	5.8	5.8	29.9
	Phosphorus (as P)	ug/L	--	25[3]	< 200 U	< 200 U	**101 J**
	Platinum	ug/L	--	--	< 10 U	< 10 U	21.4
	Potassium	ug/L	--	--	15500	15500	77600
	Selenium	ug/L	--	50	< 50 U	< 50 U	< 100 U
	Silicon	ug/L	--	--	34100	35400	35800
	Silver	ug/L	--	100	< 20 U	< 20 U	< 40 U
	Sodium	ug/L	--	--	151000	154000	316000
	Strontium	ug/L	--	--	2430	2490	6990
	Sulfur	ug/L	--	--	149000	155000	527000
	Thallium	ug/L	--	2	< 20 U	< 20 U	**10.8 J**
	Tin	ug/L	--	--	< 20 U	< 20 U	22.6 J
	Titanium	ug/L	--	--	8.8 J	7.7 J	21.9 J
	Tungsten	ug/L	--	--	< 50 U	< 50 U	23.8 J
	Uranium	ug/L	--	30	10	10.6	5.4 J
	Vanadium	ug/L	--	--	43.9 J	51.5 J	< 200 U
	Zinc	ug/L	--	500	34.8 J+	36.7 J+	22.4 J
	Zirconium	ug/L	--	--	< 50 U	< 50 U	< 100 U
Organochlorine Pesticides	2,4-DDD	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	2,4-DDE	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	4,4-DDD	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	4,4-DDE	ug/L	29	--	< 0.05 U	< 0.05 U	< 0.05 U
	4,4-DDT	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Aldrin	ug/L	0.071	--	< 0.05 U	< 0.05 U	< 0.05 U
	alpha-BHC	ug/L	3.1	--	< 0.05 U	< 0.05 U	< 0.05 U
	alpha-Chlordane	ug/L	--	2	< 0.05 U	< 0.05 U	< 0.05 U
	beta-BHC	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Chlordane	ug/L	12	2	< 0.5 U	< 0.5 U	< 0.5 U
	delta-BHC	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Dieldrin	ug/L	0.86	--	< 0.05 U	< 0.05 U	< 0.05 U
	Endosulfan I	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Endosulfan II	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Endosulfan sulfate	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Endrin	ug/L	--	2	< 0.05 U	< 0.05 U	< 0.05 U
	Endrin aldehyde	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	Endrin ketone	ug/L	--	--	< 0.05 U	< 0.05 U	< 0.05 U
	gamma-Chlordane	ug/L	--	2	< 0.05 U	< 0.05 U	< 0.05 U
	Heptachlor	ug/L	0.4	0.4	< 0.05 U	< 0.05 U	< 0.05 U
	Heptachlor epoxide	ug/L	--	0.2	< 0.05 U	< 0.05 U	< 0.05 U
	Lindane	ug/L	11	0.2	< 0.05 U	< 0.05 U	< 0.05 U
	Methoxychlor	ug/L	--	40	< 0.1 U	< 0.1 U	< 0.1 U
	Toxaphene	ug/L	--	3	< 2 U	< 2 U	< 2 U
Organophosphorous Pesticides	Azinphos-ethyl	ug/L	--	--	< 0.6 U	< 0.6 U	< 0.6 U
	Azinphos-methyl	ug/L	--	--	< 2.5 U	< 2.5 U	< 2.5 U
	Carbophenothion	ug/L	--	--	< 0.6 U	< 0.6 U	< 0.6 U
	Carbophenothion-methyl	ug/L	--	--	< 0.8 U	< 0.8 U	< 0.8 U
	Chlorpyrifos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Coumaphos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Demeton-O	ug/L	--	--	< 1 U	< 1 U	< 1 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-18 AND MCF-12B
MOHAWK SUB-AREA
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Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-18 N 2/6/2007	AA-18 FD 2/6/2007	MCF-12B N 2/15/2007
Organophosphorous Pesticides	Demeton-S	ug/L	--	--	< 1 UJ	< 1 UJ	< 1 U
	Diazinon	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Dichlorvos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Dimethoate	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Disulfoton	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Ethoprophos	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Ethyl p-nitrophenyl phenylphosphorothioate	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Famphur	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Fenthion	ug/L	--	--	< 2.5 U	< 2.5 U	< 2.5 U
	Malathion	ug/L	--	--	< 1.2 U	< 1.2 U	< 1.2 U
	Methyl parathion	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Mevinphos	ug/L	--	--	< 6.2 U	< 6.2 U	< 6.2 U
	Naled	ug/L	--	--	< 10 U	< 10 U	< 10 U
	O,O,O-Triethyl phosphorothioate	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 UJ
	Parathion	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Phorate	ug/L	--	--	< 1.2 U	< 1.2 U	< 1.2 U
	Phosmet	ug/L	--	--	< 1.2 UJ	< 1.2 UJ	< 1.2 U
	Ronnel	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Sulfotep	ug/L	--	--	< 0.5 U	< 0.5 U	< 0.5 U
	Tetrachlorvinphos (Stirophos)	ug/L	--	--	< 2.5 U	< 2.5 U	< 2.5 U
Radionuclides	Gross alpha	pCi/L	--	15[4]	7.33	7.68	< 3 U
	Gross beta	pCi/L	--	--[5]	22.7	22.9	57.7
	Radium-226	pCi/L	--	5[6]	0.51 J	0.0896 U	0.47 J
	Radium-228	pCi/L	--	5[6]	0.59 U	0.392 U	0.66 J
	Thorium-228	pCi/L	--	--	0.0753 U	-0.0611 U	< 1 U
	Thorium-230	pCi/L	--	--	-0.0186 U	-0.0201 U	0.37 J
	Thorium-232	pCi/L	--	--	0.0928 U	0 U	< 1 U
	Uranium-234	pCi/L	--	--	3.43	3.88	2.54
	Uranium-235	pCi/L	--	--	0.0534 U	0.0606 U	< 0.1 U
	Uranium-238	pCi/L	--	--	2.83	2.84	1.98
SVOCs	1,2,4,5-Tetrachlorobenzene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	1,2-Diphenylhydrazine	ug/L	--	--	< 10 U	< 10 U	< 10 U
	1,4-Dioxane	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2,2'-/4,4'-Dichlorobenzil	ug/L	--	--	< 9.4 U	< 9.4 U	< 9.4 U
	2,4,5-Trichlorophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2,4,6-Trichlorophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2,4-Dichlorophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2,4-Dimethylphenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2,4-Dinitrophenol	ug/L	--	--	< 50 U	< 50 U	< 50 U
	2,4-Dinitrotoluene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2,6-Dinitrotoluene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2-Chloronaphthalene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2-Chlorophenol	ug/L	1,100	--	< 10 U	< 10 U	< 10 U
	2-Methylnaphthalene	ug/L	3,300	--	< 10 U	< 10 U	< 10 U
	2-Nitroaniline	ug/L	--	--	< 10 U	< 10 U	< 10 U
	2-Nitrophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	3,3'-Dichlorobenzidine	ug/L	--	--	< 50 UJ	< 50 UJ	< 50 UJ
	3-Methylphenol & 4-Methylphenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	3-Nitroaniline	ug/L	--	--	< 10 UJ	< 10 UJ	< 10 UJ
	4-Bromophenyl phenyl ether	ug/L	--	--	< 10 U	< 10 U	< 10 U
	4-Chloro-3-Methylphenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	4-Chlorophenyl phenyl ether	ug/L	--	--	< 10 U	< 10 U	< 10 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-18 AND MCF-12B
MOHAWK SUB-AREA
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Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-18 N 2/6/2007	AA-18 FD 2/6/2007	MCF-12B N 2/15/2007
SVOCs	4-Chlorothioanisole	ug/L	--	--	< 50 U	< 50 U	< 50 U
	4-Nitrophenol	ug/L	--	--	< 25 U	< 25 U	< 25 U
	Acenaphthene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Acenaphthylene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Acetophenone	ug/L	800,000	--	< 10 U	< 10 U	< 10 U
	Aniline	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Anthracene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Azobenzene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Benzenethiol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Benzo(a)anthracene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Benzo(a)pyrene	ug/L	--	0.2	< 10 U	< 10 U	< 10 U
	Benzo(b)fluoranthene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Benzo(g,h,i)perylene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Benzo(k)fluoranthene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Benzoic acid	ug/L	--	--	< 50 U	< 50 U	< 50 U
	Benzyl alcohol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Benzyl butyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U
	bis(2-Chloroethoxy) methane	ug/L	0.0045	--	< 10 U	< 10 U	< 10 U
	bis(2-Chloroethyl) ether	ug/L	10	--	< 10 U	< 10 U	< 10 U
	bis(2-Chloroisopropyl) ether	ug/L	51	--	< 10 U	< 10 U	< 10 U
	bis(2-Ethylhexyl) phthalate	ug/L	--	6	< 10 U	< 10 U	< 10 U
	bis(p-Chlorophenyl) disulfide	ug/L	--	--	< 50 U	< 50 U	< 50 U
	bis(p-Chlorophenyl) sulfone	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Carbazole	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Chrysene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Dibenzo(a,h)anthracene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Dibenzofuran	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Dibutyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Diethyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Dimethyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Di-n-octyl phthalate	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Diphenyl sulfone	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Fluoranthene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Fluorene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Hexachloro-1,3-butadiene	ug/L	0.33	--	< 10 U	< 10 U	< 10 U
	Hexachlorobenzene	ug/L	1	1	< 10 U	< 10 U	< 10 U
	Hexachlorocyclopentadiene	ug/L	50	50	< 10 U	< 10 U	< 10 U
	Hexachloroethane	ug/L	3.8	--	< 10 U	< 10 U	< 10 U
	Hydroxymethyl phthalimide	ug/L	--	--	< 10 UJ	< 10 UJ	< 10 U
	Indeno(1,2,3-cd)pyrene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Isophorone	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Naphthalene	ug/L	150	--	< 10 U	< 10 U	< 10 U
	Nitrobenzene	ug/L	2,000	--	< 10 U	< 10 U	< 10 U
	N-nitrosodi-n-propylamine	ug/L	--	--	< 10 U	< 10 U	< 10 U
	N-nitrosodiphenylamine	ug/L	--	--	< 10 U	< 10 U	< 10 U
	o-Cresol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Octachlorostyrene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	p-Chloroaniline	ug/L	--	--	< 10 UJ	< 10 UJ	< 10 UJ
	p-Chlorothiophenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Pentachlorobenzene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Pentachlorophenol	ug/L	--	1	< 50 U	< 50 U	< 50 U
	Phenanthrene	ug/L	--	--	< 10 U	< 10 U	< 10 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-18 AND MCF-12B
MOHAWK SUB-AREA
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Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-18 N 2/6/2007	AA-18 FD 2/6/2007	MCF-12B N 2/15/2007
SVOCs	Phenol	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Phenyl Disulfide	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Phenyl Sulfide	ug/L	--	--	< 10 U	< 10 U	< 10 U
	p-Nitroaniline	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Pyrene	ug/L	--	--	< 10 U	< 10 U	< 10 U
	Pyridine	ug/L	--	--	< 20 U	< 20 U	< 20 U
VOCs	1,1,1,2-Tetrachloroethane	ug/L	3.3	--	< 1 U	< 1 U	< 1 U
	1,1,1-Trichloroethane	ug/L	3,100	200	< 1 U	< 1 U	< 1 U
	1,1,2,2-Tetrachloroethane	ug/L	3	--	< 1 U	< 1 U	< 1 U
	1,1,2-Trichloroethane	ug/L	5	5	< 1 U	< 1 U	< 1 U
	1,1-Dichloroethane	ug/L	2,200	--	< 1 U	< 1 U	< 1 U
	1,1-Dichloroethene	ug/L	190	7	< 1 U	< 1 U	< 1 U
	1,1-Dichloropropene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	1,2,3-Trichlorobenzene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	1,2,3-Trichloropropane	ug/L	290	--	< 1 U	< 1 U	< 1 U
	1,2,4-Trichlorobenzene	ug/L	3,400	70	< 1 U	< 1 U	< 1 U
	1,2,4-Trimethylbenzene	ug/L	24	--	< 1 U	< 1 U	< 1 U
	1,2-Dibromo-3-chloropropane (DBCP)	ug/L	33	0.2	< 1 U	< 1 U	< 1 UJ
	1,2-Dichlorobenzene	ug/L	2,600	600	< 1 U	< 1 U	< 1 U
	1,2-Dichloroethane	ug/L	5	5	< 1 U	< 1 U	< 1 U
	1,2-Dichloroethene	ug/L	--	--	< 2 U	< 2 U	< 2 U
	1,2-Dichloropropane	ug/L	35	5	< 1 U	< 1 U	< 1 U
	1,3,5- Trichlorobenzene	ug/L	--	--	< 5 U	< 5 U	< 5 U
	1,3,5-Trimethylbenzene	ug/L	25	--	< 1 U	< 1 U	< 1 U
	1,3-Dichlorobenzene	ug/L	830	--	< 1 U	< 1 U	< 1 U
	1,3-Dichloropropane	ug/L	0.84	--	< 1 U	< 1 U	< 1 U
	1,4-Dichlorobenzene	ug/L	8,200	75	< 1 U	< 1 U	< 1 U
	1-Nonanal	ug/L	--	--	< 5 U	< 5 U	< 5 UJ
	2,2,3-Trimethylbutane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	2,2-Dichloropropane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	2,2-Dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	2,3-Dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	2,4-Dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	2-Chlorotoluene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	2-Nitropropane	ug/L	0.18	--	< 10 U	< 10 U	< 10 U
	2-Phenylbutane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	3,3-dimethylpentane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	3-ethylpentane	ug/L	--	--	< 10 U	< 10 U	< 10 U
	3-Methylhexane	ug/L	--	--	< 10 U	< 10 U	< 10 U
	4-Chlorotoluene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Acetone	ug/L	220,000	--	< 2 U	< 2 U	< 2 UJ
	Acetonitrile	ug/L	42,000	--	< 10 UJ	< 10 UJ	< 10 U
	Benzene	ug/L	5	5	< 1 U	< 1 U	< 1 U
	Bromobenzene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Bromodichloromethane	ug/L	2.1	80[7]	< 1 U	< 1 U	< 1 U
	Bromomethane	ug/L	--	--	< 2 U	< 2 U	< 2 U
	Carbon disulfide	ug/L	560	--	< 1 UJ	< 1 UJ	< 1 U
	Carbon tetrachloride	ug/L	5	5	< 1 U	< 1 U	< 1 U
	CFC-11	ug/L	180	--	< 1 U	< 1 U	< 1 U
	CFC-12	ug/L	14	--	< 2 UJ	< 2 UJ	< 2 U
	Chlorinated fluorocarbon (Freon 113)	ug/L	1,500	--	< 1 U	< 1 U	< 1 U
	Chlorobenzene	ug/L	390	100	< 1 U	< 1 U	< 1 U

TABLE 2
SUMMARY OF RECENT (4TH QUARTERLY EVENT) ALLUVIAL AQUIFER GROUNDWATER DATA FROM MONITORING WELLS AA-18 AND MCF-12B
MOHAWK SUB-AREA
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Class	Chemical	Units	USEPA 2002 VI SL[1]	MCL	AA-18 N 2/6/2007	AA-18 FD 2/6/2007	MCF-12B N 2/15/2007
VOCs	Chlorobromomethane	ug/L	3.2	--	< 1 UJ	< 1 UJ	< 1 U
	Chlorodibromomethane	ug/L	--	80[7]	< 1 U	< 1 U	< 1 U
	Chloroethane	ug/L	28,000	--	< 2 U	< 2 U	< 2 U
	Chloroform	ug/L	80	80[7]	7.7	7.5	3.5
	Chloromethane	ug/L	--	--	< 2 U	< 2 U	< 2 U
	cis-1,2-Dichloroethene	ug/L	210	70	< 1 U	< 1 U	< 1 U
	cis-1,3-Dichloropropene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Cymene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Dibromomethane	ug/L	990	--	< 1 UJ	< 1 UJ	< 1 U
	Dichloromethane	ug/L	58	5	< 1 U	< 1 U	< 1 U
	Ethanol	ug/L	--	--	< 250 UJ	< 250 UJ	< 250 UJ
	Ethylbenzene	ug/L	700	700	< 1 U	< 1 U	< 1 U
	Hexane, 2-methyl-	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Isopropylbenzene	ug/L	8.4	--	< 1 U	< 1 U	< 1 U
	m,p-Xylene	ug/L	--	--	< 2 U	< 2 U	< 2 U
	Methyl disulfide	ug/L	--	--	< 5 U	< 5 U	< 5 U
	Methyl ethyl ketone	ug/L	440,000	--	< 5 UJ	< 5 UJ	< 5 UJ
	Methyl iodide	ug/L	--	--	< 2 U	< 2 U	< 2 U
	Methyl isobutyl ketone	ug/L	14,000	--	< 5 U	< 5 U	< 5 U
	Methyl n-butyl ketone	ug/L	--	--	< 5 U	< 5 U	< 5 UJ
	MTBE (Methyl tert-butyl ether)	ug/L	120,000	--	< 2 U	< 2 U	< 2 U
	n-Butyl benzene	ug/L	260	--	< 1 U	< 1 U	< 1 U
	n-Heptane	ug/L	--	--	< 1 U	< 1 U	< 1 U
	n-Propyl benzene	ug/L	320	--	< 1 U	< 1 U	< 1 U
	o-Xylene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Styrene	ug/L	8,900	100	< 1 U	< 1 U	< 1 U
	tert-Butyl benzene	ug/L	290	--	< 1 U	< 1 U	< 1 U
	Tetrachloroethene	ug/L	5	5	< 1 U	0.24 J	< 1 U
	Toluene	ug/L	1,500	1,000	< 1 U	< 1 U	< 1 U
	trans-1,2-Dichloroethene	ug/L	180	100	< 1 U	< 1 U	< 1 U
	trans-1,3-Dichloropropene	ug/L	--	--	< 1 U	< 1 U	< 1 U
	Tribromomethane	ug/L	0.0083	80[7]	< 1 U	< 1 U	< 1 U
	Trichloroethene	ug/L	5	5	< 1 U	< 1 U	< 1 U
	Vinyl acetate	ug/L	9,600	--	< 2 U	< 2 U	< 2 U
	Vinyl chloride	ug/L	2	2	< 2 U	< 2 U	< 2 U
	Xylenes (total)	ug/L	22,000	10,000	< 3 U	< 3 U	< 3 U
Water Quality Parameters	Conductivity	umhos/cm	--	--	2320 J-	2350 J-	3140
	Hardness, Total	mg/L	--	--	640	740	1410
	pH (Hydrogen Ion)	--	--	6.5-9[3]	7.3 J-	7.3 J-	7.2 J-
	Total Dissolved Solids	mg/L	--	500	**1050**	**1190**	**2760**
	Total Suspended Solids	mg/L	--	--	26	6	1

[1]Groundwater to indoor air vapor intrusion screening level; from USEPA. 2002. Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance). Table 2c (Generic Screening Levels and Summary Sheet; Risk = 1 x 10-6).
[2]A MCL for perchlorate has not been promulgated. The USEPA Drinking Water Equivalent Level of 24.5 ug/L was used.
[3]A NDEP water quality standard was used for Class A (municipal or domestic supply) waters for pH and total phosphorus based on Nevada Administrative Code (NAC) 445A.118 through 445A.225.
[4]The MCL for Alpha Particles was used as comparison to Gross Alpha results. The MCL excludes the contributions from radon and uranium. The Gross Alpha concentrations were not adjusted due to contributions from radon nor uranium prior to comparison to MCL.
[5]The MCL for Beta particles photon emitters is 4 millirems per year and was not used to compare to Gross Beta concentrations.
[6]The constituent is regulated under the MCL for the combined concentration of radium-226 and radium-228. For comparison to the MCL, concentrations of both constituents are summed.
[7]The constituent is regulated under the MCL for Total Trihalomethanes (TTHM). For comparison to the MCL for TTHM, concentrations of all TTHM constituents need to be considered. Chloroform was the only TTHM detected and the detection limits of all TTHM analyzed for do not sum to a concentration that would exceed the TTHM MCL.

TABLE 3
SAMPLE-SPECIFIC COLLECTION DEPTHS
MOHAWK SUB-AREA
(Page 1 of 1)

Sample Location	Sample Type	Grading Plan	Sample Depth 1	Sample Depth 2	Sample Depth 3
MC1-AV37	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AV38	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AW36	Random	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-AW37	Random	-- 0	0 (Surface)	10 (Subsurface)	--
MC1-AW38	Random	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-AW39	Random	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-AX36	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AX37	Random	-- 0	0 (Surface)	10 (Subsurface)	--
MC1-AX38	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AX39	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AX40	Random	Cut -5	0 (Fill)	5 (Surface)	15 (Subsurface)
MC1-AY36	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AY37	Random	Cut -4	0 (Fill)	4 (Surface)	14 (Subsurface)
MC1-AY38	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AY39	Random	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AZ36	Random	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AZ37	Random	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-BA36	Random with Flux	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J01	Biased with Flux	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-J02	Biased	Cut -8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J03	Biased	Cut -6	0 (Fill)	6 (Surface)	16 (Subsurface)
MC1-J04	Biased	Cut -8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J05	Biased with Flux	Fill +1	0 (Surface)	9 (Subsurface)	--
MC1-J06	Biased	Cut -8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J07	Biased	Cut -8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J08	Biased	Cut -9	0 (Fill)	9 (Surface)	19 (Subsurface)
MC1-J09	Biased with Flux	Cut -2	0 (Fill/Surface)	10 (Subsurface)	--
MC1-J10	Biased with Flux	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-J11	Biased with Flux	Cut -4	0 (Fill)	4 (Surface)	14 (Subsurface)
MC1-J12	Biased with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-J13	Biased with Flux	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J14	Biased with Flux	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J15	Biased with Flux	Cut -1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-J16	Biased with Flux	Cut -3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-J17	Biased with Flux	-- 0	0 (Surface)	10 (Subsurface)	--
MC1-J18	Biased with Flux	Cut -2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J19	Biased with Flux	Cut -4	0 (Fill)	4 (Surface)	14 (Subsurface)
MC1-J20	Biased with Flux	Fill +2	0 (Surface)	10 (Subsurface)	--

Note: Because sample collection will be over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet will only be sampled at the surface and one post-grade subsurface depth.
Shaded locations (MC1-J10 and MC1-AY36) indicates deep soil samples will be collected for physical parameter analyses.
Hatched samples (MC1-J11 and MC1-J15) indicates subsurface soil samples will also include synthetic precipitation leaching procedure (SPLP) sampling and analysis.
Depths are in feet bgs (current grade).

TABLE 4
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
MOHAWK SUB-AREA
(Page 1 of 12)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Ions	**EPA 300.0**	Bromide	24959-67-9	✓	✓	(g)	(h)
		Bromine	7726-95-6	(a)	(a)	(a)	(h)
		Chlorate	14866-68-3	✓	✓	(g)	(h)
		Chloride	16887-00-6	✓	✓	(g)	(h)
		Chlorine (soluble)	7782-50-5	(a)	(a)	(a)	(h)
		Chlorite	14998-27-7	(a)	(a)	(a)	(h)
		Fluoride	16984-48-8	✓	✓	(g)	(h)
		Nitrate (as N)	14797-55-8	✓	✓	(g)	(h)
		Nitrite (as N)	14797-65-0	✓	✓	(g)	(h)
		Orthophosphate	14265-44-2	✓	✓	(g)	(h)
		Sulfate	14808-79-8	✓	✓	(g)	(h)
	EPA 377.1	Sulfite	14265-45-3	(a)	(a)	(a)	(h)
	EPA 314.0	Perchlorate	14797-73-0	✓	✓	(g)	✓
Dissolved Gases	**RSK 175**	Ethane	74-84-0	(a)	(a)	(a)	(h)
		Ethylene	74-85-1	(a)	(a)	(a)	(h)
		Methane	74-82-8	(a)	(a)	(a)	(h)
Chlorinated Compounds	**EPA 551.1**	Chloral	75-87-6	✓	✓	(g)	(h)
		Dichloroacetaldehyde	79-02-7	✓	✓	(g)	(h)
Polychlorinated Dibenzodioxins/ Dibenzofurans	**EPA 8290**	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	✓	(e)	(e)	(h)
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	✓	(e)	(e)	(h)
		1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	✓	(e)	(e)	(h)
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	✓	(e)	(e)	(h)
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	✓	(e)	(e)	(h)
		1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	✓	(e)	(e)	(h)
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	✓	(e)	(e)	(h)
		1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	✓	(e)	(e)	(h)
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	✓	(e)	(e)	(h)
		1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	✓	(e)	(e)	(h)
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	✓	(e)	(e)	(h)
		1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	✓	(e)	(e)	(h)
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	✓	(e)	(e)	(h)
		2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	✓	(e)	(e)	(h)
		2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	✓	(e)	(e)	(h)
		2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	✓	(e)	(e)	(h)
		2,3,7,8-Tetrachlororodibenzo-p-dioxin	1746-01-6	✓	(e)	(e)	(h)
Asbestos	**Elutriator/TEM**	Asbestos	1332-21-4	✓	(f)	(f)	(h)

TABLE 4
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
MOHAWK SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
General Chemistry Parameters	EPA 350.2	Ammonia (as N)	7664-41-7	✓	✓	(g)	(h)
	EPA 9010/9014	Cyanide (Total)	57-12-5	✓	✓	(g)	(h)
	EPA 345.1	Iodine	7553-56-2	(a)	(a)	(a)	(h)
	EPA 9045C	pH in soil	pH	✓	✓	✓	(h)
	EPA 9040B	pH in water	pH	(a)	(a)	(a)	(h)
	EPA 376.1/376.2	Sulfide	18496-25-8	✓	✓	(g)	(h)
	Mod. EPA 415.1	Total inorganic carbon	7440-44-0	✓	✓	(g)	(h)
	EPA 351.2	Total Kjeldahl nitrogen (TKN)	TKN	✓	✓	(g)	(h)
	EPA 415.1	Total organic carbon (TOC)	7440-44-0	✓	✓	✓	(h)
Metals	EPA 6020/6010B	Aluminum	7429-90-5	✓	✓	(g)	✓
		Antimony	7440-36-0	✓	✓	(g)	✓
		Arsenic	7440-38-2	✓	✓	(g)	✓
		Barium	7440-39-3	✓	✓	(g)	✓
		Beryllium	7440-41-7	✓	✓	(g)	✓
		Boron	7440-42-8	✓	✓	(g)	✓
		Cadmium	7440-43-9	✓	✓	(g)	✓
		Calcium	7440-70-2	✓	✓	(g)	✓
		Chromium	7440-47-3	✓	✓	(g)	✓
		Cobalt	7440-48-4	✓	✓	(g)	✓
		Copper	7440-50-8	✓	✓	(g)	✓
		Iron	7439-89-6	✓	✓	(g)	✓
		Lead	7439-92-1	✓	✓	(g)	✓
		Lithium	1313-13-9	✓	✓	(g)	✓
		Magnesium	7439-95-4	✓	✓	(g)	✓
		Manganese	7439-96-5	✓	✓	(g)	✓
		Molybdenum	7439-98-7	✓	✓	(g)	✓
		Nickel	7440-02-0	✓	✓	(g)	✓
		Niobium	7440-03-1	✓	✓	(g)	✓
		Palladium	7440-05-3	✓	✓	(g)	✓
		Phosphorus	7723-14-0	✓	✓	(g)	✓
		Platinum	7440-06-4	✓	✓	(g)	✓
		Potassium	7440-09-7	✓	✓	(g)	✓
		Selenium	7782-49-2	✓	✓	(g)	✓
		Silicon	7440-21-3	✓	✓	(g)	✓
		Silver	7440-22-4	✓	✓	(g)	✓
		Sodium	7440-23-5	✓	✓	(g)	✓
		Strontium	7440-24-6	✓	✓	(g)	✓

TABLE 4
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
MOHAWK SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Metals (continued)	EPA 6020/6010B	Sulfur	7704-34-9	✓	✓	(g)	✓
		Thallium	7440-28-0	✓	✓	(g)	✓
		Tin	7440-31-5	✓	✓	(g)	✓
		Titanium	7440-32-6	✓	✓	(g)	✓
		Tungsten	7440-33-7	✓	✓	(g)	✓
		Uranium	7440-61-1	✓	✓	(g)	✓
		Vanadium	7440-62-2	✓	✓	(g)	✓
		Zinc	7440-66-6	✓	✓	(g)	✓
		Zirconium	7440-67-7	✓	✓	(g)	✓
	EPA 7196A	Chromium (VI)	18540-29-9	✓	✓	(g)	✓
	EPA 7470/7471A	Mercury	7439-97-6	✓	✓	(g)	✓
Organophosphorous Pesticides	EPA 8141A	Azinphos-ethyl	264-27-19	(b)	(b)	(b)	(h)
		Azinphos-methyl	86-50-0	(b)	(b)	(b)	(h)
		Carbophenothion	786-19-6	(b)	(b)	(b)	(h)
		Chlorpyrifos	2921-88-2	(b)	(b)	(b)	(h)
		Coumaphos	56-72-4	(b)	(b)	(b)	(h)
		Demeton-O	298-03-3	(b)	(b)	(b)	(h)
		Demeton-S	126-75-0	(b)	(b)	(b)	(h)
		Diazinon	333-41-5	(b)	(b)	(b)	(h)
		Dichlorvos	62-73-7	(b)	(b)	(b)	(h)
		Dimethoate	60-51-5	(b)	(b)	(b)	(h)
		Disulfoton	298-04-4	(b)	(b)	(b)	(h)
		EPN	2104-64-5	(b)	(b)	(b)	(h)
		Ethoprop	13194-48-4	(b)	(b)	(b)	(h)
		Ethyl parathion	56-38-2	(b)	(b)	(b)	(h)
		Fampphur	52-85-7	(b)	(b)	(b)	(h)
		Fenthion	55-38-9	(b)	(b)	(b)	(h)
		Malathion	121-75-5	(b)	(b)	(b)	(h)
		Methyl carbophenothion	953-17-3	(b)	(b)	(b)	(h)
		Methyl parathion	298-00-0	(b)	(b)	(b)	(h)
		Mevinphos	7786-34-7	(b)	(b)	(b)	(h)
		Naled	300-76-5	(b)	(b)	(b)	(h)
		O,O,O-Triethyl phosphorothioate (TEPP)	297-97-2	(b)	(b)	(b)	(h)
		Phorate	298-02-2	(b)	(b)	(b)	(h)

TABLE 4
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
MOHAWK SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Organophosphorous Pesticides (continued)	EPA 8141A	Phosmet	732-11-6	(b)	(b)	(b)	(h)
		Ronnel	299-84-3	(b)	(b)	(b)	(h)
		Stirophos (Tetrachlorovinphos)	22248-79-9	(b)	(b)	(b)	(h)
		Sulfotep	3689-24-5	(b)	(b)	(b)	(h)
Chlorinated Herbicides	EPA 8151A	2,4,5-T	93-76-5	(b)	(b)	(b)	(h)
		2,4,5-TP (Silvex)	93-72-1	(b)	(b)	(b)	(h)
		2,4-D	94-75-7	(b)	(b)	(b)	(h)
		2,4-DB	94-82-6	(b)	(b)	(b)	(h)
		Dalapon	75-99-0	(b)	(b)	(b)	(h)
		Dicamba	1918-00-9	(b)	(b)	(b)	(h)
		Dichloroprop	120-36-5	(b)	(b)	(b)	(h)
		Dinoseb	88-85-7	(b)	(b)	(b)	(h)
		MCPA	94-74-6	(b)	(b)	(b)	(h)
		MCPP	93-65-2	(b)	(b)	(b)	(h)
Organic Acids	HPLC	4-Chlorobenzene sulfonic acid	98-66-8	(b)	(b)	(b)	(h)
		Benzenesulfonic acid	98-11-3	(b)	(b)	(b)	(h)
		O,O-Diethylphosphorodithioic acid	298-06-6	(b)	(b)	(b)	(h)
		O,O-Dimethylphosphorodithioic acid	756-80-9	(b)	(b)	(b)	(h)
Nonhalogenated Organics	EPA 8015B	Ethylene glycol	107-21-1	(b)	(b)	(b)	(h)
		Ethylene glycol monobutyl ether	111-76-2	(b)	(b)	(b)	(h)
		Methanol	67-56-1	(b)	(b)	(b)	(h)
		Propylene glycol	57-55-6	(b)	(b)	(b)	(h)
Organochlorine Pesticides	EPA 8081A	2,4-DDD	53-19-0	✓	✓	(g)	✓
		2,4-DDE	3424-82-6	✓	✓	(g)	✓
		4,4-DDD	72-54-8	✓	✓	(g)	✓
		4,4-DDE	72-55-9	✓	✓	(g)	✓
		4,4-DDT	50-29-3	✓	✓	(g)	✓
		Aldrin	309-00-2	✓	✓	(g)	✓
		alpha-BHC	319-84-6	✓	✓	(g)	✓
		alpha-Chlordane	5103-71-9	✓	✓	(g)	✓
		beta-BHC	319-85-7	✓	✓	(g)	✓
		Chlordane	57-74-9	✓	✓	(g)	✓
		delta-BHC	319-86-8	✓	✓	(g)	✓
		Dieldrin	60-57-1	✓	✓	(g)	✓
		Endosulfan I	959-98-8	✓	✓	(g)	✓
		Endosulfan II	33213-65-9	✓	✓	(g)	✓
		Endosulfan sulfate	1031-07-8	✓	✓	(g)	✓

TABLE 4
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
MOHAWK SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Organochlorine Pesticides (continued)	**EPA 8081A**	Endrin	72-20-8	✓	✓	(g)	✓
		Endrin aldehyde	7421-93-4	✓	✓	(g)	✓
		Endrin ketone	53494-70-5	✓	✓	(g)	✓
		gamma-BHC (Lindane)	58-89-9	✓	✓	(g)	✓
		gamma-Chlordane	5103-74-2	✓	✓	(g)	✓
		Heptachlor	76-44-8	✓	✓	(g)	✓
		Heptachlor epoxide	1024-57-3	✓	✓	(g)	✓
		Methoxychlor	72-43-5	✓	✓	(g)	✓
		Toxaphene	8001-35-2	✓	✓	(g)	✓
Polychlorinated Biphenyls	**EPA 8082**	Aroclor 1016	12674-11-2	✓	(e)	(e)	(h)
		Aroclor 1221	11104-28-2	✓	(e)	(e)	(h)
		Aroclor 1232	11141-16-5	✓	(e)	(e)	(h)
		Aroclor 1242	53469-21-9	✓	(e)	(e)	(h)
		Aroclor 1248	12672-29-6	✓	(e)	(e)	(h)
		Aroclor 1254	11097-69-1	✓	(e)	(e)	(h)
		Aroclor 1260	11096-82-5	✓	(e)	(e)	(h)
		PCB-77	32598-13-3	✓	(e)	(e)	(h)
		PCB-81	70362-50-4	✓	(e)	(e)	(h)
		PCB-105	32598-14-4	✓	(e)	(e)	(h)
		PCB-114	74472-37-0	✓	(e)	(e)	(h)
		PCB-118	31508-00-6	✓	(e)	(e)	(h)
		PCB-123	65510-44-3	✓	(e)	(e)	(h)
		PCB-126	57465-28-8	✓	(e)	(e)	(h)
		PCB-156	38380-08-4	✓	(e)	(e)	(h)
		PCB-157	69782-90-7	✓	(e)	(e)	(h)
		PCB-167	52663-72-6	✓	(e)	(e)	(h)
		PCB-169	32774-16-6	✓	(e)	(e)	(h)
		PCB-189	39635-31-9	✓	(e)	(e)	(h)
		PCB-209	2051-24-3	✓	(e)	(e)	(h)
Polynuclear Aromatic Hydrocarbons	**EPA 8310** [1]	Acenaphthene	83-32-9	✓	✓	(g)	(h)
		Acenaphthylene	208-96-8	✓	✓	(g)	(h)
		Anthracene	120-12-7	✓	✓	(g)	(h)
		Benzo(a)anthracene	56-55-3	✓	✓	(g)	(h)
		Benzo(a)pyrene	50-32-8	✓	✓	(g)	(h)
		Benzo(b)fluoranthene	205-99-2	✓	✓	(g)	(h)
		Benzo(g,h,i)perylene	191-24-2	✓	✓	(g)	(h)
		Benzo(k)fluoranthene	207-08-9	✓	✓	(g)	(h)

TABLE 4
SITE-RELATED CHEMICALS LIST AND PROPOSED SAMPLE ANALYSES AND DEPTHS
MOHAWK SUB-AREA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Polynuclear Aromatic Hydrocarbons (continued)	EPA 8310 [1]	Chrysene	218-01-9	✓	✓	(g)	(h)
		Dibenzo(a,h)anthracene	53-70-3	✓	✓	(g)	(h)
		Indeno(1,2,3-cd)pyrene	193-39-5	✓	✓	(g)	(h)
		Phenanthrene	85-01-8	✓	✓	(g)	(h)
		Pyrene	129-00-0	✓	✓	(g)	(h)
Radionuclides	EPA 900.0 or EPA 9310	Gross alpha	G_Alpha	(c)	(c)	(c)	(h)
		Gross beta	G_Beta	(c)	(c)	(c)	(h)
	EPA 901.1/ HASL GA-01-R	Actinium-228	14331-83-0	(c)	(c)	(c)	(h)
		Bismuth-212	14913-49-6	(c)	(c)	(c)	(h)
		Bismuth-214	14733-03-0	(c)	(c)	(c)	(h)
		Cobalt-57	13981-50-5	(c)	(c)	(c)	(h)
		Cobalt-60	10198-40-0	(c)	(c)	(c)	(h)
		Lead-210	14255-04-0	(c)	(c)	(c)	(h)
		Lead-211	015816-77-0	(c)	(c)	(c)	(h)
		Lead-212	15092-94-1	(c)	(c)	(c)	(h)
		Lead-214	15067-28-4	(c)	(c)	(c)	(h)
		Potassium-40	13966-00-2	(c)	(c)	(c)	(h)
		Thallium-208	14913-50-9	(c)	(c)	(c)	(h)
		Thorium-227	15623-47-9	(c)	(c)	(c)	(h)
		Thorium-234	15065-10-8	(c)	(c)	(c)	(h)
	HASL A-01-R	Thorium-232	7440-29-1	✓	✓	(g)	(h)
		Thorium-228	14274-82-9	✓	✓	(g)	(h)
		Thorium-230	14269-63-7	✓	✓	(g)	(h)
		Uranium-233/234	13966-29-5	✓	✓	(g)	(h)
		Uranium 235/236	15117-96-1	✓	✓	(g)	(h)
		Uranium-238	7440-61-1	✓	✓	(g)	(h)
	EPA 903.0 / 903.1	Radium-226	13982-63-3	✓	✓	(g)	✓
	EPA 904.0	Radium-228	15262-20-1	✓	✓	(g)	✓
	Quantitate from Parent or Daughter Radionuclide	Actinium-227 (from Th-227)	14952-40-0	(c)	(c)	(c)	(h)
		Bismuth-210 (from Pb-210)	14331-79-4	(c)	(c)	(c)	(h)
		Bismuth-211 (from Pb-211)	15229-37-5	(c)	(c)	(c)	(h)
		Polonium-210 (from Pb-210)	13981-52-7	(c)	(c)	(c)	(h)
		Polonium-212 (from Bi-212)	13981-52-7	(c)	(c)	(c)	(h)
		Polonium-214 (from Bi-214)	15735-67-8	(c)	(c)	(c)	(h)
		Polonium-216 (from Pb-212)	15756-58-8	(c)	(c)	(c)	(h)
		Polonium-218 (from Pb-214)	15422-74-9	(c)	(c)	(c)	(h)
		Protactinium-231 (from U-235)	14331-85-2	(c)	(c)	(c)	(h)

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Radionuclides (continued)	Quantitate from Parent or Daughter Radionuclide	Protactinium-234 (from Th-234)	15100-28-4	(c)	(c)	(c)	(h)
		Radium-223 (from Th-227)	15623-45-7	(c)	(c)	(c)	(h)
		Radium-224 (from Pb-212)	13233-32-4	(c)	(c)	(c)	(h)
		Thallium-207 (from Pb-211)	14133-67-6	(c)	(c)	(c)	(h)
		Thorium-231 (from U-235)	14932-40-2	(c)	(c)	(c)	(h)
Radon	FLUX	Radon-220	22481-48-7	(d)	(d)	(d)	(h)
		Radon-222	14859-67-7	(d)	(d)	(d)	(h)
Aldehydes	EPA 8315A	Acetaldehyde	75-07-0	✓	✓	(g)	(h)
		Chloroacetaldehyde	107-20-0	✓	✓	(g)	(h)
		Dichloroacetaldehyde	79-02-7	✓	✓	(g)	(h)
		Formaldehyde	50-00-0	✓	✓	(g)	(h)
		Trichloroacetaldehyde	75-87-6	✓	✓	(g)	(h)
Semivolatile Organic Compounds	EPA 8270C [2]	1,2,4,5-Tetrachlorobenzene	95-94-3	✓	✓	(g)	✓
		1,2-Diphenylhydrazine	122-66-7	✓	✓	(g)	✓
		1,4-Dioxane	123-91-1	✓	✓	(g)	✓
		2,2'/4,4'-Dichlorobenzil	3457-46-3	✓	✓	(g)	✓
		2,4,5-Trichlorophenol	95-95-4	✓	✓	(g)	✓
		2,4,6-Trichlorophenol	88-06-2	✓	✓	(g)	✓
		2,4-Dichlorophenol	120-83-2	✓	✓	(g)	✓
		2,4-Dimethylphenol	105-67-9	✓	✓	(g)	✓
		2,4-Dinitrophenol	51-28-5	✓	✓	(g)	✓
		2,4-Dinitrotoluene	121-14-2	✓	✓	(g)	✓
		2,6-Dinitrotoluene	606-20-2	✓	✓	(g)	✓
		2-Chloronaphthalene	91-58-7	✓	✓	(g)	✓
		2-Chlorophenol	95-57-8	✓	✓	(g)	✓
		2-Methylnaphthalene	91-57-6	✓	✓	(g)	✓
		2-Nitroaniline	88-74-4	✓	✓	(g)	✓
		2-Nitrophenol	88-75-5	✓	✓	(g)	✓
		3,3-Dichlorobenzidine	91-94-1	✓	✓	(g)	✓
		3-Nitroaniline	99-09-2	✓	✓	(g)	✓
		4,4'-Dichlorobenzil	3457-46-3	✓	✓	(g)	✓
		4-Bromophenyl phenyl ether	101-55-3	✓	✓	(g)	✓
		4-Chloro-3-methylphenol	59-50-7	✓	✓	(g)	✓
		4-Chlorophenyl phenyl ether	7005-72-3	✓	✓	(g)	✓
		4-Chlorothioanisole	123-09-1	✓	✓	(g)	✓
		4-Chlorothiophenol	106-54-7	✓	✓	(g)	✓
		4-Nitroaniline	100-01-6	✓	✓	(g)	✓

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Semivolatile Organic Compounds (continued)	**EPA 8270C [2]**	4-Nitrophenol	100-02-7	✓	✓	(g)	✓
		Acenaphthene	83-32-9	✓	✓	(g)	✓
		Acenaphthylene	208-96-8	✓	✓	(g)	✓
		Acetophenone	98-86-2	✓	✓	(g)	✓
		Aniline	62-53-3	✓	✓	(g)	✓
		Anthracene	120-12-7	✓	✓	(g)	✓
		Azobenzene	103-33-3	✓	✓	(g)	✓
		Benzo(a)anthracene	56-55-3	✓	✓	(g)	✓
		Benzo(a)pyrene	50-32-8	✓	✓	(g)	✓
		Benzo(b)fluoranthene	205-99-2	✓	✓	(g)	✓
		Benzo(g,h,i)perylene	191-24-2	✓	✓	(g)	✓
		Benzo(k)fluoranthene	207-08-9	✓	✓	(g)	✓
		Benzoic acid	65-85-0	✓	✓	(g)	✓
		Benzyl alcohol	100-51-6	✓	✓	(g)	✓
		bis(2-Chloroethoxy)methane	111-91-1	✓	✓	(g)	✓
		bis(2-Chloroethyl) ether	111-44-4	✓	✓	(g)	✓
		bis(2-Chloroisopropyl) ether	108-60-1	✓	✓	(g)	✓
		bis(2-Ethylhexyl) phthalate	117-81-7	✓	✓	(g)	✓
		bis(Chloromethyl) ether	542-88-1	✓	✓	(g)	✓
		bis(p-Chlorophenyl) sulfone	80-07-9	✓	✓	(g)	✓
		bis(p-Chlorophenyl)disulfide	1142-19-4	✓	✓	(g)	✓
		Butylbenzyl phthalate	85-68-7	✓	✓	(g)	✓
		Carbazole	86-74-8	✓	✓	(g)	✓
		Chrysene	218-01-9	✓	✓	(g)	✓
		Dibenzo(a,h)anthracene	53-70-3	✓	✓	(g)	✓
		Dibenzofuran	132-64-9	✓	✓	(g)	✓
		Dichloromethyl ether	542-88-1	✓	✓	(g)	✓
		Diethyl phthalate	84-66-2	✓	✓	(g)	✓
		Dimethyl phthalate	131-11-3	✓	✓	(g)	✓
		Di-n-butyl phthalate	84-74-2	✓	✓	(g)	✓
		Di-n-octyl phthalate	117-84-0	✓	✓	(g)	✓
		Diphenyl disulfide	882-33-7	✓	✓	(g)	✓
		Diphenyl sulfide	139-66-2	✓	✓	(g)	✓
		Diphenyl sulfone	127-63-9	✓	✓	(g)	✓
		Fluoranthene	206-44-0	✓	✓	(g)	✓
		Fluorene	86-73-7	✓	✓	(g)	✓
		Hexachlorobenzene	118-74-1	✓	✓	(g)	✓

TABLE 4
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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Semivolatile Organic Compounds (continued)	**EPA 8270C [2]**	Hexachlorobutadiene	87-68-3	✓	✓	(g)	✓
		Hexachlorocyclopentadiene	77-47-4	✓	✓	(g)	✓
		Hexachloroethane	67-72-1	✓	✓	(g)	✓
		Hydroxymethyl phthalimide	118-29-6	✓	✓	(g)	✓
		Indeno(1,2,3-cd)pyrene	193-39-5	✓	✓	(g)	✓
		Isophorone	78-59-1	✓	✓	(g)	✓
		m,p-Cresol	106-44-5	✓	✓	(g)	✓
		Naphthalene	91-20-3	✓	✓	(g)	✓
		Nitrobenzene	98-95-3	✓	✓	(g)	✓
		N-nitrosodi-n-propylamine	621-64-7	✓	✓	(g)	✓
		N-nitrosodiphenylamine	86-30-6	✓	✓	(g)	✓
		o-Cresol	95-48-7	✓	✓	(g)	✓
		Octachlorostyrene	29082-74-4	✓	✓	(g)	✓
		p-Chloroaniline (4-Chloroaniline)	106-47-8	✓	✓	(g)	✓
		p-Chlorobenzenethiol	106-54-7	✓	✓	(g)	✓
		Pentachlorobenzene	608-93-5	✓	✓	(g)	✓
		Pentachlorophenol	87-86-5	✓	✓	(g)	✓
		Phenanthrene	85-01-8	✓	✓	(g)	✓
		Phenol	108-95-2	✓	✓	(g)	✓
		Phthalic acid	88-99-3	✓	✓	(g)	✓
		Pyrene	129-00-0	✓	✓	(g)	✓
		Pyridine	110-86-1	✓	✓	(g)	✓
		Thiophenol	108-98-5	✓	✓	(g)	✓
		Tentatively Identified Compounds (TICs)		✓	✓	(g)	✓
Volatile Organic Compounds	**EPA 8260B**	1,1,1,2-Tetrachloroethane	630-20-6	✓	✓	(g)	(h)
		1,1,1-Trichloroethane	71-55-6	✓	✓	(g)	(h)
		1,1,2,2-Tetrachloroethane	79-34-5	✓	✓	(g)	(h)
		1,1,2-Trichloroethane	79-00-5	✓	✓	(g)	(h)
		1,1-Dichloroethane	75-34-3	✓	✓	(g)	(h)
		1,1-Dichloroethene	75-35-4	✓	✓	(g)	(h)
		1,1-Dichloropropene	563-58-6	✓	✓	(g)	(h)
		1,2,3-Trichlorobenzene	87-61-6	✓	✓	(g)	(h)
		1,2,3-Trichloropropane	96-18-4	✓	✓	(g)	(h)
		1,2,4-Trichlorobenzene	120-82-1	✓	✓	(g)	(h)
		1,2,4-Trimethylbenzene	95-63-6	✓	✓	(g)	(h)
		1,2-Dichlorobenzene	95-50-1	✓	✓	(g)	(h)
		1,2-Dichloroethane	107-06-2	✓	✓	(g)	(h)

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Volatile Organic Compounds (continued)	**EPA 8260B**	1,2-Dichloroethene	540-59-0	✓	✓	(g)	(h)
		1,2-Dichloropropane	78-87-5	✓	✓	(g)	(h)
		1,3,5-Trichlorobenzene	108-70-3	✓	✓	(g)	(h)
		1,3,5-Trimethylbenzene	108-67-8	✓	✓	(g)	(h)
		1,3-Dichlorobenzene	541-73-1	✓	✓	(g)	(h)
		1,3-Dichloropropene	542-75-6	✓	✓	(g)	(h)
		1,3-Dichloropropane	142-28-9	✓	✓	(g)	(h)
		1,4-Dichlorobenzene	106-46-7	✓	✓	(g)	(h)
		2,2-Dichloropropane	594-20-7	✓	✓	(g)	(h)
		2,2-Dimethylpentane	590-35-2	✓	✓	(g)	(h)
		2,2,3-Trimethylbutane	464-06-2	✓	✓	(g)	(h)
		2,3-Dimethylpentane	565-59-3	✓	✓	(g)	(h)
		2,4-Dimethylpentane	108-08-7	✓	✓	(g)	(h)
		2-Chlorotoluene	95-49-8	✓	✓	(g)	(h)
		2-Hexanone	591-78-6	✓	✓	(g)	(h)
		2-Methylhexane	591-76-4	✓	✓	(g)	(h)
		2-Nitropropane	79-46-9	✓	✓	(g)	(h)
		3,3-Dimethylpentane	562-49-2	✓	✓	(g)	(h)
		3-Ethylpentane	617-78-7	✓	✓	(g)	(h)
		3-Methylhexane	589-34-4	✓	✓	(g)	(h)
		4-Chlorobenzene	108-90-7	✓	✓	(g)	(h)
		4-Chlorotoluene	106-43-4	✓	✓	(g)	(h)
		4-Methyl-2-pentanone (MIBK)	108-10-1	✓	✓	(g)	(h)
		Acetone	67-64-1	✓	✓	(g)	(h)
		Acetonitrile	75-05-8	✓	✓	(g)	(h)
		Benzene	71-43-2	✓	✓	(g)	(h)
		Bromobenzene	108-86-1	✓	✓	(g)	(h)
		Bromodichloromethane	75-27-4	✓	✓	(g)	(h)
		Bromoform	75-25-2	✓	✓	(g)	(h)
		Bromomethane	74-83-9	✓	✓	(g)	(h)
		Carbon disulfide	75-15-0	✓	✓	(g)	(h)
		Carbon tetrachloride	56-23-5	✓	✓	(g)	(h)
		Chlorobenzene	108-90-7	✓	✓	(g)	(h)
		Chlorobromomethane	74-97-5	✓	✓	(g)	(h)
		Chlorodibromomethane	124-48-1	✓	✓	(g)	(h)
		Chloroethane	75-00-3	✓	✓	(g)	(h)
		Chloroform	67-66-3	✓	✓	(g)	(h)

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Volatile Organic Compounds (continued)	**EPA 8260B**	Chloromethane	74-87-3	✓	✓	(g)	(h)
		cis-1,2-Dichloroethene	156-59-2	✓	✓	(g)	(h)
		cis-1,3-Dichloropropene	10061-01-5	✓	✓	(g)	(h)
		Cymene (Isopropyltoluene)	99-87-6	✓	✓	(g)	(h)
		Dibromochloroethane	73506-94-2	✓	✓	(g)	(h)
		Dibromochloromethane	124-48-1	✓	✓	(g)	(h)
		Dibromochloropropane	96-12-8	✓	✓	(g)	(h)
		Dibromomethane	74-95-3	✓	✓	(g)	(h)
		Dichloromethane (Methylene chloride)	75-09-2	✓	✓	(g)	(h)
		Dimethyldisulfide	624-92-0	✓	✓	(g)	(h)
		Ethanol	64-17-5	✓	✓	(g)	(h)
		Ethylbenzene	100-41-4	✓	✓	(g)	(h)
		Freon-11	75-69-4	✓	✓	(g)	(h)
		Freon-113	76-13-1	✓	✓	(g)	(h)
		Freon-12	75-71-8	✓	✓	(g)	(h)
		Heptane	142-82-5	✓	✓	(g)	(h)
		Isoheptane	31394-54-4	✓	✓	(g)	(h)
		Isopropylbenzene	98-82-8	✓	✓	(g)	(h)
		m,p-Xylene	mp-XYL	✓	✓	(g)	(h)
		Methyl ethyl ketone (2-Butanone)	78-93-3	✓	✓	(g)	(h)
		Methyl iodide	74-88-4	✓	✓	(g)	(h)
		MTBE (Methyl tert-butyl ether)	1634-04-4	✓	✓	(g)	(h)
		n-Butyl benzene	104-51-8	✓	✓	(g)	(h)
		n-Propylbenzene	103-65-1	✓	✓	(g)	(h)
		Nonanal	124-19-6	✓	✓	(g)	(h)
		o-Xylene	95-47-6	✓	✓	(g)	(h)
		sec-Butylbenzene	135-98-8	✓	✓	(g)	(h)
		Styrene	100-42-5	✓	✓	(g)	(h)
		tert-Butyl benzene	98-06-6	✓	✓	(g)	(h)
		Tetrachloroethene	127-18-4	✓	✓	(g)	(h)
		Toluene	108-88-3	✓	✓	(g)	(h)
		trans-1,2-Dichloroethene	156-60-5	✓	✓	(g)	(h)
		trans-1,3-Dichloropropene	10061-02-6	✓	✓	(g)	(h)
		Trichloroethene	79-01-6	✓	✓	(g)	(h)
		Vinyl acetate	108-05-4	✓	✓	(g)	(h)
		Vinyl chloride	75-01-4	✓	✓	(g)	(h)
		Xylenes (total)	1330-20-7	✓	✓	(g)	(h)
		Tentatively Identified Compounds (TICs)		✓	✓	(g)	(h)

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 3)			SPLP
				Depth 1	Depth 2/3	Deep	
Water Quality Parameters	EPA 120.1	Conductivity	COND	(a)	(a)	(a)	(h)
	EPA 130.2	Hardness, total	Hardness	(a)	(a)	(a)	(h)
	EPA 160.1	Total dissolved solids	TDS	(a)	(a)	(a)	(h)
	EPA 160.2	Total suspended solids	TSS	(a)	(a)	(a)	(h)
	EPA 310.1	Alkalinity, Total (as $CACO_3$)	ALK	(a)	(a)	(a)	(h)
		Bicarbonate alkalinity	71-52-3	(a)	(a)	(a)	(h)
		Carbonate alkalinity	3812-32-6	(a)	(a)	(a)	(h)
		Hydroxide alkalinity	OH-ALK	(a)	(a)	(a)	(h)
Flashpoint	EPA 1010	Flammables	NA	(b)	(b)	(b)	(h)
Total Petroleum Hydrocarbons	EPA 8015	Diesel	64742-46-7	(b)	(b)	(b)	(h)
		Gasoline	8006-61-9	(b)	(b)	(b)	(h)
		Grease	68153-81-1	(b)	(b)	(b)	(h)
		Mineral Spirits	NA	(b)	(b)	(b)	(h)
White Phosphorus	EPA 7580M	White phosphorus	12185-10-3	(b)	(b)	(b)	(h)
Methyl Mercury	EPA 1630	Methyl mercury	22967-92-6	(b)	(b)	(b)	(h)
Soil Physical Parameters	ASTM D2937/ MOSA1Ch .13	Dry bulk density	NA	(g)	✓	✓	(h)
	ASTM D2435/ MOSA1Ch .18	Total porosity	NA	(g)	✓	✓	(h)
	ASTM D5084	Soil permeability/saturated hydraulic cond.	NA	(g)	✓	✓	(h)
	ASTM D854	Specific gravity of soils	NA	(g)	✓	✓	(h)
	SW846 Method 9081	Cation exchange capacity	NA	(g)	✓	✓	(h)
	ASTM D2216/D4643/D2974	Volumetric water content	NA	(g)	✓	✓	(h)
	ASTM D422	Grain size analysis by sieve and hydrometer	NA	(g)	✓	✓	(h)
	EPA 415.1/ASTM 2947	Fractional organic carbon content	NA	(g)	✓	✓	(h)

Notes:
Laboratory limits are subject to matrix interferences and may not always be achieved in all samples.
The laboratory will be instructed to report the top 25 Tentatively Identified Compounds (TICs) under method 8260B and 8270C.
NA = Not applicable.
a - Groundwater only analyte.
b - Removed based on rationale provided in the text.
c - Removed consistent with approved list of radionuclides for project analysis.
d - Radon will be sampled and analyzed via surface flux sampling and analysis protocols.
e - Dioxins/furans and PCBs will only be analyzed for in fill and surface soil samples only.
f - Asbestos will only be analyzed for in current grade surface soil samples only.
g - Soil physical parameters will be collected from at-depth samples only; from two sample locations (see Table 3).
h - Rationale provided in text for analyte list for synthetic precipitation leaching procedure (SPLP); from two subsurface sample locations (see Table 3).
[1]For polynuclear aromatic hydrocarbons, Method 8310 is the primary analytical method.
[2]Method 3540 for extraction and Method 3640 for cleanup are to be used as appropriate.

TABLE 5
PROPOSED SOIL VAPOR FLUX SAMPLE ANALYSES
MOHAWK SUB-AREA
(Page 1 of 3)

Compound	CAS Number	MDL ppbv	RL ppbv	MDL µg/m^3	RL µg/m^3
List of Compounds for USEPA Method TO-15 Full Scan Mode Operation and MDLs					
1,1,1,2-Tetrachloroethane	630-20-6	0.1	0.51	0.72	3.62
1,1,1-Trichloroethane	71-55-6	0.1	0.52	0.58	2.89
1,1,2,2-Tetrachloroethane	79-34-5	0.1	0.52	0.73	3.65
1,1,2-Trichloroethane	79-00-5	0.1	0.51	0.57	2.86
1,1-Dichloroethane	75-34-3	0.1	0.52	0.43	2.15
1,1-Dichloroethene	75-35-4	0.1	0.52	0.42	2.13
1,1-Dichloropropene	563-58-6	0.1	0.49	0.46	2.3
1,2,3-Trichloropropane	96-18-4	0.11	0.55	0.68	3.39
1,2,4-Trichlorobenzene	120-82-1	0.1	0.52	0.79	3.94
1,2,4-Trimethylbenzene	95-63-6	0.1	0.52	0.52	2.61
1,2-Dibromo-3-chloropropane	96-12-8	0.22	1.1	2.2	10.98
1,2-Dibromoethane	106-93-4	0.1	0.52	0.82	4.09
1,2-Dichlorobenzene	95-50-1	0.1	0.52	0.64	3.2
1,2-Dichloroethane	107-06-2	0.1	0.52	0.43	2.15
1,2-Dichloropropane	78-87-5	0.1	0.52	0.49	2.46
1,3,5-Trimethylbenzene	108-67-8	0.1	0.52	0.53	2.64
1,3-Dichlorobenzene	541-73-1	0.1	0.52	0.64	3.2
1,3-Dichloropropane	142-28-9	0.11	0.54	0.52	2.58
1,4-Dichlorobenzene	106-46-7	0.1	0.52	0.64	3.2
1,4-Dioxane	123-91-1	0.09	0.44	0.33	1.64
2,2-Dichloropropane	594-20-7	0.11	0.53	0.5	2.53
2-Butanone	78-93-3	0.09	0.43	0.26	1.31
2-Hexanone	591-78-6	0.09	0.44	0.37	1.86
Acetone	67-64-1	0.09	0.45	0.22	1.1
Acetonitrile	75-05-8	0.22	1.12	0.48	2.39
Benzene	71-43-2	0.1	0.52	0.34	1.7
Benzyl chloride	100-44-7	0.09	0.45	0.48	2.41
Bromochloromethane	74-97-5	0.1	0.51	0.55	2.76
Bromodichloromethane	75-27-4	0.08	0.4	0.55	2.77
Bromoform	75-25-2	0.09	0.47	0.99	4.96
Bromomethane	74-83-9	0.1	0.51	0.41	2.04
Carbon disulfide	75-15-0	0.09	0.45	0.29	1.45
Carbon tetrachloride	56-23-5	0.1	0.52	0.67	3.38
Chlorobenzene	108-90-7	0.1	0.52	0.5	2.48
Chloroethane	75-00-3	0.1	0.51	0.28	1.39
Chloroform	67-66-3	0.1	0.52	0.52	2.59
Chloromethane	74-87-3	0.1	0.51	0.22	1.09
cis-1,2-Dichloroethene	156-59-2	0.1	0.52	0.42	2.11
cis-1,3-Dichloropropene	10061-01-5	0.1	0.52	0.48	2.41
Dibromochloromethane	124-48-1	0.09	0.44	0.77	3.87
Dibromomethane	74-95-3	0.11	0.55	0.97	4.84

TABLE 5
PROPOSED SOIL VAPOR FLUX SAMPLE ANALYSES
MOHAWK SUB-AREA
(Page 2 of 3)

Compound	CAS Number	MDL ppbv	RL ppbv	MDL µg/m^3	RL µg/m^3
Dichlorodifluoromethane	75-71-8	0.1	0.51	0.52	2.61
Dichloromethane	75-09-2	0.1	0.52	0.37	1.86
Ethanol	64-17-5	0.22	1.12	0.44	2.18
Ethylbenzene	100-41-4	0.1	0.52	0.46	2.33
Freon 113	76-13-1	0.1	0.52	0.81	4.07
Hexachlorobutadiene	87-68-3	0.1	0.52	1.14	5.68
Isobutyl alcohol	78-83-1	0.23	1.13	0.84	4.21
Isopropylbenzene	98-82-8	0.11	0.57	0.58	2.89
Isopropyltoluene	99-87-6	0.11	0.55	0.62	3.12
m & p-Xylene	108-38-3	0.21	1.03	0.92	4.61
Methyl iodide	4227-95-6	0.19	0.94	1.13	5.67
Methyl Isobutyl Ketone	108-10-1	0.09	0.46	0.38	1.95
Methyl tert butyl ether	1634-04-4	0.08	0.39	0.29	1.45
Naphthalene	91-20-3	0.22	1.09	1.19	5.9
n-Butylbenzene	104-51-8	0.1	0.52	0.59	2.95
n-Heptane	142-82-5	0.08	0.42	0.35	1.78
n-Propylbenzene	103-65-1	0.11	0.54	0.55	2.74
o-Xylene	95-47-6	0.1	0.52	0.46	2.31
sec-Butylbenzene	135-98-8	0.11	0.52	0.59	2.95
Styrene	100-42-5	0.1	0.52	0.45	2.26
tert-Butylbenzene	98-06-6	0.11	0.52	0.59	2.85
Tetrachloroethene	127-18-4	0.1	0.52	0.72	3.61
Toluene	108-88-3	0.1	0.52	0.4	2
trans-1,2-Dichloroethene	156-60-5	0.09	0.44	0.36	1.8
trans-1,3-Dichloropropene	10061-02-6	0.1	0.52	0.48	2.41
Trichloroethene	79-01-6	0.1	0.52	0.57	2.85
Trichlorofluoromethane	75-69-4	0.1	0.51	0.59	2.95
Vinyl acetate	108-05-4	0.09	0.43	0.31	1.56
Vinyl chloride	75-01-4	0.1	0.51	0.27	1.35

TABLE 5
PROPOSED SOIL VAPOR FLUX SAMPLE ANALYSES
MOHAWK SUB-AREA
(Page 3 of 3)

Compound	CAS Number	MDL ppbv	RL ppbv	MDL µg/m^3	RL µg/m^3
List of Compounds for USEPA Method TO-15 Selective Ion Mode (SIM) Operation and MDLs					
1,1,1,2-Tetrachloroethane	630-20-6	0.005	0.026	0.035	0.18
1,1,2,2-Tetrachloroethane	79-34-5	0.005	0.026	0.035	0.18
1,1,2-Trichloroethane	79-00-5	0.005	0.026	0.028	0.14
1,2,3-Trichloropropane	96-18-4	0.005	0.026	0.031	0.16
1,2-Dibromo-3-chloropropane	96-12-8	0.01	0.026	0.098	0.26
1,2-Dibromoethane	106-93-4	0.005	0.026	0.039	0.2
1,2-Dichlorobenzene	95-50-1	0.005	0.026	0.031	0.16
1,2-Dichloroethane	107-06-2	0.005	0.026	0.021	0.11
1,2-Dichloropropane	78-87-5	0.005	0.026	0.024	0.12
1,3-Dichlorobenzene	541-73-1	0.005	0.026	0.031	0.16
1,4-Dichlorobenzene	106-46-7	0.005	0.026	0.031	0.16
Benzene	71-43-2	0.005	0.026	0.016	0.085
Benzyl chloride	100-44-7	0.005	0.026	0.026	0.14
Bromodichloromethane	75-27-4	0.005	0.026	0.034	0.18
Carbon tetrachloride	56-23-5	0.005	0.026	0.032	0.17
Chloroform	67-66-3	0.005	0.026	0.025	0.13
Dibromochloromethane	124-48-1	0.005	0.026	0.043	0.23
Hexachlorobutadiene	87-68-3	0.01	0.026	0.108	0.28
Naphthalene	91-20-3	0.01	0.026	0.534	0.14
Tetrachloroethene	127-18-4	0.005	0.026	0.035	0.18
Trichloroethene	79-01-6	0.005	0.026	0.027	0.14
Vinyl chloride	75-01-4	0.005	0.026	0.013	0.068

Note:
The actual reported MDL may vary based on Canister dilution or matrix interferences.
CAS - Chemical abstract system
MDL - Method detection limit
RL - Reporting limit
ppbv - Parts per billion by volume
µg/m^3 - microgram per cubic meter

APPENDIX A

NDEP COMMENTS AND
BRC'S RESPONSE TO COMMENTS

Response to NDEP Comments Dated June 10, 2008 on the Sampling and Analysis Plan for the Mohawk Sub-Area dated May 2008

1. General comment, many of the comments provided below do not require a response, however, these comments are included because it is expected that this document will serve as a template for future sampling and analysis plans.

Response: *Agreed. BRC will incorporate these comments and revisions into the remainder of the sampling and analysis plans for the project.*

2. General comment, BRC should address the comments below as follows:
   a. Provide revised text, tables and figures, as necessary to address the comments.
   b. Provide a fully annotated response-to-comments letter.
   c. Provide a red-line mark up of the text.
   d. Provide a corrected electronic version of the document.

Response: *Agreed. BRC has provided each of the requested items in this comment.*

3. General comment, off-site pathways are not included in this SAP. In future SAPs some discussion should be provided regarding how these pathways will be addressed. **No response is necessary for this comment.**

Response: *Agreed. Future SAPs will provide some discussion regarding off-site pathways.*

4. Section 1.0 (and other parts of the text), this Section refers to the approved Closure Plan, it is not clear if any new information has caused any of these references to be updated. In future SAPs please be sure to verify that this information is still valid. For example, **No response is necessary for this comment.**

Response: *Agreed. BRC will ensure that all references are valid and up to date.*

5. Section 1.0, pages 1-1 and 1-2, the data usability and data quality assessment (DQA) steps should be presented separately and in chronological order. DQA should be the last bullet.

Response: *These steps have been separated on page 1-2 of the revised report with DQO followed by DQA.*

6. Section 1.1, page 1-3, the purpose of the SAP should be clarified to explain the role of groundwater. For example, the soil-to-groundwater leaching pathway and groundwater as a potential source to the vapor intrusion pathway. It is expected that future SAPs will address this comment. **No response is necessary for this comment.**

Response: *Agreed. The text on page 1-3 has been revised to include discussion regarding the role of groundwater.*

7. Section 2.1, page 2-2, 4th paragraph, insert "of" between "residual levels" and "chemicals". Change "are" to "is" in the last sentence. **Resolution of this comment will be accomplished through revision of the text of the SAP.**

Response: *These changes have been made to these sentences in the revised text.*

8. Section 2.1, page 2-3, it is also noted that remediation has occurred at Parcel 4B since 2007. This information should have been discussed. **No response is necessary for this comment.**

Response: *Agreed. A discussion regarding the remediation that has occurred at Parcel 4B has been added on page 2-3 of the text. Future SAPs will attempt to discuss all relevant information from surrounding sub-area/properties.*

9. Section 2.3, page 2-4, BRC discusses TDS impacts in groundwater. It should be noted that there are impacts from other contaminants which should be given equal weight. **No response is necessary for this comment.**

Response: *Agreed.*

10. Section 2.6, page 2-8, the NDEP has the following comments:
    a. Based upon the data presented herein as well as in the figures in Appendix C it is apparent that residual contamination exists at the Site.
    b. It is the belief of the NDEP that these concentrations are sufficiently elevated to warrant excavation prior to implementation of the sampling and analysis plan (SAP).
    c. It is requested that Figure 9 be revised to reflect this additional excavation.
    d. In addition, no discussion could be found in the SAP regarding the excavation proposed on Figure 9. Some discussion should be provided.
    e. To resolve this comment, please provide a revised Figure 9 and revised text for the SAP.

Response: *Reference to the proposed excavation was provided in Section 4.0, page 4-1 with the excavation shown on Figure 7. Additional text has been added in Section 4.0, page 4-1, regarding the proposed excavation prior to sampling and analysis. Recently BRC removed the soil from pond PUE-01 shown on Figure 9 with the cross-hatching. Because the previous data that indicate residual contamination still exists is primarily composite data, no additional remediation is proposed prior to sampling. Decisions for additional excavation will be based on the initial data to be collected based on this SAP.*

11. Section 2.8, pages 2-9 through 2-11, the discussion in this section regarding the potential for contaminants to leach to groundwater is weak. **In future SAPs this issue must be addressed more thoroughly.**

Response: *Agreed.*

12. Section 2.8, page 2-10, it is noted that the radionuclide data in the U-238 chain do not seem to exhibit secular equilibrium, perhaps bringing the Ra-226 data into question. **It is expected that the final risk assessment for this parcel will address this issue.**

Response: *Agreed. The final risk assessment will address any data quality issues.*

13. Section 3.0, the NDEP provides a red-line markup of this Section as Attachment B to this letter. **If BRC agrees with these comments it is expected that the changes will generally be incorporated verbatim into the revised SAP. Any deviations should be discussed with the NDEP prior to resubmittal.**

Response: *BRC generally agrees with the text submitted by NDEP with the following exceptions:*
1. Section 3.1.1, fourth paragraph: the sentence the ends with "… that the human health risk assessment is likely to pass." has been changed to "…that acceptable human health risks have been attained."
2. Section 3.1.1, last paragraph: The final sentence now reads: "In addition, the impact to off-site receptors will be addressed; however, because remediation of the Site will be to on-site residential standards, risks to off-site receptors will be minimal."
3. Section 3.2, first paragraph, last sentence: Reference to off-site ecological receptors has been removed.
4. Section 3.2, footnote: text has been revised to reflect response to comment #14 below, in which historical data will undergo a data usability evaluation.
5. Section 3.4.3, Surface Soil: This heading has been moved to before the paragraph immediately above its current location.
In addition, minor typographical errors have been corrected and certain phrases/words have been changed to be consistent with the remainder of the SAP text.

14. Section 3.2, page 3-4, assumption 1, this assumption states that historic data will not be used, even if representative of current Site conditions. Similar statements appear throughout the document (e.g. Section 4.3) and contradictory statements also appear in the document which propose to include usable historical data in the health risk assessment (HRA). It is the expectation of the NDEP that all data will be used unless justification is provided for its exclusion. **Resolution of this comment will be accomplished through revision of the text of the entire SAP.**

Response: *As noted on page 1-2, "In general historical data will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of*

the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data." The rest of the text has been revised to be consistent with this text.

15. Section 4.1, page 4-3, it might be helpful to re-order the discussion so that the part after "Samples will be collected at:" comes before the decision rules. The decision rules are somewhat difficult to fully understand until reading the depth of sampling. **It is suggested that BRC and NDEP work collectively to clarify these for future SAPs.**

Response: *Agreed. This section has been re-ordered on pages 4-3 and 4-4 as suggested by this comment.*

16. Section 4.4, as agreed upon, flux chamber samples will include pond berm locations

Response: *Agreed. Flux chamber samples, which have already been collected, included all judgmental sampling locations, including the pond berm locations.*

17. Section 5.0, general comment, this section is largely unnecessary and should be simply addressed via reference to approved SOPs and the QAPP. **Resolution of this comment will be accomplished through revision of the text.**

Response: *Agreed. This section has been scaled-back providing reference to applicable SOPs, and only includes text for issues not covered by the SOPs.*

18. Section 5.2.3, page 5-3, NDEP has the following comments:
    a. BRC notes that tools "such as VLEACH" will be used to evaluate the migration to groundwater pathway. NDEP notes that while VLEACH will be used for some modeling, other tools and/or add-on packages to VLEACH will be used for modeling of migration to groundwater pathway. It is suggested that this statement (and similar ones that occur throughout the SAP) be revised to state that the migration to groundwater pathway will be evaluated consistent with the USEPA Soil Screening Guidance (USEPA, 1996. Soil Screening Guidance: Technical Background Document. Office of Solid Waste and Emergency Response, May. http://www.epa.gov/superfund/resources/soil/index.htm). In addition, the references section should be updated to include this guidance. **Resolution of this comment will be accomplished through revision of the text.**

Response: *Agreed. Reference to the USEPA Supplemental Soil Screening Guidance, as well as the Soil Screening Guidance for Radionuclides (2000) and Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (2002) has been added to Section 5.2.3, page 5-2.*

    b. It is suggested that SPLP samples (using leaching methods 2 (pH=5.0) and 3 (reagent water)) be collected from these samples as well. It is expected that this data will be

helpful in the evaluation of the migration to groundwater pathway. **Resolution of this comment will be accomplished through revision of the text and Table 4.**

Response: *BRC proposes that SPLP samples be collected and analyzed for metals, organochlorine pesticides, semi-volatile organic compounds, radium-226, radium-228, and perchlorate. These samples will be collected from two subsurface sample locations from within the pond area. The text on page 5-2, Tables 3 and 4, and Figure 9 have been revised to reflect this change in the SAP.*

c. It is also noted that VLEACH alone is not an adequate model for the suite of contaminants located at the BMI Common Areas. As discussed on June 9, 2008, it is suggested that BRC consider the use of models such as SESOIL, PESTRAN, VS2DT or other models to replace or support VLEACH. **Resolution of this comment will be accomplished through revision of the text.**

Response: *Two other models, SESOIL and PESTAN, have been included in Section 5.2.3, page 5-2. BRC is currently reviewing each of these models. Likely resolution will be that VLEACH will be used for VOCs and SVOCs, SESOIL will be used for inorganics, and PESTAN will be used for pesticides. BRC will confirm this once the model review is complete. In the meantime the text has been revised assuming this will be the approach used.*

Table 4 has been revised to reflect the addition of the following soil physical property tests based on performance of each of these models: specific gravity of soils, cation exchange capacity, and soil permeability/ saturated hydraulic conductivity.

19. Section 6.0, page 6-1, it is the expectation of the NDEP that the "investigation report" discussed will be part of the closure request for the sub-area and that this information will simply be part of the risk assessment. It is the expectation of the NDEP that BRC will only submit a risk assessment document to the NDEP when BRC is comfortable that the risk assessment will "pass". It is expected that the interim decisions (to support additional sampling or remediation) will be discussed with the NDEP on an informal but regular basis. Additional sampling and remediation would simply be an addendum to this SAP. If additional clarification is needed on this issue it is suggested that the NDEP and BRC discuss this matter. **Resolution of this comment will be accomplished through revision of the text.**

Response: *Agreed. The text has been revised on page 6-1 to reflect this comment.*

20. Section 6.0, page 6-1, please note that it is the expectation of the NDEP that BRC may perform risk assessment calculations to justify additional excavation or sampling, however, it is the express expectation of the NDEP that these interim risk assessments **not** be submitted to the NDEP. It is the expectation of the NDEP that BRC will only submit a risk assessment document to the NDEP when BRC is comfortable that the risk assessment will "pass". It is expected that the interim decisions (to support additional sampling or remediation) will be

discussed with the NDEP on an informal but regular basis. **Resolution of this comment will be accomplished through revision of the text.**

Response: *Agreed. The text has been revised on page 6-1 to reflect this comment.*

21. Figure 1, it would be helpful if Figure 1 included identification of the other Eastside Areas that are referenced in the text. It is expected that future SAPs will address this comment. **No response is necessary for this comment.**

Response: *Agreed. Figure 1 has been revised to identify the other Eastside sub-areas.*

22. Figure 9, the NDEP has the following comments:
    a. As clarified via e-mail discussions between NDEP and BRC all samples shown on this figure will have flux measurements taken at them. In addition, the text (e.g.: Section 4.4) needs to be revised to address this issue. **Resolution of this comment will be accomplished through revision of the text and this figure.**
    b. A symbol should be added for sample locations where physical samples will be collected. **Resolution of this comment will be accomplished through revision of this figure.**
    c. Also, as discussed above, the NDEP has requested that additional excavation be completed prior to sampling. The figure should be updated to reflect this. **Resolution of this comment will be accomplished through revision of this figure.**

Response: *Agreed. Figure 9 has been revised to identify that all judgmental samples will have surface flux sampling conducted. Although a symbol was included on Figure 9 identifying the deep boring locations, a footnote has been added to the figure indicating that physical samples will be collected from these deep boring locations.*

23. Figure 10, the key should include the definitions for the "cut" and "fill" colors. **Resolution of this comment will be accomplished through revision of this figure.**

Response: *Agreed. Figure 10 has been revised to identify the cut and fill colors.*

24. Table 3, this table should include a note to explain why the 2' cut scenario does not include a "sample depth 3". It is noted that this is a logistical issue, however, the table provides no justification. **Resolution of this comment will be accomplished through revision of this table.**

Response: *Agreed. A footnote has been added to Table 3 providing the rational for not including a sample depth 3 for these sample locations.*

25. Appendix A, the NDEP has the following comments:
    a. RTC 24, page A-6, no response was included for this comment.

b. RTC 3.b, page A-7, it should be noted that the exposure areas/decision units will be determined by the data. It is possible that there may be as few as one exposure area(s).
c. RTC 20, page A-13, same comment as above.
d. Resolution of these comments will be accomplished through revision of the text.

Response: *Discussion specific to the Mohawk sub-area regarding the statistical methodology to be used, consistent with the Statistical Methodology Report, has been provided in Section 4 of the SAP. BRC agrees that the number of exposure areas will be determined by the data and may be as few as one.*

26. Appendix C, Figure C-2, one sample location is labeled "3.9" but is red, please verify if the concentration or the shading is incorrect. **Resolution of this comment will be accomplished through revision of this figure.**

Response: *This figure has been revised. This resulted from an overlap of sample locations with the sample label for an underlying symbol being placed instead of the label for the higher concentration symbol.*

Response to NDEP Comments Dated January 3, 2008 on the Sampling and Analysis Plan for the Mohawk Sub-Area dated October 2007

1. General comment, the comments below do not address the grammatical and typographic errors in the document. Please review closely before resubmittal.

Response: *BRC has performed a document QA/QC on the revised SAP in accordance with SOP-0.*

2. Section 1.0, Page 1-1, bulleted section, the NDEP has the following comments:
   a. Some mention should be made here of the DQO section.
   b. The section number references do not appear to be correct.

Response: *The text has been revised on pages 1-1 and 1-2 to clarify that the section references in the bulleted text refer to Closure Plan sections. Text has also been added to direct the reader to CSM and DQO sections in the SAP that are specific to the Mohawk Area.*

3. Section 2.1, page 2-1, the last sentence of the 1st paragraph does not transition to the 2nd paragraph because the description of the northeast area has been deleted. Please address this issue.

Response: *This portion of Section 2.1 has been revised for clarification.*

4. Section 2.1, page 2-1, 2nd paragraph, BRC oscillates between referencing the Mohawk sub-area as "the Site"; and "the Mohawk sub-area". Please resolve this issue throughout the document.

Response: *As defined in Section 1.0, all subsequent references in the document to the Mohawk sub-area have been changed to 'the Site.'*

5. Section 2.4, page 2-3, there are multiple placeholders for dates of reports and NDEP responses in this Section (and others). Please address this issue.

Response: *References to NDEP workplan and report approvals, or lack thereof, have been added to the revised SAP.*

6. Section 2.5, page 2-4, please clarify if the May 2000 IRM report was ever approved by the NDEP. As noted previously, this comment applies to all documents referenced in the document.

Response: *The text has been revised on page 2-6 to note that NDEP has not approved this document.*

7. Sections 2-6 and 2-7, it is not exactly clear why the distinction between pre- and post-1999 data collection or other activities. Perhaps some more explanation of the history of these previous efforts could be provided to help with the history and CSM issues.

Response: *Pre-October 1999 data were collected prior to interim remedial measures (IRM), while later data were collected following the IRM for the Site. The text in Section 2 has been modified for clarification of the three main investigation phases: prior to, during, and after the IRM.*

8. Section 2.9, page 2-7, there is no discussion of inorganic analytes, please explain.

Response: *A discussion of inorganic analyte in ground water samples has been added to the section on pages 2-11 and 2-12.*

9. Section 3.0, please note that the labels of the DQO steps have changed in the latest (2006) guidance.

Response: *The text in the revised SAP has been changed to reflect the updated DQO steps, as reflected in the latest (2006) guidance.*

10. Section 3.1.1, page 3-3, BRC states "To construct parks, civic structures and residences, the land will be cut and/or filled, paved with roads or foundations, and nurtured with imported top soils as needed". Please note that the term "as needed" might need some explanation. Does it refer to risk issues, grading issues, the desire to plant trees, other? If it is related to risk then some further explanation is needed.

Response: *As needed refers to what will be needed during the actual development of the Site. This information may or may not be available while conducting the risk assessment. It is BRC's intent to not incorporate the use of imported top soil in the risk assessment. That is, the risk assessment will assume exposure to native soil only. Wording to this effect has been added to this paragraph on page 3-3.*

11. Section 3.2, this section gets somewhat confusing in places. It seems that various remediation and data collection has happened before (Section 2). Then the PSQs describe post-remediation sampling. It is not immediately clear in the document whether post-remediation refers to the historical activities or future planned activities. It would be more obvious if it was clearly stated or explained in Section 1 and in this DQO section that "baseline remediation" will occur prior to any data collection.

Response: *Wording has been added to Section 1 that states that baseline remediation will occur prior to any data collection, and that risk assessments for the Site will be conducted using the data collected as part of this SAP. As stated in the Introduction on page 1-2: "Historical data will not be included in the risk assessment; however, a data usability evaluation will be*

conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data are useful for CSM purposes…"

12. Section 3.4.2, page 3-7, last sentence states, "Also, data may ultimately be grouped by soil depth to appropriately address different soil exposure points." Please note that it may be necessary to assess the deeper soil layers if it is anticipated that future use (see last paragraph in section 3.1.1) will require soil removal to these depths.

Response: *Agreed. If information is available on actual development grading prior to the risk assessment, then this information will be used to determine the appropriate depth of exposure. If this information is not known, then data from the surface to two and ten feet bgs, as defined in the Closure Plan, will be used. No revisions to the text, which addresses definition of study area boundaries, not remediation extent, were made in response to this comment.*

13. Section 3.4.2, this might be a reasonable place to recognize that Mohawk is adjacent to other sub-areas, and that risk assessment could be performed across sub-areas, and/or that the adjacent sub-areas will be remediated in the same general time frame. This latter is to avoid potential concern that Mohawk could become re-contaminated from other sub-area sources.

Response: *Text has been added to Section 2.1 concerning adjacent sub-areas. Reference to this discussion has been added to the end of Section 3.4.2.*

14. Section 3.4.3, pages 3-7 and 3-8 and Section 3.4.5, page 3-9, the referenced section discusses temporal boundaries and scale of decision making for subsurface soils. Section 2 discusses the fact that there are no groundwater samples from on-site. Section 2.6 has removed reference to TCLP testing on subsurface soils. Please explain how BRC will evaluate potential future impacts to groundwater under either leaching or a rising groundwater table.

Response: *BRC anticipates evaluating potential future impacts to groundwater via VLEACH modeling. Because of the depth to groundwater beneath the Site, approximately 45 feet bgs, it is unlikely that rising groundwater will pose threat via direct exposures. Any indirect impacts from underlying groundwater will be addressed via the proposed surface flux measurements. A discussion reflecting these issues has been added to the document on page 3-8.*

15. Section 3.4.5, page 3-9, BRC states "Post-remediation data for surface soils will be assessed to maximize the probability that no residual chemicals in surface soil will result in concentrations that cause risk-based cleanup levels to be exceeded for a 1/8th acre parcel." This is a very awkward sentence. The purpose is to perform a risk assessment (per the PSQs). Perhaps the sentence should be rephrased along those lines. Post-remediation data will be used in a risk assessment to determine if further remediation is needed.

Response: *The sentence has been revised to "Post-remediation data will be used in a risk assessment to determine if further remediation is needed." on page 3-9.*

16. Section 3.5, page 3-11, BRC states "The decision rules developed in this step are theoretical rules because they are stated in terms of the true value of a population parameter, even though in reality the true value is never known. In practice, the decision is made by using operational decision rules that use an estimate (based on actual data) of the true value of the population parameter. The population parameters for the project are discussion in the both the *Statistical Methodology Report* (NewFields 2006) and Section 9 of the Closure Plan. The reason for specifying the theoretical rule is to focus on how the decisions would be made if perfect knowledge of the population were available. Using the theoretical rule helps focus on what knowledge is really wanted to support the decision. The PSQ-specific decision rules for the Site are presented below." Most of this paragraph can probably be deleted. The decision rules that follow do not clearly recognize any population parameters, in which case this paragraph is potentially confusing in the context of the surrounding material. It is not clear that a "true value" exists, although that is often the interpretation of parameters offered by Classical statisticians.

Response: *All but the last sentence of this paragraph has been removed from the revised document on page 3-10.*

17. Section 4.1, pages 4-1 through 4-3, the NDEP has the following comments:
    a. BRC references a grading plan, however, it is noted that this grading plan is not finalized. NDEP cannot make risk management decisions based on an incomplete grading plan. BRC should revisit the issue of how data will be grouped to address this. Perhaps different scenarios could be run for the risk assessment to accommodate this uncertainty. Please discus this matter with the NDEP if there are any questions.

Response: *As indicated above, if information is available on actual development grading prior to the risk assessment, then this information will be used to determine the appropriate depth of exposure. If this information is not known, then data from the surface to two and ten feet bgs, as defined in the Closure Plan, will be used. Additional information on the proposed grading plan for the Site has been added to page 4-3 and Figure 4.*

    b. Pages 4-2 and 4-3, Rules 3 and 4, the cases in Rules 3 and 4 overlap (i.e. both address the potential use as subsurface fill). These need to be restated so that distinct cases are clearly considered. One option is to remove the sub-surface clause in Rule 3.

Response: *These rules have been re-written, on page 4-3, reflective of recent discussion with NDEP on this issue.*

18. Section 4.2, Page 4-3, third sentence after the first bullet states, "**IF** the constructed distribution indicates the presence of anomalous concentrations (*e.g.*, high values at the end of an elongated tail of a uni-modal distribution, or values forming an elevated sub-population

of a multi-modal distribution), **AND** the inclusion of these anomalous values causes the computed UCL to exceed 1/10 of the risk-based screening level of the chemical, **THEN** samples associated with anomalous values will be considered as potential exceeding samples." Please note that this statement does not address the case where the entire distribution is elevated resulting in a UCL that exceeds 1/10 the RBSL. Please clarify.

Response: *Text has been added to the first paragraph of page 4-5 regarding this issue..*

19. Section 4.3, page 4-4, first full paragraph, first sentence states, "Areas with potential exceeding samples may be subjected to re-sampling prior to the confirmation of the location as an exceeding sample. After any such re-sampling, the above process will be repeated to confirm the exceeding status of the targeted sample location." It is not clear that sequentially removing the most contaminated samples and adjacent areas provides an acceptable determination of lack of contamination. For example, if the population of concentrations is elevated and randomly distributed across the site, then sequentially removing the most contaminated samples only addresses clean up in the areas that each of the samples is considered to represent. Specifically, confirmation sampling would likely need to include a new set of samples that is separate from the one that drove the remediation. This should be addressed by building a CSM that justifies the approach taken, coupled with some contingencies if the data indicate a more widespread "hot-spot" problem. Part of the issue here is that the initial random sampling is based on a 3 acre grid. This is probably acceptable if the site is "clean", but if several samples exhibit "contamination" then it might be important to look at the effect on a sub-area basis rather than a sample basis.

Response: *See response to comment 18 above.*

20. Section 4.3, page 4-4, it should be explicitly stated that additional random samples will be collected for confirmation. The collection of additional random samples for the confirmation data set is consistent with the 'Statistical Methodology Report', which is referenced in Section 4.3.

Response: *This paragraph has been revised to include additional biased step-out samples collected for confirmation on page 4-5.*

21. Section 4.5, pages 4-5 through 4-7, the NDEP has the following comments:
    a. Please verify that all methods and preparatory methods are appropriate for comparison to the background dataset (e.g.: radionuclides).

Response: *Wording has been added to the text in this section on page 4-8 to confirm that the analytical and preparatory methods will adhere to the most recent version of the QAPP, which has been revised to ensure appropriate comparisons to the background dataset.*

22. Section 5.1.4, page 5-2, please note that this Section does not appear to be consistent with Section 5.1.1 that references SOP 11 (SOP Section 4.8 Required Accuracy and Precision) which references greater accuracy for both horizontal and vertical location. Please resolve.

Response: *Both of the sections cited in NDEP's comment have been revised to be consistent with each other.*

23. Section 5.2.3, pages 5-3 and 5-4, because this is a work plan BRC should specify the analytical methods for the physical parameters specified. Depending on the type of modeling to be performed, soil pH is a useful parameter which should be considered. Also, the analysis should include grain size analysis by sieve and hydrometer to aid in classifying the soils. Note: this information may be in Table 4, however, this was not provided with the draft response.

Response: *Analytical methods for the physical parameters have been added to the revised document, Table 4. Soil pH is part of the proposed analytical suite, under 'General Parameters.'*

24. A draft, response-to-comments (RTC) letter was provided with the draft submittal. NDEP responses to BRC's RTCs are provided below.

    General comment, there are several responses that indicate that the information is contained in the Statistical Methodology report. It is not clear that this is fully adequate. The Statistical Methodology Report is a document that describes the general statistical approach. These Sub-Area SAPs should provide some more specific descriptions that are consistent with the Statistical Methodology Report, but provide more site-specific detail.

1. General comment, in all future reports please be sure to provide executable versions of all files. For example, provide the tables in Microsoft Excel format.

Response: *A PDF of the entire document, as well as original format files (MS Word and MS Excel) of all text and tables are included on the report CD (Appendix B).*

<u>NDEP Response</u>
Revised/new tables, figures, and appendices, were not provided in the submittal and therefore were not reviewed.

Response: *See response to initial comment #2 above. These elements of the document have been incorporated into this submittal of the revised SAP.*

2. General comment, there is no reference to a data usability or data quality assessment step. This needs to be addressed.

Response: *These steps are discussed in the Closure Plan for the project. Reference to the appropriate Closure Plan sections has been added to the bullets on page 1-1.*

It is not clear where this comment has been addressed other than in a bullet. The bullet refers to Sections 6 and 9, the latter of which does not exist.

3. Section 1.0, the NDEP has the following comments:

   b. Page 1-1, The introduction identifies the total site area as 49.2 acres. In subsequent sections of the report, the number of residential exposure areas should be considered.

Response: *The following text has been added to Section 3.4.5: "Given the total area of the Site is 49.2 acres, the number of potential residential exposure areas is approximately 326; however this number assumes residential lots throughout the Site and does not consider roads (including the existing Mohawk Rd.) and other non-residential land uses."*

NDEP Response
The following clause should be removed from the added text:
"; however this number assumes residential lots throughout the Site and does not consider roads (including the existing Mohawk Rd.) and other non-residential land uses."

Please note that for areas seeking a NFA for unrestricted (i.e., residential) land use, only residential exposure areas should be assumed, regardless of the ultimate locations of roads and other non-residential land uses.

Response: *This clause has been removed.*

5. Section 2.1, the NDEP has the following comments:

   a. Page 2-1, BRC states "The northeastern portion of the Mohawk sub-area, which falls within "NFA Exclusion Areas 4A/4B" has been historically undeveloped…This portion of the Mohawk sub-area has been addressed in the recent 2007 Parcel 4A/4B investigation and will not be evaluated as part of this SAP." NDEP believes that this statement is unnecessary and confusing. Either the referenced area is in the Mohawk Sub-Area or it is in Parcels 4A/4B, please make this distinction clear in the text and the Figures.

Response: This paragraph has been removed from the document.

NDEP Response
Section 2.1 (Site Description) is still not explicit as to whether the southwestern portion of the Mohawk sub-area is the "Site" or if the Mohawk sub-area is" the Site". Figure 1 identifies the "Mohawk Sub-Area" in light red shading, but it is not clear if this area is the same as the "southwestern portion of the Mohawk sub-area". Please make explicit what the boundaries

are for the Site, for purposes of the sampling and analysis plan as well as for the forthcoming HRA.

Response: *See response to initial comment #3 above. Revised Figure 1, provided with the revised SAP clearly delineates the Mohawk sub-area/Site boundaries.*

5b. Page 2-1, second sentence, please note that the temporary information kiosk is not clearly shown on any of the figures.

Response: *The location of the information kiosk has been added to Figures 2 and 3 (now Figure 6).*

NDEP Response
The revised figures were not included in the submittal.

Response: *See response to initial comment #2 above. These figures have been incorporated into this submittal of the revised SAP.*

5c. Page 2-1, third paragraph, please note that Mohawk Drive is not clearly identified on the figures.

Response: *The identification of Mohawk Drive has been added to each of the figures.*

NDEP Response
The revised figures were not included in the submittal.

Response: *See response to initial comment #2 above. These figures have been incorporated into this submittal of the revised SAP.*

6. Section 2.4, page 2-3, the NDEP has the following comments:

   b. Please discuss how the installation of Mohawk Road relates to the referenced investigations. It is not clear to the NDEP that the SAP adequately addresses the installation and investigation of Mohawk Road.

Response: *Mohawk Road was installed at the behest of the City of Henderson. BRC is not sure what is meant by investigation of Mohawk Road. Any contaminated materials that were present along the alignment of the road were removed and placed as part of the IRM at that time. Those materials are stockpiled on the West side of the road and will be removed as part of the upcoming removal action.*

NDEP Response

Please explain if any investigation and/or remediation was completed prior to the installation of Mohawk Road. Also, please describe which analytical suites were investigated and any data gaps that may exist due to the limitations of the investigations.

Response: *Investigation and/or remediation of the Mohawk Road right-of-way (ROW) was conducted as part of the historical overall Mohawk Area activities as described in the Mohawk IRM Completion Report prior to installation of the road. A specific investigation associated with the road installation was not conducted. Soil samples have historically been collected from fourteen locations within and immediately adjacent to the Mohawk Road ROW (both within and outside the current Mohawk sub-area boundaries), which provide a general idea of the nature of chemical impacts in the vicinity of the ROW. BRC acknowledges, however, that the suite of chemicals included in analysis of those samples did not address the complete list of SRCs.*

c. Please reference and discuss all of the documentation that has been prepared for this sub-area. There appears to be several historic documents from 1999-2000 which are not discussed.

Response: *All historical reports and investigations are now included in the document. Investigations prior to October 1999 are presented in Section 2.4, data in support of the IRM are presented in Section 2.6, and data subsequent to the IRM are presented in Section 2.7.*

NDEP Response

The document should note which of the historical data and reports were not approved by NDEP. In addition, in many cases the draft, revised report does not identify the dates for reports or the NDEP responses...instead place holders are inserted. Please clarify.

Response: *See response to initial comment #2 above. These elements of the document have been incorporated into this submittal of the revised SAP.*

e. Page 2-3, paragraph after bullets. Methods are listed for some, but not all, of the analysis suites. Either all methods should be referenced here, or none should be referenced here and reference should be provided instead to Table 2.

Response: Because methods varied between investigations, they have been removed from the text. The analytical methods used are provided in Appendix B.

NDEP Response

Appendix B was not included in the submittal.

Response: *See response to initial comment #2 above. Appendix B has been incorporated into this submittal of the revised SAP.*

Section 2.6, NDEP has the following comments:

a. Page 2-4, this section describes post-excavation composite samples, which should be identified on Figure 2.

Response: *Samples on Figure 2 have been distinguished between discrete and composite samples, as well as existing versus excavated sample locations.*

NDEP Response
The revised figures were not included in the submittal.

Response: *See response to initial comment #2 above. These figures have been incorporated into this submittal of the revised SAP.*

10. Section 2.7, pages 2-5 and 2-6, the NDEP has the following comments:

a. This Section should be revised to be a sub-area-specific Conceptual Site Model (CSM). Additional, specific requests are listed below.

Response: *This section (now Section 2.8) was produced based on data for the Mohawk sub-area only.*

NDEP Response
The request to add a sub-area-specific CSM is not adequately addressed. A CSM must address upgradient, downgradient and cross-gradient conditions to provide a full understanding of the sub-area. For example, recently collected data at Parcel 4B. Also, Section 2.8 references Appendices B and C, and Table 2 and Figure 2, which were not included in the submittal.

Response: *Section 2.0 presents the conceptual site model for the site SAP. This discussion has been expanded from the original version of the SAP, and includes discussions on current, and proposed future conditions. Data for surrounding areas are presented on Figures in Appendix C of the document.*

b. There are no Figures to demonstrate the distribution of chemicals within the soils. These Figures must be generated. As the report is currently presented, NDEP must manually correlate location-specific and analyte-specific data to a Figure. NDEP needs to understand where the elevated concentrations of contaminants are.

Response: *Post-IRM chemical distribution figures have been developed for arsenic, 4,4'-DDT, beta-BHC, perchlorate, and radium-226. These figures are presented in Appendix C.*

NDEP Response
Appendix C was not included in the submittal.

Response: *See response to initial comment #2 above. Appendix C has been incorporated into this submittal of the revised SAP.*

c. There is no discussion of groundwater data for this sub-area. Please explain.

Response: *There is limited groundwater data available for the Mohawk sub-area. The closest wells are greater than 300 feet from the Site. Monitoring well DM-8 is greater than 380 feet to the east of the Site, MCF-12 monitoring wells are greater than 800 feet to the east of the Site; monitoring well DM-7 is greater than 900 feet to the northwest of the site, and monitoring well AA-18 is greater than 1,400 feet to the northwest of the Site. Nevertheless, data for nearby alluvial aquifer wells from the most recent groundwater monitoring event have been added to the document and are discussed in Section 2.9.*

NDEP Response

Section 2.9 references Table 3 for a summary of groundwater data; however, this table was not included in the submittal. In addition, this issue is a data gap that must be addressed during the investigation of the Mohawk sub-area. Addressing this issue does not necessarily require the installation of additional monitoring wells.

Response: *See response to initial comment #2 above. The tables (including Table 3) have been incorporated into this submittal of the revised SAP.*

d. It is suggested that Figures be developed that present boring logs in cross-sections to depict the lithology of the sub-area.

Response: *Both north-south and east-west cross-sections have been developed and added to the document.*

NDEP Response

Section 2.9 references Figures 3 and 4 for cross sections; however, these figures were not included in the submittal.

Response: *See response to initial comment #2 above. These figures have been incorporated into this submittal of the revised SAP.*

e. Page 2-3, paragraph after bullets. Methods are listed for some, but not all, of the analysis suites. Either all methods should be referenced here, or none should be referenced here and reference should be provided instead to Table 2.

Response: *Because methods varied between investigations, they have been removed from the text. The analytical methods used are provided in Appendix B.*

NDEP Response
Section 2.0 of the Closure Plan is a very detailed history of the BMI Complex and Common Areas. Please address the NDEP's original comment in the revised submittal. Please note that this comment should be applied globally to the NDEP's original comments, as appropriate.

Response: *In the revised SAP, the reader is referenced to Appendix B, which contains a database excerpt identifying the analytes and methods employed for all historical sampling results. See response to initial comment #2 above. Appendix B has been incorporated into this submittal of the revised SAP.*

g. It is suggested that the CSM discuss pre- and post-IRM soils data as well as data which describes the composition of the materials removed.

Response: *All historical reports and investigations are now included in the document. Investigations prior to October 1999 are presented in Section 2.4, data in support of the IRM are presented in Section 2.6, and data subsequent to the IRM are presented in Section 2.7.*

NDEP Response
The comment was not adequately addressed. The comment requested a sub-area CSM that ties in the pre-and post-IRM data as well as data which describes the composition of the materials removed.

Response: *The text in the revised SAP has been substantially expanded to provide the reader with a better description of the nature of chemical impacts and the effectiveness of the IRM.*

h. The "screening levels" discussed in this Section should be referenced. It is suggested that the revised report include a Table which lists all of the site-related chemicals and the source for their respective screening levels (e.g.: USEPA Region IX PRGs; USEPA Region IX SSLs; BRC/TIMET Shallow Background; ATSDR; etc.).

Response: *Reference to the screening levels has been provided in a separate table (Table 2).*

NDEP Response
The revised Table 2 was not included in the submittal.

Response: *See response to initial comment #2 above. The tables have been incorporated into this submittal of the revised SAP.*

12. Section 3.1.1, page 3-2, the NDEP has the following comments:

a. General Comment, please explicitly state the current and future potential exposure pathways of concern that are being addressed by the SAP and any subsequent

remediation. In addition, a conceptual site model Figure should be developed which presents receptors, media, pathways, etc.

Response: *A discussion on the current and future exposure pathways has been added to Section 3.1.1 of the document, as well as the exposure pathway diagram from the Closure Plan, tailored for the Mohawk sub-area.*

NDEP Response
Figure 5, which is referenced in Section 3.1.1, was not included in the submittal. This Response also applies to Comment 13.

Response: *See response to initial comment #2 above. The figures have been incorporated into this submittal of the revised SAP.*

14. Section 3.1.2, pages 3-2 and 3-3, the IRM that has been performed previously should be described in concert with description of the CSM. Further description under the Problem Statement should not be necessary.

Response: *This discussion has been removed from this section. The discussion on the need for additional excavations has been moved to Section 4.*

NDEP Response
This comment does not appear to have been addressed.

Response: *The description in the CSM section of the IRM performed previously has been expanded in this version of the SAP to better describe the nature of the impacts and IRM effectiveness. In the prior draft, discussion of the remedial approach was removed from Section 3.1.2, and repositioned in the introduction to Section 4.*

20. Section 3.4.5, pages 3-8 and 3-9, the NDEP has the following comments:

    b. Page 3-9, Subsurface soil, it is not clear that the 1/8th acre concept applies to subsurface soils. Some clarification is needed. Earlier in the document, it is described that the subsurface data will be collected to support an understanding of transport to groundwater. Please explain.

Response: *The issue of 1/8th acre is applicable for soils from surface to 10 feet bgs; the depth range for potential residential exposures. Below 10 feet bgs, the primary issue is potential impacts to groundwater. For consistency the 1/8th acre was to be used for subsurface soils as well. However, the following sentence has been added: "It should be noted that this scale for subsurface soils may not be applicable and a site-wide approach may be used instead.*

NDEP Response
More detail should be provided regarding a "site-wide approach" for evaluation of the leaching pathway. In addition, please discuss deed restrictions that will be placed on this Site to restrict access to deeper soils and groundwater.

Response: *Clarification has been added to the revised SAP regarding the approach that will be used for evaluating the leaching pathway. In addition, the text has been expanded to include a reference to the use of deed restrictions to restrict access to soils deeper than 10 feet bgs and groundwater.*

23. Section 4.1, pages 4-1 and 4-2, the NDEP has the following comments:
    a. Please provide a table and/or a Figure which explains the purpose of each judgmental sample.

Response: *Rationale for each of the judgmental samples has been added to the document.applicable and a site-wide approach may be used instead.*

NDEP Response
The reviewers could not find where, in the revised document, rationale for judgmental samples is provided.

Response: *Text on page 4-2, Table 3 and Figure 9 provide the rationale for each of the judgmental samples. See response to initial comment #2 above. Tables and Figures have been incorporated into this submittal of the revised SAP.*

    b. The decision rules presented on page 4-2 would be greatly improved by a schematic diagram.

Response: *A schematic, Figure 7, has been added to the document.*

NDEP Response (applicable also to Comment 23d)
Figure 7 was not included in the submittal.

Response: *See response to initial comment #2 above. Figure 10 has been incorporated into this submittal of the revised SAP.*

    c. The decision rules presented on page 4-2 would be improved by a link to the proposed grading plan. If possible, please include a Figure which shows the theoretical grading plan.

Response: *A figure showing the proposed grading plan has been added to the document (Figure 8). It should be noted that this is the most current plan available, but not necessarily the final grading plan.*

NDEP Response
Figure 8 was not included in the submittal.

Response: *See response to initial comment #2 above. Figure 4 been incorporated into this submittal of the revised SAP.*

24. Section 4.2, pages 4-2 and 4-3, the NDEP has the following comments:
    b. page 4-2, first two sentences state, "Upon layer-designation of confirmation soil samples, a series of tests will be conducted to determine whether sampled locations within a given layer include "exceeding" samples. An exceeding sample is one that warrants further investigation, which may include additional localized soil removal." Please discuss if remediation is expected to proceed on a per sample basis.

Response: *It is not proposed that remediation be conducted on a per sample basis, rather an evaluation will be conducted as to the impact that removal of particular samples will have on the site data as a whole (effect on homogeneity, Site-wide UCL, etc…). Reference to the Statistical Methodology Report has been added to the text.*

NDEP Response/Additional Comment
It is not clear how decisions regarding soil layer definitions will affect the estimation of exposure point concentrations for residential exposure (i.e., 0-2 foot and 0-10 foot soil depth interval exposure). For purposes of the post-remediation HRA, it is not appropriate to assume that EPCs will be adjusted due to specific amounts of fill will being added, and/or grading activities.

Response: *See response to initial comment #17 above.*

26. Section 4.4, page 4-4, the NDEP has the following comments:
    a. A description of how the flux chamber data will be specifically evaluated for adequacy should be provided. For example, risk-based exceedances should be identified on a sample-by-sample basis.

Response: *Exceedances are based on the rules defined in the Statistical Methodology Report not on a sample-by-sample basis. This same principle is applicable to the soil flux data as well.*

NDEP Response
Flux chamber data are typically evaluated for total risk per sample location (rather than by chemical distributions). This approach should be used in the HRA.

Response: *Agreed. The text has been revised on page 3-10 to reflect that risks will be evaluated on a per sample basis for the flux chamber data.*

c. It is not clear that selection of half of the soil sampling locations for flux chamber analysis has any basis.

Response: *As noted above, because it is not anticipated that the variability of the surface flux data will be large, that is, homogeneity of the data is expected. Therefore, the number of proposed soil vapor flux sample locations is considered adequate. However, if this is not the case, that is, the data are not homogenous, then additional soil flux data may need to be collected. As discussed in the Statistical Methodology Report, the sampling to be conducted at the Site will be an iterative process.*

NDEP Response

Soil gas is notoriously heterogeneous and the NDEP does not concur with sampling half of the soil locations for soil gas (especially with the distances between sampling points). Please expand the initial round of sampling to include soil gas sampling at all soil sampling locations.

Response: *Agreed. The text has been revised on page 4-6 to reflect that soil flux samples will be collected from each of the biased soil sampling locations, plus one random soil sample location.*

d. The CSM should be relied upon and relevant groundwater data should be shown in the SAP and used to substantiate that areas of the Mohawk sub-area are adequately targeted for the flux chamber sampling.

Response: *As noted in response to comment 10c above, There is limited groundwater data available for this area, and only low levels of VOCs have been detected in groundwater near the Site. Groundwater data for shallow monitoring wells in the vicinity has been added to the document.*

NDEP Response

The NDEP assumes that the referenced groundwater data is contained in the revised Table 3, which was not included in the submittal. In addition, it is important to put the existing groundwater data into context. BRC states that the concentrations are "low". Please explain how these concentrations compare to applicable vapor intrusion criteria.

Response: *The text on pages 2-11 and 2-12 of the revised SAP has been expanded to better put the existing groundwater data in context. See response to initial comment #2 above. Tables have been incorporated into this submittal of the revised SAP.*

e. It is not clear why radon emissions are not being considered. The Site received wastes containing radionuclides including the parent radionuclides of radon (U-238 and U-234). Please discuss this matter in greater detail.

Response: *Section 4.4 of the document discusses radon and the collection of radon flux data.*

NDEP Response
Section 4.4, and other sections where the flux chamber sampling and analysis are discussed, should be updated to reflect the latest version of SOP-16.

Response: *References to the most recent version of SOP-16 have been added to the revised document on page 4-6.*

h. NDEP previously identified a number of clarification comments to the August 2006 SOP-16. Please ensure that these comments are incorporated into the flux chamber sampling and analysis activities. Please provide reporting limits in flux units to confirm adequacy for health risk assessment application. Also, please confirm that the lab will report summa canister concentrations and associated flux rates.

Response: *As noted in the document, sampling and analysis for flux chamber sampling will follow SOP-16. Reporting units in flux units have been added to Table 3 (now Table 5). As stated in SOP-16: "The compound-specific flux rate for VOCs in the dynamic flux chamber will be calculated using the laboratory data for compound concentration in the flux chamber Summa canister (µg/m^3), the sweep air inflow rate (0.005 m^3/min), and the surface area of the chamber (0.13 m^2)."*

NDEP Response
See Response to Comment 26e.

Response: *See response to comment #26e above.*

27. Section 4.5, pages 4-5 and 4-6, the NDEP has the following comments:

b. BRC has no sub-area-specific data for the following classes of chemicals: chlorinated compounds; organic acids; non-halogenated organics; PCB congeners; and total petroleum hydrocarbons. Therefore, BRC cannot demonstrate that the remedial investigation for these compounds has been completed. It is necessary to provide additional justification for excluding these chemical classes or include these classes of chemicals in the analysis.

Response: *Rationale for the exclusion of the analytical suites have been provided, including data for the entire Eastside property. Given other areas of the Site were more contaminated than the Mohawk sub-area, this should provide sufficient rationale for their exclusion.*

NDEP Response
Due to the lack of detail in the sub-area-specific CSM the exclusion of these classes of compounds is not defensible. It is expected that the revised document will provide sufficient data to justify the exclusion of these compounds.

Response: *Additional justification for the exclusion of these classes of compounds has been added to Section 4.5, page 4-7.*

30. Section 5.2.2, page 5-3, third sentence states, "A limited number of full scan analyses, conducted at higher MDLs, is recommended as a confirmation of the target list of study compounds (e.g., demonstration of comprehensiveness and representativeness)." Please clarify if this limited number is the 10% referenced above this sentence in that same paragraph.

Response: *Clarification of this issue has been added to the document.*

NDEP Response
See Response to Comment 26e.

Response: *See response to comment #26e above.*

34. Table 1, the NDEP has the following comments:
    a. The text discusses a comparison to 1/10th the USEPA Region IX PRG as being appropriate, however, the table compares directly to the USEPA Region IX PRG. Please correct this inconsistency.

Response: *The values used in Table 1 are simply a comparison to PRG values for historical data, for information purposes only. Use of 1/10th the PRG is proposed for the identification exceeding samples for the confirmation dataset. These are two different uses of these values and are therefore not inconsistent.*

NDEP Response
This inconsistency is confusing. Please utilize 1/10th the PRG for comparison purposes or provided notes on the revised table explaining these differences.

Response: *A note to Table 1 has been added explaining the differences in usage of the screening levels.*

35. Table 2, the NDEP has the following comments:
    a. Please present or reference target reporting limits for these soil samples (similar to Table 3).

Response: *Target reporting limits have been added to Table 2 (now Table 4).*

NDEP Response

The project-wide QAPP should be referenced and the Table can be deleted as it is duplicative.

Response: *Agreed, the subject table has been deleted from the revised SAP, and reference to Table 4 of the QAPP have been added in Sections 4 and 5.*

Response to NDEP Comments Dated September 19, 2007 on the Sampling and Analysis Plan for the Mohawk Sub-Area dated August 2007

1. General comment, in all future reports please be sure to provide executable versions of all files. For example, provide the tables in Microsoft Excel format.

Response: *A PDF of the entire document, as well as original format files (MS Word and MS Excel) of all text and tables are included on the report CD (Appendix B).*

2. General comment, there is no reference to a data usability or data quality assessment step. This needs to be addressed.

Response: *These steps are discussed in the Closure Plan for the project. Reference to the appropriate Closure Plan sections has been added to the bullets on page 1-1.*

3. Section 1.0, the NDEP has the following comments:
   a. Page 1-1, last line contains the phrase "biased random grid". Comment: The meaning of this phrase is not clear since the adjectives "biased" and "random" are contradictory. Please provide further description.

Response: *The sentence has been corrected to read: "…on a stratified random basis…". The next sentence has been changed to read: "Additional biased sampling locations…".*

   b. Page 1-1, The introduction identifies the total site area as 49.2 acres. In subsequent sections of the report, the number of residential exposure areas should be considered.

Response: *The following text has been added to Section 3.4.5: "Given the total area of the Site is 49.2 acres, the number of potential residential exposure areas is approximately 326; however this number assumes residential lots throughout the Site and does not consider roads (including the existing Mohawk Rd.) and other non-residential land uses."*

4. Section 1.1, page 1-2, it should probably be noted in this sentence that the extent of the risk assessment is exposure pathways from soil and vapor flux, and not also from groundwater. Perhaps the deed restrictions that will be placed should also be referenced.

Response: *The vapor flux sampling will account for potential indirect exposures to groundwater; however, BRC agrees that potential direct exposures are not considered. Given the depth to groundwater at the Mohawk sub-area, the only potential direct exposures would be via use as a potable water source. Text has been added to the Introduction regarding this issue. In addition, the possibility of a deed restriction has also been added.*

5. Section 2.1, the NDEP has the following comments:

a. Page 2-1, BRC states "The northeastern portion of the Mohawk sub-area, which falls within "NFA Exclusion Areas 4A/4B" has been historically undeveloped…This portion of the Mohawk sub-area has been addressed in the recent 2007 Parcel 4A/4B investigation and will not be evaluated as part of this SAP." NDEP believes that this statement is unnecessary and confusing. Either the referenced area is in the Mohawk Sub-Area or it is in Parcels 4A/4B, please make this distinction clear in the text and the Figures.

Response: *This paragraph has been removed from the document.*

b. Page 2-1, second sentence, please note that the temporary information kiosk is not clearly shown on any of the figures.

Response: *The location of the information kiosk has been added to Figures 2 and 3 (now Figure 6).*

c. Page 2-1, third paragraph, please note that Mohawk Drive is not clearly identified on the figures.

Response: *The identification of Mohawk Drive has been added to each of the figures.*

6. Section 2.4, page 2-3, the NDEP has the following comments:
   a. Please discuss the usability of the data that is being referenced. For example, explain if the data has been validated.

Response: *Text has been added that all data presented in the SAP have been validated. Reference to the appropriate Data Validation Summary reports has also been added.*

b. Please discuss how the installation of Mohawk Road relates to the referenced investigations. It is not clear to the NDEP that the SAP adequately addresses the installation and investigation of Mohawk Road.

Response: *Mohawk Road was installed at the behest of the City of Henderson. BRC is not sure what is meant by investigation of Mohawk Road. Any contaminated materials that were present along the alignment of the road were removed and placed as part of the IRM at that time. Those materials are stockpiled on the West side of the road and will be removed as part of the upcoming removal action.*

c. Please reference and discuss all of the documentation that has been prepared for this sub-area. There appears to be several historic documents from 1999-2000 which are not discussed.

Response: *All historical reports and investigations are now included in the document. Investigations prior to October 1999 are presented in Section 2.4, data in support of the IRM are presented in Section 2.6, and data subsequent to the IRM are presented in Section 2.7.*

d. Page 2-3, these sections reference sampling from prior investigations and identify sample locations in Figure 2. However, no mention is made of some of the samples located on Figure 2 (e.g. the PRMA samples). Please explain. This comment also applies to Section 2.5.

Response: *See response to comment 6c above. Reference to this investigation is provided in Section 2.7.*

e. Page 2-3, paragraph after bullets. Methods are listed for some, but not all, of the analysis suites. Either all methods should be referenced here, or none should be referenced here and reference should be provided instead to Table 2.

Response: *Because methods varied between investigations, they have been removed from the text. The analytical methods used are provided in Appendix B.*

7. Section 2.5, page 2-3, please utilize the standard terminology for IRMs, which is Interim Remedial Measures.

Response: *References to IRMs as Interim Remedial Measures have been corrected.*

8. Section 2.5, page 2-4, please reference the NDEP approval letter for the work plan. In addition, please provide references for any reporting done as a result of this work plan.

Response: *Reference to the NDEP approval letter and subsequent reports has been added to the document.*

9. Section 2.6, NDEP has the following comments:
   a. Page 2-4, this section describes post-excavation composite samples, which should be identified on Figure 2.

Response: *Samples on Figure 2 have been distinguished between discrete and composite samples, as well as existing versus excavated sample locations.*

   b. Page 2-5, BRC states that the analyses were completed by a Nevada-certified laboratory. It appears that these samples pre-date the NDEP certification program, please explain.

Response: *This sentence has been removed from the document.*

c. Page 2-5, Table in section 2.6, Method 903.9 is specified for radium. This appears incorrect as no 903.9 method is known for radium. However, Methods 903.0 and 903.1 are applicable so this may be a typographical error.

Response: *This text has been removed from the document (see response to comment 6e above). The analytical methods used are provided in Appendix B.*

10. Section 2.7, pages 2-5 and 2-6, the NDEP has the following comments:
    a. This Section should be revised to be a sub-area-specific Conceptual Site Model (CSM). Additional, specific requests are listed below.

Response: *This section (now Section 2.8) was produced based on data for the Mohawk sub-area only.*

b. There are no Figures to demonstrate the distribution of chemicals within the soils. These Figures must be generated. As the report is currently presented, NDEP must manually correlate location-specific and analyte-specific data to a Figure. NDEP needs to understand where the elevated concentrations of contaminants are.

Response: *Post-IRM chemical distribution figures have been developed for arsenic, 4,4'-DDT, beta-BHC, perchlorate, and radium-226. These figures are presented in Appendix C.*

c. There is no discussion of groundwater data for this sub-area. Please explain.

Response: *There is limited groundwater data available for the Mohawk sub-area. The closest wells are greater than 300 feet from the Site. Monitoring well DM-8 is greater than 380 feet to the east of the Site, MCF-12 monitoring wells are greater than 800 feet to the east of the Site; monitoring well DM-7 is greater than 900 feet to the northwest of the site, and monitoring well AA-18 is greater than 1,400 feet to the northwest of the Site. Nevertheless, data for nearby alluvial aquifer wells from the most recent groundwater monitoring event have been added to the document and are discussed in Section 2.9.*

d. It is suggested that Figures be developed that present boring logs in cross-sections to depict the lithology of the sub-area.

Response: *Both north-south and east-west cross-sections have been developed and added to the document.*

e. It is suggested that the CSM discuss the time period of operation of the disposal ponds; the chemicals that may have been in this effluent; and the capacity of the ponds (volume and height).

Response: *This information is provided in the project Closure Plan. Reference to the Closure Plan has been added to Section 2.0.*

f. It is suggested that the CSM discuss historical as well as current migration pathways.

Response: *This information is provided in the project Closure Plan. Reference to the Closure Plan has been added to Section 2.0.*

g. It is suggested that the CSM discuss pre- and post-IRM soils data as well as data which describes the composition of the materials removed.

Response: *All historical reports and investigations are now included in the document. Investigations prior to October 1999 are presented in Section 2.4, data in support of the IRM are presented in Section 2.6, and data subsequent to the IRM are presented in Section 2.7.*

h. The "screening levels" discussed in this Section should be referenced. It is suggested that the revised report include a Table which lists all of the site-related chemicals and the source for their respective screening levels (e.g.: USEPA Region IX PRGs; USEPA Region IX SSLs; BRC/TIMET Shallow Background; ATSDR; etc.).

Response: *Reference to the screening levels has been provided in a separate table (Table 2).*

i. It is not clear that the discussion on dioxins and furans is presented in terms of TEQs, please clarify.

Response: *The discussion on dioxins and furans is for all congeners. This has been clarified in the text. In addition, reference to TCDD TEQs (as presented in Appendix B) has been added.*

j. Page 2-5, Dioxins and Furans. These chemicals are not listed in the Table in Section 2.6, or on Page 2-3. Please explain.

Response: *Dioxins and furans were only analyzed for as part of the supplemental PRMA investigation in 2001, and not as part of the post-IRM confirmation sampling. As noted previously, the supplemental PRMA investigation was not included in the document, but has been added to the revised document.*

k. Page 2-5, arsenic, please note that it is not important that some arsenic concentrations are greater than the maximum from the background data set. What matters are the results of distributional comparisons. The same comment applies to the discussion for radium.

Response: *Comment noted. A statistical comparison to background levels was not performed on the historical data as part of this document. Distributional comparisons will be conducted with the post-remediation confirmation dataset.*

11. Section 3.0, page 3-1, the NDEP has the following comments:
    a. For the USEPA QA/G-4 document, there is no date provided for the reference material. Also, this item is not listed in the reference section of the report.

Response: *Reference to this document, as well as the date of the document have been added to the document.*

12. Section 3.1.1, page 3-2, the NDEP has the following comments:
    a. General Comment, please explicitly state the current and future potential exposure pathways of concern that are being addressed by the SAP and any subsequent remediation. In addition, a conceptual site model Figure should be developed which presents receptors, media, pathways, etc.

Response: *A discussion on the current and future exposure pathways has been added to Section 3.1.1 of the document, as well as the exposure pathway diagram from the Closure Plan, tailored for the Mohawk sub-area.*

    b. Problem Statement 1, it is not clear what is meant by "bringing the site back to appropriate use". Please explain.

Response: *Clarification of what is meant by appropriate use has been added to the text.*

    c. Problem Statement 2, "urban in-fill should be defined.

Response: *A footnote has been added stating that "Urban infill is defined as the development of vacant non-pristine land in areas surrounded by existing residential subdivisions and commercial areas."*

    d. Problem Statement 3, please clarify if "public land use" is meant to imply a recreational endpoint. If not, please discuss what this statement means.

Response: *The following has been added immediately after public land use "(for example, roads, parks, schools, civic structures)…".*

    e. Problem Statement 4, the role of background is not described. Given that some of the risk drivers are chemicals that exceed risk-based level at background concentrations, the role of background needs to be addressed. This problem statement also describes

protection of human health, groundwater protection and surface water protection. Regarding groundwater, this seems to contradict statements in Chapter 2. Please explain.

Response: *The following sentence has been added to the end of Problem Statement 4: "Where background levels exceed risk-based goals, metals and radionuclides in Site soils are targeted to have risks no greater than those associated with background conditions." In addition, because as noted previously groundwater will not be evaluated, nor will surface water, these media have been removed from the affected media for which the criteria will apply.*

13. Section 3.1.1, page 3-2, the NDEP has the following general comment:
    The DQO process Step 1 is defined as follows (EPA QS/G-4, 2006): Define the problem that necessitates the study; identify the planning team, examine budget, schedule. So, the problem statement is about what can or might be done. In our case (Mohawk), the problem is that a decision needs to be made on future land use at the site (BRC is proposing residential, and so the problem statement should discuss that land use option – another option at this point is to discuss other options as well such as institutional controls, alternative land uses, etc.,)). The decision will be made based, in large part, on environmental factors, and in particular, on regulatory considerations for human health risk assessment. Hence a CSM should be developed. So, the problem statement should go from land use options, to the environmental problem to the CSM (because the environmental contamination is the only reason there is a problem for land use). The CSM should be fully descriptive of the potential environmental issues, including some idea of how the problem will be solved (risk assessment). What's missing is the CSM. The CSM of the potential environmental problem or hazard should be developed and should include information regarding known or expected locations of chemicals, potential sources, media that are impacted or may become impacted, and exposure scenarios. Step 2 should then discuss how the decision will be made, and should lean on the hypothesis testing framework for approving residential use (taking no further action), or taking some level of further action (change land use, or continue to remediate, etc.).

Response: *As noted above, a discussion on the current and future exposure pathways has been added to Section 3.1.1 of the document, as well as reference to the CSM in the Closure Plan. The exposure pathway diagram from the Closure Plan, tailored for the Mohawk sub-area has also been added to the document.*

14. Section 3.1.2, pages 3-2 and 3-3, the IRM that has been performed previously should be described in concert with description of the CSM. Further description under the Problem Statement should not be necessary.

Response: *This discussion has been removed from this section. The discussion on the need for additional excavations has been moved to Section 4.*

15. Section 3.2, pages 3-4 and 3-5, the NDEP has the following comments:
    a. Please reference and/or reiterate the site cleanup goals.

Response: *Reference to these goals, defined in the Closure Plan, has been added to the document.*

b. Page 3-4, the role of background is not described, but it is a critical component of the approach at this site, considering the contribution to risk from arsenic and radium background.

Response: *The PSQs reference Site cleanup goals, of which background is an integral part of project approach. Therefore, background is, indirectly referenced, and is described in the Closure Plan. A more definitive discussion on the role of background has been added to Section 3.1.1 of the document.*

c. Per the USEPA QS/G-4 DQO guidance document, Step 2 is Identify the goals of the study – the study goals come from the problem statement, and the decision basis will be human health risk assessment, which means comparison of mean concentrations with risk thresholds. So, Step 2 should write out how the study decisions will be made, specifically, for this sub-area. This should include some understanding of how the risk assessment will be performed (media, pathways, etc.)

Response: *Reference to the Closure Plan has been added to this section of the document.*

d. Page 3-4, the need to demonstrate that risk is acceptable is described, however, the media and pathways included are not identified. Given previous descriptions, it is not clear, for example, what role groundwater or surface water will play in the risk-based decisions. Also, the question of how off-site exposures will be evaluated is not addressed. It would be helpful if the PSQs were stated specifically for this Sub-Area.

Response: *The primary PSQ is stated specifically for this sub-area in Section 3.2. None of the other PSQs stated in the Closure Plan apply to the Mohawk sub-area. The PSQ has been modified to define the media of concern as soil and soil vapor.*

e. Page 3-4, Item 2, reference is made to a Section 3.7, which does not appear to exist.

Response: *The text has been revised to refer to the proper section of the Closure Plan.*

16. Section 3.3, page 3-5, the NDEP has the following comments:
    a. BRC states "Site characterization data (to be collected as determined by this SAP) in case Site materials are used in other portions of the Site as fill materials." It would seem to the NDEP that site characterization data will also be used to complete the health risk assessment to determine if the incremental risks at the Site are acceptable or unacceptable.

Response: *The reference to site characterization data is one bullet of several that identify inputs to the decision. The first bullet in this list identifies inputs for human health risk assessment.*

b. Page 3-5, Item 2, not all inputs needed are clearly identified. Since this is a SAP, it would seem appropriate to describe exactly which media are being sampled for the risk assessments that will be performed, and which other inputs are required for the risk assessment (dependent on the pathways included).

Response: *Reference to the sampled media, soil and soil vapor flux, has been added to this section of the document.*

17. Section 3.4.2, Spatial Boundaries, page 3-6, it should be noted that there will likely be more than one set of spatial boundaries ultimately identified. For example, data may need to be grouped for sub-areas of the Mohawk sub-area in order to appropriately address the decision units (e.g., exposure areas). Also, data may ultimately be grouped by soil depth to appropriately address different soil exposure points. These considerations are also relevant to the scale of decision making.

Response: *Text reflecting this comment has been added to this section of the document.*

18. Section 3.4.3, the NDEP has the following:
    a. Page 3-6, this section needs refinement. The temporal boundaries have to do with whether current or future risk (or both) will be considered. In particular, the following sentence" Therefore, data collection and decision-making needs to allow for the probability that conditions in a given medium may change over time." implies that changing conditions through time need to be considered. The temporal boundaries really should relate to the risk assessment – in this case, current and future risk assessments are apparently planned. In this case the temporal boundaries should address both of these issues. The fact that samples will be taken at slightly different times is really irrelevant and misses the point. These samples are really being collected in the same time frame, and the data will be used to support both current and future risk assessments (presumably). If there are likely to be temporal issues in the sense that concentrations are likely to change over the period of the sampling campaign (which seems unlikely), then these temporal effects should be included in the sample design and evaluated in the risk assessments.

Response: *Text has been added to reflect that both current (post-remediation, pre-development) and future (post-development) exposures, risks and groundwater impacts will be evaluated.*

b. Page 3-7, first paragraph in the "Surface Soil' section states, "Therefore, it is anticipated the limited to no further remediation will be necessary prior to implementation of the SAP." This sentence should be rewritten.

Response: *The sentence has been re-written.*

c. Page 3-7, Subsurface Soil, further clarification is needed regarding the role of groundwater in this SAP and subsequent risk assessment. If groundwater is not going to be evaluated then it is not clear why subsurface soil needs to be evaluated. If groundwater is to be evaluated, then not including groundwater samples would seem to be a limitation. Clarification is needed, and this should also come in the PSQs. (Also, in the 3rd sentence, "the limited" should be changed to "that limited".)

Response: *Although exposures to groundwater are not directly evaluated, impacts to groundwater will be evaluated. Therefore, subsurface soils need to be evaluated to address these potential impacts. Text has been added to clarify this evaluation.*

d. Page 3-7, last sentence states, "BRC assumes that these will reflect the maximum concentration ranges for the project lifetime, and those data will be relied upon throughout the redevelopment process and in assessing risks under current and future land use scenarios." Please explain if the hydrological characterization support this assertion.

Response: *The following sentence has been added to the document: "Given the soil and groundwater quality data for the area (see Section 2 and Appendix B) this assumption is considered appropriate."*

19. Section 3.4.4, page 3-8, again, groundwater sampling is discussed, but it is still not clear how these data will be used in the risk assessment.

Response: *As noted in the text additional groundwater monitoring as part of the overall Eastside program, may be needed following redevelopment. It is not anticipated that groundwater data will be used in the risk assessment for the Site.*

20. Section 3.4.5, pages 3-8 and 3-9, the NDEP has the following comments:
    a. Page 3-8, the scale for decision making is stated as 1/8 acre, but this surely raises a question about the comparative sparseness of the sample design. This section presents an opportunity to explain how taking samples every 3 acres is sufficient to support decision making for every 1/8 acre. This argument should be based on the CSM, and should raise statistical issues concerning comparative homogeneity of the site (post-remediation), and that the hypothesized homogeneity is the reason why the effective decision unit is 1/8 acre. Furthermore, the homogeneity assumption should be tested through data analysis after the data have been collected.

Response: *This issue is discussed in the Stats Methodology report. Reference to this report has been added to this section of the document.*

b. Page 3-9, Subsurface soil, it is not clear that the 1/8th acre concept applies to subsurface soils. Some clarification is needed. Earlier in the document, it is described that the subsurface data will be collected to support an understanding of transport to groundwater. Please explain.

Response: *The issue of 1/8th acre is applicable for soils from surface to 10 feet bgs; the depth range for potential residential exposures. Below 10 feet bgs, the primary issue is potential impacts to groundwater. For consistency the 1/8th acre was to be used for subsurface soils as well. However, the following sentence has been added: "It should be noted that this scale for subsurface soils may not be applicable and a site-wide approach may be used instead.*

c. Page 3-9, Soil Vapor Flux, it is not clear how the 1/8th acre concept will be utilized by the surface flux data. Please explain how these data will be used in the risk assessment.

Response: *Because it is not anticipated that the variability of the surface flux data will be large, that is, homogeneity of the data is expected. Therefore, the concept of 1/8th acre still applies to the soil flux data, even though fewer samples will be collected. However, if this is not the case, then additional soil flux data may need to be collected.*

d. Page 3-9, Develop a Decision Rule, the population parameter concept is described, but no population parameters are identified. Presumably, the mean concentration will be used to support risk assessment, but this should be made clear. Also, the methods by which a risk assessment will be performed are not described. The DQOs should ultimately relate back to the PSQs, which should define the risk calculations that will be performed (i.e., identify media and pathways that will be included in the RA). In addition, the role that background will play should be described.

Response: *The following sentences have been added to Section 3.5 of the document: "The population parameters for the project are discussion in the both the Statistical Methodology Report (NewFields 2006) and Section 9 of the Closure Plan." and "The risk assessment methodology for the project is presented in Section 9 of the Closure Plan."*

21. Section 3.5, pages 3-9 and 3-10, please reference and/or reiterate the site cleanup goals.

Response: *As noted above, reference to the site cleanup goals in the Closure Plan has been added to the document.*

22. Section 4, it is noted that this is, essentially, Step 7 of the DQO process. No action is necessary.

Response: *Comment noted.*

23. Section 4.1, pages 4-1 and 4-2, the NDEP has the following comments:

a. Please provide a table and/or a Figure which explains the purpose of each judgmental sample.

Response: *Rationale for each of the judgmental samples has been added to the document.*

b. The decision rules presented on page 4-2 would be greatly improved by a schematic diagram.

Response: *A schematic, Figure 7, has been added to the document.*

c. The decision rules presented on page 4-2 would be improved by a link to the proposed grading plan. If possible, please include a Figure which shows the theoretical grading plan.

Response: *A figure showing the proposed grading plan has been added to the document (Figure 8). It should be noted that this is the most current plan available, but not necessarily the final grading plan.*

d. Page 4-2, Rules 3 and 4, the cases in Rules 3 and 4 overlap (i.e. both address the potential use as subsurface fill). These need to be restated so that distinct cases are clearly considered.

Response: *The decision rule schematic, Figure 7, should provide clarification for this issue.*

e. Page 4-1, bottom paragraph, the rationale for the leaching input data locations (10 ft intervals to groundwater or 50 ft) is not provided.

Response: *Text has been revised on page 4-2 to reflect the collection of leaching input data from two locations, one within a pond, and one outside the ponds.*

24. Section 4.2, pages 4-2 and 4-3, the NDEP has the following comments:

a. Please provide additional detail regarding the "step-out" approach and how this relates to the geo-statistical methodology discussed under separate cover.

Response: *Reference to the Statistical Methodology Report has been added to the text.*

b. page 4-2, first two sentences state, "Upon layer-designation of confirmation soil samples, a series of tests will be conducted to determine whether sampled locations within a given layer include "exceeding" samples. An exceeding sample is one that warrants further investigation, which may include additional localized soil removal." Please discuss if remediation is expected to proceed on a per sample basis.

Response: *It is not proposed that remediation be conducted on a per sample basis, rather an evaluation will be conducted as to the impact that removal of particular samples will have on the site data as a whole (effect on homogeneity, Site-wide UCL, etc…). Reference to the Statistical Methodology Report has been added to the text.*

c. page 4-2, third sentence after the first bullet states, "IF the constructed distribution indicates the presence of anomalous concentrations (e.g., high values at the end of an elongated tail of a uni-modal distribution, or values forming an elevated sub-population of a multi-modal distribution), AND the inclusion of these anomalous values causes the computed UCL to exceed 1/10 of the risk-based screening level of the chemical, THEN samples associated with anomalous values will be considered as potential exceeding samples." Please note that this statement does not address the case where the entire distribution is elevated resulting in a UCL that exceeds 1/10 the RBSL. Please clarify.

Response: *Reference to the Statistical Methodology Report has been added to the text.*

d. Page 4-3, First two sentences after the first bulleted paragraph state, "Areas with potential exceeding samples may be subjected to re-sampling prior to the confirmation of the location as an exceeding sample. After any such re-sampling, the above process will be repeated to confirm the exceeding status of the targeted sample location." It is not clear that sequentially removing the most contaminated samples and adjacent areas provides an acceptable determination of lack of contamination. For example, if the population of concentrations is elevated and randomly distributed across the site, then sequentially removing the most contaminated samples only addresses clean up in the areas that each of the samples is considered to represent. Specifically, confirmation sampling would likely need to include a new set of samples that is separate from the one that drove the remediation. This should be addressed by building a CSM that justifies the approach taken, coupled with some contingencies if the data indicate a more widespread "hot-spot" problem.

Response: *Reference to the Statistical Methodology Report has been added to the text.*

e. Page 4-3, end of first bullet, if the distribution comparison tests fail (in a weight-of-evidence manner), then the conclusion is that the site distribution exceeds the background distribution. The conclusion is not that there is potential for an exceedance.

Response: *This language was obtained directly from the NDEP-approved the Statistical Methodology Report.*

25. Section 4.3, page 4-3, it should be explicitly stated that additional random samples will be collected for confirmation. The collection of additional random samples for the confirmation data set is consistent with the 'Statistical Methodology Report', which is referenced in Section 4.3.

Response: *There is no mention in the Statistical Methodology Report of the collection of additional random samples, beyond those initially collected from the 3-acre grid network. Additional samples will consist of "…additional samples biased toward known small-scale contamination areas, as well as biased not-exceeding delineation and confirmation samples associated with intermediate cleanups…"*

26. Section 4.4, page 4-4, the NDEP has the following comments:
    a. A description of how the flux chamber data will be specifically evaluated for adequacy should be provided. For example, risk-based exceedances should be identified on a sample-by-sample basis.

Response: *Exceedances are based on the rules defined in the Statistical Methodology Report not on a sample-by-sample basis. This same principle is applicable to the soil flux data as well.*

    b. BRC states that the number of flux samples was chosen based upon USEPA guidance for "homogenous site properties". This sub-area is not homogenous in that it "includes previously excavated ponds as well as areas that were not used for any known waste disposal." (as stated by BRC on page 1-1). Perhaps these two distinct areas of the sub-area need to be given separate considerations in the design of the sampling plan.

Response: *Following excavation to native soil, the expectation is that the entire Site will be homogeneous, although it is recognized that this may not be the case. However, as noted above, this not considered likely for volatile compounds at the Site. That is, given the depth to groundwater, low levels of VOCs in groundwater, and lack of VOCs in historical soil samples, homogeneity of the data is expected.*

    c. It is not clear that selection of half of the soil sampling locations for flux chamber analysis has any basis.

Response: *As noted above, because it is not anticipated that the variability of the surface flux data will be large, that is, homogeneity of the data is expected. Therefore, the number of proposed soil vapor flux sample locations is considered adequate. However, if this is not the case, that is, the data are not homogenous, then additional soil flux data may need to be collected. As discussed in the Statistical Methodology Report, the sampling to be conducted at the Site will be an iterative process.*

    d. The CSM should be relied upon and relevant groundwater data should be shown in the SAP and used to substantiate that areas of the Mohawk sub-area are adequately targeted for the flux chamber sampling.

Response: *As noted in response to comment 10c above, There is limited groundwater data available for this area, and only low levels of VOCs have been detected in groundwater near the*

Site. Groundwater data for shallow monitoring wells in the vicinity has been added to the document.

e. It is not clear why radon emissions are not being considered. The Site received wastes containing radionuclides including the parent radionuclides of radon (U-238 and U-234). Please discuss this matter in greater detail.

Response: *Section 4.4 of the document discusses radon and the collection of radon flux data.*

f. Second paragraph, first sentence, the word "rational" should be changed to "rationale".

Response: *The word has been corrected in the document.*

g. Second paragraph, last sentence states. "Similarly, there is no information available suggesting radon emissions, and random sampling of every other cell should not provide for a thorough evaluation of potential radon emissions." This sentence needs to be re-written.

Response: *The sentence has been re-written.*

h. NDEP previously identified a number of clarification comments to the August 2006 SOP-16. Please ensure that these comments are incorporated into the flux chamber sampling and analysis activities. Please provide reporting limits in flux units to confirm adequacy for health risk assessment application. Also, please confirm that the lab will report summa canister concentrations and associated flux rates.

Response: *As noted in the document, sampling and analysis for flux chamber sampling will follow SOP-16. Reporting units in flux units have been added to Table 3 (now Table 5). As stated in SOP-16: "The compound-specific flux rate for VOCs in the dynamic flux chamber will be calculated using the laboratory data for compound concentration in the flux chamber Summa canister (µg/m^3), the sweep air inflow rate (0.005 m^3/min), and the surface area of the chamber (0.13 m^2)."*

27. Section 4.5, pages 4-5 and 4-6, the NDEP has the following comments:
    a. This section should be entitled "Chemicals Selected for Soil Analysis."

Response: *This section also provides the analyte list for soil vapor flux samples (final paragraph). Therefore, no changes to the header have been made.*

b. BRC has no sub-area-specific data for the following classes of chemicals: chlorinated compounds; organic acids; non-halogenated organics; PCB congeners; and total petroleum hydrocarbons. Therefore, BRC cannot demonstrate that the remedial investigation for these compounds has been completed. It is necessary to provide

additional justification for excluding these chemical classes or include these classes of chemicals in the analysis.

Response: *Rationale for the exclusion of the analytical suites have been provided, including data for the entire Eastside property. Given other areas of the Site were more contaminated than the Mohawk sub-area, this should provide sufficient rationale for their exclusion.*

c. BRC has only one sub-area-specific sample for chlorinated herbicides, however, these compounds are not expected to be present based on data collected by BRC and the individual BMI Companies. NDEP concurs with the exclusion of this class of chemicals.

Response: *Comment noted.*

d. Pages 4-5 and 4-6, these bullets should reference Table 2 for transparency. It isn't obvious in the text the exact analytes to which they are referring, especially for methods 8015B and "HPLC Method for organic acids." The text should make it clear that the exact analytes that will not be included from the SRC list are cited.

Response: *Comment noted. These analytes are listed in Table 2 (now Table 4), and there is a reference to this table at the top of this section.*

28. Section 5.1.1, page 5-1, first sentence states, "The pre-field activities will be conducted in accordance with applicable SOPs." The SAP should cite, by number, the SOPs that are applicable. This comment applies to the entire SAP.

Response: *References to the appropriate SOPs have been added to the document.*

29. Section 5.1.4, page 5-2, this Section should also discuss vertical accuracy.

Response: *A discussion on vertical accuracy has been added to the document*

30. Section 5.2.2, page 5-3, third sentence states, "A limited number of full scan analyses, conducted at higher MDLs, is recommended as a confirmation of the target list of study compounds (e.g., demonstration of comprehensiveness and representativeness)." Please clarify if this limited number is the 10% referenced above this sentence in that same paragraph.

Response: *Clarification of this issue has been added to the document.*

31. Section 5.2.3, page 5-3, the NDEP has the following comments:
    a. This Section should list or cross-reference to the analytical methods for the physical parameters specified.

Response: *Analytical methods for the physical parameters have been added to Table 4 of the document.*

b. Please note that depending on the type of modeling to be performed soil pH is a useful parameter.

Response: *Comment noted. pH is listed as one of parameters to be analyzed for in Table 4.*

c. NDEP requests that grain size analysis be completed by sieve and hydrometer to aid in classifying the soils.

Response: *Comment noted. Grain size analysis will be performed by sieve and hydrometer methods. These parameters have been added to Table 4.*

d. Fourth sentence, BRC states, "These soil physical parameters will be measured on a sub-set of the samples collected from the site (for example, 10 percent of soil samples collected)." NDEP expects that BRC will insure that this sub-set includes the full range of soil depths and soil horizons within all sampled depths. NDEP suggests that a more focused approach; such as viewing the cores and making ad hoc decisions might be better. Please clarify the text.

Response: *Clarification as to the location and depths of the soil physical parameters has been added to the document. These data will be collected within all sampled depths. Decisions as to when to collect these samples based on viewing cores when available has been added to the document.*

32. Figure 1, the NDEP has the following comments:
    a. Please modify this Figure or provide a new Figure to show where the historical IRM materials were placed.

Response: *The identification of historical IRM locations has been added to the figure.*

b. Please provide a North arrow.

Response: *A north arrow has been added to the figure.*

33. Figure 2, the NDEP has the following comments:
    a. Please modify this Figure or provide a new Figure to show where the historical IRM occurred (including depths).

Response: *The identification of historical IRM locations has been added to the figure.*

b. The inset to this Figure has a red demarcation that does not tie to the legend, meaning it does not represent the Mohawk Sub-Area. This comment also applies to Figure 3. It is suggested that BRC either modify the outline inset to represent the Mohawk sub-area or utilize a different color in the inset.

Response: *The color of the inset box has been changed to be different than the Mohawk sub-area boundary line.*

c. Please provide a North arrow.

Response: *A north arrow has been added to the figure.*

34. Table 1, the NDEP has the following comments:
    a. The text discusses a comparison to 1/10th the USEPA Region IX PRG as being appropriate, however, the table compares directly to the USEPA Region IX PRG. Please correct this inconsistency.

Response: *The values used in Table 1 are simply a comparison to PRG values for historical data, for information purposes only. Use of 1/10th the PRG is proposed for the identification exceeding samples for the confirmation dataset. These are two different uses of these values and are therefore not inconsistent.*

b. The "Residential PRG" presented for several compounds is incorrect. Please verify these comparison levels and all others. Please note that NDEP has not verified all comparison levels presented in this table. This affects the conclusions presented in the body of the report. Examples follow:
    i. Boron, BRC lists a PRG of 16,000 mg/kg. USEPA identifies a PRG of 15,622 mg/kg.
    ii. Chromium. BRC lists a PRG of 100,000 mg/kg. USEPA identifies a PRG of 211 mg/kg.

Response: *i. rounding error; ii. 100,000 mg/kg is for trivalent chromium (211 mg/kg is is based on a 1:6 ratio of CrVI to CrIII. 100,000 mg/kg was used since hexavalent chromium data is available. Therefore, CrIII is assumed for total Cr results). All other values in this table have been checked and verified.*

c. The "Residential PRG" for lead is incorrect. It appears that BRC is referencing a screening level for lead which is not a USEPA Region IX PRG. Please explain this via a footnote.

Response: *The 400 mg/kg value for lead is listed as a PRG (with the footnote non-standard method applied) in the 2004 USEPA Region 9 PRG table.*

35. Table 2, the NDEP has the following comments:
    a. Please present or reference target reporting limits for these soil samples (similar to Table 3).

Response: *Target reporting limits have been added to Table 2 (now Table 4).*

    b. It appears that asbestos is not included in the proposed analyses. Please explain.

Response: *It's there (at bottom of page 1).*

REDLINE/STRIKEOUT TEXT

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ACRONYMS AND ABBREVIATIONS

Aa	alluvial aquifer
AOC3	Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3
APA	air pathway analysis
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
BRC	Basic Remediation Company
CAMU	Corrective Action Management Unit
CAP	Corrective Action Plan
COPC	chemical of potential concern
CSM	conceptual site model
DAF	dilution attenuation factor
DQA	data quality assessment
DQOs	data quality objectives
DVSR	Data Validation Summary Report
ECI	Environmental Conditions Investigation
FSSOP	Field Sampling and Standard Operating Procedures
GPS	global positioning system
HSA	Hollow Stem Auger
IRMs	interim remedial measures
MCL	maximum contaminant level
MDLs	method detection limits
MSSLs	medium-specific screening levels
NDEP	Nevada Division of Environmental Protection
NFAD	no further action determination
PCBs	polychlorinated biphenyls
PIDs	photoionization detectors
PSQs	Principal Study Questions
QA/QC	Quality Assurance/Quality Control
Qal	Quaternary alluvium
QAPP	Quality Assurance Project Plan
RAP	Remedial Action Plan
SAP	Sampling and Analysis Plan
SOPs	Standard Operating Procedures
SRC	Site-related chemicals
SSL	Soil Screening Level
SVOCs	semi-volatile organic compounds
TDS	total dissolved solids
TEQ	toxic equivalency
TMCf	Muddy Creek formation
TPH	total petroleum hydrocarbons
UCL	upper confidence limit
USCS	Unified Soil Classification System
USEPA	U.S. Environmental Protection Agency
VOCs	volatile organic compounds

1.0 INTRODUCTION

Basic Remediation Company (BRC) has prepared this Sampling and Analysis Plan (SAP) for the Mohawk sub-area. The SAP describes tasks for performance of confirmation sampling in order to obtain a no further action determination (NFAD) for this area. The term NFAD is defined in the *Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3* (AOC3; Nevada Division of Environmental Protection [NDEP] 2006) in Section XVII. This revision of the SAP, Revision 21, incorporates (1) comments received from the NDEP, dated 19 September 2007, on Revision 0 of the SAP, dated August 2007; and (2) comments received from the NDEP, dated 30 January 2008, on SAP text revisions, dated October 2007, and (3) comments received from the NDEP, dated 10 June 2008, on Revision 1 of the SAP, dated May 2008. The NDEP comments and BRC's response to these comments are included in Appendix A. Also included in Appendix A is a redline/strikeout version of the text showing the revisions from the May 2008October 2007 version of the SAP. An electronic version of the entire report, as well as original format files (MS Word and MS Excel) of all text and tables are included in Appendix B.

The Mohawk sub-area (hereinafter "the Site") is one of several sub-areas of the BMI Common Areas (Eastside) located in Clark County, Nevada (Figure 1). The Site encompasses an area of approximately 54.7 acres (Figure 2). The Site includes unexcavated ponds, previously excavated ponds, and areas that were not used for any known waste disposal. This SAP relies upon information provided in the *BRC Closure Plan* for the BMI Common Areas (BRC *et al*. 2007; hereinafter "Closure Plan"). The main text of the Closure Plan provides discussions of the following elements relative to the BMI Common Areas project as a whole:

- The project history, including cleanup goals and project objective (Closure Plan Sections 1 and 2);
- The list of site-related chemicals (Closure Plan Section 3);
- The conceptual site model (CSM) addressing potential contaminant sources, the nature and extent of chemical of potential concern (COPC) occurrence, and potential exposure pathways (Closure Plan Section 4; a CSM discussion specific to the Site is provided in Section 2 of this SAP);
- Data verification and validation procedures (Closure Plan Section 5);
- The procedures used to evaluate the usability and adequacy of data for use in the risk assessment (Closure Plan Sections 6 and 9);

- The data quality objectives (DQOs; Closure Plan Section 7; a DQO discussion specific to the Site is provided in Section 3 of this SAP);
- Data quality assessment (DQA; Closure Plan Section 5);
- The remedial alternative study process for the Site (Closure Plan Section 8); and
- Risk assessment procedures that will be used for Site closure (Closure Plan Section 9 for human health and Section 10 for ecological).

Baseline remediation will occur prior to implementing the procedures described in this SAP. Many of the previous samples were composite sampling, all previous soil samples (other than limited soil samples collected during the 2006 waste characterization sampling) were collected at least seven years ago, and none of the previous samples have been analyzed for all of the major chemicals or chemical families and several used different analytical methods. Therefore, because of these various factors, and because the post-remediation investigation results are considered representative of site conditions, risk assessments for the Site will be conducted using the data collected as part of this SAP. In general historical data will not be included in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data are useful for CSM purposes and are discussed in Section 2.0.

Sampling performed for this purpose as described in this SAP relies on the statistical methodologies presented in the *Statistical Methodology Report* (NewFields 2006). The *Statistical Methodology Report* describes the statistical methods that will be used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas.

The SAP addresses sampling procedures such that remaining contaminants and their potential impacts to future Site uses (as discussed in the Closure Plan) can be determined. In this SAP, as recommended in the *Statistical Methodology Report*, samples will be collected throughout the Site on a systematic sampling basis, consisting of a regular grid overlay across the property with a randomly placed sample within each grid cell to provide enough samples for completion of a statistically robust assessment of contaminant distribution, and subsequently, to provide a robust data set upon which to perform a human health risk assessment. Additional biased sampling locations will be selected within or near small-scale contamination points of interests, including

but not limited to previous debris locations, ponds, and berm walls near previously excavated ponds.

1.1 PURPOSE OF THE SAP

The purpose of this SAP is to evaluate soil and soil vapor conditions (including any indirect impacts from underlying groundwater) that may have been impacted at the Site from former activities and adjoining lands. The scope of this investigation is limited to soil and soil vapor flux sampling in an effort to assess issues that might directly impact Site development potential consistent with the Closure Plan. However, the data will be used to determine any impacts to groundwater from future site uses. That is, data will be collected to evaluate the soil-to-groundwater leaching pathway. The objective of the field investigation is to identify and characterize the distribution of Site-related chemicals (SRC). Surface and subsurface samples that will be collected are depth-discrete soil matrix samples and surface vapor flux samples. Although thisThis SAP does include data collection for evaluating groundwater as a potential source to the vapor intrusion pathway, it does not address potential groundwater issues, which are being investigated separately by BRC pursuant to AOC3 (NDEP 2006) as part of an overall evaluation of the BMI Common Areas. The investigation is designed to provide sufficient data to support risk-based decisions (including decisions to seek an NFAD) for the Site. BRC anticipates that, if needed, the NFAD for the Site will contain a deed restriction precluding potable use of groundwater beneath the Site.

2.0 CONCEPTUAL SITE MODEL

The following sections provide information about the Site, previous investigations that have been conducted at the Site, interim remedial measures (IRMs) that have occurred, and the existing Site dataset. An overview of the CSM for the Site is provided in the Closure Plan. This section includes a summary of the investigations performed at the Site during the following primary project phases: prior to IRM performance (Section 2.4); during or immediately following the IRM (Section 2.6); and subsequent to IRM performance (Section 2.7).

2.1 SITE DESCRIPTION

The Site (Figure 2) comprises approximately 54.7 acres of undeveloped land with very little surface relief that is gently sloping to the northwest. The Site is currently undeveloped, except for a portion of the temporary informational kiosk, and Mohawk Drive which passes through the Site. Site conditions within the Site are variable. As depicted in Figure 2, the northern portion of the Site has no features of historical use; this portion of the Site has historically been undeveloped and is not known to have been associated with industrial operations at the BMI Complex. In contrast, the southern portion of the Site contains a portion of the Upper Ponds, which were once associated with historical conveyance and/or disposal of operations effluent and cooling water by companies operating at the BMI Complex. The individual ponds are distinct and defined by berms along the north, east, and west sides. In general, the berms are relatively uniformly-shaped, often with angular corners showing little evidence of erosion. The berms are typically 4 to 6 feet tall.

The native soils within the ponds are compacted, poorly-sorted, non-plastic, light brown to red silty sand with varying amounts of gravel. However, prior to 2001, within portions of several ponds, the surficial material consisted of very fine material that graded in color from greenish-gray to light yellowish-brown; in places, the ground surface was white. This discolored material was interpreted to be residual sediment associated with historic effluent disposal in the ponds. As discussed below, this material has been removed from these ponds.

Exposures to current receptors are being managed through site access control. Under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing, parks, schools, commercial development, and streets. The entire Site will be enhanced by restoration and redevelopment once remediation is complete. Therefore, exposures to ecological receptors will be mitigated or removed. Future receptors identified as "on-site receptors" are defined as receptors located within the current Site boundaries (Figure 2),

while future "off-site receptors" are those located outside the current Site boundaries. Many potential human receptors are possible at the Site in the period during and after redevelopment. The potentially exposed populations and their potential routes of exposure are discussed in Section 9 of the Closure Plan.

The current development plan for the Site is shown on Figure 3. To construct parks, commercial structures and residences, the land will be cut and/or filled, paved with roads or foundations, and nurtured with imported top soils[1] as needed. Figure 4 shows the current grading plan for the Site, indicating which areas will be filled and which areas will be cut.

Because the background general water quality (*i.e.*, high salt concentrations) of the groundwater beneath the Site and in the surrounding area is poor and because BRC will place institutional controls in the form of a deed restriction to prevent future users from utilizing groundwater beneath the Site, the use of private water wells by residents, businesses, or parks for drinking water, irrigation water, or other non-potable uses (*e.g.*, washing cars, filling swimming pools) will not occur in the post-redevelopment phase.

Although direct exposures to groundwater will not occur; indirect exposures are possible. The primary indirect exposure pathway from groundwater is the infiltration of volatile organic compounds (VOCs) from soil and groundwater to indoor air. In addition, residual levels of chemicals in soil may leach and impact groundwater quality beneath the Site. Collection of data to evaluate both of these migration pathways at the Site isare presented in this SAP.

The First Eight Rows sub-area encompasses an area of approximately 208.2 acres immediately to the west of the Site. Metals, asbestos, dioxins/furans, organochlorine pesticides, perchlorate, radionuclides, and semi-volatile organic compounds (SVOCs) have been detected at elevated levels in this sub-area. The Upper Ponds sub-area, which encompasses an area of approximately 284.5 acres, is also immediately to the west of the Site. Similar chemicals have been detected in this sub-area, but at lesser concentrations than those found in the First Eight Rows sub-area. Although these adjacent sub-areas contain elevated chemicals in soil, and remediation of these sub-areas is scheduled to occur after remediation of the Site, impacts from these areas to the Site are considered negligible because dust palliative measures have been implemented for the IRM soil storage areas, and dust suppression/mitigation measures will be implemented during remediation activities.

[1] Note: Imported soil data will not be included in risk assessment calculations. However, the chemical data for fill material from the Site may be useful for evaluating sub-areas to receive this fill.

Immediately to the south and east of the Site is the Parcel 4B sub-area. The NDEP concluded in 1997 that no further characterization of this sub-area was required and that development could proceed without environmental restriction. However, subsequent to this decision, additional sampling and analysis was conducted in 2007, supplemented by additional sampling in 2008. Following the first round of sampling in 2007, surface soil was scraped and removed from several areas within the Parcel 4B sub-area followed by additional sampling. Currently a screening-level human health risk assessment is being conducted for this sub-area to determine whether re-affirmation of the NFAD for Parcel 4B is warranted.

Analytical results for each of the three sub-areas surrounding the Site are presented further in Section 2.8 below.

2.2 SURFACE WATER

Surface water flow occurs for brief periods of time during periodic precipitation events. Because of the nature of the ponds and their construction, it is unlikely that surface waters drain to the Las Vegas Wash from the Site.

2.3 GEOLOGY/HYDROGEOLOGY

As is common throughout the Las Vegas Valley, Site soils are primarily sand and gravel, with occasional cobbles. This is consistent with the depositional environment of an alluvial fan. The Site is located on alluvial fan sediments, with a surface that slopes to the north-northeast at a gradient of approximately 0.02 foot per foot (ft/ft) towards the Las Vegas Wash. Regional drainage is generally to the east.

The uppermost strata beneath the Site consist primarily of alluvial sands and gravels derived from the River Mountains and from the volcanic source rocks in the McCullough Range, located to the southeast and southwest of the Site, respectively. These uppermost alluvial sediments were deposited within the last two million years and are of Quaternary age, and are thus mapped and referred to as the Quaternary alluvium (Qal; Carlsen *et al*. 1991). The Qal is typically on the order of 50 feet thick at the Site with variations due, in part, to the non-uniform contact between the Qal and the underlying Tertiary Muddy Creek Formation (TMCf).

The TMCf underlies the Qal. The Muddy Creek formation, of which the TMCf is the uppermost part, is a lacustrine deposition from the Tertiary Age, and it underlies much of the Las Vegas Valley. It is more than 2,000 feet thick in places. The lithology of the TMCf underlying the Site

is typically fine-grained (sandy silt and clayey silt), although layers with increased sand content are sporadically encountered. These TMCf materials have typically low permeability, with hydraulic conductivities on the order of 10^{-6} to 10^{-8} centimeters per second (Weston 1993). The TMCf in the vicinity of the Site was encountered to the maximum explored depth of 430 feet below ground surface (bgs). Lithologic cross sections are shown on Figures 5 and 6.

Two distinct, laterally continuous water-bearing zones are present within the upper 400 feet of the Site subsurface: (1) an upper, unconfined water-bearing zone primarily within the Qal referred to herein as the alluvial aquifer (Aa) and (2) a deep, confined water-bearing zone that occurs in a sandier depth interval within the silts of the deeper TMCf. Both of these water-bearing zones contain high concentrations of total dissolved solids (TDS). Between these two distinct water-bearing zones, a series of saturated sand stringers were sporadically and unpredictably encountered during drilling.

Alluvial Aquifer. The Aa is an unconfined, shallower, water-bearing zone that occurs across the Site. For the most part, water in the Aa occurs in the Qal. The water surface in the Aa generally follows topography, with the water surface sloping towards the Las Vegas Wash. The depth from the surface to first groundwater at the Site is approximately 45 feet bgs. Wells completed in the Aa are not highly productive, with sustainable flows typically less than five gallons per minute.

2.4 INVESTIGATIONS PRIOR TO IRM PERFORMANCE

Shallow soil samples were collected within the Site prior to October 1999 (*i.e.*, initiation of the IRM) during the following three separate events (see Figure 2 for sample locations; sample locations are differentiate between pre and post-IRM.):

- The BMI Common Areas Environmental Conditions Investigation (ECI) conducted during March and April 1996 (dataset 1a). The soil investigation activities were performed in accordance with a workplan approved by NDEP in February 1996 (ERM, February 1996). The soil sampling results for the investigation activities were presented in the ECI report (ERM, August 1996);

- Additional soil sampling conducted in December 1998 to better delineate the extent of soil requiring remediation (data were not validated, all soil removed during IRM). These data were for internal purposes only, and were not collected under a formal NDEP-approved workplan. The results were summarized in the IRM Completion Report (ERM, May 2000); and

- Additional soil sampling conducted in May 1999 to establish the extent of antimony, manganese and thallium occurrence in site soils (dataset 6c). These data were also not collected under a formal NDEP-approved workplan. The results were summarized in the IRM Completion Report (ERM, May 2000).

During these investigations, soil samples at various depths were collected and analyzed for VOCs, SVOCs, organochlorine pesticides, polychlorinated biphenyls (PCBs), metals, perchlorate, radionuclides, and/or asbestos. The data from these investigations have been validated, except as noted above. Data validations are presented in the respective Data Validation Summary Reports (DVSRs) for each of the datasets, which have been approved by NDEP (12 September 2006 for dataset 1a and 10 October 2006 for dataset 6c). The results of these field sampling events are summarized in the database excerpt provided in Appendix B.

The following compounds were detected in soils collected during the various sampling events at the Site at concentrations greater than U.S. Environmental Protection Agency (USEPA) Region 6 residential soil medium-specific screening levels (MSSLs; USEPA 2007):

Pond ID	Site-Related Chemical	Residential Soil MSSL (mg/kg)	Maximum Detection (mg/kg)
UA-01	4,4'-DDE	1.7	4.3
	4,4'-DDT	1.7	1.8
	Antimony	31	72
	Arsenic	7.2*	220
	Chromium (Hexavalent)	30	48
	Lead	400	700
	Manganese	3,500	15000
	Vanadium	390	750
UA-03	4,4'-DDE	1.7	16
	4,4'-DDT	1.7	3.0
	Antimony	31	150
	Arsenic	7.2*	80
	Lead	400	3700
	Manganese	3,500	8700
	Vanadium	390	7100
UB-01	Antimony	31	40
	Arsenic	7.2*	36
	Lead	400	480
	Vanadium	390	2600
UB-02	Antimony	31	62
	Arsenic	7.2*	32
	Lead	400	1500
	Thallium	5.2	9.5
	Vanadium	390	3300

Pond ID	Site-Related Chemical	Residential Soil MSSL (mg/kg)	Maximum Detection (mg/kg)
UC-01	Arsenic	7.2*	25
	Vanadium	390	1300
UD-02	Antimony	31	35
	Arsenic	7.2*	47
	Lead	400	850
	Manganese	3,500	3700
	Vanadium	390	2300
UE-01	Arsenic	7.2*	11.6
	Vanadium	390	563

*Indicates maximum background concentration.

Ultimately, the NDEP concluded that remediation was warranted for the following 10 Site ponds: UA-01 through UA-03, UB-01 through UB-03, UC-01 and UC-02, and UD-01 and UD-02.

2.5 INTERIM REMEDIAL MEASURES (IRMs)

To expedite restoration of the Site, BRC elected to perform an IRM for these areas. This IRM was performed following the procedures specified in the NDEP-approved *Mohawk Area IRM Workplan* (ERM 1999). The IRM workplan was approved by NDEP on 23 July 1999. IRM activities consisted of excavation of the impacted shallow soils, transportation to a secured location within the Upper Ponds outside the Site boundaries, and treatment to prevent generation of wind-blown dusts and runoff.

The majority of soil excavation in the Site was performed during October and November of 1999, with the balance completed by March 2000. Excavation was conducted in ponds UA-01 through UA-03, UB-01 through UB-03, UC-01 and UC-02, and UD-01 and UD-02. In addition to the removal of discolored sediments, a minimum of six inches of soil was removed throughout the IRM area. Based on the results of confirmation sampling following the IRM, an additional six inches of soil were excavated and removed from ponds UC-01 and UC-02. A total estimated 16,000 cubic yards of soil were excavated and removed from the Site. Results of the IRM for the Site were presented in the IRM completion report (ERM, May 2000); this report has not been approved by NDEP. Areas of soil removal during the IRM are shown on Figure 7.

2.6 IRM-RELATED CONFIRMATION SAMPLING

As soon as practical following excavation within a given former pond cell, soil samples were collected to confirm that the residual chemical concentrations were below screening levels. The

confirmation samples were collected from 0 to 1 foot below the post-excavation grade in each former pond cell using hand trowel techniques. Two three-point composite samples were collected from each former pond cell. One composite sample was collected to represent the downgradient (northern) half of the pond, which typically contained thicker accumulations of the discolored material and one sample was collected to represent the upgradient (southern) half of the pond, which typically contained limited accumulations of discolored material. For each composite sample, subsamples were collected (1) at the approximate east-west midpoint of each pond, (2) half way between the midpoint sample and the eastern berm, and (3) half way between the midpoint sample and the western berm.

The confirmation samples collected from each former pond were analyzed for the following: metals, perchlorate, organochlorine pesticides, radionuclides, and asbestos. Soil sampling was conducted during October 1999 (dataset 7a). As noted above, the soil sampling activities were performed in accordance with ERM's workplan dated June 1999, and approved by NDEP on 23 July 1999. The soil sampling results for the investigation activities were presented in the IRM completion report (ERM, May 2000). All data from this investigation have been validated. Data validation results are presented in the DVSR for dataset 7a, which was approved by NDEP on 17 October 2006. The post-IRM data are also included in the database excerpt provided in Appendix B. SRC concentrations in Site soils were reduced as follows:

Pond ID	Site-Related Chemical	Pre-IRM Maximum Detection (mg/kg)	Post-IRM Maximum Detection (mg/kg)
UA-01	4,4'-DDE	4.3	< 0.005 U
	4,4'-DDT	1.8	< 0.005 U
	Antimony	72	< 0.52 U
	Arsenic	220	5.1
	Chromium (Hexavalent)	48	NA
	Lead	700	12
	Manganese	15000	440
	Vanadium	750	650
UA-03	4,4'-DDE	16	0.022
	4,4'-DDT	3.0	0.023
	Antimony	150	< 0.52 U
	Arsenic	80	4.7
	Lead	3700	69
	Manganese	8700	460
	Vanadium	7100	480
UB-01	Antimony	40	< 0.52 U
	Arsenic	36	6.3
	Lead	480	15
	Vanadium	2600	31

Pond ID	Site-Related Chemical	Pre-IRM Maximum Detection (mg/kg)	Post-IRM Maximum Detection (mg/kg)
UB-02	Antimony	62	0.81
	Arsenic	32	6.2
	Lead	1500	14
	Thallium	9.5	0.79
	Vanadium	3300	54
UC-01	Arsenic	25	35
	Vanadium	1300	390
UD-02	Antimony	35	0.66
	Arsenic	47	5.5
	Lead	850	14
	Manganese	3700	990
	Vanadium	2300	62

NA = not analyzed.

2.7 INVESTIGATIONS SUBSEQUENT TO IRM

Shallow soil samples were collected within the Site after conducting the IRM (*i.e.*, 2000 and later) during the following three separate events (see Figure 2 for sample locations):

- Discrete/composite soil investigation conducted in July 2000 (dataset 8a). The soil investigation activities were performed in accordance with ERM's workplan submitted in July 2000 and approved by NDEP on 18 July 2000. The soil sampling results for the investigation activities were presented in letters to NDEP dated 11 August 2000 (soil sampling results) and 28 August 2000 (statistical analysis of results). Data validation results are presented in the DVSR for dataset 8a, which was approved by NDEP on 10 October 2006;

- Supplemental soil investigation conducted in May 2001 (datasets 19 and 20c). These data were not collected under a formal NDEP-approved workplan. The results are provided in Appendix B. Data validation results are presented in the DVSRs for datasets 19 and 20c, which were approved by NDEP on 8 December 2006 and 5 February 2007, respectively; and

- Waste characterization conducted in July and August 2006 (dataset 39). The soil investigation activities were performed in accordance with BRC's sampling and analysis plan submitted on 29 June 2006 and approved by NDEP in July 2006. The soil sampling results for the investigation activities were presented in the *Remedial Action Plan* (RAP; BRC 2007). Data validation results are presented in the DVSR for dataset 39, which was approved by NDEP on 3 November 2006.

During these investigations, soil samples at various depths were collected and analyzed for VOCs, SVOCs, organochlorine pesticides, organophosphorous pesticides, PCBs, chlorinated herbicides, dioxins/furans, metals, perchlorate, radionuclides, and/or asbestos. The data associated with these investigations subsequent to the IRM are also included in the database excerpt provided in Appendix B.

2.8 CURRENT CHEMICAL DISTRIBUTION WITHIN SOILS

A summary of historic post-IRM soil chemical data from surface to 10 feet bgs, excluding excavated sample results, is presented in Table 1. All historical sampling results collected from the Site, including those sample locations that were excavated during the IRM, are shown in Appendix B, Tables B-1 through B-9, and included electronically in Appendix B. Individual chemicals analyzed for and the analytical method used in each of the investigations are include in Appendix B. Sample locations are shown on Figure 2. Figures showing the distribution of several chemicals for post-IRM soil samples collected at the Site are presented in Appendix C. These figures also include samples from the surrounding sub-areas (within 1,000 feet of the Site) to provide information on the current upgradient, downgradient, and cross-gradient conditions. Chemical occurrence patterns for the chemicals detected at concentrations in excess of screening levels, in samples collected from surface to 10 feet bgs, are provided below.

Arsenic. Arsenic was detected in all 90 soil samples analyzed. Of the arsenic detections, eight surface samples, one subsurface sample, and three deep (TMCf) samples had reported arsenic concentrations in excess of the maximum shallow soil background level (from BRC/TIMET 2007). Background has not yet been determined for the TMCf soils. In addition, a supplemental soil background dataset has been collected and is currently undergoing data validation. This supplemental background dataset was collected to evaluate background conditions for a particular geologic formation found in the eastern portion of the Eastside, including the Site. The distribution of arsenic for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-1 through C-3.

Vanadium. Vanadium was detected in all 74 soil samples analyzed. Of the vanadium detections, six surface samples had reported vanadium concentrations in excess of the USEPA Region 6 residential soil MSSLs. The distribution of vanadium for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-4 through C-6.

Other Inorganics. Lead and manganese were detected in all soil samples analyzed. Thallium was detected in 10 of 70 soil samples analyzed. Of these detections, one surface sample had a

reported lead concentration in excess of the USEPA Region 6 residential soil MSSL; one surface sample had reported manganese concentrations in excess of the USEPA Region 6 residential soil MSSL; and one surface sample had a reported thallium concentration in excess of the USEPA Region 6 residential soil MSSL. The distribution of lead for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-7 through C-9. Perchlorate was detected in 75 of the 85 soil samples analyzed, with none of the detections exceeding screening levels.

Dioxins and Furans. Four surface soil samples were analyzed for dioxins and furans, with 68 individual congener analyses reported. Forty-six individual dioxins and furans congener detections were reported, although none were above screening levels. No dioxin or furan analyses were performed on samples collected from subsurface soils in the Site. Dioxins/furans toxic equivalency (TEQ) concentrations were compared to the Agency for Toxic Substances and Disease Registry (ATSDR) screening value of 50 parts per trillion (ppt). No TCDD TEQs for samples collected from the Site exceeded this screening level.

Radionuclides. Several radionuclides were detected in all soil samples analyzed. Of these detections, two surface samples had reported radium-226 activity in excess of the maximum shallow soil background level; one surface sample had a reported radium-228 activity in excess of the maximum shallow soil background level; four surface samples had reported thorium-228 activity in excess of the maximum shallow soil background level; one surface sample had a reported thorium-230 activity in excess of the maximum shallow soil background level; three surface samples had reported thorium-232 activity in excess of the maximum shallow soil background level; one surface sample had a reported uranium-233/234 activity in excess of the maximum shallow soil background level; two surface samples had reported uranium-235/236 activity in excess of the maximum shallow soil background level; and one surface sample had a reported uranium-238 activity in excess of the maximum shallow soil background level. The distribution of radium-226, representative of radionuclides, for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-10 through C-12.

Organochlorine Pesticides. Ninety soil samples were analyzed for organochlorine pesticides, with 1,907 individual analyses reported. Analytic detections of organochlorine pesticides were reported in 95 of the 1,907 analyses performed on soils, with eight of the detections above the Soil Screening Level (SSL) based on a dilution attenuation factor (DAF) of 20 (all beta-BHC); 10 of the detections above the SSL based on a DAF of 1; and none of the detections above the USEPA Region 6 residential soil MSSL. The distribution of 4,4'-DDE, representative of

organochlorine pesticides, for soil samples collected in the upper 10 feet bgs at the Site are shown on Figures C-13 through C-15.

Other Organic Compounds. Fifty-one soil samples were analyzed for SVOCs, with 3,222 individual analyses reported. Analytic detections of SVOCs were reported in 19 of the 3,222 analyses performed on soils, with none of the detections exceeding screening levels. Ten soil samples were analyzed for VOCs, with 409 individual analyses reported. Analytic detections of VOCs were reported in 7 of the 409 analyses performed on soils, with none of the detections exceeding USEPA Region 6 residential soil MSSLs or SSLs based on a DAF of 20. Three of the VOC detections exceeded SSLs based on a DAF of 1 (carbon tetrachloride, dichloromethane, and trichloroethylene in surface soil at location WC-MH01).

Summary of Soil Exceedances. For samples collected from the Site, more than 9,700 individual analyses were reported and reviewed. Of the 1,646 detections, 124 were of organic chemicals (that is, not metals and radionuclides) and none exceeded their respective USEPA Region 6 residential soil MSSLs, eight (two percent) exceeded SSL levels based on a DAF of 20, and 13 (eight percent) exceeded SSL levels based on a DAF of 1. Of the 1,436 detections of metals and radionuclides, 158 (11 percent) were reported at concentrations in excess of their respective maximum shallow soil background level.

2.9 CHEMICAL DISTRIBUTION WITHIN GROUNDWATER

There is limited groundwater data available for the Site. The closest wells are greater than 300 feet from the Site. Monitoring well DM-8 is greater than 380 feet to the east of the Site, MCF-12 monitoring wells are greater than 800 feet to the east of the Site, monitoring well DM-7 is greater than 900 feet to the northwest of the Site, and monitoring well AA-18 is greater than 1,400 feet to the northwest of the Site. Nevertheless, data for the alluvial aquifer wells from the most recent groundwater monitoring event are presented in Table 2. Alluvial aquifer water quality data are only available for monitoring wells AA-18 and MCF-12B (monitoring wells DM-7 and DM-8 were dry). Chemical occurrence patterns for the chemicals detected in groundwater from these wells are provided below.

Organic Compounds. Chloroform and tetrachloroethylene were the only VOCs detected during the 4th quarterly groundwater monitoring event, at maximum concentrations of 7.7 and 0.24 parts per billion (ppb), respectively. Acetaldehyde was detected at 4.1 ppb. No other organic chemicals were detected in these monitoring wells. These relatively low detections are below human health screening levels for ingestion exposure routes (*i.e.*, maximum contaminant levels

[MCLs]) and indoor air intrusion (*i.e.*, USEPA generic groundwater to indoor air screening level).

Inorganic Compounds. Several inorganic compounds, including perchlorate, TDS, nitrite, and arsenic, were detected above their respective MCLs. However, these exceedances are consistent with groundwater concentrations across the Eastside, and are not necessarily higher in the vicinity of the Site. In addition, there is no apparent correlation between those metals with higher levels found in soil (for example, arsenic and vanadium), with their levels in groundwater.

3.0 DATA QUALITY OBJECTIVES

A general overview of USEPA and NDEP's 7-step DQO process is provided in the Closure Plan. One of the key decision inputs to the DQO process, namely the Step 2 Principal Study Questions (PSQs) is also provided in the Closure Plan. The PSQs are the central Eastside Area-wide questions that provide a basis for the overall closure effort. Per discussions with the NDEP, the other steps of the DQO process are to be addressed, on an Eastside Area sub-area by sub-area basis (for soils), in the respective sub-area SAPs. For the sake of continuity, BRC is providing below a discussion of Steps 1 through 5 of the DQOs for this Site. BRC is not addressing DQO Steps 6 and 7 based on prior discussions with the NDEP.

The DQO process is a seven-step iterative planning approach used to prepare plans for environmental data collection activities. It provides a systematic approach for defining the criteria that a data collection design should satisfy, including when, where, and how to collect samples or measurements; determination of tolerable decision error rates; and the number of samples or measurements that should be collected. DQOs define the purpose of the data collection effort, clarify what the data should represent to satisfy this purpose, and specify the performance requirements for the quality of information to be obtained from the data. The DQO process, as defined by USEPA's *Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4* (USEPA 2006), consists of of 7 steps:

Step 1 - State the Problem;

Step 2 - Identify the Goal of the Study;

Step 3 - Identify Information Inputs;

Step 4 - Define the Boundaries of the Study;

Step 5 - Develop the Analytical Approach;

Step 6 - Specify Performance or Acceptance Criteria; and

Step 7 - Develop the Plan for Obtaining Data.

Steps 1 through 5, along with sub-activities that comprise each step, are outlined below.

3.1 STATE THE PROBLEM (STEP 1)

The first step in the DQO process is to define the problem that initiated the study in such a way that that the focus of the study is unambiguous. This section provides the following information: a summarization ofsummarizes the problem being addressed; identification of, including the assessment team; identification of, the key decision-makers and stakeholders;, and a presentation of the schedule. The purpose of this DQO step is to state the problem for which the study has been initiated clearly and concisely so that the focus of the study is unambiguous.

3.1.1 Problem Statement

As presented in the Closure Plan, the Site consists mostly of open land that has been modified to accept waste water discharges from the BMI Complex through various trenches and evaporation ponds from 1942 through 1976. Wastes from the BMI Complex were discharged to portions of the Site (namely the previously used ponds) through various trenches into the evaporation ponds from 1942 to 1976. The problem being addressed by the Site closure process is as follows:

1. Current land use at the Site includes previous former unlined evaporation ponds (approximately 25.9 acres), and undeveloped areas (approximately 28.8 acres). The industrial activity on this site has resulted in concentrations of chemicals that drive unacceptable human health risk. Residual contamination remains at the site as a consequence of these discharges and the interimNone of this land is being used at the present. It is desirable that this land be brought back to appropriate use. That is, remediation measures that have been taken previously. The goal of this work is to remediate the Siteproperty such that chemical concentrations in all relevant Site media do not pose an unacceptable risk to human health and the environment under current and anticipated future land use scenarios. The problem that needs to be addressed is one of returning the upper 10 feet of soils at the Site to conditions that pass a human health risk assessment, with restrictions on access to deeper soils and on the use of groundwater. Risk assessment at the Site includes exposure to soils, but also exposure from vapor intrusion from volatile organic chemicals and radon, which might emanate from the vadose zone or from groundwater. A further consideration is the potential for leaching contaminants into groundwateruses, including residential use.

The Site is currently vacant except for the area of the temporary informational kiosk. The potential on-site and off-site receptors are currently trespassers/visitors, occasional on-site workers, and off-site residents. Risks to current receptors are being managed through site access control. Under the current, prospective redevelopment plan, the Site will be used for a variety of

purposes, including residential housing, parks, schools, commercial development, and streets, although only a residential exposure scenario is assumed for this problem. The current and future potential exposure pathways of concern are being addressed by this SAP and any subsequent remediation. The potentially exposed populations for the Site and their potential routes of exposure are presented in Figure 8 and are summarized in Section 9 of the Closure Plan.

2. Wastes from the BMI Complex were discharged to portions of the Site (namely the previously used ponds) through various trenches into the evaporation ponds from 1942 to 1976. Several investigations have been conducted at the Site to establish the nature and extent of contamination, and the physical characteristics of the Site; these results are being used to assess the need for remediation.

3. The entire Site is an urban "in-fill"[2] site and is planned for redevelopment to residential, commercial, and public land use (for example, roads, parks, schools, civic structures) after remediation and closure. The Closure Plan provides a more detailed discussion of the planned redevelopment.

4. 2. As described in the Closure Plan, remediation for (all media) will be to risk-based levels protective of human health and the environment, under current and future land use scenarios.uses. Therefore, appropriate risk-based cleanup goals for the protection of human health, ground water protection, and surface water protection must be established. These criteria shall apply to all affected media (*i.e.*, soil, soil vapor). Where background levels exceed risk-based goals, metals and radionuclides in Site soils are targeted to have risks no greater than those associated with background conditions.

The problem will be addressed through iterative remediation until sufficient remediation (removal of soil) has been performed that acceptable human health risks have been attained. The final site conditions will include regrading of on-site soils (post-remediation), so that the future surface will not consist of the same soil as the current surface. Imported fill material is not expected to be needed.As noted in Section 2, overview of the CSM for the Site is provided in the Closure Plan. As presented in the Closure Plan, the Site is currently vacant except for the area of the temporary informational kiosk. The potential on-site and off-site receptors are currently trespassers/visitors, occasional on-site workers, and off-site residents. Risks to current receptors are being managed through site access control. Under the current, prospective redevelopment

[2] Urban infill is defined as the development of vacant non-pristine land in areas surrounded by existing residential subdivisions and commercial areas.

plan, the Site will be used for a variety of purposes, including residential housing, parks, schools, commercial development, and streets. It should be noted that information regarding the specific locations that will be covered with imported fill may not be known at the time of risk assessment for closure purposes; however, the current grading plan (Figure 4) is being used in this SAP for the Site.

Although the primary focus is human health risk assessment for a residential scenario, secondary issues that will be addressed include contamination of deeper soils and of groundwater beneath the site. In addition, the impact to off-site receptors will be addressed; however, because remediation of the Site will be to on-site residential standards, risks to off-site receptors will be minimal. The current and future potential exposure pathways of concern are being addressed by this SAP and any subsequent remediation. The potentially exposed populations for the Site and their potential routes of exposure are presented in Figure 8 and are summarized in Section 9 of the Closure Plan.

3.1.2 Proposed Assessment Team

A multidisciplinary approach is being and will be followed with participation by qualified geologists, chemists, radiochemists, hydrogeologists, biologists, ecologists, engineers, remediation specialists, toxicologists, risk assessors (human health and ecological), statisticians, field sampling personnel, community relations personnel, risk communications specialists, project developers, and project managers. BRC maintains an active roster of key team members, which will be periodically updated as appropriate throughout the project term. Key team members are identified in Section 1.4 of the Closure Plan.

3.1.3 Key Decision Makers and Stakeholders

The NDEP is the primary and the ultimate decision-maker for the project. Stakeholders include BRC, the City of Henderson, Clark County, the State of Nevada, the United States Government, the local public, site developers, and other interested persons.

3.1.4 Schedule

BRC has established a phased schedule for the Site in which the Site is addressed first (closure in 2008), followed by the Sunset North and the remaining Upper Ponds (closure in late 2008 through /early 2010). The timing of the phased closures is closely spaced to avoid potential complications associated with the presence of contaminated soils near areas that have been

successfully remediated and closed and to mitigate potential impacts on adjacent residential housing development.

Surface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks. Once these data have been collected and preliminary risk calculations have been completed, BRC will determine whether the acceptable chemical concentrations and/or risk levels defined for the Site have been attained and will discuss this determination with the NDEP. If it is determined that acceptable risk levels have not been attained, BRC will perform additional remediation activities consistent with the *Corrective Action Plan* (CAP; BRC 2006) and will repeat the assessment process until risk-based goals are achieved. Each iterative remediation and data collection process is expected to take place over a one to two month period, but may extend into a slightly longer period.

3.2 IDENTIFY THE GOAL OF THE STUDY (STEP 2)

The purpose of this step is to define the Site-specific PSQs that needneeding to be resolved in order to address the problem identified in Step 1, and to identify alternative actions that may be taken, depending on the answers to the PSQs. As noted above, the project PSQs are presented in the Closure Plan. The primary PSQ associated with this SAP for the Site is: Are the current (post-remediation, pre-development) and future (post-development) incremental risks to human health or the environment in the Site soil and soil vapor flux under investigation sufficiently low that they are acceptable? If the incremental risks are not sufficiently low, then reasonable further action will be taken; otherwise, no further action will be taken. A secondary PSQ deals with groundwater quality in the context of the overall site, and on the impact of site contamination on off-site human receptors.

The following fundamental assumptions apply:

1. The PSQs will be assessed only after BRC has remediated Site soils such that achievement of Site cleanup goals is expected. Cleanup goals for the project are defined in Sections 1.1 and 9.1.1 of the Closure Plan. The data pool employed in the risk assessment will comprise only those data collected in accordance with this SAP[3], after baseline remediation has been

[3] Data collected prior to SAP approval, including data collected after IRM implementation and expected to be representative of current Site conditions. will not be includedincorporated in the risk assessment; however, a data usability evaluation will be conducted to determine whether any of the historical data can be used in the risk assessment or it will be explained why the new data supplants the old data. These historical data may be used to help develop the CSM for both this Site and the overall Eastside.

performed or after subsequent remediation phases performed iteratively during the closure process, as and if such occur(s). Therefore, although there are data gaps related to the nature and extent of existing impacts to Site soils, no further characterization of impacted soils will be performed to support Site closure, because the impacted soils will be removed from the Site.

2. The data used in PSQ assessment will undergo a rigorous Quality Assurance/Quality Control (QA/QC) review prior to that assessment, in accordance with the procedures described in the *BRC Quality Assurance Project Plan* (QAPP; BRC and ERM 2008). Only those data determined as a result to be suitable for use will be included in the closure data pool. Furthermore, the adequacy of the data pool will be evaluated following the procedures provided in Section 9.3 of the Closure Plan. If found to be inadequate, additional sampling and analysis may be performed.

Stated another way, the decision is to determine whether or not excavation of impacted soils and their disposal outside the Site results in acceptable human health risks and risks to the environment for future land uses. This will be determined through human health risk assessment for future on-site receptors. Potential alternative actions that may be taken include: (a) No Action (in this context No Action means no additional action beyond removal of contaminated soils presently located on Site), (b) institutional controls/limited action, (c) importation and use of clean fill, and (d) excavation of soils and on-site landfill disposal at the project Corrective Action Management Unit (CAMU). How the study decisions will be made for the Site, including how the risk assessment will be performed, are presented in the Closure Plan.

3.3 IDENTIFY INFORMATION INPUTS (STEP 3)

The purpose of this step is to identify the information needed to resolve the PSQs identified in Step 2. The data inputs for the primary PSQ are listed below. As previously discussed, risk assessment will be the primary means of answering the PSQs as discussed in the Closure Plan, and will incorporate the various data inputs listed, as discussed in the Closure Plan. These data inputs either 1) are already established (as presented in the Closure Plan), 2) will be obtained during the post-baseline remediation soil and soil vapor flux sampling program – that is, this SAP (Section 5), or 3) currently exist as data gaps that will be resolved prior to performing risk assessment. A comprehensive list of the necessary data inputs for addressing the primary PSQ is provided below.

- Input parameters for human health risk assessment and assessment of impacts to groundwater considering relevant exposure pathways associated with potential future land uses (see Closure Plan).

- Toxicity inputs parameters consistent with USEPA hierarchy guidance (see Closure Plan).

- Input parameters for all fate and transport models (see Closure Plan and data to be collected as determined by this SAP).

- Site soil and soil vapor flux characterization data (to be collected as determined by this SAP in accordance with the most recent NDEP-approved version of Standard Operating Procedure [SOP]-16) in case Site materials are used in other portions of the Site as fill materials.

- Identified locations/depth intervals where contaminant concentrations could affect future land users.

- Characterization data for imported fill if such fill is considered for use at the Site. At this point, it is not expected thatno imported fill materials will are expected to be used on Site.

- To address the secondary PSQs, soil data from depths greater than 10 feet bgs, and groundwater data will be used to address issues related to further understanding of vadose zone and groundwater contamination beneath the site.

3.4 DEFINE THE BOUNDARIES OF THE STUDY (STEP 4)

The purpose of this step is to define the aspects of the project that affect the decision making process, including:

- The populations to be sampled;

- The geographical area applicable for decision making;

- The temporal boundary for decision making;

- Any practical constraints that may interfere with data collection; and

- The scale for decision-making purposes.

Each of these portions of this step is presented below.

3.4.1 Sample Populations

Based on the primary PSQ and the necessaryexisting and needed information listed in Step 3, there are several target populations to be sampled for this project, including surface soils (*i.e.*, less than 10 feet bgs), subsurface soils (*i.e.*, greater than 10 feet bgs), groundwater, and soil vapor flux. These populations were segregated based on their differences in media type and pathways for potential human residential exposure following redevelopment. For this project, samples will be collected to assess chemical concentrations and/or human health risks associated with each of these populations, and for cumulative risk across these media types and pathways. Ultimately, these chemical concentrations and risk-based levels will be compared to project cleanup goals that are consistent with regulatory-defined acceptable concentrations and/or risk levels appropriate for the planned redevelopment of the Site and will ensure protection of human health and the environment.

3.4.2 Spatial Boundaries

The spatial boundaries of interest for the risk assessment are the spatial extent of the Site boundary to a depth of 10 feet bgs or deeper if construction activities are below this level. However, impacts to receptors exposed to these soils can also occur from vapor intrusion from the deeper vadose zone and groundwater. Consequently, the vertical extent of the site that encompasses vadose zone and groundwater is of interest. Based on expected land use, construction activities are not expected to occur at depths greater than 10 feet bgs. It should be noted that there could be more than one set of surface spatial boundaries ultimately identified. For example, data may need to be grouped for areas within the Site in order to appropriately address the decision units (*e.g.*, exposure areas).- Also, data may ultimately be grouped by soil depth to appropriately address different soil exposure points. These spatial boundaries might be important if residual contamination varies across the site either in the surface soils or by depthA discussion on the surrounding sub-areas is provided in Section 2.1.

3.4.3 Temporal Boundaries

The temporal boundaries of interest for this project are defined byinclude the timeframe associated with timeframes for the collection of data for each population and for decision making for each spatially distinct region of interest. Specifically, for each different land-use scenario, within each decision or exposure unit, both current and potential future risk needs to be considered and quantifiedpopulation. Since this project involves future redevelopment and land

use, it is not possible to collect data over the full time period for which the decision applies. The time frame associated with data collection is short relative to the long-term decision implementation period. Therefore, data collection and decision-making needs to allow for the probability that conditions in a given medium may change over time. A description of the temporal boundaries for each target sample population is presented below.

Surface Soil

For surface soils the timeframe for data collection will be approximately from one to three months after finalization of this SAP. As discussed in Section 2, BRC has already performed an IRM on the Site. Therefore, it is anticipated that limited further remediation will be necessary prior to implementation of the SAP. This SAP will be implemented to assess the remaining chemical concentrations in surface soil. These surface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks. Once these data have been collected and a risk assessment has been completed, BRC will determine whether the acceptable chemical concentrations and/or risk levels defined for the Site have been attained and will discuss this determination with the NDEP. If it is determined that acceptable risk levels have not been attained, BRC will perform additional remediation activities consistent with the *Corrective Action Plan* (CAP; BRC 2006) and will repeat the assessment process until risk-based goals are achieved. Each iterative remediation and data collection process is expected to take place over a one to two month period, but may extend into a slightly longer period.

Because sub-areas within the Eastside are adjacent to each other, to assess or avoid potential impacts from other sub-area sources, risk assessment could be performed across sub-area boundaries, and/or adjacent sub-areas will be remediated in the same general time frame. To some extent this will depend on the spatial homogeneity of concentrations once remediation has been performed. The IRM performed for the Site addressed the full footprint of each former pond along Mohawk Drive, including the portions falling within the adjacent First Eight Rows and Upper Ponds sub-areas. In addition, future remediation at adjacent sub-areas will involve dust suppression activities. Therefore, risk assessment or additional remediation across sub-areas should not be necessary to assess or avoid potential impacts due to cross-contamination. According to the current development plans, remediation of the First Eight Rows and Upper Ponds sub-areas is planned for 2009 through 2010.

Procedures specified in the BRC Closure Plan and QAPP minimize temporal influences on chemical conditions that could affect data quality. For example, sample collection and handling

procedures specify immediate placement of soil samples into a chilled cooler, and sample temperatures are required to be within a specified range (regardless of ambient temperatures). Furthermore, analyses on surface soil samples will be performed under climate-controlled conditions in a fixed site laboratory. Therefore, the sample collection events for surface soil samples occurring at any time during the year should provide representative results provided the project-specific Standard Operating Procedures (SOPs) are followed.

Subsurface Soil and Groundwater

As noted BRC does not expect that subsurface soils (greater than 10 feet bgs) will be at issue from a human exposure standpoint. However, subsurface soils will be sampled in order to determine potential impacts to groundwater in accordance with the secondary PSQ relating to the deeper vadose zone and groundwater in the context of the entire Site.. For subsurface soils the timeframe for data collection, assessment, and decision-making will be from one to three months as noted above for surface soils. These subsurface soil data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) impacts to groundwater. DataAs discussed later, data to support the evaluation of the potential impacts to groundwater will be collected. These data will be collected to support the migration to groundwater calculations included in the Closure Plan, as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Any indirect impacts from underlying groundwater will be addressed via the proposed surface flux measurements.

Soil Vapor Flux

The soil vapor flux concentrations used in the risk assessment will be derived from post-baseline remediation (*i.e.*, current) soil conditions and existing groundwater conditions. BRC assumes that these will reflect the maximum concentration ranges for the project lifetime, and those data will be relied upon throughout the redevelopment process and in assessing risks under current and future land use scenarios. Given the soil and groundwater quality data for the area (see Section 2 and Appendix B) this assumption is considered appropriate. The timeframe for data collection, assessment, and decision-making will be from one to three months as noted above for surface soils. These soil vapor flux data will be used to evaluate both current (post-remediation, pre-development) and future (post-development) exposures and risks.

3.4.4 Practical Constraints for Data Collection

Since the Site is currently unoccupied, there are no access constraints for collecting soil or soil vapor flux samples from BRC's property. Due to the large area of the Site, the primary constraint will be the cost to collect a representative, statistically sufficient number of soil and soil vapor flux samples to assess chemical concentrations against the project-specific risk-based cleanup goals. This constraint is not expected to be such that data quantity and quality will be insufficient.

Following redevelopment, access constraints may be an issue pertaining to sample collection at the Site. No surface soil, subsurface soil, or soil vapor flux sampling is anticipated to be required following redevelopment; therefore, no constraints are anticipated. For ground water, additional and/or routine sampling activities (such as ground water sampling from monitoring wells) may be required following redevelopment. However, these constraints will be dealt with at a later time.

3.4.5 Scale of Decision-Making

The scale for decision-making varies based on the target sample population of interest, as described below.

Surface Soil

Redevelopment As described above, the redevelopment of the Site following remediation includes significant changes in land uses, including residential housing. However, the final redevelopment plans for the Site have not been completed and may change depending upon the results of post-remediation sampling. To facilitate the redevelopment of the Site with the fewest practical constraints due to residual contamination, the nominal scale for decision-making for the proposed residential exposure scenario will be consistent with a typical residential lot size, which is 1/8th acre. However, if, as expected, the concentration distribution across the site is statistically homogeneous representing a single population of concentrations for each chemical, then the decision unit will be the entire site. Smaller decision units will only be defined if the spatial distribution of concentrations suggests the need to break the site into smaller areas for risk-based decision making.Given the total area of the Site is 54.7 acres, the number of potential residential exposure areas is over 400. Post-remediation data will be used in a risk assessment to determine if further remediation is needed. This will allow for maximum flexibility in the redevelopment of the Site, without concern for residual concentrations to pose a threat to human

health and the environment. This issue of correlated versus uncorrelated data for the Site and how it apples to the decision-making is discussed in the *Statistical Methodology Report* (NewFields 2006). The same approach will be used for soil vapor flux, subsurface soils and groundwater as they feed into the human health risk assessment.

Subsurface Soil

The scale of decision-making for subsurface soils is planned to be consistent with the scale for surface soils (*i.e.*, 1/8th acre). The depth for decision-making will be to the intercept of the ground water table (*i.e.*, first water) beneath the Site. It is BRC's intent that deed restrictions be used to restrict access to soils deeper than 10 feet bgs and groundwater. It should be noted that this scale for subsurface soils may not be applicable and a site-wide approach may be used instead. That is, 95 percent upper confidence limit of the mean (the "UCL") concentrations for COPCs will be used for evaluating potential impacts to groundwater for residual chemicals at the Site. Also, as noted above, this issue of correlated versus uncorrelated data for the Site and how it apples to the decision-making is discussed in the *Statistical Methodology Report* (NewFields 2006).

Soil Vapor Flux

The scale for decision-making will be consistent with a typical residential lot size (1/8th acre). As noted above, this issue of correlated versus uncorrelated data for the Site and how it apples to the decision-making is discussed in the *Statistical Methodology Report* (NewFields 2006). However, surface flux chamber data are typically evaluated for risks on a per sample basis (rather than by chemical distributions). This is the approach that will be used in the post-remediation risk assessment.

3.5 DEVELOP THE ANALYTICAL APPROACH (STEP 5)

The purpose of this step is to define the population parameter (mean, median, etc.) of interest for each population (surface soil, etc.), identify the appropriate action level (target concentration or risk level) for each population, and select measurement and analysis methods that can be used to properly evaluate the parameters against the action levels (*i.e.*, ensure detection limits do not exceed action levels, etc.). Once these actions are completed, decision rules (if-then statements) are developed for each population that state the alternative actions that would be taken depending upon the true value of the parameter relative to the specified action levels.

The PSQ-specific decision rules for the Site are presented below.

- If, after baseline remediation per Alternative (d) in Section 3.2 (*i.e.*, removal of known or suspected contaminated sediments – already completed at the Site), confirmation sampling conducted per the Closure Plan and this SAP, and subsequent risk assessment following procedures per the Closure Plan, it is deemed that the risk goals for the project (as discussed in Section 1 of the Closure Plan) are not met, then additional remediation per Alternative (d) in Section 3.2 will be conducted to satisfy the risk goals. The risk assessment methodology for the project is presented in Section 9 of the Closure Plan.

- If, after implementation of the Decision Rule above it is determined that there are specific locations in the Site for which additional and continued remediation will not be practical or effective, then other alternatives such as (b) and (c) will be evaluated considering overall protection, effectiveness, permanence, implementability, cost, regulatory acceptance, and community acceptance.

- If, after implementation of the Decision rule above it is determined that no further action needs to be taken in the top 10 feet of soils, a proposal for NFAD will be made. This proposal will be made only after consultation with NDEP.

Data for the secondary PSQs (deeper soils and groundwater) will be evaluated for obvious issues that might require immediate action, and will be included in analysis of objectives related to the groundwater program for the entire site.

4.0 SCOPE OF WORK

The IRM soil remediation approach discussed in Section 2 consisted of excavation of contaminated shallow soils and their temporary placement adjacent to the Site pending ultimate disposal in a CAMU designated solely for these soils as discussed more fully in the CAP (BRC 2006). Recently BRC performedAs such the IRM constitutes the baseline remediation for this Site. BRC does anticipate having to do additional excavation prior to implementation of this SAP, once approved. The recentanticipated additional excavation,s are shown on Figure 7, was at pond PUE-01 which was not excavated during the 1999/2000 IRM and which had residual discolored sediments. Approximately six to 12 inches of sediments/soil were excavated and removed from both the western and eastern portions of PUE-01, which is now bisected by Mohawk Drive. This excavation and soil removal occurred from 16 through 23 May 2008. As such the IRM and the additional excavation at pond PUE-01 constitute the baseline remediation for this Site.

Because the previous data that indicate residual contamination still exists is primarily composite data, no additional remediation is proposed prior to sampling. Decisions for additional excavation will be based on the initial data to be collected based on this SAP as discussed in this section.

The risks posed to human health and the environment by chemicals remaining in Site soils will be assessed in accordance with the Risk Assessment Methodology provided in the Closure Plan. If this assessment indicates that risk-based cleanup goals established for the Site have not been achieved by the IRM or baseline remediation, additional phases of remediation, sampling/analysis and assessment will be performed as discussed in the CAP and the Closure Plan. Development may only proceed after attainment of acceptable risk levels under the future planned land uses – *i.e.*, after obtaining the NFAD from the NDEP.

The following is the proposed scope of work for investigating the Site and meeting the SAP objectives. Much of the discussion below regarding confirmation soil sampling is taken from the *Statistical Methodology Report* (NewFields 2006).

4.1 INITIAL CONFIRMATION SOIL SAMPLING

As per the *Statistical Methodology Report*, the initial confirmation sampling in the Site will be conducted on the basis of combined random and biased (judgmental) sampling, as follows:

- **Stratified Random Locations:** For this purpose, the Site is covered by a 3-acre cell grid network. Within each 3-acre cell, a sampling location is randomly selected. Sampling locations are randomly selected within both full and partial grid cells if they are greater than 50 percent of the total grid cell area (based on the project-wide grid cell network and the Site boundaries; those partial grid cells that contain less than 50 percent of their area within the Site will be included in the adjacent sub-area SAPs). The main objective of this stratified random sampling is to provide uniform coverage of the Site.

- **Biased Locations:** Additional sampling locations are selected within or near small-scale contamination points of interests, including but not limited to previous debris locations, ponds, and berm walls near excavated ponds. For this purpose, the randomly selected location within a corresponding 3-acre cell may also be adjusted in order to cover a nearby point of interest.

A reconnaissance of the Site has been performed to check the Site for environmentally significant features such as debris piles or stained soil. Biased sampling locations for the Site are based on the outcome of this reconnaissance. Figure 9 and accompanying Table 3 show the random discrete sampling locations that are proposed to be collected within the Site. No debris piles or other stained soil locations were observed on the Site. Rationale for each of the biased sampling locations is presented below:

• MC1-J01; PUE-01 pond sample (east of Mohawk Dr.)	• MC1-J11; PUA-03 pond sample
• MC1-J02; pond berm (fill material) sample	• MC1-J12; PUB-02 pond sample
• MC1-J03; pond berm (fill material) sample	• MC1-J13; PUB-03 pond sample
• MC1-J04; pond berm (fill material) sample	• MC1-J14; PUC-01 pond sample
• MC1-J05; drainage channel sample	• MC1-J15; PUC-02 pond sample
• MC1-J06; pond berm (fill material) sample	• MC1-J16; PUD-01 pond sample
• MC1-J07; pond berm (fill material) sample	• MC1-J17; PUB-01 pond sample
• MC1-J08; pond berm (fill material) sample	• MC1-J18; PUE-01 pond sample (west of Mohawk Dr.)

• MC1-J09; PUA-01 pond sample	• MC1-J19; PUD-02 pond sample
• MC1-J10; PUA-02 pond sample	• MC1-J20; drainage channel sample

At each selected location, multi-depth soil samples will be collected and analyzed for the SRC list as follows. Proposed sample depths are 0 (surface) and 10 ft bgs at each sampling location. In addition, sample locations with grading greater than two ft bgs will also be sampled at the anticipated post-grading soil surface. Additionally, at two sample locations, one within a pond and one outside the ponds, soil physical parameter data will be collected at 20 feet and every subsequent 10 feet until groundwater is reached or 50 feet deep, whichever is shallower.

Samples will be collected at:

1. Existing surface (0' bgs) and 10 ft bgs for sample locations in relatively flat (un-graded) locations;

2. Existing surface (0' bgs), post-grading surface, and post-grade 10' bgs for sample locations with substantial grading (that is, cut depths greater than two feet[4]) and the uppermost sampled soil is expected to be used as surface fill;

3. Existing surface (0' bgs) and 10' bgs for sample locations with minimal grading (that is, cut depths less than two feet) and the uppermost sampled soil is expected to be used as surface fill; and

4. Existing surface (0' bgs) and 10' bgs for sample locations in an area expected to be covered by fill material.

The analytical sample results will then be divided into surface (0-2' depth), subsurface (2'-10' depth), and deep (>10' depth) layers, according to the following rules:

- **Rule 1: IF** the sample is collected in a relatively flat (un-graded) part of the Site (*i.e.*, an area not targeted for substantial grading), **THEN** the depth of the collected soil sample will be used to designate its soil layer grouping.

- **Rule 2: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is located in an area expected to be covered by fill material (*e.g.*, exposed excavated surfaces of ponds), **THEN** the current surface soil sample will be classified as a

[4] Because sample collection will be over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet will only be sampled at the surface and one post-grade subsurface depth.

surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

- **Rule 3: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be greater than two feet, **THEN** the current surface soil sample will be classified as a fill material sample, a final (post-graded) surface sample will be classified as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

- **Rule 4: IF** the sample is collected in a part of the Site targeted for substantial grading, **AND** the sampled soil is expected to be used as surface fill (*e.g.*, soil within a berm) **AND** the cut depth is expected to be less than two feet, **THEN** the current surface soil sample will be classified as both a fill material sample and as a surface (0-2' depth) sample, and the soil layer grouping of the remaining deeper sampled soil will be determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

~~Samples will be collected at:~~

~~1. Existing surface (0' bgs) and 10 ft bgs for sample locations in relatively flat (un-graded) locations;~~

~~2. Existing surface (0' bgs), post-grading surface, and post-grade 10' bgs for sample locations with substantial grading (that is, cut depths greater than two feet) and the uppermost sampled soil is expected to be used as surface fill;~~

~~3. Existing surface (0' bgs) and 10' bgs for sample locations with minimal grading (that is, cut depths less than two feet) and the uppermost sampled soil is expected to be used as surface fill; and~~

~~4. Existing surface (0' bgs) and 10' bgs for sample locations in an area expected to be covered by fill material.~~

A schematic example of these rules is shown on Figure 10. The current site grading plan is shown on Figure 4. It should be noted that this is the most current plan available, but not

necessarily the final grading plan. The sample-specific collection depths are presented in Table 3.

All soil samples will be tagged in the database with numeric designations of their corresponding assigned soil layer grouping based on these rules. Initially, 93 soil samples will be collected from 38 soil boring locations (not including deep samples to be collected for soil physical parameter data). This includes 18 random and 20 biased sample locations; with 33 fill material, 38 surface, and 38 subsurface soil samples. BRC will ensure that enough samples are collected from each post-grade type of soil to be representative (*e.g.*, fill material, surface soil, and subsurface soil) of that material for data adequacy.

It should be noted that, as discussed with NDEP, once a particular sub-area receives an NFAD from the NDEP, the cut material that is slated to be used as fill material elsewhere would not require additional testing. However, the chemical data for this fill material may be useful for evaluating sub-areas to receive fill (for example, if there is deeper contamination).

4.2 INTERMEDIATE SAMPLING AND CLEANUP

Upon layer-designation of confirmation soil samples, a series of tests will be conducted to determine whether sampled locations within a given layer include "exceeding" samples. An exceeding sample is one that warrants further investigation, which may include additional localized soil removal. Exceeding samples will be defined consistent with the following rules:

- **Chemicals without background concentrations:** For chemicals without corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. The 95 percent UCL of these distributions will also be computed. **IF** the constructed distribution indicates the presence of anomalous concentrations (*e.g.*, high values at the end of an elongated tail of a uni-modal distribution, or values forming an elevated sub-population of a multi-modal distribution), **AND** the inclusion of these anomalous values causes the computed UCL to exceed 1/10 of the risk-based screening level of the chemical, **THEN** samples associated with anomalous values will be considered as potential exceeding samples. **IF** the constructed distribution indicates no presence of anomalous concentrations and the computed UCL exceeds 1/10 of the risk-based screening level of the chemical, **THEN** all samples associated with the layer will be considered as potential exceeding samples.

- **Chemicals with background concentrations:** For chemicals with corresponding background distributions, the distribution of its reported concentrations in each layer will be constructed. These concentration distributions will then be statistically compared to the background concentration distributions. Appropriate two-sample tests, including Quantile test, Slippage test, *t*-Test and the Wilcoxon rank sum test with Gehan modification, will be used to identify exceeding samples through comparison of Site and background distributions. **IF** inclusion of elevated measured values in a given layer causes the rejection of the appropriate two-sample test, **THEN** samples associated with such elevated values will be considered as potential exceeding samples.

Areas with potential exceeding samples may be subjected to re-sampling prior to the confirmation of the location as an exceeding sample. After any such re-sampling, the above process will be repeated to confirm the exceeding status of the targeted sample location. It should be noted that if the data indicate a more widespread or Site-wide contamination, then it might be important to look at the effect on a sub-area basis rather than a sample basis. That is, additional alternatives, such as, changing the future land use, further division into smaller sub-areas, or more extensive remediation, would need to be considered and evaluated.

Upon confirmation of an exceeding sample, additional neighboring delineation sampling will be conducted based on a “step-out” approach. Step sizes and directions will be dependent on the location of the exceeding sample and perhaps the magnitude of the exceedance. Additional biased step-out or step-in sampling may be conducted to further refine the extent of the required removal. Each removal will be followed by confirmatory sampling. More detail on this approach is provided in the *Statistical Methodology Report* (NewFields 2006).

After the above intermediate removals, results associated with removed exceeding samples will be marked as excluded from the dataset, while non-exceeding delineation and confirmation data will be included in the dataset. The revised dataset will then be subjected to the above exceeding sample determination process, which will be repeated until all exceeding samples are adequately addressed.

4.3 FINAL CONFIRMATION DATASET

At this stage, the final confirmation soil dataset for the Site, consisting of: 1) the original non-exceeding confirmation data collected in accordance with this SAP[5] for the Site; 2) the non-exceeding data generated after intermediate sampling and cleanup, and 3) additional biased and random samples collected for confirmation, will be subjected to a series of statistical analyses in order to determine representative exposure concentrations for that sub-area, as described in the *Statistical Methodology Report*.

4.4 SOIL VAPOR FLUX SAMPLING

Concurrent with the confirmation soil sampling, BRC will implement soil vapor flux sampling across the Site. This SAP refers to and relies on the most recent NDEP-approved version of SOP-16 for technical description of sampling and analytical methodology, QA/QC protocols, and project procedural description. The sampling procedure for the effort includes the USEPA surface emission isolation flux chamber (flux chamber) and static chamber sampling to perform an air pathway analysis (APA) for the Site. A description of the history, background, and operation of the USEPA-recommended flux chamber and radon flux approach is provided in SOP-16.

The flux chamber sample collection rationale is based on the project goal of obtaining a representative dataset of air emissions per sub-area. Flux chamber samples will be collected from each of the initial 20~~14~~ biased sample locations~~ not located on the pond berms~~. Because the biased samples are to be collected primarily from the pond areas, which are primarily in the southern portion of the Site, and because the shallowest groundwater at the Site is in the northern portion of the Site, an additional flux chamber sample will be collected in the north part of the Site, at random sample location MC1-BA36 (see Figure 9). All of the flux chamber samples will be tested for both VOC flux and radon flux, and this density of sample collection should be adequate for sub-area characterization given: the biased nature of the sample locations, the size of the sub-area, and the number of sample locations suggested by the USEPA (1986) in the flux chamber User's Guide for assessing zones of homogeneous site properties. A higher density of sample collection for VOCs is not warranted given that sample collection will be post-remediation and groundwater beneath the Site is greater than 40 feet bgs. Similarly, there is no

[5] As distinguished from the historical "confirmation" sampling data collected as part of or immediately after the IRM, which will not be included in the risk assessment dataset.

information available to suggest that sampling of every initial biased sample location should not provide for a thorough evaluation of potential radon emissions.

In subsequent SAPs, where sub-areas generate fewer that six sample locations, a minimum of biased sample locations will be tested per sub-area. Note that if the data suggest additional data needs, follow-up testing will be conducted as agreed upon by all parties.

4.5 CHEMICALS SELECTED FOR ANALYSIS

The proposed analyte list for soil samples is comprised of the BRC project SRC list, as presented in the Closure Plan[6] and Table 4, with the following exceptions for this Site:

- Asbestos and dioxins/furans will only be analyzed for in surface soil samples;
- USEPA Method 8141A for organophosphorous pesticides will not be conducted. There have been only 47 detections of these compounds in over 10,000 soil sample records (<0.5 percent) from throughout the Eastside, and no detections in over 1,000 soil sample records within the Site. The few detections are well below USEPA Region 6 residential soil MSSLs;
- USEPA Method 8151A for chlorinated herbicides will not be conducted. There have been no detections of these compounds in over 1,400 soil sample records from throughout the Eastside. Detection limits are below USEPA Region 6 residential soil MSSLs;
- HPLC Method for organic acids will not be conducted. There have been only three detections of these compounds in 567 soil sample records (<0.5 percent) from throughout the Eastside. USEPA Region 6 residential soil MSSLs have not been established for these compounds;
- USEPA Method 8015B for nonhalogenated organics will not be conducted. There have been only five detections of these compounds in 420 soil sample records (one percent) from throughout the Eastside. The few detections have been well below USEPA Region 6 residential soil MSSLs levels;
- USEPA Method 8015 for total petroleum hydrocarbons (TPH) will not be conducted. There have been only three detections of these compounds in over 299 soil sample records (one percent) from throughout the Eastside. The few detections have been below 100 mg/kg, which is the typical low-end aesthetic threshold used for these compounds There are no

[6] Specific analytes and analyte-specific reporting limits for each analysis are listed in Table 4 of the QAPP.

indications of possible TPH source areas, for example, debris, abandoned vehicles, in the Site. While TPH is not proposed for analysis, its components are via other methods. In addition, TPH cannot be included in a risk assessment while its components can; and

- Consistent with the current project analyte list, the following radionuclides will be analyzed for: radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238. Activities for other radionuclides on the SRC list will be back-quantitated.

The analyte list, as proposed in this SAP for the Site, consists of 319 of the 418 compounds (including water only parameters) on the project SRC list as well as physical parameters (Section 5.2.3) to support the evaluation of potential impacts to groundwater from migration of chemicals from soil. The analytical and preparatory methods used in accordance with this SAP adhere to the most recent version of the QAPP (BRC and ERM 2008), which has been revised to ensure appropriate comparisons to the background dataset. The proposed analyte list for soil vapor flux samples is comprised of the list provided in the most recent NDEP-approved version of SOP-16 (see the *BRC Field Sampling and Standard Operating Procedures* [FSSOP]; BRC, ERM and MWH 2007), including radon. This analyte list is provided in Table 5.

5.0 FIELD AND LABORATORY METHODS

5.1 FIELD METHODS

All Site work will be performed under the responsible control and direction of a Nevada State Certified Environmental Manager. All sampling and sample handling procedures will be consistent with the NDEP-approved BRC FSSOP BRC, ERM and MWH 2007). In accordance with applicable federal regulation (29 CFR 1910.120) all field activities will be performed in compliance with the *BRC Health and Safety Plan* (BRC and MWH 2005).

5.1.1Preparatory Activities

The prePre-field and field activities will be conducted in accordance with the most recent NDEP-approved versions of applicable SOPs (BRC, ERM and MWH 2007). These SOPs include SOP-1 (Drilling Methods), SOP-6 (Sample Management and Shipping), SOP-7 (Soil Sampling), SOP-10 (Surveying), SOP-12 (Asbestos Soil Sampling), SOP-13 (Field Equipment Calibration Procedures), SOP-14 (Field Documentation), SOP-15 (Field Logbook), SOP-16 (Flux Chamber Source Testing), SOP-17, (Soil Logging), SOP-23 (Split Spoon Sampling), SOP-26 (Soil Grab Sampling), and SOP-39 (Photoionization Detectorphotoionization detector Screening).

The BRC QAPP (BRC and ERM 2008) and Health and Safety Plan (BRC and MWH 2005) prepared for the BMI Common Areas will be used for this proposed scope of work.

Consistent with the degree of control needed for the sampling locations (*i.e.*, three meters [approximately 10 feet] or better, given that post-remediation topographic surveys using field survey techniques are also being performed across the Site under the oversight of a Nevada-licensed Land Surveyor), the proposed sampling locations will be marked using a handheld global positioning system (GPS). This location information may be supplemented if desired by field survey techniques performed under the oversight of a Nevada-licensed Land Surveyor. All surveying activities will be performed in accordance with SOP-10. The selected driller will notify the Underground Services Alert one-call notification system at least 48 hours before implementing any subsurface activities. BRC will also notify the NDEP at least one week prior to commencing field activities. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40.

5.1.2Soil Sampling - Hollow Stem Auger

The SOPs referred to in the following discussion are documented in the BRC FSSOP. BRC will implement field screening using photoionization detectors (PIDs) (using two lamps) in accordance with SOP-39. SOP-1 will be followed for all drilling activities including Hollow Stem Auger (HSA) drilling. The field geologist will prepare logs for each boring indicating the Unified Soil Classification System (USCS) soil classification (SOP-17), an estimate of field moisture content, sampling depths, progress of drilling (SOP-15), final completion depth, and the nature and resolution of any problems encountered. The QA/QC procedures that will be followed during the field investigation are detailed in Section B of the BRC QAPP (BRC and ERM 2008).

5.1.3Soil Vapor Flux Sampling

Surface flux of VOCs will be measured using the USEPA surface emission isolation flux chamber technology as described in the most recent NDEP-approved version of SOP-16. Grab sampling of VOCs will be accomplished by using the technology as described in the USEPA User's Guide and USEPA Method TO-14/ TO-15 for canister sample collection. Test locations will be identified and recorded on the project base map for documentation. Radon flux will be measured by using the methodology described in SOP-16.

5.1.4 Surveying

BRC plans to survey soil sample and auger boring locations using a handheld GPS (horizontal accuracy of three meters [approximately 10 feet] or better). Although not typically recorded, due to the geometry of GPS satellites, vertical accuracy is typically half the horizontal accuracy. As noted in Section 5.1.1, field surveying in accordance with SOP-10 may also be performed to supplement the GPS data.

5.1.5Management of Investigation Derived Waste

Soil cuttings generated during soil sampling and Hollow Stem Auger (HSA) drilling activities will be collected on visqueen, managed as hazardous waste pending analysis of the soil data from the appropriate borings, and appropriately disposed of. Due to the nature of the shallow sampling, a significant amount of excess soil is not anticipated to be generated as a result of the sampling, or that the soils will require special handling. In addition, as agreed with NDEP, excavated pavement from Mohawk Drive (when it is removed) can go off-site to be recycled or could go to the CAMU.

5.2 LABORATORY METHODS

Samples submitted for laboratory analysis will be analyzed in accordance with approved methodologies by a State of Nevada-certified analytical laboratory. Samples not specified for analysis will be placed on hold pending the results of the initial analysis.

5.2.1 Soil Chemical Analyses

BRC's complete SRC list as approved by the NDEP is presented in Table 4 of the QAPP. Table 4 of this SAP identifies the complete list of analytes proposed for analysis of soil samples along with the appropriate analytical methods. An explanation for the exclusion of a chemical for analysis is provided in Table 4 of this SAP.

5.2.2 Soil Vapor Flux Analyses

As indicated in Table 5, all flux chamber samples will be analyzed by USEPA Method TO-15 full scan, and selective ion mode analyses on a sub-set of VOCs to achieve the lowest attainable method detection limits for the target list of study compounds (see most recent version of SOP-16). All samples will be analyzed for the target list with optimum method detection limits (MDLs) so that these data can be used to satisfy the sensitivity requirements of the human health risk assessment.

5.2.3 Soil Physical Parameters

In addition to chemical data, to support the evaluation the potential impacts to groundwater, soil physical properties will also be measured. These parameters will be collected to support the migration to groundwater calculations included in the Closure Plan, consistent with the USEPA Soil Screening Guidance (1996; 2000; 2002), as well as more refined modeling tools (such as, VLEACH, SESOIL, and PESTAN). Site-specific soil physical parameters to be measured include pH (USEPA Method 9045C), cation exchange capacity, dry bulk density, Soil permeability/saturated hydraulic conductivity, specific gravity, total porosity, volumetricvolumetric water content, grain size analysis by sieve and hydrometer, and fractional organic carbon content (see Table 4). These soil physical parameters will be measured from each of the subsurface samples collected from the two deep sample locations at the Site (see Figure 9). This will ensure that soil physical parameters will be measured at various depths from across the Site so that all sample depths are represented. In addition, samples will be collected from two subsurface sample locations (see Figure 9 and Table 4) from within the pond area for conducting

the synthetic precipitation leaching procedure (SPLP; USEPA Method 1312) with the extract analyzed for metals, organochlorine pesticides, semi-volatile organic compounds, radium-226, radium-228, and perchlorate. These analytes are considered those of greatest concern for potential migration and impacts to groundwater.

5.3DATA VERIFICATION AND VALIDATION

Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40.

6.0 REPORTING AND SCHEDULING

After approval of the SAP by NDEP, BRC is prepared to promptly initiate field activities. BRC will be directly in charge of sampling with oversight conducted by NDEP. As discussed in Section 3.4.3 sampling activities are anticipated to be completed over a one to three month period, and laboratory analyses to be completed within a five to six-week period following field work completion. Once the data are collected, BRC will subject the data to validation per procedures agreed to previously with the NDEP and consistent with the BRC QAPP (BRC and ERM 2008) and SOP-40. Only those data determined by the QA/QC review to be suitable for use will be considered for the site data set. A separate Data Validation Summary Report will be prepared and submitted to NDEP.

Upon receipt of laboratory analytical results and ~~, an investigation report will be prepared. The report shall contain, but not be limited to, the~~ following ~~items:~~

~~•A summary of the sampling procedures conducted;~~

~~•Sampling location map;~~

~~•Soil boring logs;~~

~~•An evaluation and summary of the collected data;~~

~~•Tables(s) summarizing soil results; and~~

~~•If appropriate, plan view maps indicating the locations of detected constituents in soil.~~

~~Following~~ data validation, a risk assessment will be conducted by BRC (in consultation with NDEP) to evaluate the risks posed to human health and the environment by chemicals remaining in Site soils following baseline remediation. The risk assessment will be conducted in accordance with the Risk Assessment Methodology provided in the Closure Plan. As stated in the Closure Plan:

> …risk assessment will not be initiated unless proper data sufficiency, representativeness, and adequacy analysis is first achieved. If necessary, additional data will be gathered or analyzed to meet the goals of data quality required for risk assessment. The risk assessment will, in turn, help to assure that these data characteristics are properly evaluated. Once risk assessment is completed, the assessment will be made as to whether the remediation conducted meets cleanup goals. If cleanup goals are not achieved,

additional remediation, associated confirmation sampling, and assessment cycles will be conducted until a decision end point is reached – namely that the cleanup goals are either met (and the NFAD is issued or Site Closure is achieved, as the case may be) or proven infeasible because it is technically impractical or too costly, in which case changes in land use or institutional controls may be considered.

BRC will perform risk assessment calculations to justify additional remediation or sampling; however, these interim risk assessments will not be submitted to the NDEP. It is expected that the interim decisions (to support additional sampling or remediation) will be discussed with the NDEP on an informal but regular basis. Any additional sampling and remediation will be addressed as an addendum to this SAP.

The risk assessment report will be an inclusive report that will also contain the following items:

- A summary of the sampling procedures conducted;
- Sampling location map;
- Soil boring logs;
- An evaluation and summary of the collected data;
- Tables(s) summarizing soil results; and
- If appropriate, plan view maps indicating the locations of detected constituents in soil.

As noted above, completion of the risk assessment will be an iterative process. Once the risk assessment passes internal BRC review, with NDEP consultation, and meets the risk goals stated in the Closure Plan, the risk assessment report will be submitted to the NDEP, along with an NFAD request for the Site, in accordance with AOC3. That is, the risk assessment report will be prepared and submitted to the NDEP only when BRC is comfortable that acceptable human health risks have been attained.

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APPENDIX B

ALL HISTORICAL POST-IRM SAMPLING RESULTS COLLECTED FROM THE MOHAWK SUB-AREA

TABLE B-1
POST-IRM SOIL GENERAL CHEMISTRY/ASBESTOS/CHLORINATED HERBICIDES DATA
MOHAWK SUB-AREA
(Page 1 of 2)

			General Chemistry / Ions				Chlorinated Herbicides			
Sample ID	**Depth (ft bgs)**	**Sample Date**	Chlorate	Chloride	Cyanide (Total)	Perchlorate	2,4,5-T	2,4,5-TP	2,4-D	Dinitrobutyl phenol
PRMA-01	0	5/4/2001	< 0.53 U	--	--	0.0567	--	--	--	--
		5/8/2001	< 0.52 U	--	--	0.0697	--	--	--	--
	4	5/4/2001	< 0.55 U	--	--	0.557	--	--	--	--
		5/8/2001	< 0.56 U	--	--	3.45	--	--	--	--
PRMA-02	0	5/2/2001	< 0.52 U	--	--	0.0575	--	--	--	--
PRMA-03	0	5/2/2001	< 0.51 U	--	--	0.798	--	--	--	--
PRMA-04	0	5/4/2001	0.32	--	--	0.0521	--	--	--	--
		5/8/2001	< 0.52 U	--	--	0.145	--	--	--	--
	4	5/4/2001	< 0.58 U	--	--	0.0652	--	--	--	--
		5/8/2001	< 0.55 U	--	--	0.0655	--	--	--	--
PRMA-05	0	5/2/2001	< 0.51 U	--	--	< 0.103 U	--	--	--	--
PRMA-06	0	5/4/2001	< 0.56 U	--	--	< 0.0558 U	--	--	--	--
		5/8/2001	< 0.53 U	--	--	< 0.0532 U	--	--	--	--
	4	5/4/2001	< 0.52 U	--	--	0.278	--	--	--	--
		5/8/2001	< 0.54 U	--	--	0.0644	--	--	--	--
PRMA-07	0	5/4/2001	< 0.62 U	--	--	0.0439	--	--	--	--
		5/11/2001	< 0.51 U	--	--	0.0383	--	--	--	--
	4	5/4/2001	< 0.56 U	--	--	0.441	--	--	--	--
		5/8/2001	< 0.52 U	--	--	2.83	--	--	--	--
PRMA-08	0	5/2/2001	< 0.52 U	--	--	0.0974	--	--	--	--
PRMA-09	0	5/2/2001	< 0.52 U	--	--	0.144	--	--	--	--
PRMA-10	0	5/8/2001	< 0.53 U	--	--	0.0276	--	--	--	--
	4	5/8/2001	0.27	--	--	0.184	--	--	--	--
PRMA-11	0	5/2/2001	< 0.52 U	--	--	0.0471	--	--	--	--
PRMA-12	0	5/7/2001	< 0.53 U	--	--	0.636	--	--	--	--
	4	5/7/2001	< 0.53 U	--	--	1.16	--	--	--	--
PRMA-13	0	5/2/2001	< 0.51 U	--	--	0.034	--	--	--	--
PRMA-14	0	5/7/2001	< 0.56 U	--	--	0.147	--	--	--	--
	4	5/7/2001	< 0.55 U	--	--	0.0611	--	--	--	--
PRMA-15	0	5/2/2001	< 0.52 U	--	--	0.122	--	--	--	--
PRMA-16	0	5/2/2001	< 0.54 U	--	--	0.462	--	--	--	--
	4	5/2/2001	< 0.52 U	--	--	0.324	--	--	--	--
	9	5/2/2001	< 0.52 U	--	--	0.272	--	--	--	--
	19	5/2/2001	< 0.52 U	--	--	0.217	--	--	--	--
	29	5/2/2001	< 0.53 U	--	--	0.16	--	--	--	--
	39	5/2/2001	< 0.62 U	--	--	0.562	--	--	--	--
	49	5/2/2001	1.40	--	--	0.0631	--	--	--	--
PRMA-17	0	5/2/2001	< 0.51 U	--	--	0.0364	--	--	--	--
PRMA-18	0	5/7/2001	< 0.53 U	--	--	0.0778	--	--	--	--
	4	5/7/2001	< 0.52 U	--	--	0.208	--	--	--	--
PRMA-19	0	5/8/2001	< 0.52 U	--	--	0.0545	--	--	--	--
	4	5/8/2001	< 0.53 U	--	--	0.116	--	--	--	--
PRMA-20	0	5/2/2001	< 0.52 U	--	--	0.122	--	--	--	--
PRMA-21	0	5/7/2001	< 0.52 U	--	--	< 0.052 U	--	--	--	--
	4	5/7/2001	< 0.53 U	--	--	0.392	--	--	--	--
PRMA-22	0	5/2/2001	< 0.51 U	--	--	0.172	--	--	--	--
PRMA-23	0	5/7/2001	< 0.53 U	--	--	0.126	--	--	--	--
	4	5/7/2001	< 0.54 U	--	--	0.0931	--	--	--	--
PRMA-24	0	5/2/2001	< 0.51 U	--	--	0.0927	--	--	--	--
PUA-01N	1	10/20/1999	--	--	--	0.097	--	--	--	--
PUA-01S	1	10/20/1999	--	--	--	0.28	--	--	--	--
PUA-02N	0	10/27/1999	--	--	--	0.053	--	--	--	--
PUA-02NCD	1	7/19/2000	--	--	--	< 0.0408 U	--	--	--	--
PUA-02NCOM	1	7/19/2000	--	--	--	< 0.408 U	--	--	--	--
PUA-02NED	1	7/19/2000	--	--	--	< 0.408 U	--	--	--	--
PUA-02NWD	1	7/19/2000	--	--	--	0.076	--	--	--	--
PUA-02S	1	10/27/1999	--	--	--	0.12	--	--	--	--
PUA-02SCD	1	7/19/2000	--	--	--	0.1	--	--	--	--
PUA-02SCOM	1	7/19/2000	--	--	--	0.048	--	--	--	--

TABLE B-1
POST-IRM SOIL GENERAL CHEMISTRY/ASBESTOS/CHLORINATED HERBICIDES DATA
MOHAWK SUB-AREA
(Page 2 of 2)

			General Chemistry / Ions				Chlorinated Herbicides			
Sample ID	**Depth (ft bgs)**	**Sample Date**	Chlorate	Chloride	Cyanide (Total)	Perchlorate	2,4,5-T	2,4,5-TP	2,4-D	Dinitrobutyl phenol
PUA-02SED	1	7/19/2000	--	--	--	< 0.0404 U	--	--	--	--
PUA-02SWD	1	7/19/2000	--	--	--	< 0.0408 U	--	--	--	--
PUA-03N	1	10/20/1999	--	--	--	0.19	--	--	--	--
PUA-03S	1	10/20/1999	--	--	--	0.23	--	--	--	--
PUB-01N	1	10/20/1999	--	--	--	1.3	--	--	--	--
PUB-01S	1	10/20/1999	--	--	--	0.11	--	--	--	--
PUB-02N	1	10/20/1999	--	--	--	0.11	--	--	--	--
PUB-02NCD	1	7/19/2000	--	--	--	0.097	--	--	--	--
PUB-02NCOM	1	7/19/2000	--	--	--	0.085	--	--	--	--
PUB-02NED	1	7/19/2000	--	--	--	0.06	--	--	--	--
PUB-02NWD	1	7/19/2000	--	--	--	< 0.0404 U	--	--	--	--
PUB-02S	1	10/20/1999	--	--	--	0.11	--	--	--	--
PUB-02SCD	1	7/19/2000	--	--	--	0.36	--	--	--	--
PUB-02SCOM	1	7/19/2000	--	--	--	0.12	--	--	--	--
PUB-02SED	1	7/19/2000	--	--	--	0.14	--	--	--	--
PUB-02SWD	1	7/19/2000	--	--	--	0.14	--	--	--	--
PUB-03	1	5/13/1999	--	--	--	0.2 J-	--	--	--	--
PUB-03N	1	10/20/1999	--	--	--	0.31	--	--	--	--
PUB-03S	1	10/20/1999	--	--	--	0.086	--	--	--	--
PUC-01	5	3/26/1996	< 0.003 U	3.7	< 0.26 U	--	--	--	--	--
PUC-01N	1	10/26/1999	--	--	--	0.24	--	--	--	--
PUC-01S	1	10/20/1999	--	--	--	0.083	--	--	--	--
PUC-02	1	5/13/1999	--	--	--	0.12 J-	--	--	--	--
PUC-02N	1	10/20/1999	--	--	--	0.17	--	--	--	--
PUC-02S	1	10/20/1999	--	--	--	0.049	--	--	--	--
PUD-01	1	5/13/1999	--	--	--	0.13 J-	--	--	--	--
PUD-01N	1	10/20/1999	--	--	--	0.097	--	--	--	--
PUD-01S	1	10/20/1999	--	--	--	0.06	--	--	--	--
PUD-02N	1	10/20/1999	--	--	--	0.18	--	--	--	--
PUD-02S	1	10/20/1999	--	--	--	0.18	--	--	--	--
PUE-01	1	3/28/1996	0.3	13	< 0.25 U	--	--	--	--	--
		5/13/1999	--	--	--	0.84 J-	--	--	--	--
	5	3/28/1996	0.042	23	< 0.26 U	--	--	--	--	--
WC-MH01	0	7/27/2006	< 0.5 U	--	--	--	< 0.02 U	< 0.02 U	< 0.081 U	< 0.025 U

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-2
POST-IRM SOIL METALS DATA
MOHAWK SUB-AREA
(Page 1 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Metals																						
			Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (Total)	Chromium (VI)	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Titanium	Vanadium	Zinc
PRMA-01	0	5/4/2001	7180 J+	< 1.1 UJ	3.6	403 J+	0.34	0.08	7.7	< 0.005 U	3.3	7.5	8770 J-	10.2	5580	412 J+	0.03	0.29	12.6	0.21	0.03 J+	< 5.3 U	389	18.2	25.1 J-
		5/8/2001	10000	< 1 U	3.5	418	0.41	0.1	9.8	--	4	8.4	10800	17.1	6830	323	< 0.03 U	0.51	11.5 J-	0.07	0.1 J-	< 5.2 U	473 J+	19.7	37.4
	4	5/4/2001	9170 J+	< 1.1 UJ	4.4	429 J+	0.32	0.06	4.8	< 0.005 U	3	6.2	8720 J-	10.2	7770	221 J+	< 0.03 U	0.33	7.2	0.24	0.04 J+	< 5.5 U	309	11.9	35.3 J-
		5/8/2001	7570	< 1.1 U	4.2	405	0.28	0.08	7.6	--	4.2	6.7	10600	11.6	7450	257	< 0.03 U	< 4.5 U	13 J-	< 0.56 U	0.04 J-	< 5.6 U	323 J+	14.2	27.9
PRMA-02	0	5/2/2001	15600	< 1 UJ	3.6	301 J-	0.71	0.15	13.1	< 0.005 U	5.7	12.2	18100 J-	18.1	8500	477 J-	< 0.03 U	0.46	13.1	0.09	0.13	< 5.2 U	629	22.5	52.6
PRMA-03	0	5/2/2001	10600	< 1 UJ	3.4	259 J-	0.38	0.12	8.2	< 0.005 U	3.6	7.7	14700 J-	21	9260	309 J-	0.02	0.35	8.8	0.16	0.07	< 5.1 U	496	17.2	39.3
PRMA-04	0	5/4/2001	7200 J+	< 1.1 UJ	3.5	418 J+	0.4	0.15	29.2	0.02	7	14.2	10100 J-	23.7	5780	984 J+	0.02	0.51	19	0.11	0.18 J+	< 5.5 U	457	53.6	43.8 J-
		5/8/2001	9520	< 1 U	4.3	627	0.48	0.19	33.3	--	7.2	13.3	11300	29.4	6100	905	< 0.03 U	0.47	20.3 J-	0.13	0.25 J-	< 5.2 U	617 J+	61.1	34.9
	4	5/4/2001	8760 J+	< 1.2 UJ	38.6	404 J+	0.34	0.12	11.9	0.01	3.6	6.7	9830 J-	9	6720	507 J+	0.02	0.49	9.6	0.14	0.06 J+	< 5.8 U	360	24.6	30.5 J-
		5/8/2001	11000	< 1.1 U	3.9	539	0.37	0.12	9.5	--	4.6	9.6	12200	12.8	6800	363	< 0.03 U	0.32	15.5 J-	< 0.55 U	0.06 J-	< 5.5 U	386 J+	25.6	35.8
PRMA-05	0	5/2/2001	8340	1.4 J-	10.7	980 J-	0.85	0.6	270	0.03	18.9	38.2	11200 J-	628	6830	3280 J-	0.1	2.6	45	0.22	1.3	< 5.1 U	1690	349	91.7
PRMA-06	0	5/4/2001	7040 J+	< 1.1 UJ	3.1	367 J+	0.37	0.08	5.2	< 0.005 U	3.2	5.8	8580 J-	8.6	5610	529 J+	< 0.03 U	0.22	8.1	0.12	0.03 J+	< 5.6 U	332	22	24.5 J-
		5/8/2001	9180	< 1.1 U	3.6	544	0.41	0.14	6.3	--	3.9	8.5	12000	13.1	5700	714	< 0.03 U	0.26	11.7 J-	0.09	0.05 J-	< 5.3 U	441 J+	32.2	29.8
	4	5/4/2001	9130 J+	< 1 UJ	5.2	632 J+	0.39	0.07	5	< 0.005 U	2.7	5.6	8860 J-	8.1	7210	246 J+	0.01	0.23	6.4	0.08	0.03 J+	< 5.2 U	369	15	27.9 J-
		5/8/2001	8970	< 1.1 U	5	418	0.42	0.08	5.6	--	3.7	8	8830	12.6	4920	387	< 0.03 U	0.28	13 J-	< 0.54 U	0.05 J-	< 5.4 U	429 J+	22.4	27.5
PRMA-07	0	5/4/2001	10800 J+	< 1.2 UJ	4.4	486 J+	0.44	0.1	6.4	0.005	3.1	6.4	9940 J-	9.4	7910	342 J+	< 0.04 U	< 4.9 U	9	0.07	0.03 J+	< 6.2 U	345	18.7	28.5 J-
		5/11/2001	10400 J+	< 1 UJ	3.9	527	0.56	0.09	8.1	--	3.9	9.8	13200 J-	12.3	7820	431	< 0.03 U	0.21 J+	11.5 J-	0.12	0.12 J-	< 5.1 U	414 J+	27.3	31.7
	4	5/4/2001	5280 J+	< 1.1 UJ	3.6	477 J+	0.34	0.43	3.6	< 0.005 U	2.8	5.5	7160 J-	9.9	4270	262 J+	< 0.03 U	< 4.5 U	6.8	0.16	0.03 J+	< 5.6 U	303	13.2	19.9 J-
		5/8/2001	10100	< 1 U	3.7	524	0.5	0.05	5.9	--	3.9	7.9	10700	17.6	7700	303	< 0.03 U	0.34	10.4 J-	0.17	0.07 J-	< 5.2 U	367 J+	18.2	27.4
PRMA-08	0	5/2/2001	13100	0.17	3.5	285	0.58	0.17	22.7	0.01	5.6	12.1	14200	12.8	9180	580	< 0.03 U	0.26	33.1	0.1	0.06	< 5.2 U	456	70.7	39.3
PRMA-09	0	5/2/2001	9640	< 1 UJ	3.1	545 J-	0.37	0.14	12	0.01	4.3	7.9	10500 J-	14.4	6080	723 J-	< 0.03 U	0.25	12.7	< 0.52 U	0.06	< 5.2 U	359	32.2	27
PRMA-10	0	5/8/2001	8630 J-	< 1.1 UJ	3.4	565 J+	0.34	0.11	5.7	< 0.005 U	3.5	6.9	10800 J-	8.3	5610	748 J+	< 0.03 U	0.31	10.9 J-	0.04	0.05 J-	< 5.3 U	381 J+	20.7	28.1
	4	5/8/2001	7580 J-	< 1.1 UJ	3.7	555 J+	0.42	0.14	6.4	0.01	4	8.7	7220 J-	13.3	4040	728 J+	< 0.03 U	0.26	11.9 J-	0.09	0.05 J-	< 5.4 U	449 J+	32.8	22.7
PRMA-11	0	5/2/2001	12000	0.22 J-	3.3	471 J-	2.3	0.15	92	0.016	11.6	23.9	12500 J-	14.1	6370	564 J-	0.01	0.85	22.5	0.08	0.11	< 5.2 U	412	130	174
PRMA-12	0	5/7/2001	8730	< 1.1 U	3.7	291	0.32	0.07	5.2	--	3.1	6.6	9600	8.5	10100	227	0.02	0.23	7.2	0.23	0.04	< 5.3 U	309	12.9	49.3
	4	5/7/2001	9140	< 1.1 U	5.3	463	0.35	0.06	4.2	< 0.005 U	3.2	6.4	7950	8.1	7120	245	< 0.03 U	0.41	7.4	0.29	0.03	< 5.3 U	352	14.7	26.9
PRMA-13	0	5/2/2001	11700	0.31 J-	4.4	439 J-	0.46	0.17	13.2	< 0.005 U	4.7	10.1	14200 J-	37.5	8650	512 J-	0.02	0.65	11.5	0.18	0.13	< 5.1 U	600	27.8	46.5
PRMA-14	0	5/7/2001	10300	< 1.1 U	4	437	0.61	0.18	211	< 0.005 U	4.9	31.4	12400	107	7400	263	0.02	0.94	21.2	0.18	0.29	< 5.6 U	1370	237	41
	4	5/7/2001	9310	< 1.1 U	4.4	326	0.3	0.08	10.1	< 0.005 U	2.4	6.1	8510	7.7	5840	196	< 0.03 U	< 4.4 U	7.6	0.16	0.03	< 5.5 U	270	20.2	27.1
PRMA-15	0	5/2/2001	9030	1 J-	5.8	488 J-	0.84	0.09	358	0.02	4.1	26.8	12600 J-	56.5	6320	267 J-	0.02	2.1	8.4	0.14	0.24	6.5	942	578	53.6
PRMA-16	0	5/2/2001	11800 J-	< 1.1 UJ	4.1	389	0.31	0.1	5.6	0.01	3.9	4.2	10100 J	9.4	8750 J-	530 J-	< 0.03 U	0.39	8.4	0.06	< 1.1 UJ-	< 5.4 U	370	30	27.9
	4	5/2/2001	10100 J-	< 1 UJ	5.6	498	0.28	0.07	4	< 0.006 U	2.9	5.8	9530 J	8.5	5940 J-	306 J-	< 0.03 U	0.28	6.7	< 0.52 U	< 1 UJ-	< 5.2 U	368	21.3	35.2
	9	5/2/2001	8850 J-	< 1 UJ	5.5	930	0.34	0.07	6.4	< 0.005 U	3.4	7.5	10400 J	9	7750 J-	325 J-	< 0.03 U	0.39	9.9	< 0.52 U	< 1 UJ-	< 5.2 U	405	17.7	30.2
	19	5/2/2001	8780 J-	< 1 UJ	4.4	327	0.36	0.08	6.7	< 0.005 U	4.4	8.1	10700 J	10.1	7430 J-	321 J-	< 0.03 U	0.49	11.8	< 0.52 U	< 1 UJ-	< 5.2 U	380	20.7	53.7
	29	5/2/2001	7280 J-	< 1.1 UJ	5.5	203	0.28	0.1	5.4	< 0.005 U	3.2	7.4	9930 J	9.9	6620 J-	187 J-	< 0.03 U	0.33	12	< 0.53 U	< 1.1 UJ-	< 5.3 U	372	16.1	49.9
	39	5/2/2001	8800 J-	< 1.2 UJ	14.6	278	0.39	0.12	10.1	< 0.005 U	4.1	7.9	8900 J	8.6	17400 J-	225 J-	< 0.04 U	1.2	12.1	< 0.62 U	< 1.2 UJ-	< 6.2 U	377	26.3	31.5
	49	5/2/2001	13900 J-	< 1.7 UJ	17.5	454	0.77	0.1	56.1	< 0.005 U	6.5	17.3	15000 J	8.5	49700 J-	272 J-	< 0.05 U	0.87	15.6	< 0.85 U	< 1.7 UJ-	< 8.5 U	644	68	47.6
PRMA-17	0	5/2/2001	10200	0.29 J-	3.6	420 J-	0.36	0.16	10.2	< 0.005 U	3.4	7.5	13200 J-	35	7610	351 J-	< 0.03 U	0.41	8.1	0.11	0.11	< 5.1 U	452	22.9	36.9
PRMA-18	0	5/7/2001	8400	< 1.1 U	4	333	0.44	0.12	22	< 0.005 U	4.1	9.5	9420	11.5	8210	207	0.029	< 4.2 U	13.6	0.25	0.06	< 5.3 U	409	64.5	26.4
	4	5/7/2001	10900	< 1 U	6	692	0.52	0.07	6.2	< 0.005 U	3.9	7.9	10900	8.1	7770	386	< 0.03 U	0.46	8.7	0.09	0.03	< 5.2 U	388	18.3	29.4
PRMA-19	0	5/8/2001	9010 J-	< 1 UJ	3.8	421 J+	0.41	0.16	15	< 0.005 U	4.5	10.9	10200 J-	18	6490	710 J+	0.03	0.45	15 J-	< 0.52 U	0.19 J-	< 5.2 U	502 J+	41.5	28.3
	4	5/8/2001	10500 J-	< 1.1 UJ	5	611 J+	0.42	0.06	6.1	< 0.005 U	3.2	7.5	8570 J-	9.6	7940	214 J+	< 0.03 U	0.21	8.4 J-	0.1	0.05 J-	< 5.3 U	409 J+	19.1	23.4
PRMA-20	0	5/2/2001	10100	< 1 UJ	3.5	450 J-	0.42	0.11	10.4	< 0.005 U	5.6	9.5	14100 J-	16.1	8930	553 J-	< 0.03 U	0.56	9.8	0.13	0.1	< 5.2 U	522	23.8	35.3
PRMA-21	0	5/7/2001	7090	< 1 U	3.6	408	0.34	0.08	7.8	< 0.005 U	3.3	7.6	9820	10.4	5210	418	< 0.03 U	0.29	12.8	0.22	0.03	< 5.2 U	395	18.5	23.4
	4	5/7/2001	10000	< 1.1 U	3.8	717	0.36	0.06	7.7	< 0.005 U	3.3	6.6	10600	7.7	6670	241	< 0.03 U	0.32	9	0.09	0.04	< 5.3 U	383	18.5	35.6
PRMA-22	0	5/2/2001	10900	< 1 UJ	2.8	403 J-	0.38	0.07	4.7	< 0.005 U	2.9	6.3	11600 J-	17	6410	295 J-	< 0.03 U	0.32	7.5	0.12	0.04	< 5.1 U	346	11.9	31.8
PRMA-23	0	5/7/2001	8550	< 1.1 U	2.4	283	0.35	0.21	191	0.01	3.5	23.2	12300	58.4	6140	177	< 0.03 U	1.2	19.1	< 0.53 U	0.56	< 5.3 u	1970	363	41.9
	4	5/7/2001	10000	< 1.1 U	6.7	650	0.39	0.11	52.1	0.01	6.8	12.4	8140	21.3	7070	1580	0.03	1	11.5	0.17	0.1	< 5.4 U	547	96.5	26.1
PRMA-24	0	5/2/2001	10500	< 1 UJ	3.8	400 J-	0.41	0.09	6.7	< 0.005 U	3.4	7.9	12700 J-	18.9	7650	416 J-	< 0.03 U	0.31	8.1	0.13	0.06	< 5.1 U	385	14.8	33.3
PUA-01N	1	10/20/1999	--	< 0.52 U	4.2	460	0.57	--	90	--	--	2.1	--	12	--	400	--	--	27	--	--	< 0.52 U	--	130	35
PUA-01S	1	10/20/1999	--	< 0.52 U	5.1	440	0.53	--	17	--	--	15	--	10	--	440	--	--	14	--	--	< 0.52 U	--	650	32
PUA-02N	0	10/27/1999	--	< 0.53 U	7.3	420	0.5	--	53	--	--	23	--	9.5	--	550	--	--	54	--	--	< 0.53 U	--	140	42
PUA-02NCD	1	7/19/2000	--	--	5.5	--	--	--	--	--	--	--	--	13	--	530	--	--	--	--	--	--	--	--	--
PUA-02NCON	1	7/19/2000	--	--	5.1	--	--	--	--	--	--	--	--	15	--	550	--	--	--	--	--	--	--	--	--
PUA-02NED	1	7/19/2000	--	--	5.1	--	--	--	--	--	--	--	--	19	--	250	--	--	--	--	--	--	--	--	--
PUA-02NWD	1	7/19/2000	--	--	5.9	--	--	--	--	--	--	--	--	13	--	790	--	--	--	--	--	--	--	--	--
PUA-02S	1	10/27/1999	--	< 0.52 U	5.1	370	0.35	--	110	--	--	23	--	21	--	340	--	--	22	--	--	< 0.52 U	--	200	31
PUA-02SCD	1	7/19/2000	--	--	4.8	--	--	--	--	--	--	--	--	21	--	500	--	--	--	--	--	--	--	--	--
PUA-02SCON	1	7/19/2000	--	--	6.9	--	--	--	--	--	--	--	--	22	--	650	--	--	--	--	--	--	--	--	--

TABLE B-2
POST-IRM SOIL METALS DATA
MOHAWK SUB-AREA
(Page 2 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Metals																						
			Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (Total)	Chromium (VI)	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Titanium	Vanadium	Zinc
PUA-02SED	1	7/19/2000	--	--	6.6	--	--	--	--	--	--	--	--	15	--	490	--	--	--	--	--	--	--	--	--
PUA-02SWD	1	7/19/2000	--	--	5.9	--	--	--	--	--	--	--	--	24	--	820	--	--	--	--	--	--	--	--	--
PUA-03N	1	10/20/1999	--	< 0.52 U	4.5	430	0.52	--	270	--	--	41	--	69	--	410	--	--	37	--	--	< 0.52 U	--	480	44
PUA-03S	1	10/20/1999	--	< 0.51 U	4.7	550	0.47	--	31	--	--	15	--	17	--	460	--	--	20	--	--	< 0.51 U	--	63	30
PUB-01	1	5/13/1999	--	40	36	3600 J+	--	--	840 J+	--	--	--	--	480 J+	--	570 J+	--	--	--	--	--	4.5	--	2600 J+	--
PUB-01N	1	10/20/1999	--	< 0.52 U	4.9	450	0.47	--	12	--	--	11	--	8.4	--	310	--	--	11	--	--	< 0.52 U	--	29	31
PUB-01S	1	10/20/1999	--	< 0.52 U	6.3	530	0.43	--	12	--	--	11	--	15	--	550	--	--	11	--	--	< 0.52 U	--	31	27
PUB-02	0	3/26/1996	--	--	11 J-	830	--	0.8	100	--	--	--	--	82	--	--	< 0.093 U	--	--	0.72	0.47	--	--	190	--
	1	5/13/1999	--	62	32	7400 J+	--	--	850 J+	--	--	--	--	1500 J+	--	1300 J+	--	--	--	--	--	9.5	--	3300 J+	--
	4	3/26/1996	--	--	7.2 J-	650	--	1.7	15	--	--	--	--	13	--	--	< 0.11 U	--	--	< 1 U	< 2.1 U	--	--	49	--
PUB-02N	1	10/20/1999	--	0.57	5.2	380	0.43	--	20	--	--	12	--	9.6	--	880	--	--	18	--	--	0.79	--	54	32
PUB-02NCD	1	7/19/2000	--	--	5.5	--	--	--	--	--	--	--	--	15	--	680	--	--	--	--	--	--	--	--	--
PUB-02NCOM	1	7/19/2000	--	--	5.3	--	--	--	--	--	--	--	--	14	--	780	--	--	--	--	--	--	--	--	--
PUB-02NED	1	7/19/2000	--	--	5.2	--	--	--	--	--	--	--	--	11	--	740	--	--	--	--	--	--	--	--	--
PUB-02NWD	1	7/19/2000	--	--	5.3	--	--	--	--	--	--	--	--	12	--	750	--	--	--	--	--	--	--	--	--
PUB-02S	1	10/20/1999	--	0.81	6.2	450	0.5	--	22	--	--	13	--	14	--	760	--	--	16	--	--	0.61	--	51	37
PUB-02SCD	1	7/19/2000	--	--	8.5	--	--	--	--	--	--	--	--	12	--	660	--	--	--	--	--	--	--	--	--
PUB-02SCOM	1	7/19/2000	--	--	6.4	--	--	--	--	--	--	--	--	19	--	880	--	--	--	--	--	--	--	--	--
PUB-02SED	1	7/19/2000	--	--	6.3	--	--	--	--	--	--	--	--	27	--	940	--	--	--	--	--	--	--	--	--
PUB-02SWD	1	7/19/2000	--	--	6.1	--	--	--	--	--	--	--	--	30	--	770	--	--	--	--	--	--	--	--	--
PUB-03N	1	10/20/1999	--	0.95	5.1	500	0.47	--	24	--	--	12	--	14	--	870	--	--	16	--	--	1.2	--	66	35
PUB-03S	1	10/20/1999	--	1.1	5.5	590	0.57	--	27	--	--	15	--	19	--	1000	--	--	20	--	--	1.7	--	64	46
PUC-01	1	3/26/1996	--	--	25	1900	--	< 1 U	470	--	--	--	--	240	--	--	< 0.1 U	--	--	1.1	0.91	--	--	1300	--
	5	3/26/1996	--	--	4.5 J-	410	--	0.51	19	--	--	--	--	8.7	--	--	< 0.11 U	--	--	< 1.1 U	< 2.1 U	--	--	44	--
PUC-01N	1	10/26/1999	--	1.1	7.8	460	1.5	--	260	--	--	50	--	15	--	400	--	--	22	--	--	2.4	--	330	110
PUC-01S	1	10/20/1999	--	1.8	35	1400	2.6	--	260	--	--	52	--	67	--	5400	--	--	24	--	--	4.3	--	390	120
		11/8/1999	--	< 6.2 UJ	7.1	490	--	--	144 J+	--	--	--	--	25.1	--	593 J+	--	--	--	--	--	3.3	--	232	--
PUC-02N	1	10/20/1999	--	1.8	8.3	570	0.8	--	420	--	--	64	--	56	--	360	--	--	18	--	--	4	--	500	77
PUC-02S	1	10/20/1999	--	0.98	7.3	680	0.27	--	380	--	--	44	--	31	--	790	--	--	15	--	--	4.5	--	520	50
PUD-01N	1	10/20/1999	--	< 0.52 U	6.1	560	0.35	--	11	--	--	11	--	10	--	1300	--	--	15	--	--	< 0.52 U	--	39	28
PUD-01S	1	10/20/1999	--	< 0.52 U	5.1	460	0.37	--	13	--	--	11	--	12	--	720	--	--	13	--	--	< 0.52 U	--	47	27
PUD-02N	1	10/20/1999	--	0.57	5.5	470	0.42	--	30	--	--	14	--	11	--	630	--	--	19	--	--	< 0.51 U	--	61	31
PUD-02S	1	10/20/1999	--	0.66	5.1	600	23	--	23	--	--	13	--	14	--	990	--	--	24	--	--	< 0.53 U	--	62	30
PUE-01	1	3/28/1996	--	--	11.6	1070	--	< 2 U	405	--	--	--	--	197	--	--	< 0.1 U	--	--	< 5.9 U	< 2 U	--	--	563	--
	5	3/28/1996	--	--	7	518	--	< 2.1 U	34	--	--	--	--	20.3	--	--	< 0.1 U	--	--	< 6.2 U	< 2.1 U	--	--	53.6	--

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-3
ORGANOCHLORINE PESTICIDES DATA
MOHAWK SUB-AREA
(Page 1 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Organochlorine Pesticides																							
			2,4-DDD	2,4-DDE	4,4-DDD	4,4-DDE	4,4-DDT	Aldrin	alpha-BHC	alpha-Chlordane	beta-BHC	Chlordane	delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma-Chlordane	Heptachlor	Heptachlor epoxide	Lindane	Methoxychlor	Toxaphene
PRMA-01	0	5/4/2001	--	--	< 0.0018 U	0.019	0.0049	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.0038	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
		5/8/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.069 U
	4	5/4/2001	--	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0036 U	< 0.073 U
		5/8/2001	--	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0037 U	< 0.076 U
PRMA-02	0	5/2/2001	--	--	< 0.0018 U	0.016	0.0034	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
PRMA-03	0	5/2/2001	--	--	< 0.0017 U	0.0088	0.0019	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0034 U	< 0.068 U
PRMA-04	0	5/4/2001	--	--	< 0.0019 U	< 0.0019 U	0.0035	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	0.0073	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0036 U	< 0.074 U
		5/8/2001	--	--	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	--	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.0089 U	< 0.017 U	< 0.35 U
	4	5/4/2001	--	--	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	--	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.0038 U	< 0.078 U
		5/8/2001	--	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0036 U	< 0.073 U
PRMA-05	0	5/2/2001	--	--	< 0.087 U	< 0.087 U	0.17	< 0.087 U	< 0.087 U	< 0.087 U	< 0.087 U	--	< 0.087 U	< 0.087 U	< 0.087 U	< 0.087 U	< 0.087 U	0.22	< 0.087 U	< 0.087 U	< 0.087 U	< 0.087 U	< 0.087 U	< 0.087 U	< 0.17 U	< 3.4 U
PRMA-06	0	5/4/2001	--	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0037 U	< 0.075 U
		5/8/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
	4	5/4/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.07 U
		5/8/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0036 U	< 0.072 U
PRMA-07	0	5/4/2001	--	--	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	--	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0041 U	< 0.082 U
		5/11/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.069 U
	4	5/4/2001	--	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0037 U	< 0.076 U
		5/8/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
PRMA-08	0	5/2/2001	--	--	< 0.0018 U	0.0018	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
PRMA-09	0	5/2/2001	--	--	< 0.0018 U	0.0096	0.0044	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.0063	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
PRMA-10	0	5/8/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
	4	5/8/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0036 U	< 0.073 U
PRMA-11	0	5/2/2001	--	--	< 0.0018 U	0.0074	0.0053	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.069 U
PRMA-12	0	5/7/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
	4	5/7/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.07 U
PRMA-13	0	5/2/2001	--	--	< 0.0017 U	0.016	0.0083	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0021	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.002	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0034 U	< 0.068 U
PRMA-14	0	5/7/2001	--	--	< 0.019 U	0.048	0.033	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.037 U	< 0.75 U
	4	5/7/2001	--	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0036 U	< 0.073 U
PRMA-15	0	5/2/2001	--	--	< 0.0018 U	0.028	0.012	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.0034	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.0072	< 0.0018 U	0.013	< 0.0018 U	0.0019	< 0.0018 U	< 0.0018 U	0.0027	0.0061	< 0.07 U
PRMA-16	0	5/2/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.072 U
	4	5/2/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
	9	5/2/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.07 U
	19	5/2/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.07 U
	29	5/2/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
	39	5/2/2001	--	--	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	--	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0021 U	< 0.0041 U	< 0.084 U
	49	5/2/2001	--	--	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	--	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0029 U	< 0.0056 U	< 0.11 U
PRMA-17	0	5/2/2001	--	--	< 0.0017 U	0.019 J+	0.0061 J+	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0028 J+	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0062 J+	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0034 U	< 0.068 U
PRMA-18	0	5/7/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.0029	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
	4	5/7/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.07 U
PRMA-19	0	5/8/2001	--	--	< 0.0018 U	< 0.0018 U	0.0055	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
	4	5/8/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
PRMA-20	0	5/2/2001	--	--	< 0.0018 U	0.0036	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.0033	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.069 U
PRMA-21	0	5/7/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.07 U
	4	5/7/2001	--	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0035 U	< 0.071 U
PRMA-22	0	5/2/2001	--	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0034 U	< 0.069 U
PRMA-23	0	5/7/2001	--	--	< 0.009 U	0.025	0.024	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	--	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.009 U	< 0.018 U	< 0.36 U
	4	5/7/2001	--	--	< 0.0018 U	0.0026	0.0021	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	--	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0036 U	< 0.072 U
PRMA-24	0	5/2/2001	--	--	< 0.0017 U	0.0083	0.0035	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0024	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0034 U	< 0.069 U
PUA-01N	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUA-01S	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUA-02N	0	10/27/1999	--	--	< 0.005 U	0.0095	0.024	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUA-02NCD	1	7/19/2000	--	--	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02036 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02036 U	< 0.06108 U
PUA-02NCON	1	7/19/2000	--	--	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.02034 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.02034 U	< 0.06102 U
PUA-02NED	1	7/19/2000	--	--	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02036 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02036 U	< 0.06108 U
PUA-02NWD	1	7/19/2000	--	--	< 0.00506 U	0.0074	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.02022 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.02022 U	< 0.06066 U
PUA-02S	1	10/27/1999	--	--	< 0.005 U	0.0066	0.012	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUA-02SCD	1	7/19/2000	--	--	< 0.00506 U	0.0081	0.0051	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.02024 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.02024 U	< 0.06072 U
PUA-02SCON	1	7/19/2000	--	--	< 0.00507 U	0.014	0.0051	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.06084 U

TABLE B-3
ORGANOCHLORINE PESTICIDES DATA
MOHAWK SUB-AREA
(Page 2 of 2)

Sample ID	Depth (ft bgs)	Sample Date	Organochlorine Pesticides																							
			2,4-DDD	2,4-DDE	4,4-DDD	4,4-DDE	4,4-DDT	Aldrin	alpha-BHC	alpha-Chlordane	beta-BHC	Chlordane	delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma-Chlordane	Heptachlor	Heptachlor epoxide	Lindane	Methoxychlor	Toxaphene
PUA-02SED	1	7/19/2000	--	--	< 0.00508 U	0.016	0.0058	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.02032 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.02032 U	< 0.06096 U
PUA-02SWD	1	7/19/2000	--	--	< 0.0051 U	0.0061	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.02038 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.02038 U	< 0.06114 U
PUA-03N	1	10/20/1999	--	--	< 0.005 U	0.022	0.023	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUA-03S	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUB-01N	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUB-01S	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUB-02	0	3/26/1996	--	--	< 0.0033 U	0.029	0.0091	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0039	< 0.04 U	< 0.0017 U	< 0.0033 U	0.021	< 0.0033 U	< 0.0033 U	< 0.0033 U	< 0.0033 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.017 U	< 0.17 U
	4	3/26/1996	--	--	< 0.0036 U	0.0014	< 0.0036 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	0.0026	< 0.044 U	< 0.0019 U	< 0.0036 U	0.0019	< 0.0036 U	< 0.0036 U	< 0.0036 U	< 0.0036 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.019 U	< 0.19 U
PUB-02N	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUB-02NCD	1	7/19/2000	--	--	< 0.00506 U	0.011	0.005	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.02022 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.00506 U	< 0.02022 U	< 0.06066 U
PUB-02NCOM	1	7/19/2000	--	--	< 0.00509 U	0.0071	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02034 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02034 U	< 0.06102 U
PUB-02NED	1	7/19/2000	--	--	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.06084 U
PUB-02NWD	1	7/19/2000	--	--	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.06084 U
PUB-02S	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUB-02SCD	1	7/19/2000	--	--	< 0.0051 U	0.0065	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.02042 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.02042 U	< 0.06126 U
PUB-02SCOM	1	7/19/2000	--	--	< 0.00509 U	0.0098	0.0051	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02036 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.00509 U	< 0.02036 U	< 0.06108 U
PUB-02SED	1	7/19/2000	--	--	< 0.00508 U	0.012	0.0054	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.02032 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.00508 U	< 0.02032 U	< 0.06096 U
PUB-02SWD	1	7/19/2000	--	--	< 0.00507 U	0.0095	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.00507 U	< 0.02028 U	< 0.06084 U
PUB-03N	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUB-03S	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 UJ	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUC-01	1	3/26/1996	--	--	< 0.0033 U	0.099	0.05	< 0.0017 U	0.0065	< 0.0017 U	0.0022	< 0.04 U	< 0.0017 U	< 0.0033 U	0.11	< 0.0033 U	< 0.0033 U	< 0.0033 U	< 0.0033 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.0013	< 0.017 U	< 0.17 U
	5	3/26/1996	--	--	< 0.0036 U	< 0.0036 U	< 0.0036 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.044 U	< 0.0019 U	< 0.0036 U	0.0019	< 0.0036 U	< 0.0036 U	< 0.0036 U	< 0.0036 U	--	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.019 U	< 0.19 U
PUC-01N	1	10/26/1999	--	--	< 0.005 U	0.01	0.013	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUC-01S	1	10/20/1999	--	--	< 0.005 U	0.02	0.018	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUC-02N	1	10/20/1999	--	--	< 0.005 U	0.0097	0.04	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUC-02S	1	10/20/1999	--	--	< 0.005 U	0.018	0.0059	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUD-01N	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUD-01S	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	0.007	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUD-02N	1	10/20/1999	--	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.06 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	--	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.02 U	< 0.06 U
PUD-02S	1	10/20/1999	--	--	< 0.005 UJ	< 0.005 UJ	0.012 J-	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.06 UJ	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	--	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.005 UJ	< 0.02 UJ	< 0.06 UJ
PUE-01	1	3/28/1996	--	--	< 0.0033 U	0.94	0.17	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.04 U	< 0.0017 U	< 0.0033 U	0.51	< 0.0033 U	< 0.0033 U	< 0.0033 U	< 0.0033 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.017 U	< 0.17 U
	5	3/28/1996	--	--	< 0.0033 U	0.021	0.007	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.04 U	< 0.0017 U	< 0.0033 U	0.016	0.013	< 0.0033 U	< 0.0033 U	< 0.0033 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.017 U	< 0.17 U
WC-MH01	0	7/27/2006	< 0.0017 U	0.39	< 0.0017 U	0.45	0.048 J	< 0.0017 U	< 0.0017 U	< 0.0017 U	0.003 J	--	< 0.0017 U	< 0.0017 U	0.0031 J	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	--	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0017 U	< 0.0033 U	< 0.067 U

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-4
POST-IRM SOIL ORGANOPHOSPHOROUS PESTICIDES DATA
MOHAWK SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	Organophosphorous Pesticides																							
			Azinphos-ethyl	Azinphos-methyl	Carbophenothion	Chlorpyrifos	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	Ethoprophos	Ethyl p-nitrophenyl phenylp	Famphur	Fenthion	Malathion	Methyl parathion	Mevinphos	Naled	Parathion	Phorate	Phosmet	Ronnel	Stirophos (tetrachlorovinphc	Sulfotep
PRMA-01	0	5/4/2001	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U
	4	5/4/2001	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U	< 0.10438 U
PRMA-02	0	5/2/2001	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U	< 0.10989 U
PRMA-03	0	5/2/2001	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U	< 0.11299 U
PRMA-04	0	5/4/2001	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U
	4	5/4/2001	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U	< 0.10752 U
PRMA-05	0	5/2/2001	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U	< 0.11185 U
PRMA-06	0	5/4/2001	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U	< 0.11682 U
	4	5/4/2001	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U	< 0.11764 U
PRMA-07	0	5/4/2001	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U	< 0.10928 U
	4	5/4/2001	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U	< 0.10869 U
PRMA-08	0	5/2/2001	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U	< 0.11025 U
PRMA-09	0	5/2/2001	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U
PRMA-10	0	5/8/2001	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U	< 0.1057 U
	4	5/8/2001	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U	< 0.11862 U
PRMA-11	0	5/2/2001	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U	< 0.11111 U
PRMA-12	0	5/7/2001	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U
	4	5/7/2001	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U	< 0.1116 U
PRMA-13	0	5/2/2001	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U
PRMA-14	0	5/7/2001	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U	< 0.11389 U
	4	5/7/2001	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U	< 0.10559 U
PRMA-15	0	5/2/2001	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U	< 0.10952 U
PRMA-16	0	5/2/2001	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U	< 0.10384 U
	4	6/21/2001	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	--	< 0.10504 U	< 0.10504 U	< 0.10504 U	--	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	--	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U
	9	6/21/2001	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U	< 0.10504 U
	19	6/21/2001	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 UJ	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 UJ	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 UJ	< 0.106 U
	29	6/21/2001	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 UJ	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 UJ	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 U	< 0.106 UJ	< 0.106 U
	39	6/21/2001	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 UJ	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 UJ	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 U	< 0.137 UJ	< 0.137 U
	49	6/21/2001	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 UJ	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 UJ	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 U	< 0.136 UJ	< 0.136 U
PRMA-17	0	5/2/2001	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U	< 0.11337 U
PRMA-18	0	5/7/2001	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U	< 0.10482 U
	4	5/7/2001	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U	< 0.10515 U
PRMA-19	0	5/8/2001	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U	< 0.10152 U
	4	5/8/2001	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U	< 0.1094 U
PRMA-20	0	5/2/2001	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U	< 0.11086 U
PRMA-21	0	5/7/2001	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U	< 0.10245 U
	4	5/7/2001	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U	< 0.10214 U
PRMA-22	0	5/2/2001	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U	< 0.11123 U
PRMA-23	0	5/7/2001	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U	< 0.10706 U
	4	5/7/2001	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U	< 0.10857 U
PRMA-24	0	5/2/2001	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U	< 0.11235 U
WC-MH01	0	7/27/2006	--	--	--	--	--	--	--	--	--	--	< 0.048 U	--	--	< 0.013 U	--	--	< 0.02 U	--	--	< 0.018 U	< 0.02 U	--	--	--	--

All units in mg/kg.
-- = no sample data.

TABLE B-5
POST-IRM SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
MOHAWK SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	PCBs						
			Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
PRMA-01	0	5/4/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
		5/8/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
	4	5/4/2001	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
		5/8/2001	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
PRMA-02	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-03	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-04	0	5/4/2001	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
		5/8/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	4	5/4/2001	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U
		5/8/2001	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
PRMA-05	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-06	0	5/4/2001	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
		5/8/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	4	5/4/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
		5/8/2001	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
PRMA-07	0	5/4/2001	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U
		5/11/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
	4	5/4/2001	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
		5/8/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-08	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-09	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-10	0	5/8/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	4	5/8/2001	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
PRMA-11	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-12	0	5/7/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	4	5/7/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
PRMA-13	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-14	0	5/7/2001	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
	4	5/7/2001	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
PRMA-15	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-16	0	5/2/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	4	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
	9	5/2/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	19	5/2/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	29	5/2/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	39	5/2/2001	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U	< 0.041 U
	49	5/2/2001	< 0.056 U	< 0.056 U	< 0.056 U	< 0.056 U	< 0.056 U	< 0.056 U	< 0.056 U
PRMA-17	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-18	0	5/7/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	4	5/7/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
PRMA-19	0	5/8/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
	4	5/8/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
PRMA-20	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-21	0	5/7/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
	4	5/7/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
PRMA-22	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PRMA-23	0	5/7/2001	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
	4	5/7/2001	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
PRMA-24	0	5/2/2001	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
PUB-02	0	3/26/1996	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U
	4	3/26/1996	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U
PUC-01	0	3/26/1996	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U
	5	3/26/1996	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U	< 0.014 U
PUE-01	1	3/28/1996	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U
	5	3/28/1996	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U	< 0.013 U

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-6
POST-IRM SOIL RADIONUCLIDES DATA
MOHAWK SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	Radionuclides																		
			Actinium-228	Bismuth-212	Bismuth-214	Cobalt-57	Cobalt-60	Lead-210	Lead-212	Lead-214	Potassium-40	Radium-226	Radium-228	Thallium-208	Thorium-228	Thorium-230	Thorium-232	Thorium-234	Uranium-233/234	Uranium-235/236	Uranium-238
PRMA-01	0	5/4/2001	1.39	1.9 U	0.76	--	--	2.8 U	1.17	0.52	30.5	0.76	1.69	0.47	1.16	0.9	1.18	--	0.91	0.18 U	1.5
		5/8/2001	1.39	1.28 U	0.64	--	--	1 U	1.11	0.65	30.2	0.64	2.02	0.45	1.16	1.26	1.2	--	0.61	0.04 U	0.65
PRMA-16	0	5/2/2001	0.98	2.1 U	0.92	--	--	2.1 U	1.06	0.75	29.5	0.91	1.82	0.31	1.75	0.98	1.61	--	0.56	0.085	0.6
PUA-01N	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.16 U	--	--	--	1.6	--	--	0.91	0.04	--
PUA-01S	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.13 U	--	--	--	1.08	--	--	0.93	0.11 U	--
PUA-02N	0	10/27/1999	--	--	--	--	--	--	--	--	--	0.14 U	1.74	--	2.53	1.45	1.76	--	1.28	0.13 U	0.94
PUA-02S	1	10/27/1999	--	--	--	--	--	--	--	--	--	1.49	1.14	--	2.32	1.23	1.22	--	1.13	0.24	1.59
PUA-03N	1	10/20/1999	--	--	--	--	--	--	--	--	--	1.37	3.13	--	1.8	2.11	1.47	--	0.79	0.02	0.6
PUA-03S	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.13 U	2.25	--	1.27	1.29	0.95	--	0.8	0.16	0.88
PUB-01N	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.12 U	1.2	--	1.32	1.53	1.62	--	0.66	0.03	0.55
PUB-01S	1	10/20/1999	--	--	--	--	--	--	--	--	--	2.52	0.67	--	1.48	1.49	1.18	--	0.78	0.04	0.67
PUB-02	0	3/26/1996	1.3	--	0.9	0.028 U	0.03 U	--	1.38	1.18	24.9	1.19	0.57 J+	0.438	1.75	1.16	1.46	2.2	1.03	0.052	1.16
	5	3/26/1996	1.35	--	0.69	0.027 U	0.007	--	1.25	0.85	26.4	0.76	2.17 J+	0.378	1.29	0.98	1.47	2.8	1.07 J+	0.041 J+	0.9 J+
PUB-02N	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.13 U	1.79	--	1.38	1.09	1.24	--	0.5	0.06	0.58
PUB-02S	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.12 U	1.52	--	1.21	1.25	1.83	--	0.93	0.03	0.81
PUB-03N	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.11 U	1.3	--	2.08	1.34	1.02	--	0.51	0.03	0.73
PUB-03S	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.11 U	1.17	--	1.52	1.12	--	--	0.62	0.07	0.62
PUC-01N	1	10/26/1999	--	--	--	--	--	--	--	--	--	0.71	1.01	--	1.52	1.04	1.22	--	1.84	0.05	1.56
PUC-01S	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.42	1.35	--	2.3	1.18	2.25	--	0.67	0.091 U	0.79
PUC-02N	1	10/20/1999	--	--	--	--	--	--	--	--	--	8.78	2.69	--	3.95	4.91	2.9	--	8.73	0.48	8.2
PUC-02S	1	10/20/1999	--	--	--	--	--	--	--	--	--	1.02	1.05	--	1.23	1.51	1.66	--	1.37	0.05	1.4
PUD-01N	1	10/20/1999	--	--	--	--	--	--	--	--	--	1.14	1.07	--	1.5	0.85	1.35	--	0.76	0.13 U	0.67
PUD-01S	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.36	1.57	--	2.23	1.58	2.02	--	0.51	0.05	0.63
PUD-02N	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.6	1.41	--	1.57	1.17	2.24	--	0.63	0.064 U	0.76
PUD-02S	1	10/20/1999	--	--	--	--	--	--	--	--	--	0.23	1.43	--	1.07	0.93	1.19	--	0.8	0.21 U	0.64

All units in pCi/g.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-7
POST-IRM SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
MOHAWK SUB-AREA
(Page 1 of 3)

Sample ID	Depth (ft bgs)	Sample Date	SVOCs																								
			1,2,4,5-Tetrachlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,2-Diphenylhydrazine	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Methylphenol & 4-Methyl	3-Nitroaniline	4-Bromophenyl phenyl ether	4-Chloro-3-Methylphenol	4-Chlorophenyl phenyl ether
PRMA-01	0	5/4/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
		5/8/2001	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U
	4	5/4/2001	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 1.7 U	--	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U
		5/8/2001	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 1.8 U	--	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U
PRMA-02	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-03	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-04	0	5/4/2001	--	< 0.36 UJ	< 0.36 UJ	--	< 0.36 UJ	< 0.36 UJ	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 U	< 0.36 UJ	< 1.8 UJ	< 0.36 U	< 1.8 UJ	--	< 1.8 UJ	< 0.36 UJ	< 0.36 U	< 0.36 UJ
		5/8/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/4/2001	--	< 0.38 UJ	< 0.38 UJ	--	< 0.38 UJ	< 0.38 UJ	--	< 0.38 U	< 0.38 U	< 0.38 U	< 0.38 U	< 1.9 U	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 U	< 0.38 UJ	< 1.9 UJ	< 0.38 U	< 1.9 UJ	--	< 1.9 UJ	< 0.38 UJ	< 0.38 U	< 0.38 UJ
		5/8/2001	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 1.7 U	--	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-05	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-06	0	5/4/2001	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 1.8 U	--	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U
		5/8/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/4/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
		5/8/2001	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 1.7 U	--	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-07	0	5/4/2001	--	< 0.41 U	< 0.41 U	--	< 0.41 U	< 0.41 U	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 2 U	--	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U
		5/11/2001	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U
	4	5/4/2001	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 1.8 U	--	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U
		5/8/2001	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-08	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-09	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-10	0	5/8/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/8/2001	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 1.7 U	--	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-11	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-12	0	5/7/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/7/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-13	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-14	0	5/7/2001	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 1.8 U	--	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U
	4	5/7/2001	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U	< 0.36 U	< 1.8 U	--	< 1.8 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-15	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-16	0	5/2/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/2/2001	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U
	9	5/2/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	19	5/2/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	29	5/2/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	39	5/2/2001	--	< 0.41 U	< 0.41 U	--	< 0.41 U	< 0.41 U	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 2 U	--	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U
	49	5/2/2001	--	< 0.56 U	< 0.56 U	--	< 0.56 U	< 0.56 U	--	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 2.7 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 2.7 U	< 0.56 U	< 2.7 U	--	< 2.7 U	< 0.56 U	< 0.56 U	< 0.56 U
PRMA-17	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-18	0	5/7/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/7/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-19	0	5/8/2001	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U
	4	5/8/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-20	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-21	0	5/7/2001	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 1.7 U	--	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U
	4	5/7/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-22	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PRMA-23	0	5/7/2001	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 1.7 U	--	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/7/2001	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 1.7 U	--	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-24	0	5/2/2001	--	< 0.34 UJ	< 0.34 U	--	< 0.34 U	< 0.34 UJ	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 1.6 U	< 0.34 U	< 1.6 U	--	< 1.6 U	< 0.34 U	< 0.34 UJ	< 0.34 U
PUB-02	1	3/26/1996	--	< 0.67 U	< 0.67 U	--	< 0.67 U	< 0.67 U	--	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.4 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.4 U	< 0.67 U	< 1.3 U	--	< 3.4 U	< 0.67 U	< 1.3 U	< 0.67 U
PUC-01	1	3/26/1996	--	< 0.67 U	< 0.67 U	--	< 0.67 U	< 0.67 U	--	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.4 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.4 U	< 0.67 U	< 1.3 U	--	< 3.4 U	< 0.67 U	< 1.3 U	< 0.67 U
PUE-01	1	3/28/1996	--	< 0.67 U	< 0.67 U	--	< 0.67 U	< 0.67 U	--	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.3 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.3 U	< 0.67 U	< 1.3 U	--	< 3.3 U	< 0.67 U	< 1.3 U	< 0.67 U
WC-MH01	0	7/27/2006	< 0.33 U	--	--	< 0.33 U	--	--	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 1.6 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	--	< 1.6 U	< 0.33 U	--	< 0.66 U	--	< 0.33 U	< 0.33 U	--

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

TABLE B-7
POST-IRM SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
MOHAWK SUB-AREA
(Page 2 of 3)

Sample ID	Depth (ft bgs)	Sample Date	SVOCs																								
			4-Nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Aniline	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Benzyl alcohol	Benzyl butyl phthalate	bis(2-Chloroethoxy) methan	bis(2-Chloroethyl) ether	bis(2-Chloroisopropyl) ether	bis(2-Ethylhexyl) phthalate	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	Dibutyl phthalate	Diethyl phthalate	Dimethyl phthalate
PRMA-01	0	5/4/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
		5/8/2001	< 1.6 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.67 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
	4	5/4/2001	< 1.7 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
		5/8/2001	< 1.8 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.26	< 0.37 U
PRMA-02	0	5/2/2001	< 1.7 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-03	0	5/2/2001	< 1.6 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.13	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.069	< 0.34 U	< 0.34 U
PRMA-04	0	5/4/2001	< 1.8 U	< 0.36 UJ	< 0.36 UJ	--	--	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	--	--	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ
		5/8/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/4/2001	< 1.9 U	< 0.38 UJ	< 0.38 UJ	--	--	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	--	--	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ
		5/8/2001	< 1.7 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.51 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-05	0	5/2/2001	< 1.6 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-06	0	5/4/2001	< 1.8 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U
		5/8/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.36 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/4/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
		5/8/2001	< 1.7 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.57 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-07	0	5/4/2001	< 2 U	< 0.41 U	< 0.41 U	--	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	--	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U
		5/11/2001	< 1.6 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.14	< 0.34 U
	4	5/4/2001	< 1.8 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.28	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U
		5/8/2001	< 1.7 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.52 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-08	0	5/2/2001	< 1.7 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.21	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.077	< 0.34 U	< 0.34 U
PRMA-09	0	5/2/2001	< 1.7 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-10	0	5/8/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/8/2001	< 1.7 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.9 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-11	0	5/2/2001	< 1.6 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-12	0	5/7/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	0.34	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/7/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	1.3	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-13	0	5/2/2001	< 1.6 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-14	0	5/7/2001	< 1.8 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	--	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.79	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U
	4	5/7/2001	< 1.8 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	0.92	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-15	0	5/2/2001	< 1.7 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-16	0	5/2/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/2/2001	< 1.7 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
	9	5/2/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	19	5/2/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	29	5/2/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	39	5/2/2001	< 2 U	< 0.41 U	< 0.41 U	--	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	--	--	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U
	49	5/2/2001	< 2.7 U	< 0.56 U	< 0.56 U	--	--	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	--	--	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U
PRMA-17	0	5/2/2001	< 1.6 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-18	0	5/7/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	0.62	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/7/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	0.91	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-19	0	5/8/2001	< 1.7 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
	4	5/8/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-20	0	5/2/2001	< 1.7 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PRMA-21	0	5/7/2001	< 1.7 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.74	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
	4	5/7/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	0.31	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
PRMA-22	0	5/2/2001	< 1.6 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	0.083	< 0.34 U
PRMA-23	0	5/7/2001	< 1.7 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	0.6	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
	4	5/7/2001	< 1.7 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	--	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	0.41	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U
PRMA-24	0	5/2/2001	< 1.6 UJ	< 0.34 UJ	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	--	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U
PUB-02	1	3/26/1996	< 3.4 U	< 0.67 U	< 0.67 U	--	--	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.4 U	< 1.3 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U
PUC-01	1	3/26/1996	< 3.4 U	< 0.67 U	< 0.67 U	--	--	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.4 U	< 1.3 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U
PUE-01	1	3/28/1996	< 3.3 U	< 0.67 U	< 0.67 U	--	--	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 3.3 U	< 1.3 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U
WC-MH01	0	7/27/2006	< 1.6 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	--	--	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	--	--	< 0.33 U	< 0.33 U	--	0.036 J	< 0.33 U	< 0.33 U

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been

TABLE B-7
POST-IRM SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
MOHAWK SUB-AREA
(Page 3 of 3)

Sample ID	Depth (ft bgs)	Sample Date	SVOCs																						
			Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachloro-1,3-butadiene	Hexachlorobenzene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	o-Cresol	p-Chloroaniline	p-Cresol	Pentachlorobenzene	Pentachlorophenol	Phenanthrene	Phenol	Phthalic acid	p-Nitroaniline	Pyrene	Pyridine
PRMA-01	0	5/4/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
		5/8/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 U	< 0.34 U	< 0.34 U	--	< 1.6 U	< 0.34 U	--
	4	5/4/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	--
		5/8/2001	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	--
PRMA-02	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 UJ	< 0.34 U	< 0.34 UJ	--	< 1.7 U	< 0.34 UJ	--
PRMA-03	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 UJ	< 0.34 U	< 0.34 UJ	--	< 1.6 U	< 0.34 UJ	--
PRMA-04	0	5/4/2001	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 1.8 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	< 0.36 UJ	--	< 1.8 U	< 0.36 UJ	< 0.36 U	--	< 1.8 UJ	< 0.36 UJ	--
		5/8/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	4	5/4/2001	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 1.9 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	< 0.38 UJ	--	< 1.9 U	< 0.38 UJ	< 0.38 U	--	< 1.9 UJ	< 0.38 UJ	--
		5/8/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	--
PRMA-05	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 UJ	< 0.34 U	< 0.34 UJ	--	< 1.6 U	< 0.34 UJ	--
PRMA-06	0	5/4/2001	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	--
		5/8/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	4	5/4/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
		5/8/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	--
PRMA-07	0	5/4/2001	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	--	< 2 U	< 0.41 U	< 0.41 U	--	< 2 U	< 0.41 U	--
		5/11/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 U	< 0.34 U	< 0.34 U	--	< 1.6 U	< 0.34 U	--
	4	5/4/2001	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	--
		5/8/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	--
PRMA-08	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 UJ	< 0.34 U	< 0.34 UJ	--	< 1.7 U	< 0.34 UJ	--
PRMA-09	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 UJ	< 0.34 U	< 0.34 UJ	--	< 1.7 U	< 0.34 UJ	--
PRMA-10	0	5/8/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	4	5/8/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	--
PRMA-11	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 UJ	< 0.34 U	< 0.34 UJ	--	< 1.6 U	< 0.34 UJ	--
PRMA-12	0	5/7/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	4	5/7/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
PRMA-13	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 UJ	< 0.34 U	< 0.34 UJ	--	< 1.6 U	< 0.34 UJ	--
PRMA-14	0	5/7/2001	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 1.8 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	< 0.37 U	--	< 1.8 U	< 0.37 U	--
	4	5/7/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.8 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 1.8 U	< 0.36 U	< 0.36 U	--	< 1.8 U	< 0.36 U	--
PRMA-15	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 UJ	< 0.34 U	< 0.34 UJ	--	< 1.7 U	< 0.34 UJ	--
PRMA-16	0	5/2/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	4	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	--
	9	5/2/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	19	5/2/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	29	5/2/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	39	5/2/2001	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 2 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	< 0.41 U	--	< 2 U	< 0.41 U	< 0.41 U	--	< 2 U	< 0.41 U	--
	49	5/2/2001	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 2.7 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.56 U	--	< 2.7 U	< 0.56 U	< 0.56 U	--	< 2.7 U	< 0.56 U	--
PRMA-17	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 UJ	< 0.34 U	< 0.34 UJ	--	< 1.6 U	< 0.34 UJ	--
PRMA-18	0	5/7/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	4	5/7/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
PRMA-19	0	5/8/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	--
	4	5/8/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
PRMA-20	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 UJ	< 0.34 U	< 0.34 UJ	--	< 1.7 U	< 0.34 UJ	--
PRMA-21	0	5/7/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.7 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	< 0.34 U	--	< 1.7 U	< 0.34 U	--
	4	5/7/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
PRMA-22	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 UJ	< 0.34 U	< 0.34 UJ	--	< 1.6 U	< 0.34 UJ	--
PRMA-23	0	5/7/2001	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 1.7 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	< 0.35 U	--	< 1.7 U	< 0.35 U	--
	4	5/7/2001	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 1.7 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	< 0.36 U	--	< 1.7 U	< 0.36 U	--
PRMA-24	0	5/2/2001	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 1.6 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 UJ	< 0.34 U	< 0.34 U	< 0.34 U	< 0.34 U	--	< 1.6 UJ	< 0.34 U	< 0.34 UJ	--	< 1.6 U	< 0.34 UJ	--
PUB-02	1	3/26/1996	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 1.3 U	< 0.67 U	--	< 3.4 U	< 0.67 U	< 0.67 U	--	< 3.4 U	< 0.67 U	--
PUC-01	1	3/26/1996	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 1.3 U	< 0.67 U	--	< 3.4 U	< 0.67 U	< 0.67 U	--	< 3.4 U	< 0.67 U	--
PUE-01	1	3/28/1996	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 0.67 U	< 1.3 U	< 0.67 U	--	< 3.3 U	< 0.67 U	< 0.67 U	--	< 3.3 U	< 0.67 U	--
WC-MH01	0	7/27/2006	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 1.6 U	< 0.33 U	< 0.33 U	--	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.33 UJ	--	< 0.33 U	< 1.6 U	< 0.33 U	< 0.33 U	< 1.6 U	< 1.6 U	< 0.33 U	< 0.66 U

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been

TABLE B-8
POST-IRM SOIL VOLATILE ORGANIC COMPOUNDS (VOCs) DATA
MOHAWK SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	VOCs																								
			1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropan	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Acetone	Acetonitrile	Benzene	Bromodichloromethane	Bromomethane	Carbon disulfide	Carbon tetrachloride	Freon 11	Freon 12	Freon 113	Chlorobenzene
PRMA-16	9	5/2/2001	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.028 U	--	< 0.0052 U	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	< 0.01 U	--	--	< 0.0052 U
	19	5/2/2001	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.031 U	--	< 0.0052 U	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.0052 U	< 0.01 U	--	--	< 0.0052 U
	29	5/2/2001	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.029 U	--	< 0.0053 U	< 0.0053 U	< 0.011 U	< 0.0053 U	< 0.0053 U	< 0.011 U	--	--	< 0.0053 U
	39	5/2/2001	--	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	--	--	--	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.05 U	--	< 0.0062 U	< 0.0062 U	< 0.012 U	< 0.0062 U	< 0.0062 U	< 0.012 U	--	--	< 0.0062 U
	49	5/2/2001	--	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	--	--	--	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.046 U	--	< 0.0085 U	< 0.0085 U	< 0.017 U	< 0.0085 U	< 0.0085 U	< 0.017 U	--	--	< 0.0085 U
PUB-02	1	3/26/1996	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.014 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	< 0.0051 U
	5	3/26/1996	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.012 U	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	< 0.0053 U
PUC-01	1	3/26/1996	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.011 UJ	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	--	< 0.0053 U
	5	3/26/1996	--	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	--	--	--	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.011 U	--	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	--	--	< 0.0054 U
PUE-01	1	3/28/1996	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.014 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	--	< 0.0051 U
	5	3/28/1996	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.016 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	--	< 0.0052 U
WC-MH01	0	7/27/2006	< 0.005 U	0.0027 J	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.01 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	0.016 J+	< 0.05 UJ	< 0.005 U	< 0.001 U	< 0.01 U	< 0.005 U	0.0044 J	< 0.005 U	< 0.01 U	< 0.005 U	< 0.005 U

Sample ID	Depth (ft bgs)	Sample Date	VOCs																								
			Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethylene	cis-1,3-Dichloropropylene	Dibromomethane	Dichloromethane	Ethylbenzene	m,p-Xylene	Methyl ethyl ketone	Methyl iodide	Methyl isobutyl ketone	Methyl n-butyl ketone	o-Xylene	Styrene (monomer)	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	trans-1,3-Dichloropropylene	Tribromomethane	Trichloroethylene	Vinyl acetate	Vinyl chloride	Xylenes (total)
PRMA-16	9	5/2/2001	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	< 0.0026 U	< 0.0052 U	--	< 0.02 U	< 0.0052 U	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0026 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U
	19	5/2/2001	< 0.0052 U	< 0.01 U	< 0.0052 U	< 0.01 U	< 0.0026 U	< 0.0052 U	--	< 0.018 U	< 0.0052 U	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0026 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U
	29	5/2/2001	< 0.0053 U	< 0.011 U	< 0.0053 U	< 0.011 U	< 0.0027 U	< 0.0053 U	--	< 0.017 U	< 0.0053 U	--	< 0.021 U	--	< 0.021 U	< 0.021 U	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0027 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U
	39	5/2/2001	< 0.0062 U	< 0.012 U	< 0.0062 U	< 0.012 U	< 0.0031 U	< 0.0062 U	--	< 0.024 U	< 0.0062 U	--	< 0.025 U	--	< 0.025 U	< 0.025 U	--	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0031 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U	< 0.0062 U
	49	5/2/2001	< 0.0085 U	< 0.017 U	< 0.0085 U	< 0.017 U	< 0.0043 U	< 0.0085 U	--	< 0.032 U	< 0.0085 U	--	< 0.034 U	--	< 0.034 U	< 0.034 U	--	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0043 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U
PUB-02	1	3/26/1996	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U	--	< 0.01 U	< 0.01 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U	< 0.0051 U	--
	5	3/26/1996	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.011 U	--	< 0.011 U	< 0.011 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.011 U	< 0.0053 U	--
PUC-01	1	3/26/1996	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	--	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.011 U	--	< 0.011 U	< 0.011 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.011 U	< 0.0053 U	--
	5	3/26/1996	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	--	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.011 U	--	< 0.011 U	< 0.011 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.011 U	< 0.0054 U	--
PUE-01	1	3/28/1996	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	--	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U	--	< 0.01 U	< 0.01 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.01 U	< 0.0051 U	--
	5	3/28/1996	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	--	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U	--	< 0.01 U	< 0.01 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.01 U	< 0.0052 U	--
WC-MH01	0	7/27/2006	< 0.005 U	< 0.01 U	< 0.005 U	< 0.01 U	--	< 0.005 U	< 0.005 U	0.0076	< 0.005 U	--	0.003 J	< 0.005 U	< 0.02 U	--	--	--	< 0.005 U	0.0017 J	< 0.005 U	< 0.005 U	< 0.005 U	0.0066	--	< 0.005 U	< 0.01 U

All units in mg/kg.
-- = no sample data.
Shaded results indicate soil has been excavated and removed.

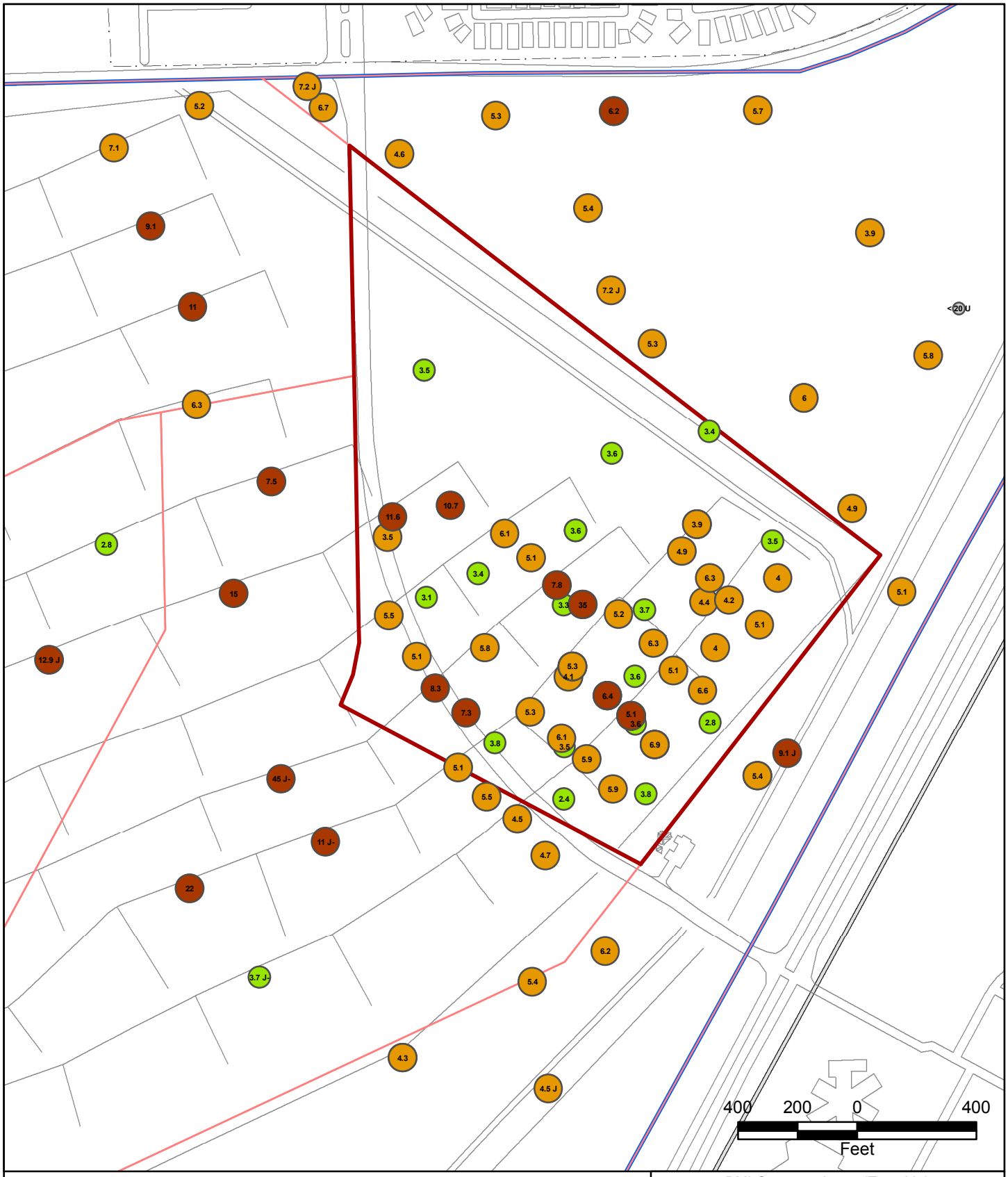
TABLE B-9
POST-IRM SOIL DIOXINS/FURANS DATA
MOHAWK SUB-AREA
(Page 1 of 1)

Sample ID	Depth (ft bgs)	Sample Date	Dioxins/Furans																	
			1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDF	1,2,3,7,8,9-HxCDD	1,2,3,7,8,9-HxCDF	1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDF	2,3,4,6,7,8-HxCDF	2,3,4,7,8-PeCDF	2,3,7,8-TCDD	2,3,7,8-TCDF	OCDD	OCDF	TCDD TEQ
PRMA-01	0	5/4/2001	34	200	82	3.3	92	9.6	63	7	10	4.1	49	18	27	0.91	22	54	650	47
		5/8/2001	15	71	32	< 1.4 U	37	3.9	24	< 2.4 U	5.4	< 1.7 U	21	6.7	11	< 0.38 U	10	25	280	18
PRMA-14	0	5/7/2001	20	100	43	< 2.3 U	71	6.6	39	4.2	7.4	3.2	37	14	21	0.71	18	40	340	34
PRMA-16	0	5/2/2001	< 0.33 U	< 0.31 U	< 0.38 U	< 0.23 U	< 0.2 U	< 0.25 U	< 0.2 U	< 0.63 U	< 0.25 U	< 0.49 U	< 0.26 U	< 0.24 U	< 0.26 U	< 0.19 U	< 0.15 U	< 2.1 U	< 0.89 U	0.52

All units in pg/g.

APPENDIX C

SOIL CONCENTRATION DISTRIBUTION FIGURES



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Non-Detect
Detect < MSSL
>= MSSL and < 10x MSSL
>= 10x MSSL & < Max. Background
>= Max. Background

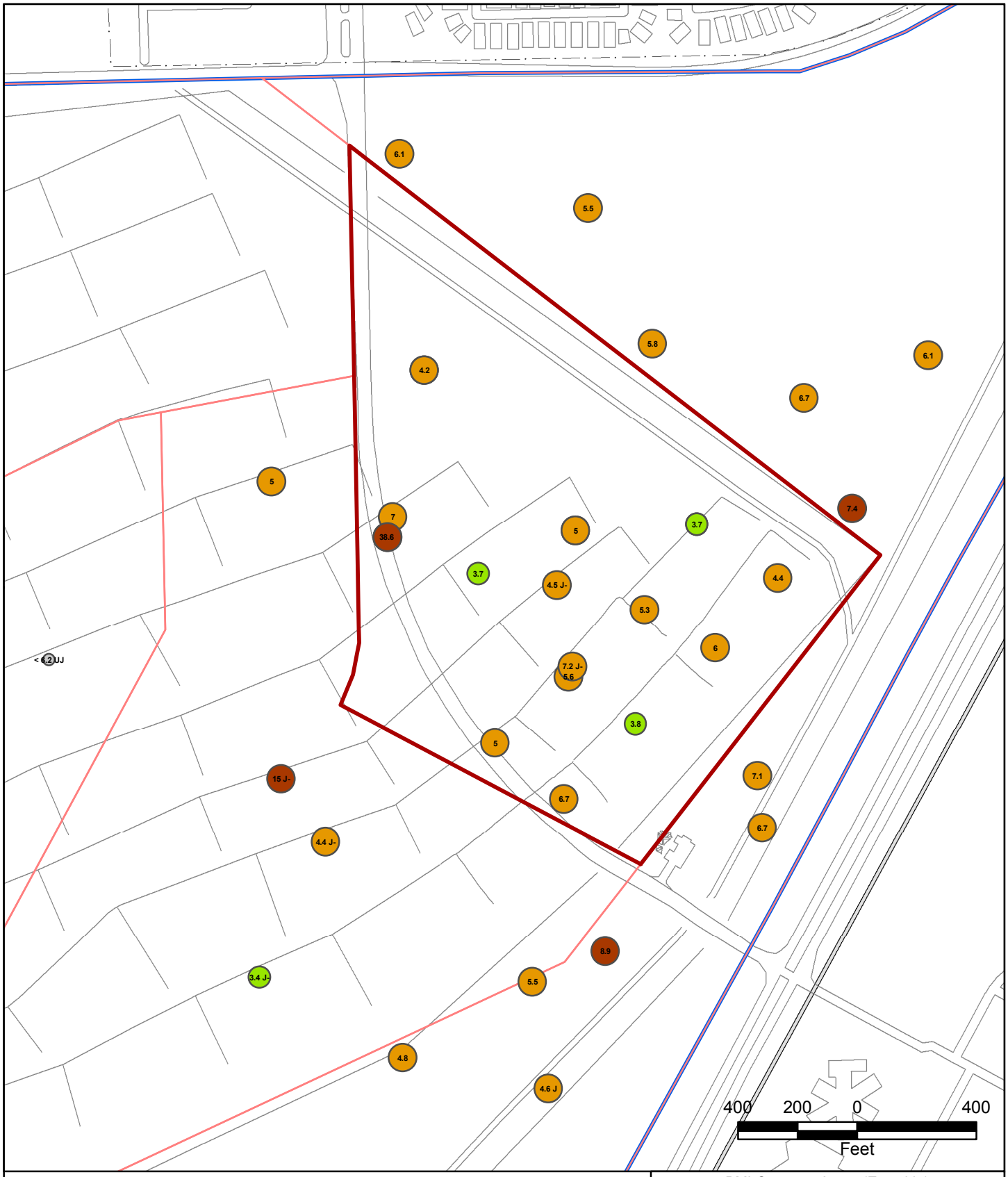
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-1

ARSENIC RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL & < Max. Background

>= Max. Background

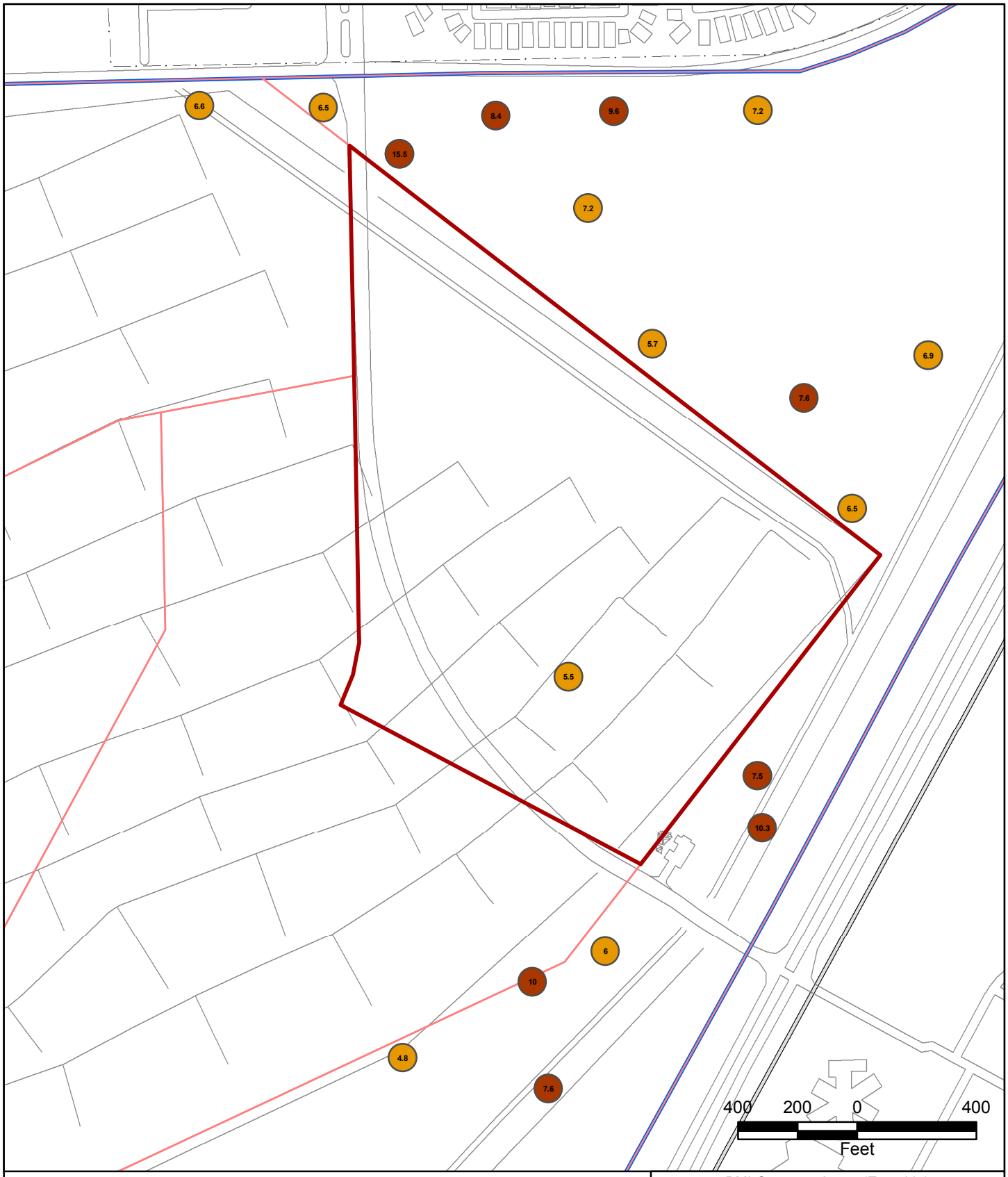
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-2

ARSENIC RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 4 to 5 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL & < Max. Background

>= Max. Background

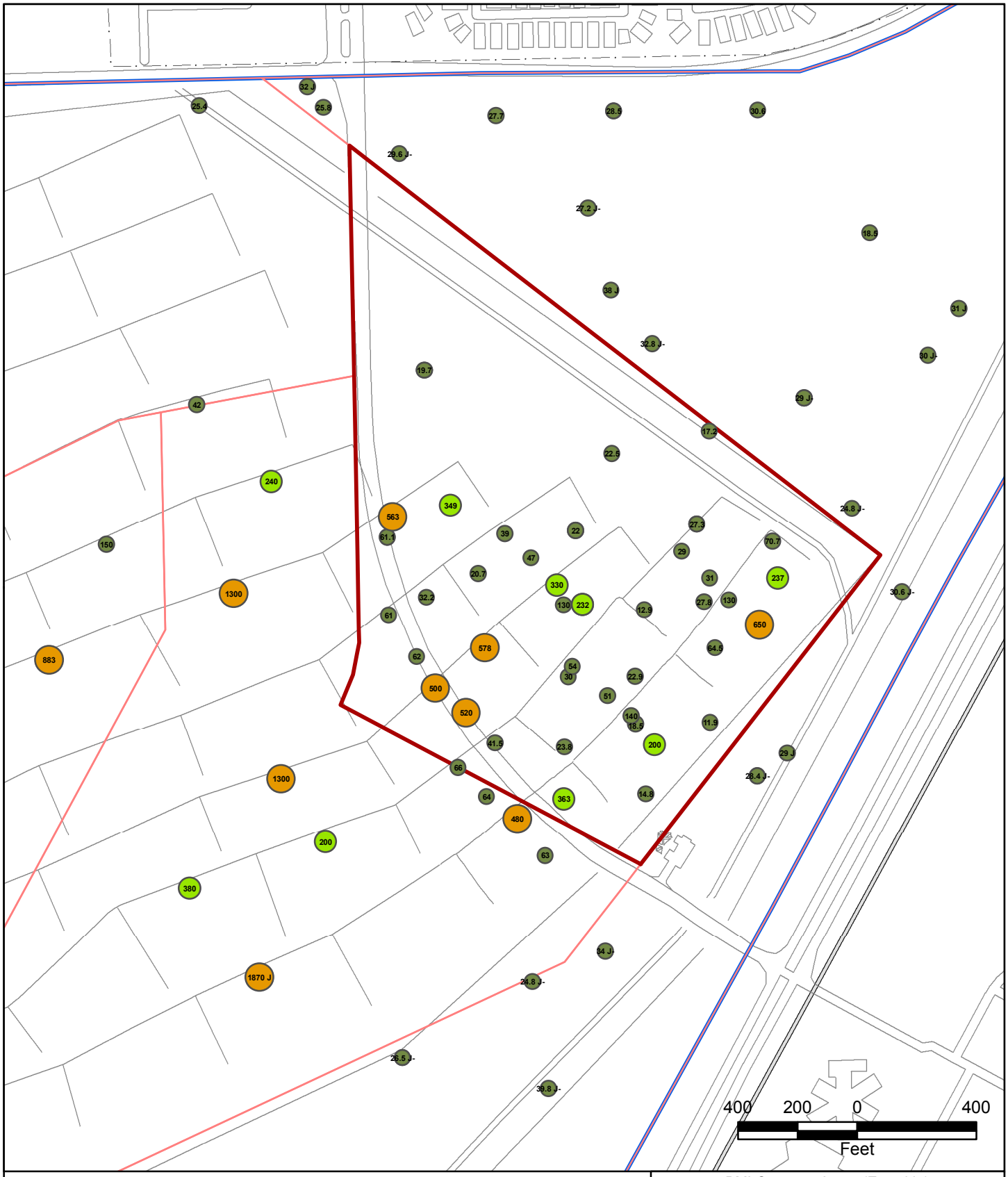
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-3

ARSENIC RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 9 to 10 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < 1/2-MSSL

>= 1/2-MSSL and < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL

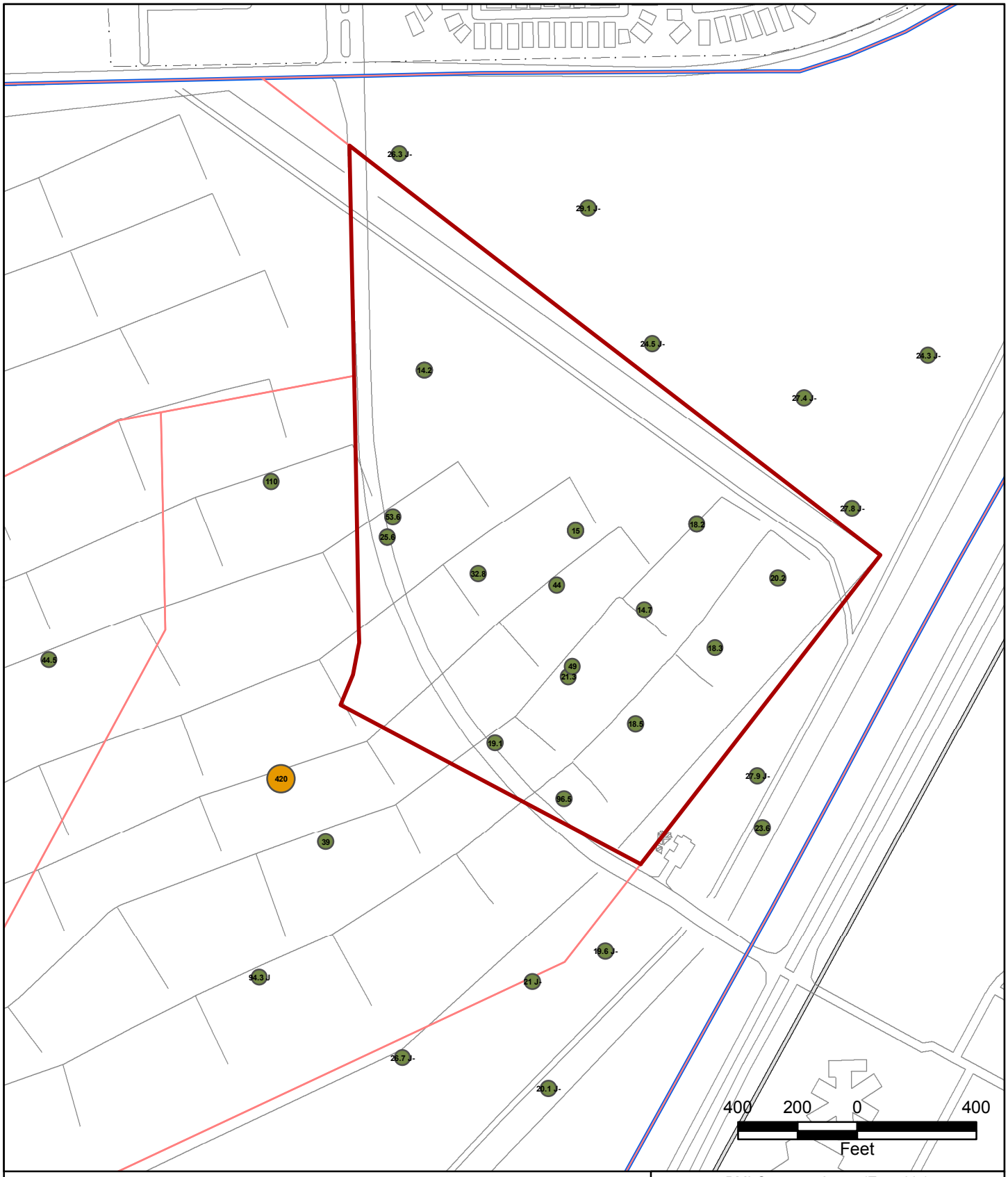
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-4

VANADIUM RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT
0 to 1 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < 1/2-MSSL

>= 1/2-MSSL and < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL

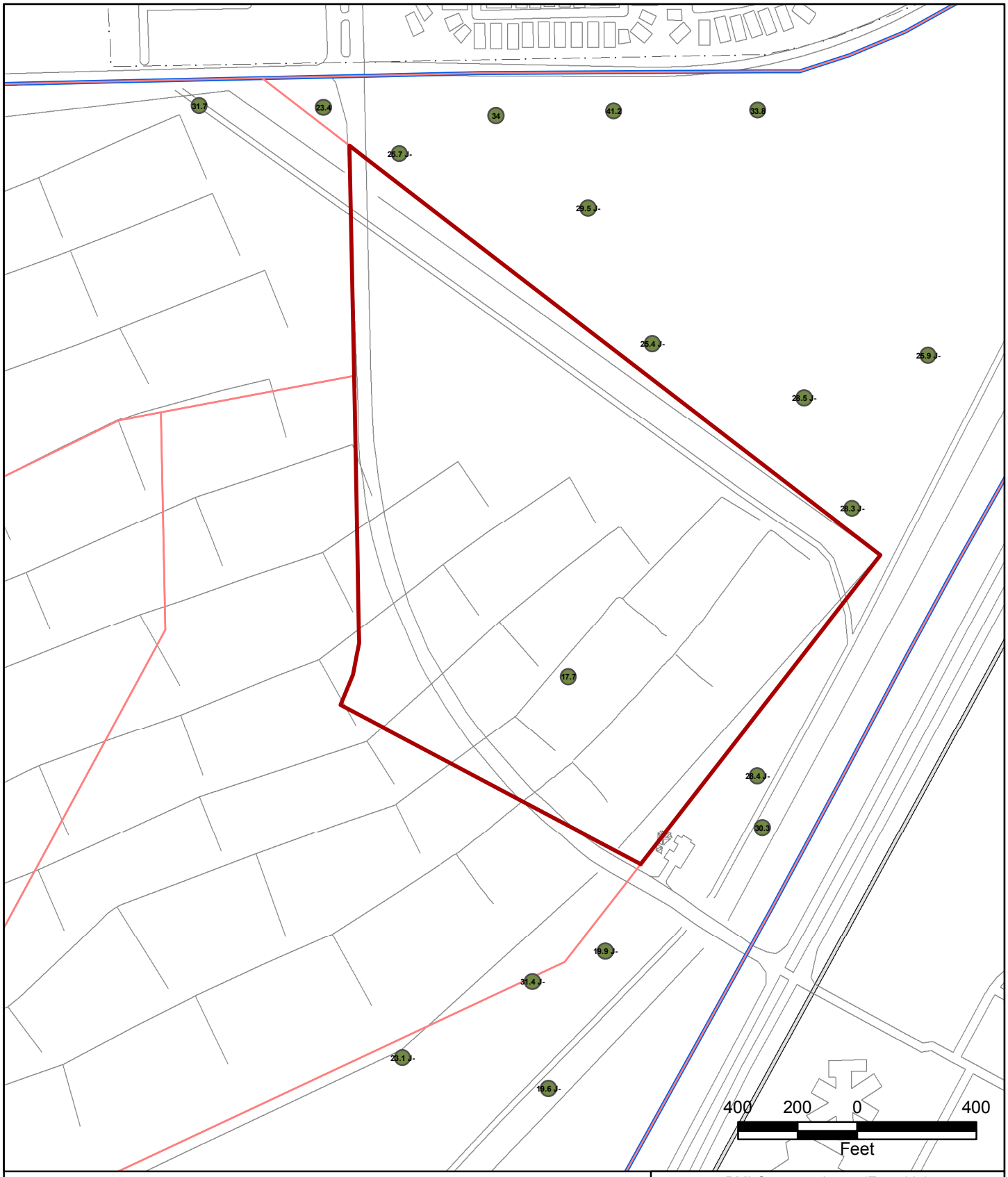
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-5

VANADIUM RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 4 to 5 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < 1/2-MSSL

>= 1/2-MSSL and < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL

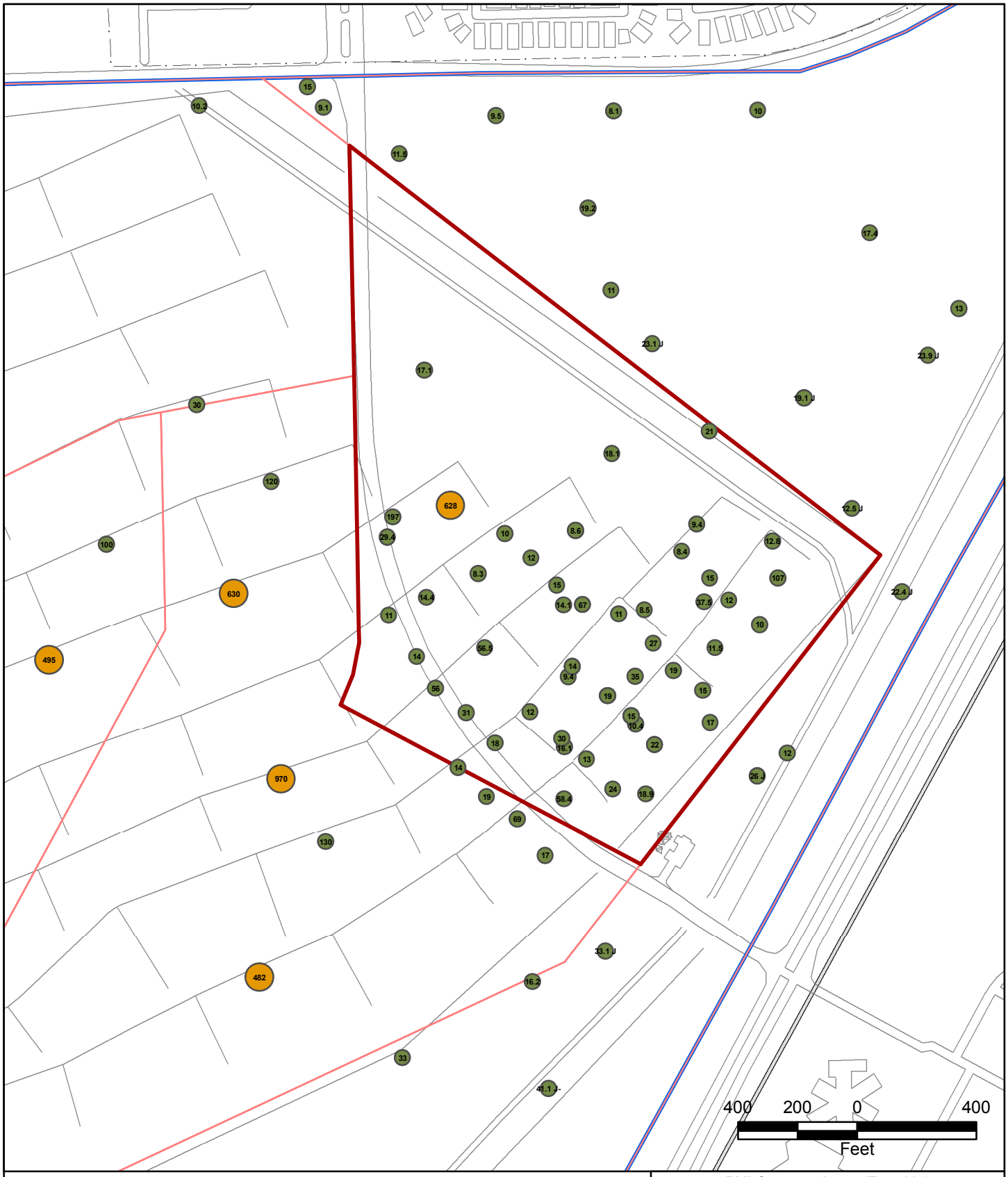
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-6

VANADIUM RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 9 to 10 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM)	Date 05/19/08	JOB No. 0064276 FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Non-Detect
Detect < 1/2-MSSL
>= 1/2-MSSL and < MSSL
>= MSSL and < 10x MSSL
>= 10x MSSL

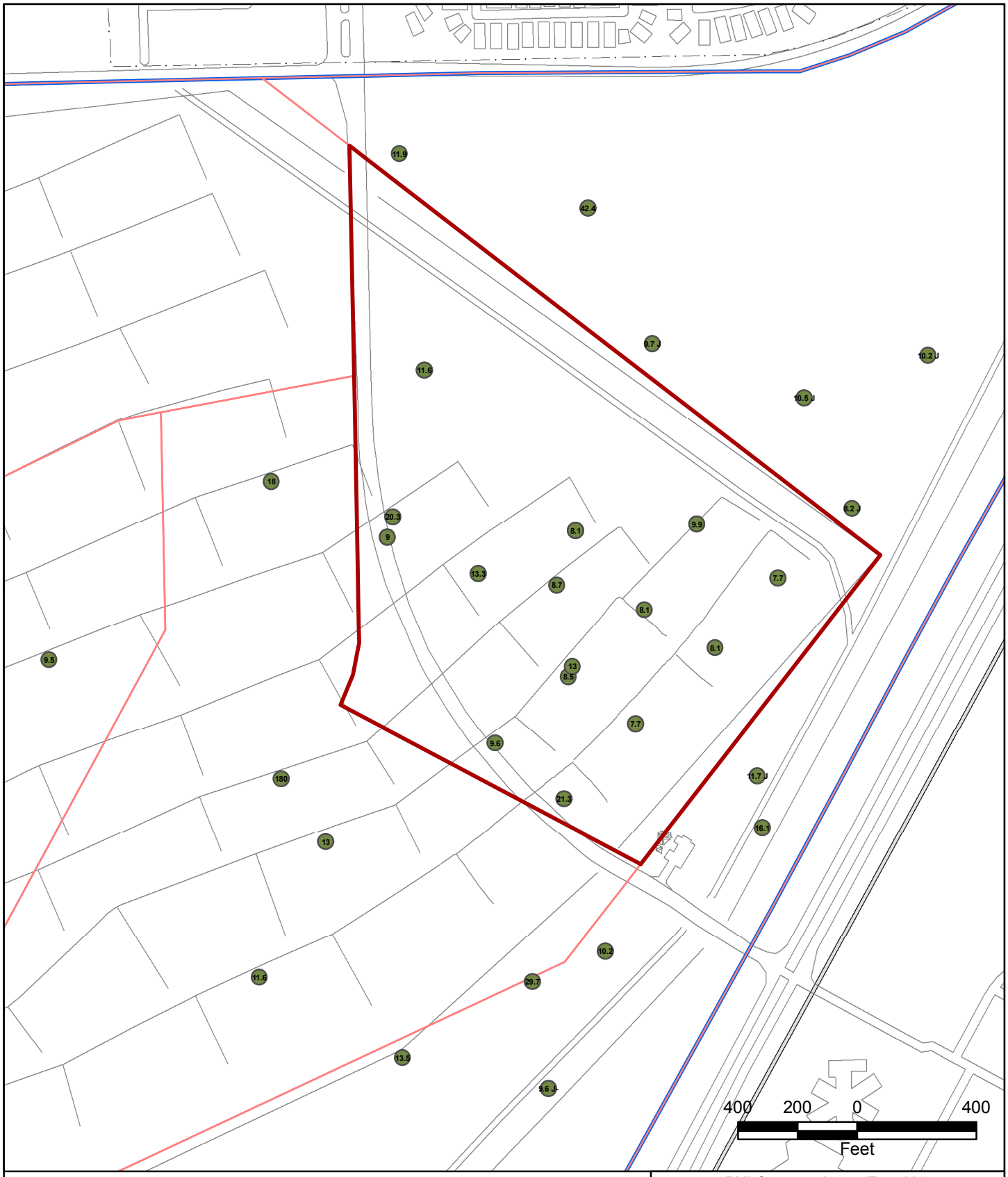
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-7

LEAD RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < 1/2-MSSL

>= 1/2-MSSL and < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL

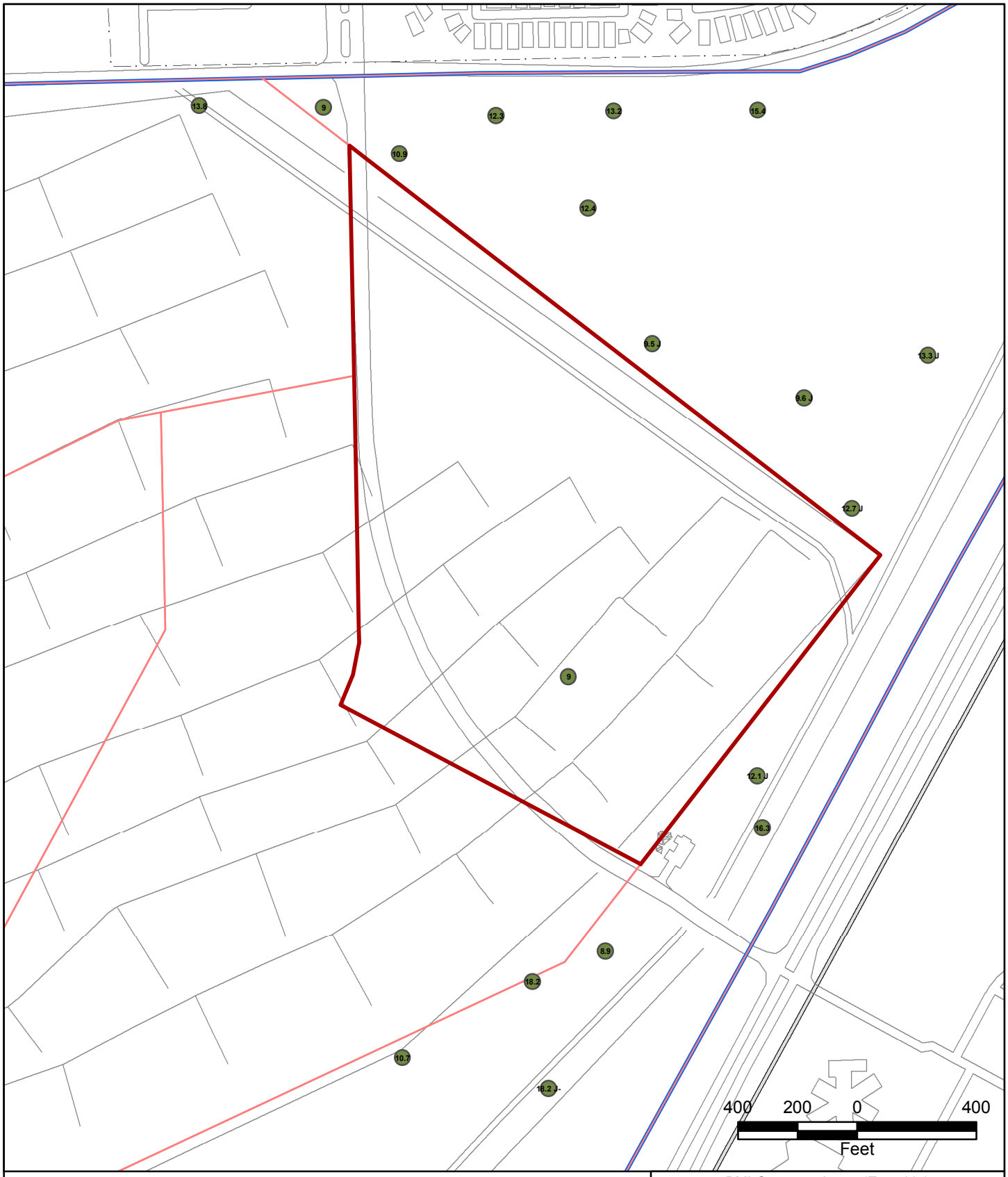
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-8

LEAD RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 4 to 5 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM)	Date 05/19/08	JOB No. 0064276 FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Non-Detect
Detect < 1/2-MSSL
>= 1/2-MSSL and < MSSL
>= MSSL and < 10x MSSL
>= 10x MSSL

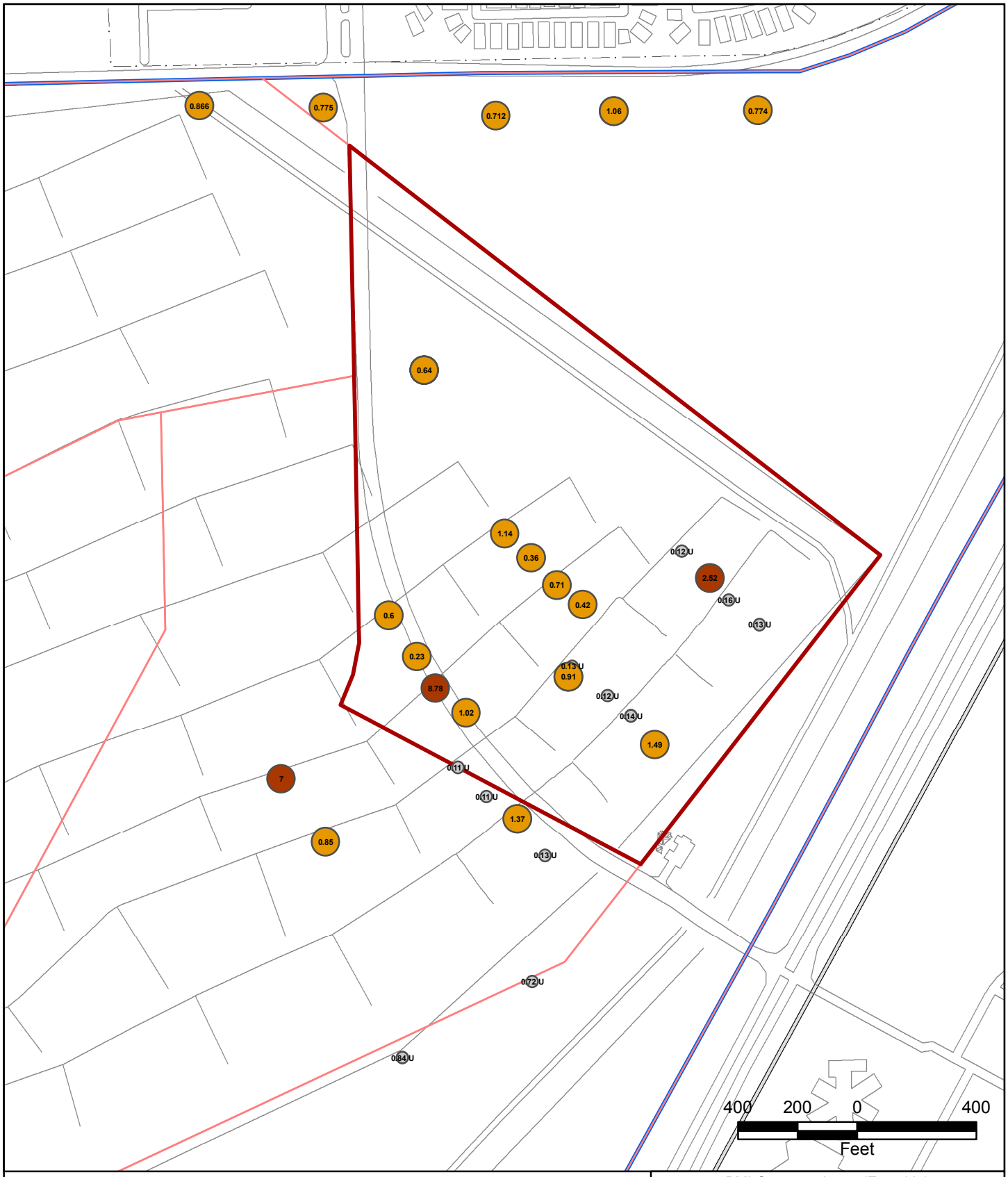
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-9

LEAD RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 9 to 10 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL & < Max. Background

>= Max. Background

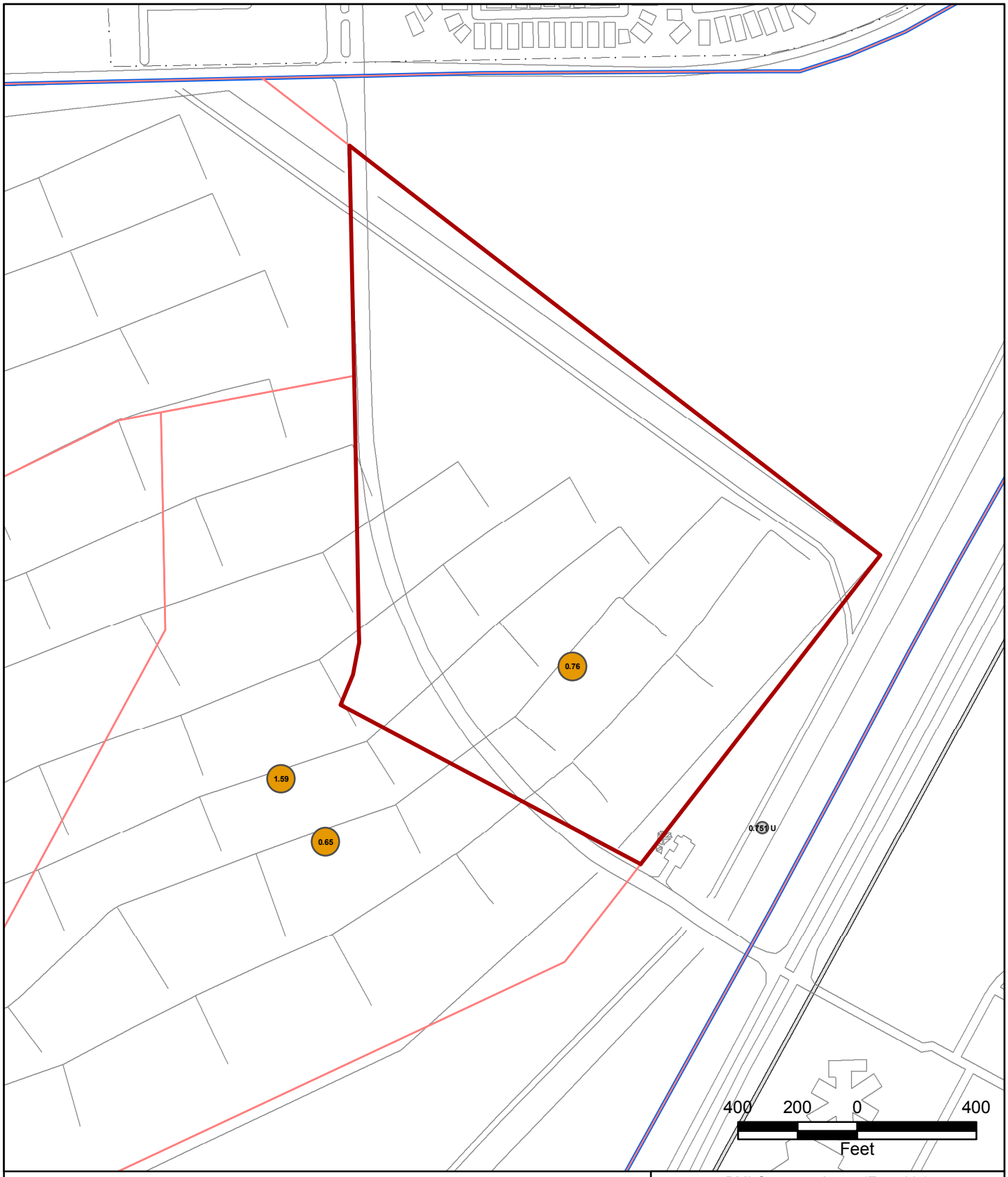
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-10

RADIUM-226 RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Non-Detect
Detect < MSSL
>= MSSL and < 10x MSSL
>= 10x MSSL & < Max. Background
>= Max. Background

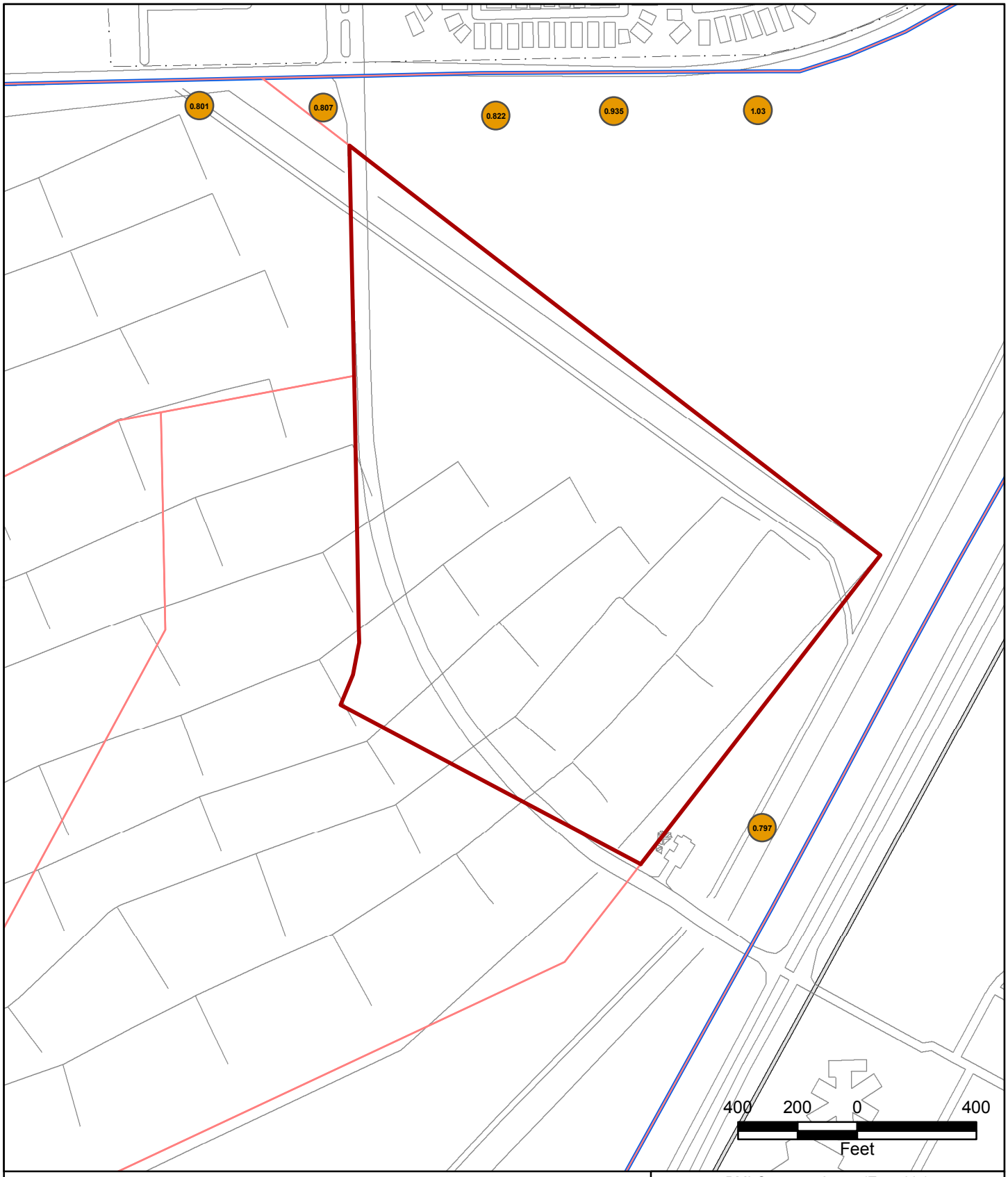
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-11

RADIUM-226 RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 4 to 5 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Non-Detect
Detect < MSSL
>= MSSL and < 10x MSSL
>= 10x MSSL & < Max. Background
>= Max. Background

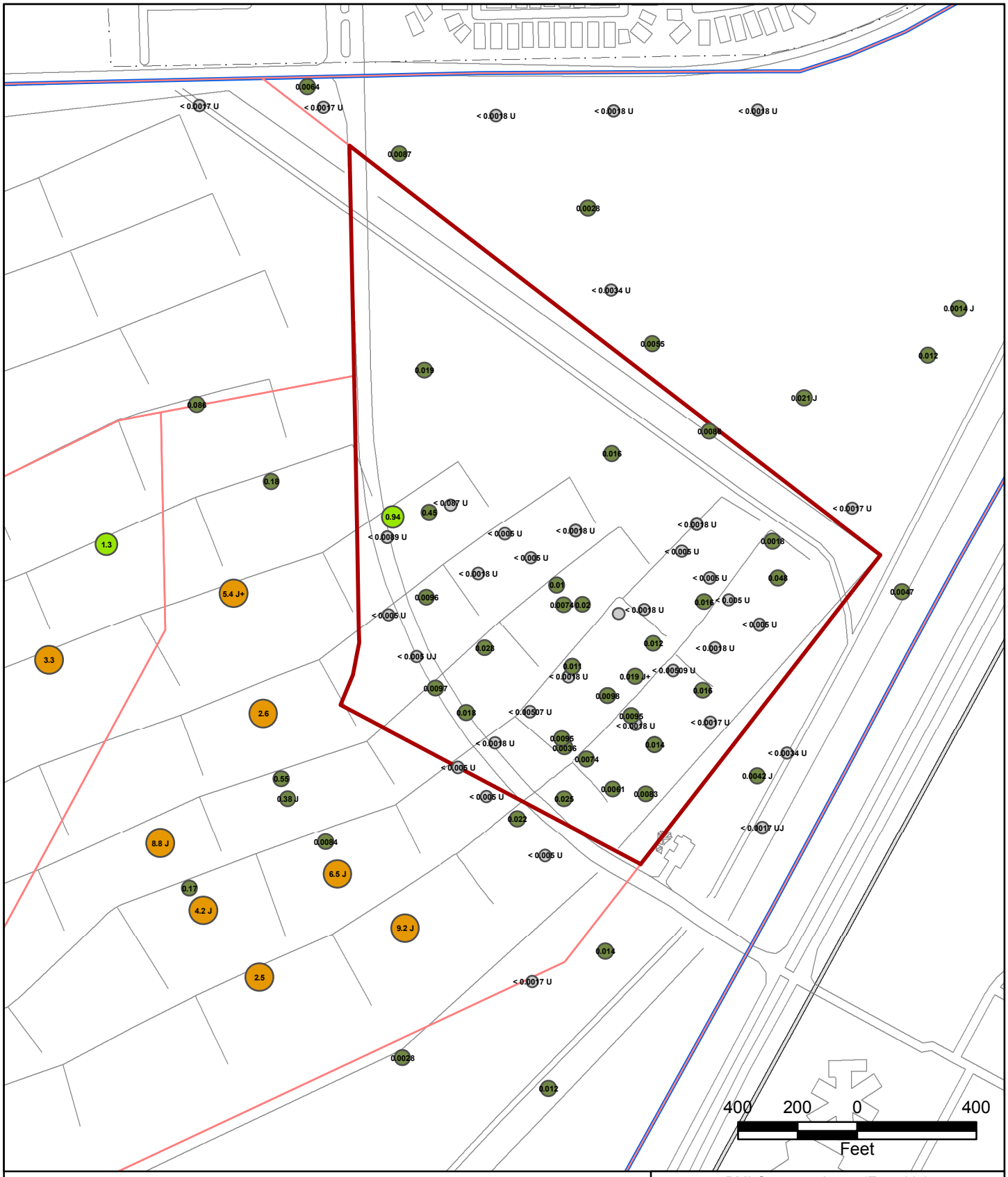
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-12

RADIUM-226 RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 9 to 10 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < 1/2-MSSL

>= 1/2-MSSL and < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL

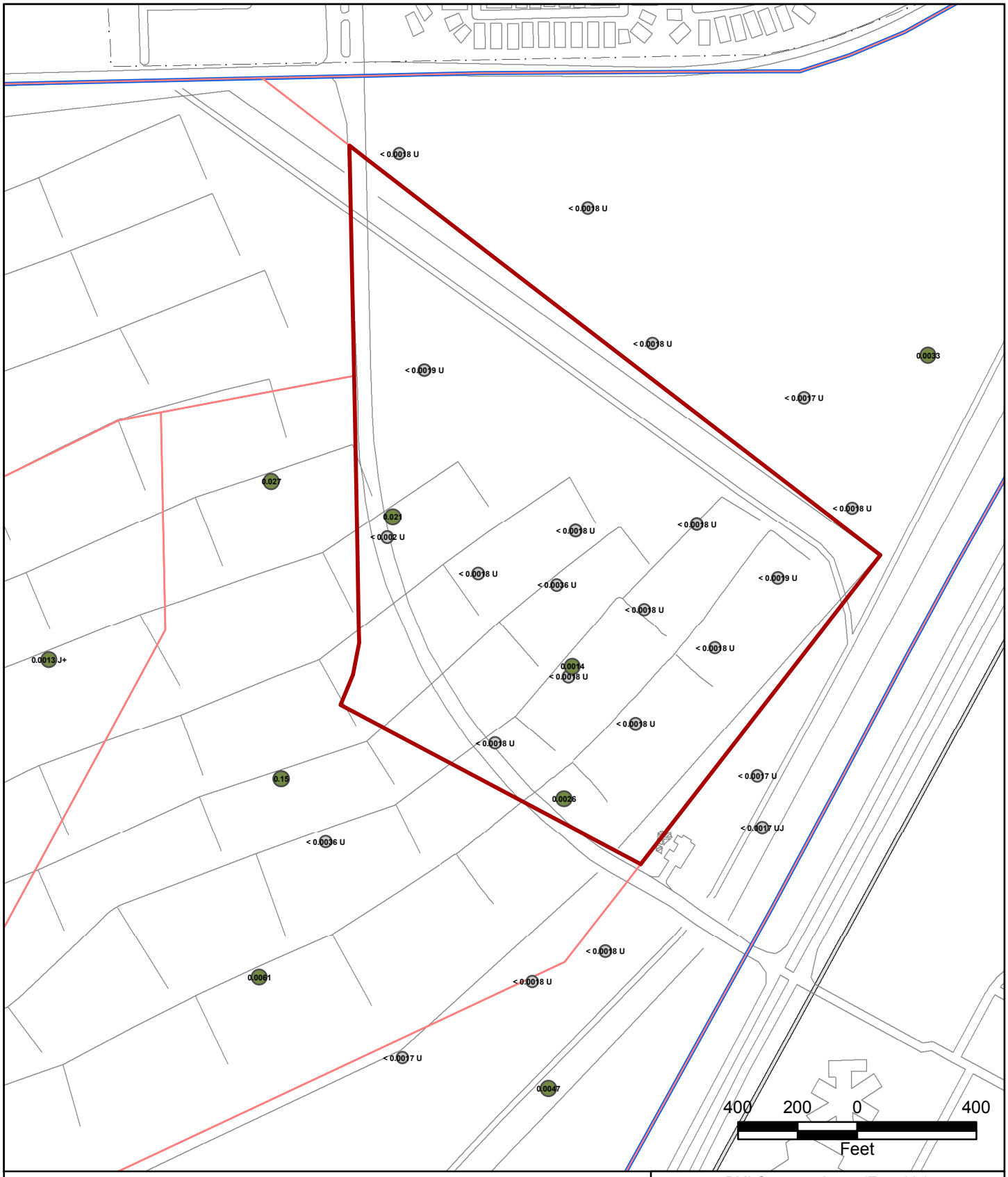
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-13

4,4'-DDE RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 0 to 1 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < 1/2-MSSL

>= 1/2-MSSL and < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL

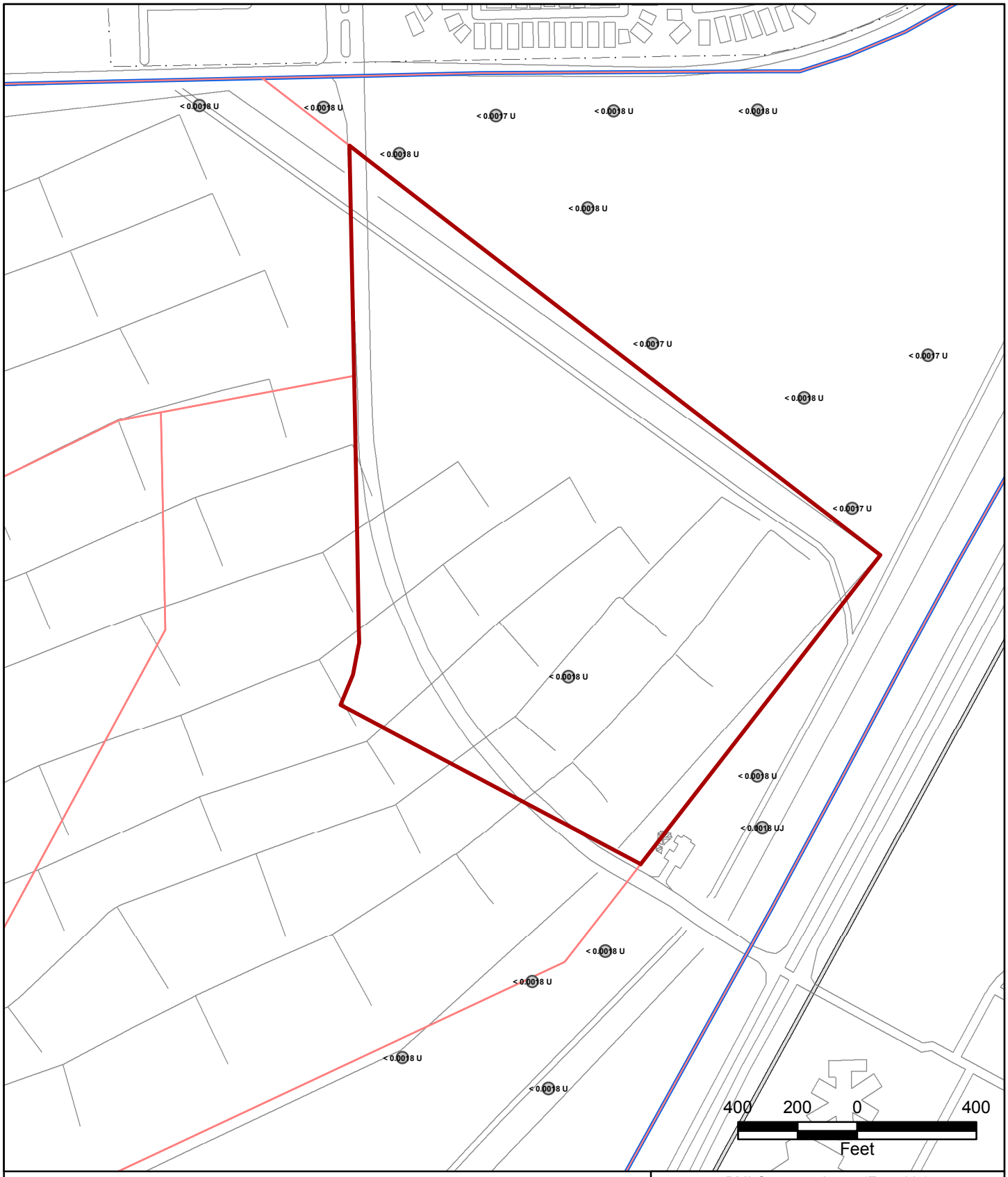
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-14

4,4'-DDE RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 4 to 5 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Non-Detect

Detect < 1/2-MSSL

>= 1/2-MSSL and < MSSL

>= MSSL and < 10x MSSL

>= 10x MSSL

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE C-15

4,4'-DDE RESULTS IN MOHAWK SUB-AREA AND ADJACENT 1,000 FT 9 to 10 FT BGS

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 05/19/08 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK_SAP/APP-C FIGURES.MXD