RDMS DocID 107842

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: Specifications Plating Inc.; Spec Plating, Inc.
Facility Address: 738 & 740 Seaview Avenue, Bridgeport, CT
Facility EPA ID #: CTD001174580

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

   X If yes - check here and continue with #2 below.

   ____ If no - re-evaluate existing data, or

   ____ if data are not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

RCRA RECORDS CENTER
FACILITY Specifications Plating
I.D. NO. CTD 001174580
FILE LOC. R-13
OTHER #107842

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)
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2. Is **groundwater** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

_____ If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

_X_ If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s): See addendum

Footnotes:

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

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"[2] as defined by the monitoring locations designated at the time of this determination)?

_____ If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"[2]).

_____ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"[2]) - skip to #8 and enter "NO" status code, after providing an explanation.

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and
Reference(s): _____

[2] "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

_____ If yes - continue after identifying potentially affected surface water bodies.

_____ If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and
Reference(s):_____

5. Is the **discharge** of "contaminated" groundwater into surface water likely to be **"insignificant"** (i.e., the maximum concentration[3] of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for *unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)*?

_____ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration[3] of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

_____ If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration[3] of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations[3] greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter "IN" status code in #8.

Rationale and
Reference(s):_____

[3] As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be **"currently acceptable"** (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented[4])?

_____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR
2) providing or referencing an interim-assessment,[5] appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

_____ If no - (the discharge of "contaminated" groundwater can not be shown to be **"currently acceptable"**) - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

_____ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):_____

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

[4] Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

[5] The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

_____ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

_____ If no - enter "NO" status code in #8.

_____ If unknown - enter "IN" status code in #8.

Rationale and
Reference(s):_____

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

X YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Specifications Plating/Spec Plating facility, EPA ID # CTD001174580 located at 740 Seaview Ave, Bridgeport. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

____ NO - Unacceptable migration of contaminated groundwater is observed or expected.

____ IN - More information is needed to make a determination.

Completed by (signature) [signature] Date 9/30/08
(print) EDGAR A. DAVIES
(title) RCRA FACILITY MGR.

Supervisor (signature) [signature] Date 9/30/08
(print) James S. Chow
(title) Chief, RCRA Corrective Action
(EPA Region or State) USEPA Region I.

Locations where References may be found:

Contact telephone and e-mail numbers

(name) Kelly L Meloy
(phone #) 860-537-2582
(e-mail) kelly@altaenv.com

SPEC PLATING/SPECIFICATIONS PLATING SITE:

The subject site (the Site) is approximately 0.8 acres and consists of two properties located on the east side of Seaview Avenue: 738 Seaview Avenue and 740 Seaview Avenue. Specifications Plating, Inc. (Specifications Plating) is the current owner and former operator of 740 Seaview Avenue. Mr. Geoffrey Scott is the current president of Spec Plating, Inc. (Spec Plating), the on-going plating operation at the site. The adjacent property, 738 Seaview Avenue is owned by Mr. Bernard Palumbo and is currently leased by Spec Plating. Previously, from approximately 1985 to 1995, Specifications Plating occupied 738 Seaview Avenue. Specifications Plating operated at 740 Seaview Avenue from 1966 to 1995 at which point the business and property were leased to Spec Plating. From 1995 to date, Spec Plating has operated at the Site (see Figure 1, Project Locus).

740 Seaview Avenue is occupied by Building #1, which houses the plating operations, shipping & receiving, wastewater treatment, offices and other ancillary operations. 738 Seaview Avenue is occupied by Building #2 which houses a hazardous waste storage area, raw chemical storage and a maintenance & spare parts shop. With the exception of a small vegetated area in the rear of Building #2, the remainder of the site is paved and is used for access and parking (see Figure 2, Site Plan). The site was re-paved several years ago. Specifications Plating reportedly maintained an exterior hazardous waste storage area in the rear of Building #1 (AOC #5B), and stored unused plating tanks and equipment, and reportedly operated an acid strip tank in the rear of Building #2 (AOC #5A).

DEP has classified groundwater beneath the site and area surrounding the site in all directions as "GB", which indicates that the site is in a highly industrialized, urban area where groundwater is presumed to be degraded and not suitable for use as a drinking water supply without prior treatment. Surrounding land usage is largely commercial or industrial west of the site and south of the portion of Seaview Avenue that runs easterly along the harbor, while residential and recreational uses predominate to the north, east and south of the site up to Seaview Avenue. Newfield Park abuts the site to the east. ALTA completed a detailed well survey to verify whether each occupied property within the "Survey Area" (as indicated by City of Bridgeport tax records), is provided with public water (as indicated by customer records maintained by the local water company). The "Survey Area" was defined to include the area within approximately 500 ft. from the site in the inferred upgradient and crossgradient directions, and within approximately 1,000 ft. in the inferred downgradient direction. This survey indicated that all occupied properties within the Survey Area are provided with public water by the Aquarion Water Company. Based on a review of nearby surface water bodies, surface topography and groundwater elevations measured on site, shallow groundwater flow is concluded to be in a southerly to southwesterly direction towards Bridgeport Harbor, with groundwater migrating from the southwestern portion of the site beneath the City of Bridgeport Department of Public Works facility (on the opposite side of Seaview Avenue) prior to potential discharge to the Harbor.

Investigation and monitoring of groundwater quality has been completed at this site in accordance with the EPA-approved "Corrective Action Quality Assurance Project Plan, Specifications Plating Inc. and Spec Plating, Inc., 738 & 740 Seaview Avenue, Bridgeport, Connecticut" dated October 26, 2006. In summary, five soil borings were advanced on site and

completed as shallow (water table) monitoring wells. Four of these five well locations were designed to monitor groundwater quality downgradient of the following Areas of Concern (AOCs) considered reasonably likely to have had former releases: former outdoor equipment storage yard; former exterior hazardous waste storage area; chrome plating shop; and in the shipping and receiving department to cover the degreaser and raw material storage in this area. The fifth well was designed to be located in the inferred downgradient direction from Building #1 and the two plating shops, and to be used to assess the quality of groundwater migrating off site. The locations of the groundwater monitoring wells (MW-1 through MW-5) are shown on Figure 2.

Groundwater samples were collected from these five wells on June 14, 2007 in accordance with the EPA-approved Plan. Groundwater samples were analyzed for the parameters included in the EPA-approved Plan, as follows: volatile organic compounds (VOCs) by EPA Method 8260; Connecticut extractable total petroleum hydrocarbons (ETPH); total cyanide by EPA Method 9014; and dissolved metals (cadmium, chromium, copper, lead, nickel, silver and zinc) by EPA approved methods (EPA Methods 3050B and 6010B). Subsequently, based on detection of elevated cyanide levels in four of the five wells (all but MW-4) and ALTA's knowledge of potential interferences with cyanide analyses, ALTA collected groundwater samples from these four wells on November 29, 2007 for testing for total cyanide and other inferring substances (i.e., chloride, sulfide, nitrite/nitrate), so that the interferences could be properly quantified and accounted for in quantifying the cyanide concentrations in groundwater. Finally, ALTA also collected an additional sample on August 29, 2008 from the most downgradient well (MW-5), representative of groundwater quality leaving the site, for analyses for free cyanide by Standard Method 4500, to evaluate potential impacts to the downgradient receiving surface water body (i.e., the Bridgeport Harbor). Table I attached summarizes the groundwater quality data obtained for this site, along with the pertinent groundwater remediation standards. Note that surface-water protection criteria for saltwater have been included for several compounds due to the potential receiving surface water body (Bridgeport Harbor) being a saltwater resource.

In summary, ETPH was not detected in groundwater from MW-1, MW-3, MW-4 and MW-5, but was detected at 13.2 mg/l in MW-2 adjacent to the former underground No. 2 fuel oil tank, consistent with detected petroleum impacts to soil by the former tank location.

VOCs were not detected in groundwater from MW-1 and MW-4, but low concentrations of petroleum related VOCs (e.g., MTBE, alkylbenzenes) were detected in MW-2 (adjacent to the former underground fuel oil tank) and of chlorinated VOCs (e.g., PCE, TCE, cis-1,2-DCE, TCA, 1,1-DCA, vinyl chloride) in MW-3 and MW-5 (downgradient of the chrome plating shop, and along the downgradient site boundary exterior to Building #1). The detected VOCs were below the pertinent DEP promulgated groundwater remediation standards (i.e., the volatilization criteria and surface-water protection criteria) and the draft proposed volatilization criteria (using the updated Johnson & Ettinger (J&E) Model), except for the following detections: TCE at MW-3 and MW-5; and vinyl chloride at MW-5 (discussed in detail below).

The TCE concentration in MW-3 (94.5 ug/l), located inside Building #1 and downgradient of the chrome plating shop, exceeded the DEP draft proposed industrial/commercial volatilization criterion for groundwater (I/CVCgw) of 67 ug/l, but not the current I/CVCgw of 540 ug/l provided in the DEP Remediation Standard Regulations (RSRs). However, ALTA developed a

more accurate I/CVCgw using the updated J&E Model and TCE's Henry's Law Constant corrected for the appropriate groundwater temperature of 10 degrees C (instead of using the default temperature of 25 degrees C), which results in an I/CVCgw of 123 ug/l and residential VCgw of 54 ug/l. The TCE concentration in MW-3 is below the more accurate I/CVCgw indicating that volatilization of VOCs from groundwater beneath the building does not pose a significant risk to current building occupants. The TCE concentration in MW-5 located along the downgradient site boundary (45.7 ug/l) exceeded the draft proposed residential volatilization criterion for groundwater (RVCgw) of 27 ug/l, however was below the more accurate RVCgw of 54 ug/l. Similarly, the vinyl chloride concentration in MW-5 (2.6 ug/l) exceeded the default and draft proposed RVCgw of 2 ug/l, but was below the more accurate RVCgw of 4 ug/l. Therefore, ALTA concludes that the VOC impacted groundwater at this site is compliant with the pertinent groundwater remediation standards discussed above.

> [Abbreviations: MTBE = methyl tertiary-butyl ether; PCE = tetrachloroethylene; TCE – trichloroethylene; cis-1,2-DCE = cis-1,2-dichloroethylene; TCA = 1,1,1-trichloroethane; 1,1-DCA = 1,1-dichloroethane]

Total cyanide was initially detected at concentrations ranging from 0.068 to 0.770 mg/l in groundwater samples from MW-1, MW-2, MW-3 and MW-5, but was not detected in MW-4 at a laboratory detection limit of 0.010 mg/l. Total cyanide was not detected or was detected at a low concentration (0.68 mg/kg) in subsurface soils from these well locations, while total cyanide was detected at higher concentrations in surficial soil adjacent to MW-1 and MW-2 (where the lowest concentrations of total cyanide were reported for groundwater). After testing for common interfering substances and correcting for those, the laboratory reported significantly lower total cyanide concentrations in these four wells, with total cyanide concentrations ranging from 0.018 to 0.371 mg/l. On both occasions, the highest total cyanide concentration was reported for MW-5, the most downgradient well on site and reflective of the groundwater quality migrating off site towards the Bridgeport Harbor. Notably, however, free cyanide was not detected in groundwater from MW-5 in August 2008 at a laboratory reported detection limit of 0.01 mg/l. The pertinent surface-water protection criteria (SWPC) for free cyanide are 0.052 mg/l (freshwater) and 0.010 mg/l (saltwater), using the default dilution-attenuation factor (DAF) of 10 multiplied by the pertinent water quality criterion. The SWPC apply to groundwater upgradient of the point of discharge of the groundwater plume to surface water. Though it is not certain that the total cyanide-impacted groundwater plume extends far enough downgradient to discharge to the Bridgeport Harbor (approximately 800 ft. to the southwest), the existing data demonstrate that free cyanide (the cyanide species of direct concern with respect to impacts to aquatic life) does not migrate off site in groundwater. Therefore, ALTA has concluded that the cyanide impacted groundwater is compliant with the SWPC, as discussed above.

Low concentrations of one or more dissolved metals (generally nickel and zinc) were detected in groundwater samples from the on-site monitoring wells. Zinc concentrations were detected at levels ranging from 0.017 to 0.035 mg/l, while nickel was detected from 0.007 to 0.008 mg/l. These ranges of nickel and zinc concentrations are in our experience representative of typical background concentrations in unimpacted groundwater in Connecticut. Nonetheless, these concentrations were below the pertinent groundwater remediation standards for nickel and zinc (i.e., the SWPC of 0.88 and 0.123 mg/l, respectively). Low concentrations of chromium (0.016 mg/l) and copper (0.0132 mg/l) were also detected in groundwater from MW-3,

downgradient of the chrome plating shop, below the pertinent groundwater remediation standards (i.e., SWPC of 0.11 (hexavalent chromium) and 0.048 mg/l (copper)). Lastly, cadmium was detected in groundwater from MW-5 only, at a concentration of 0.0074 mg/l, slightly above the default SWPC for cadmium of 0.006 mg/l (freshwater). However, a conservative SWPC for cadmium for saltwater is 0.088 mg/l (derived by multiplying the default DAF of 10 by the EPA saltwater criterion for surface water of 8.8 ug/l or 0.0088 mg/l). The cadmium concentration in MW-5 (0.0074 mg/l) is well below the pertinent saltwater SWPC of 0.088 mg/l.

In summary, these groundwater quality findings indicate that there are not potential volatilization concerns with respect to the site (i.e., VOC concentrations in shallow groundwater beneath the site do not exceed the DEP industrial/commercial volatilization criteria for groundwater) or off-site downgradient properties (i.e., VOC concentrations in groundwater migrating off site do not exceed the DEP residential or industrial/commercial volatilization criteria for groundwater). Similarly, the existing groundwater quality data for this site indicate that there are not potential significant impacts to downgradient surface water in the Bridgeport Harbor associated with the groundwater impacts discussed herein.

Attachments: Table I – Summary of Results of Laboratory Analyses of Groundwater
Figure 1 – Project Locus
Figure 2 – Site Plan

1456 EI gw Sept 2008.doc

TABLE I

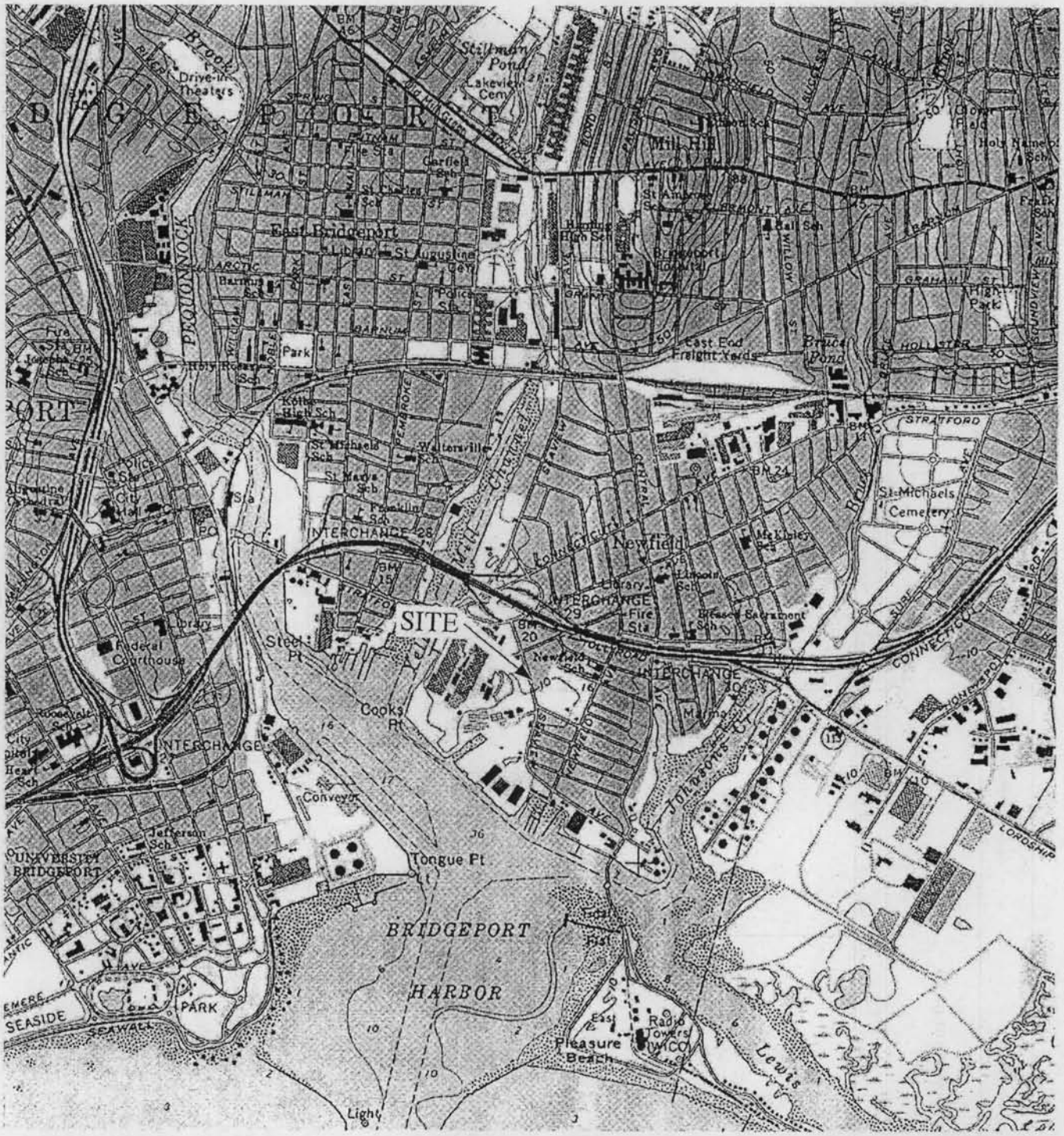
SUMMARY OF RESULTS OF LABORATORY ANALYSES OF GROUNDWATER (1,2,3,4)
SPEC PLATING, INC.
BRIDGEPORT, CONNECTICUT

WELL NUMBER	MW-1		MW-2		MW-3		MW-4	MW-5			Current		Proposed			
SAMPLING DATE	14-Jun-07	29-Nov-07	14-Jun-07	29-Nov-07	14-Jun-07	29-Nov-07	14-Jun-07	14-Jun-07	29-Nov-07	29-Aug-08	Res VC	I/C VC	Res VC	I/C VC	SWPC (5)	
VOCs (ug/l) by EPA Method 8260	---	NA		NA		NA	---		NA	NA						
n-Butylbenzene			1.1		---			---			NE	NE	1,500	21,000	NE	
sec-Butylbenzene			0.8		---			---			NE	NE	1,500	20,000	NE	
1,1-Dichloroethane			---		0.7			3.0			34,600	50,000	3,000	41,000	NE	
cis-1,2-Dichloroethene			---		1.7			8.0			NE	NE	830	11,000	NE	
Methylene chloride			---		0.7			---			4,512	11,117	160	2,200	48,000	
Methyl tert-butyl ether (MTBE)			0.7		---			---			50,000	50,000	21,000	50,000	NE	
Naphthalene			54.3		---			---			NE	NE	NE	NE	NE	
n-Propylbenzene			0.9		---			---			NE	NE	NE	NE	NE	
Tetrachloroethene			---		4.7			1.0			1,500	3,820	340	810	88	
1,1,1-Trichloroethane			---		1.4			1.0			20,400	50,000	6,500	16,000	62,000	
Trichloroethene			---		94.5			45.7			438	1,080	54	123	2,340	
1,2,4-Trimethylbenzene			1.1		---			---			NE	NE	360	4,800	NE	
Vinyl chloride			---		---			2.6			4	4	4	104	15,750	
Connecticut ETPH (mg/l)	<0.075	NA	13.2	NA	<0.075	NA	<0.075	<0.075	NA	NA	NE	NE	NE	NE	NE	
										free cyanide					DEP freshwater free cyanide	EPA saltwater free cyanide
Cyanide (mg/l) (6)	0.068	0.021/0.018	0.228	0.045/0.040	0.201	0.084/0.084	<0.010	0.770	0.371/0.370	ND<0.01	NE	NE	NE	NE	0.052	0.01
Chloride (mg/l)	NA	40.0	NA	45.6	NA	56.2	NA	NA	51.6	57.8	NE	NE	NE	NE	NE	NE
Sulfide (mg/l)	NA	4.80	NA	3.20	NA	2.00	NA	NA	2.80	2.00	NE	NE	NE	NE	NE	NE
Nitrate/Nitrite (mg/l)	NA	0.070	NA	0.074	NA	0.118	NA	NA	0.128	0.116	NE	NE	NE	NE	NE	NE
Total Dissolved Metals (mg/l) (7)		NA		NA		NA			NA	NA	NE	NE	NE	NE	DEP freshwater	EPA saltwater
Cadmium	<0.0025		<0.0025		<0.0025		<0.0025	0.0074							0.006	0.088
Chromium	<0.005		<0.005		0.016		<0.005	<0.005							1.2 / 0.11 (8)	
Copper	<0.005		<0.005		0.0132		<0.005	<0.005							0.048	
Lead	<0.008		<0.008		<0.008		<0.008	<0.008							0.013	
Nickel	<0.005		0.007		<0.005		0.007	0.008							0.88	
Silver	<0.005		<0.005		<0.005		<0.005	<0.005							0.012	
Zinc	0.020		0.019		0.017		0.030	0.035							0.123	

NOTES AND ABBREVIATIONS:

1. Only those analytes detected by the analyses are reported here.
2. --- indicates that the analyte was not detected above the method detection limit.
3. Numbers in **bold** indicate an exceedance of the surface-water protection criteria, or the volatilization criteria where the depth to water in a water table well is inferred to be within 15 ft. of ground surface or a building.
4. NA means not analyzed. NE means none established. VOCs means volatile organic compounds. ETPH means extractable total petroleum hydrocarbons.
5. RES VC and I/C VC mean residential and industrial/commercial volatilization criteria for substances in groundwater. Current criteria are from the CT DEP RSRs adjusted for appropriate groundwater temperature, and proposed criteria are from the CT DEP's proposed revisions dated March 2003 also adjusted for appropriate groundwater temperature. SWPC means surface water protection criteria obtained from the CT DEP RSRs, or derived using the EPA water quality criterion for saltwater multiplied by the default DAF of 10.
6. Testing for cyanide in November 2007 groundwater samples was completed after testing for and removing interfering substances, whereas June 2007 testing did not test for such interfering substances.
7. Samples selected for metals analyses were field filtered and analyzed for the specified dissolved metals.
8. Criteria are for hexavalent/trivalent forms of chromium.

T1456 gw data.klm



Site Coordinates: 41° 10' 26" N 73° 10' 16" W

USGS QUADRANGLE:
BRIDGEPORT, CONNECTICUT

ALTA Environmental Corporation

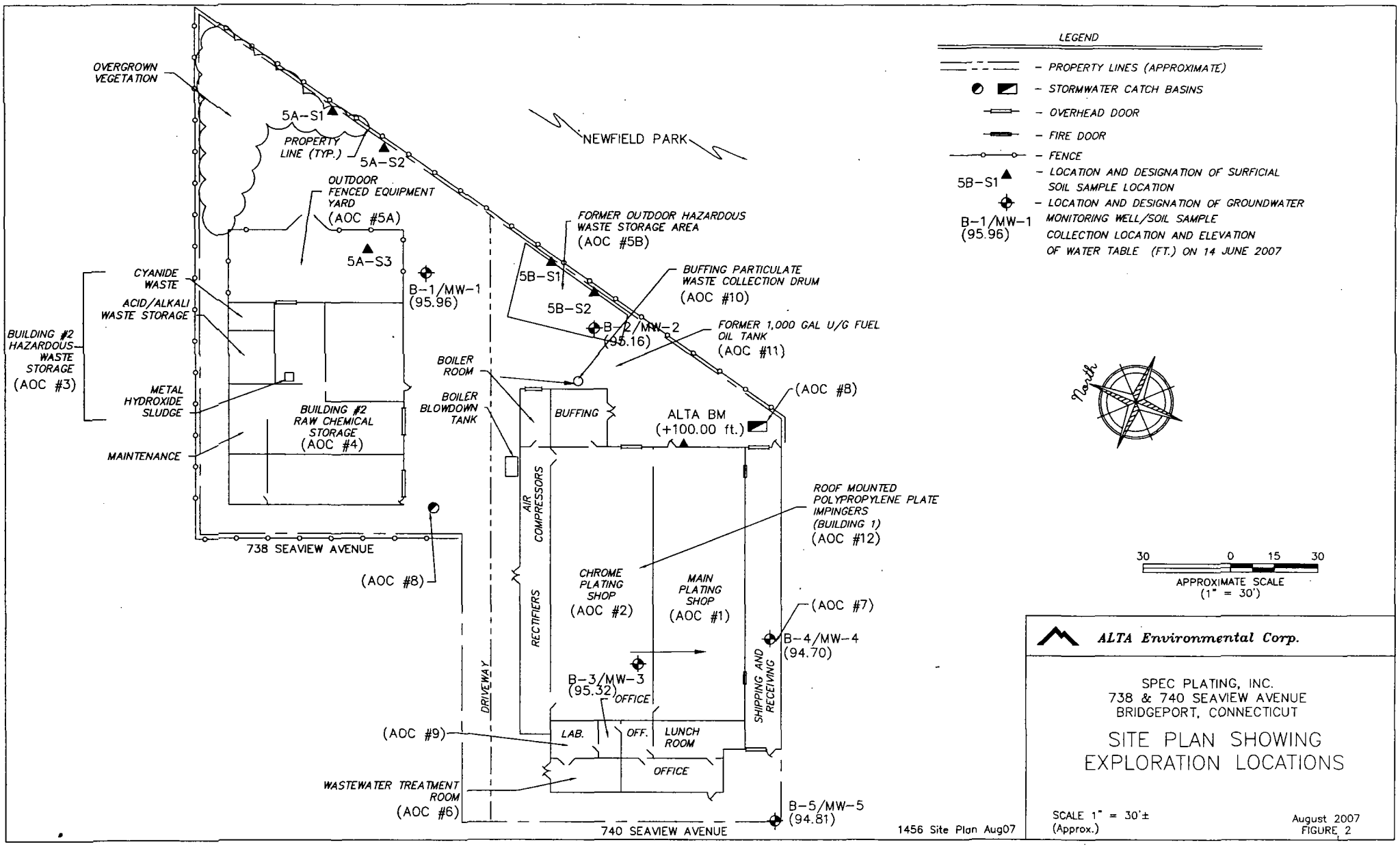
SPEC PLATING, INC.
738 & 740 SEAVIEW AVENUE
BRIDGEPORT, CONNECTICUT

PROJECT LOCUS

APPROX. SCALE 1:24,000

MAY 2006

FIGURE 1


LEGEND
- PROPERTY LINES (APPROXIMATE)
- STORMWATER CATCH BASINS
- OVERHEAD DOOR
- FIRE DOOR
- FENCE
5B-S1 - LOCATION AND DESIGNATION OF SURFICIAL SOIL SAMPLE LOCATION
B-1/MW-1 (95.96) - LOCATION AND DESIGNATION OF GROUNDWATER MONITORING WELL/SOIL SAMPLE COLLECTION LOCATION AND ELEVATION OF WATER TABLE (FT.) ON 14 JUNE 2007
OVERGROWN VEGETATION
5A-S1
PROPERTY LINE (TYP.)
5A-S2
NEWFIELD PARK
OUTDOOR FENCED EQUIPMENT YARD (AOC #5A)
5A-S3
B-1/MW-1 (95.96)
FORMER OUTDOOR HAZARDOUS WASTE STORAGE AREA (AOC #5B)
5B-S1
5B-S2
B-2/MW-2 (95.16)
BUFFING PARTICULATE WASTE COLLECTION DRUM (AOC #10)
FORMER 1,000 GAL U/G FUEL OIL TANK (AOC #11)
CYANIDE WASTE
ACID/ALKALI WASTE STORAGE
BUILDING #2 HAZARDOUS WASTE STORAGE (AOC #3)
METAL HYDROXIDE SLUDGE
MAINTENANCE
BUILDING #2 RAW CHEMICAL STORAGE (AOC #4)
BOILER ROOM
BOILER BLOWDOWN TANK
BUFFING
ALTA BM (+100.00 ft.)
(AOC #8)
AIR COMPRESSORS
RECTIFIERS
ROOF MOUNTED POLYPROPYLENE PLATE IMPINGERS (BUILDING 1) (AOC #12)
738 SEAVIEW AVENUE
(AOC #8)
CHROME PLATING SHOP (AOC #2)
MAIN PLATING SHOP (AOC #1)
(AOC #7)
B-4/MW-4 (94.70)
SHIPPING AND RECEIVING
DRIVEWAY
B-3/MW-3 (95.32)
OFFICE
(AOC #9)
LAB.
OFF.
LUNCH ROOM
OFFICE
WASTEWATER TREATMENT ROOM (AOC #6)
B-5/MW-5 (94.81)
740 SEAVIEW AVENUE
North
30 0 15 30
APPROXIMATE SCALE (1" = 30')
ALTA Environmental Corp.
SPEC PLATING, INC.
738 & 740 SEAVIEW AVENUE
BRIDGEPORT, CONNECTICUT
SITE PLAN SHOWING EXPLORATION LOCATIONS
SCALE 1" = 30'± (Approx.)
August 2007
FIGURE 2
1456 Site Plan Aug07