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ENVIRONMENT

Ms. Alicia Barraza
New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials
Bureau of Solid Waste and Corrective Action
625 Broadway
Albany, New York 12233-7258

Subject:
Bayer MaterialScience LLC
125 New South Road
Hicksville, New York
USEPA ID#: NYD002920312
ICM Additional PCB Soil Removal – Verification Soil Sampling Summary

Date:
May 7, 2009

Contact:
John C. Brussel, PE

Phone:
315.671.441

Email:
John.Brussel@arcadis-us.com

Our ref:
B0032305.0001 #5

Dear Ms. Barraza:

On behalf of Bayer MaterialScience LLC (Bayer), this letter summarizes the results of the pre-excavation verification soil sampling performed at the above-referenced site in February 2009. The pre-excavation verification soil sampling was performed to confirm the horizontal and vertical excavation limits for the upcoming interim corrective measure (ICM) soil removal activities at the site. The sampling was performed in accordance with the following:

- The *Interim Corrective Measure Additional PCB Soil Removal Work Plan* (ARCADIS, November 2008) (hereafter, the "ICM Work Plan").

- A letter from ARCADIS to the New York State Department of Environmental Conservation (NYSDEC) dated December 11, 2008 that responds to comments on the ICM Work Plan.

NYSDEC approval of the ICM Work Plan and response letter was provided by the NYSDEC on December 18, 2008.

A summary of the pre-excavation verification soil sampling activities is presented below, followed by the results and actions proposed based on the results.

Pre-Excavation Verification Soil Sampling Activities

Land surveying activities were performed by ARCADIS in December 2008 to field-mark the proposed sampling locations based on coordinates obtained from the figure included with the December 11, 2008 comment-response letter to the NYSDEC. The actual pre-excavation verification soil sampling was performed by ARCADIS during the weeks of February 9th, 16th, and 23rd, 2009. As part of these activities, soil samples were collected from soil borings drilled at 46 locations around and within the limits of the proposed ICM soil excavations (locations VS-P1-S1 through VS-P1-S46, as shown on Figure 1). Certain locations were moved slightly based on field conditions encountered (to avoid construction and demolition [C&D] debris stockpiles, trees, etc.). The adjustments made to the sampling locations are summarized in Table 1.

Soil borings were completed at each sampling location using a conventional drill rig equipped with 3-inch inside-diameter hollow-stem augers or a direct-push sampling rig. The soil borings at locations VS-P1-S13, VS-P1-S14, and VS-P1-S15 (these locations were around Excavation Areas 2 and 3) were completed to depths of 28 or 32 feet below ground surface (bgs). The borings at the remaining locations were completed to depths of between 2 and 8 feet bgs. Up to two samples from each boring location (from a pre-determined 0.5-foot interval as outlined in the ICM Work Plan) were collected and submitted for laboratory analysis. The analyses performed on the samples are identified below:

- Samples from locations VS-P1-S1 through VS-P1-S40 were analyzed for polychlorinated biphenyls (PCBs).

- Samples from locations VS-P1-S41, VS-P1-S42, and VS-P1-S43 (around Excavation Area 14) were analyzed for volatile organic compounds (VOCs).

- Samples from locations VS-P1-S44, VS-P1-S45, and VS-P1-S46 (around Excavation Area 15) were analyzed for semi-volatile organic compounds (SVOCs).

A composite waste characterization sample was also collected to evaluate the potential handling of soil to be removed from Excavation Areas 14 and 15. The sample (sample COMP 021309) was formed using discrete soil samples collected from within the excavation limits and was submitted for laboratory analysis for ignitability, corrosivity, reactivity, Toxicity Characteristic Leaching Procedure (TCLP)

VOCs, TCLP SVOCs, TCLP metals, TCLP pesticides/herbicides, PCBs, VOCs, and SVOCs.

Quality assurance/quality control (QA/QC) samples, including blind duplicate, matrix spike, and matrix spike duplicate samples for PCBs, VOCs, and SVOCs were collected and analyzed in support of the verification soil sampling activities. QA/QC samples were collected at a frequency of approximately one per 20 field soil samples.

Laboratory analysis of the verification and waste characterization soil samples was performed by TestAmerica of Shelton, Connecticut. Analytical results for the verification soil samples were reported using NYSDEC Analytical Services Protocol (ASP) Category B data deliverables to support future data validation, as needed. Analytical results for the waste characterization samples were reported in a standard laboratory report ("Form 1" results).

Upon completion, each soil boring was filled with bentonite grout. Soil cuttings and acetate liners used during the soil sampling were containerized in steel 55-gallon drums for offsite transportation and disposal in accordance with applicable regulations.

Pre-Excavation Verification Soil Sampling Results

The pre-excavation verification soil analytical results for PCBs and detected VOCs and SVOCs are presented in Tables 2 and 3. The laboratory analytical data reports are presented on the attached compact disc (CD). The pre-excavation verification soil analytical results for PCBs, VOCs, and SVOCs (i.e., concentration ranges) are shown via color-coding on Figure 1. The verification soil analytical results are summarized below.

- PCBs were either not detected or were detected at concentrations less than the 50 part per million (ppm) ICM soil cleanup objective at each pre-excavation verification soil sampling location, except as follows:

    - PCBs were identified at a concentration of 320 ppm at sampling location VS-P1-S23 (1.5-2.0'), which is toward the east edge of Excavation Area 6. However, the PCB concentration in the underlying sampling interval (3.5-4.0') at this location was much lower at 6.2 ppm.

- PCBs were identified at a concentration of 61 ppm at sampling location VS-P1-S33 (3.5-4.0'), which is toward the northwest corner of Excavation Area 11. However, the PCB concentration in the underlying sampling interval (7.5-8.0') at this location was much lower at an estimated 1.2 ppm.

- The PCB concentration identified at pre-excavation verification soil sampling location VS-P1-S8 (1.5-2.0') (along the proposed southern boundary of Excavation Area 7) was 49 ppm, which is close to the 50 ppm ICM soil cleanup objective. PCB concentrations at the remaining sampling locations were well-below 50 ppm.

- One or more VOCs were identified at each pre-excavation verification soil sampling location where samples were collected for VOCs, but the concentrations were all less than the commercial use soil cleanup objectives presented in Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR) Part 375-6.8(b).

- SVOCs were identified at concentrations exceeding the commercial use soil cleanup objectives at 3 of the 4 verification soil sampling locations where samples were collected for SVOCs. The maximum SVOC concentration identified at a concentration exceeding its corresponding soil cleanup objective was 47 ppm (benzo(b)fluoranthene) at sampling location VS-P1-S46 (0.0-0.2') (vs. a cleanup objective of 5.6 ppm).

The in-situ waste characterization analytical results are presented in Table 4. As indicated in Table 4, results for the composite in-situ waste characterization sample do not exceed the regulatory threshold for either: (1) a Resource Conservation and Recovery Act (RCRA) characteristic hazardous waste; or (2) a Toxic Substances Control Act (TSCA) regulated PCB waste and New York State hazardous waste.

Proposed Response to Findings

Based on the findings of the pre-excavation verification soil sampling activities, Bayer proposes to expand the soil removal in three areas, as indicated below (refer to the cross-hatch lines on Figure 1 which show the expanded soil removal areas):

- Additional soil will be removed from the northwest corner of Excavation Area 11 based on the PCB result for location VS-P1-S33 (3.5-4.0'). The removal in this expanded area will extend to 8 feet bgs.

- Additional soil will be removed from the south end of Excavation Area 7 based on the PCB result for location VS-P1-S8 (1.5-2.0'). The removal in this expanded area will extend to 4 feet bgs.

- Additional soil will be removed from three sides of Excavation Area 15 based on the SVOC results for the verification sampling locations in this area. The removal in this expanded area will extend to 1 foot bgs.

Although PCBs were identified at a concentration greater than 50 ppm toward the east end of Excavation Area 6, soil removal will stop at the property boundary and will not continue offsite because: (1) the property boundary is several feet past the pre-excavation verification sampling location; and (2) the grade along the property boundary increases slightly and thereby minimizes the potential for runoff (if any) from leaving this area of the site.

No further PCB, VOC, or SVOC verification soil sampling is proposed as part of the upcoming ICM.

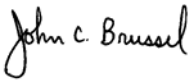
Based on the in-situ waste characterization analytical results for sample COMP 021309, the soil removed from Excavation Areas 14 and 15 will be transported for offsite disposal as a non-hazardous waste or may be combined with other soils at the site and transported for offsite disposal as a TSCA-regulated PCB waste and New York State hazardous waste (Waste Code B007).

We await NYSDEC approval of the proposed actions described above. As indicated in recent correspondence with the NYSDEC, Bayer has awarded the contract for the ICM and anticipates that mobilization will begin next week. A schedule from the contractor is pending and will be provided to the NYSDEC following receipt. The NYSDEC is welcome to visit the site anytime during implementation of the ICM.

Please do not hesitate to contact Ramon Simon of Bayer at 281.383.6149 or the undersigned at 315.671.9441 if you have any questions or require additional information.

Sincerely,

ARCADIS



John C. Brussel, PE
Principal Engineer

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Ms. Renata Ockerby, New State Department of Health
Mr. Robert Weitzman, Nassau County Department of Health
Mr. Wayne Baldwin, Bayer MaterialScience LLC
Mr. Ramon Simon, Bayer MaterialScience LLC

TABLE 1
ADJUSTED VERIFICATION SOIL SAMPLING LOCATIONS

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Sampling Location	Approximate New Location Measured from Original, Proposed Location (feet)
VS-P1-S1	3.5 North, 4.0 West
VS-P1-S3	27.3 North, 0.6 East
VS-P1-S4	17.5 South, 3.4 West
VS-P1-S21	6.1 South, 5.6 West
VS-P1-S23	2.0 South, 7.5 West
VS-P1-S24	1.0 North, 9.8 East
VS-P1-S25	10.9 South, 3.0 West
VS-P1-S37	7.2 South, 6.1 West

Notes:

1. Verification sampling locations were adjusted, as needed, based on field conditions (to avoid soil stockpiles, sumps, perimeter fence, etc.).
2. New verification sampling locations based on field measurements.

TABLE 2
VERIFICATION SOIL ANALYTICAL RESULTS FOR PCBs (ppm)

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIAL SCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Location ID:	Depth (Feet)	Date Collected	Soil to be Removed Via 2009 ICM	Aroclor							Total PCBs
				1016	1221	1232	1242	1248	1254	1260	
2009 ICM Soil Cleanup Objectives											50
6 NYCRR 375 Commercial Use SCOs				- -	- -	- -	- -	- -	- -	- -	1
VS-P1-S1	0.5 - 1	2/17/2009	X	<0.035	<0.035	<0.035	<0.035	0.31	0.28	0.035 J	0.63 J
	1.5 - 2	2/17/2009	X	<0.37	<0.37	<0.37	<0.37	2.9	<0.37	0.39	**3.3**
VS-P1-S2	0.5 - 1	2/17/2009	X	<0.37	<0.37	<0.37	<0.37	3.6	<0.37	0.40	**4.0**
	1.5 - 2	2/17/2009	X	<0.94	<0.94	<0.94	<0.94	11	<0.94	1.3	**12**
VS-P1-S3	1.5 - 2	2/17/2009	X	<0.37	<0.37	<0.37	<0.37	2.1	<0.37	0.47	**2.6**
	3.5 - 4	2/17/2009	X	<0.018	<0.018	<0.018	<0.018	0.0087 J	<0.018	<0.018	0.0087 J
VS-P1-S4	1.5 - 2	2/17/2009	X	<0.018	<0.018	<0.018	<0.018	0.030	<0.018	0.010 J	0.040 J
	3.5 - 4	2/17/2009	X	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
VS-P1-S5	1.5 - 2	2/11/2009	X	<0.90 [<0.89]	<0.90 [<0.89]	<0.90 [<0.89]	<0.90 [<0.89]	7.6 [12]	<0.90 [<0.89]	<0.90 [0.99]	**7.6 [13]**
	3.5 - 4	2/11/2009	X	<0.018	<0.018	<0.018	<0.018	0.053	<0.018	<0.018	0.053
VS-P1-S6	1.5 - 2	2/11/2009	X	<0.018	<0.018	<0.018	<0.018	<0.018	0.0078 J	<0.018	0.0078 J
	3.5 - 4	2/11/2009	X	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
VS-P1-S7	1.5 - 2	2/11/2009	X	<0.017	<0.017	<0.017	<0.017	<0.017	0.045	<0.017	0.045
	3.5 - 4	2/11/2009	X	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
VS-P1-S8	1.5 - 2	2/12/2009	X	<1.8	<1.8	<1.8	<1.8	25	22	2.1	**49**
	3.5 - 4	2/12/2009	X	<1.8	<1.8	<1.8	<1.8	13	<1.8	<1.8	**13**
VS-P1-S9	1.5 - 2	2/12/2009	X	<3.5	<3.5	<3.5	<3.5	34	<3.5	<3.5	**34**
	3.5 - 4	2/12/2009	X	<0.35	<0.35	<0.35	<0.35	3.5	<0.35	0.32 J	**3.8 J**
VS-P1-S10	3.5-4	2/12/2009	X	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
	7.5-8	2/12/2009	X	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
VS-P1-S11	2.5 - 3	2/13/2009	X	<0.021	<0.021	<0.021	<0.021	0.29	<0.021	0.017 J	0.31 J
	5.5 - 6	2/13/2009	X	<0.18	<0.18	<0.18	<0.18	2.7	<0.18	<0.18	**2.7**
VS-P1-S12	1.5 - 2	2/17/2009	X	<0.020	<0.020	<0.020	<0.020	0.074	0.074	0.011 J	0.16 J
	3.5 - 4	2/17/2009	X	<0.020	<0.020	<0.020	<0.020	0.032	0.016 J	<0.020	0.048 J
VS-P1-S13	13.5-14	2/25/2009	X	<0.018	<0.018	<0.018	<0.018	0.055	<0.018	<0.018	0.055
	27.5-28	2/25/2009	X	<0.017	<0.017	<0.017	<0.017	0.01	<0.017	<0.017	0.01
VS-P1-S14	13.5-14	2/24/2009	X	<1	<1	<1	11	<1	4.7	0.560 J	**16 J**
	27.5-28	2/24/2009	X	<0.017	<0.017	<0.017	<0.017	0.068	<0.017	<0.017	0.068
VS-P1-S15	15.5-16	2/23/2009	X	<0.017	<0.017	<0.017	<0.017	0.047	<0.017	<0.017	0.047
	31.5-32	2/24/2009	X	<0.017	<0.017	<0.017	<0.017	0.013 J	<0.017	<0.017	0.013 J
VS-P1-S16	1.5 - 2	2/16/2009	X	<0.035	<0.035	<0.035	<0.035	0.34	<0.035	0.024 J	0.36 J
VS-P1-S17	1.5 - 2	2/16/2009	X	<0.035	<0.035	<0.035	<0.035	0.15	<0.035	0.037	0.19
VS-P1-S18	0.5 - 1	2/17/2009	X	<1.8 [<0.93]	<1.8 [<0.93]	<1.8 [<0.93]	<1.8 [<0.93]	19 [10]	<1.8 [7.8]	<1.8 [0.67 J]	**19 [19 J]**
	1.5 - 2	2/17/2009	X	<0.018	<0.018	<0.018	<0.018	0.058	<0.018	0.012 J	0.070 J
VS-P1-S19	1.5 - 2	2/16/2009	X	<0.018	<0.018	<0.018	<0.018	0.13	<0.018	0.013 J	0.14 J
VS-P1-S20	1.5 - 2	2/16/2009	X	<0.019	<0.019	<0.019	<0.019	0.059	<0.019	0.012 J	0.071 J
VS-P1-S21	0.5 - 1	2/17/2009	X	<0.18	<0.18	<0.18	<0.18	0.73	<0.18	0.16 J	0.89 J
	1.5 - 2	2/17/2009	X	<0.37	<0.37	<0.37	<0.37	3.9	<0.37	0.84	**4.7**
VS-P1-S22	0.5 - 1	2/17/2009	X	<0.89 [<1.8]	<0.89 [<1.8]	<0.89 [<1.8]	<0.89 [<1.8]	10 [12]	<0.89 [<1.8]	0.91 [1.2 J]	**11 [13 J]**
	1.5 - 2	2/17/2009	X	<0.038	<0.038	<0.038	<0.038	0.48	<0.038	0.016 J	0.50 J
VS-P1-S23	1.5 - 2	2/17/2009	X	<20	<20	<20	<20	270	<20	49	**320**
	3.5 - 4	2/17/2009	X	<0.35	<0.35	<0.35	<0.35	5.2	<0.35	1.0	**6.2**

TABLE 2
VERIFICATION SOIL ANALYTICAL RESULTS FOR PCBs (ppm)

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIAL SCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Location ID:	Depth (Feet)	Date Collected	Soil to be Removed Via 2009 ICM	Aroclor							Total PCBs
				1016	1221	1232	1242	1248	1254	1260	
2009 ICM Soil Cleanup Objectives											50
6 NYCRR 375 Commercial Use SCOs				- -	- -	- -	- -	- -	- -	- -	1
VS-P1-S24	3.5 - 4	2/17/2009	X	<0.87	<0.87	<0.87	<0.87	13	<0.87	2.8	**16**
VS-P1-S25	3.5 - 4	2/17/2009	X	<0.17	<0.17	<0.17	<0.17	1.4	1.2	0.22	**2.8**
VS-P1-S26	1.5 - 2	2/17/2009	X	<0.35	<0.35	<0.35	<0.35	5.4	3.4	0.39	**9.2**
	3.5 - 4	2/17/2009	X	<0.017	<0.017	<0.017	<0.017	0.052	0.043	0.019	0.11
VS-P1-S27	0.5 - 1	2/12/2009	X	<1.8	<1.8	<1.8	<1.8	17	<1.8	2.0	**19**
	1.5 - 2	2/12/2009	X	<0.018	<0.018	<0.018	<0.018	0.16	<0.018	<0.018	0.16
VS-P1-S28	0.5 - 1	2/12/2009	X	<0.94	<0.94	<0.94	<0.94	5.8	<0.94	1.1	**6.9**
	1.5 - 2	2/12/2009	X	<0.18	<0.18	<0.18	<0.18	0.89	<0.18	0.56	**1.5**
VS-P1-S29	1.5 - 2	2/11/2009	X	<0.19	<0.19	<0.19	<0.19	2.6	<0.19	0.30	**2.9**
VS-P1-S30	1.5 - 2	2/12/2009	X	<0.020	<0.020	<0.020	<0.020	0.022	<0.020	0.0088 J	0.031 J
	3.5 - 4	2/12/2009	X	<0.017	<0.017	<0.017	<0.017	0.013 J	<0.017	<0.017	0.013 J
VS-P1-S31	3.5 - 4	2/12/2009	X	<0.034	<0.034	<0.034	<0.034	0.36	0.26	0.10	0.72
VS-P1-S32	1.5 - 2	2/12/2009	X	<0.34	<0.34	<0.34	<0.34	4.8	<0.34	1.0	**5.8**
	3.5 - 4	2/12/2009	X	<0.88	<0.88	<0.88	<0.88	12	<0.88	1.6	**14**
VS-P1-S33	3.5 - 4	2/12/2009	X	<4.0	<4.0	<4.0	<4.0	61	<4.0	<4.0	**61**
	7.5 - 8	2/12/2009	X	<0.085	<0.085	<0.085	<0.085	1.1	<0.085	0.074 J	**1.2 J**
VS-P1-S34	3.5 - 4	2/12/2009	X	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
	7.5 - 8	2/12/2009	X	<0.017	<0.017	<0.017	<0.017	0.014 J	<0.017	<0.017	0.014 J
VS-P1-S35	3.5 - 4	2/12/2009	X	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
	7.5 - 8	2/12/2009	X	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
VS-P1-S36	1.5 - 2	2/13/2009	X	<0.20	<0.20	<0.20	<0.20	2.0	3.0	<0.20	**5.0**
	3.5 - 4	2/13/2009	X	<0.19	<0.19	<0.19	<0.19	1.4	1.9	<0.19	**3.3**
VS-P1-S37	0.5 - 1	2/13/2009	X	<1.8	<1.8	<1.8	<1.8	23	<1.8	<1.8	**23**
	1.5 - 2	2/13/2009	X	<0.019	<0.019	<0.019	<0.019	0.094	<0.019	<0.019	0.094
VS-P1-S38	0.5 - 1	2/13/2009	X	<0.98	<0.98	<0.98	<0.98	12	<0.98	0.93 J	**13 J**
	1.5 - 2	2/13/2009	X	<0.021	<0.021	<0.021	<0.021	0.15	<0.021	0.0084 J	0.16 J
VS-P1-S39	0.5 - 1	2/13/2009	X	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	<1.0 [<1.0]	14 [11]	<1.0 [<1.0]	<1.0 [<1.0]	**14 [11]**
	1.5 - 2	2/13/2009	X	<0.021	<0.021	<0.021	<0.021	0.097	<0.021	<0.021	0.097
VS-P1-S40	0.5 - 1	2/13/2009	X	<0.20	<0.20	<0.20	<0.20	1.8	<0.20	<0.20	**1.8**
	1.5 - 2	2/13/2009	X	<0.020	<0.020	<0.020	<0.020	0.035	<0.020	<0.020	0.035

TABLE 2
VERIFICATION SOIL ANALYTICAL RESULTS FOR PCBs (ppm)

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIAL SCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Notes:

1. Samples were collected by ARCADIS on the dates indicated.
2. PCBs = Polychlorinated Biphenyls.
3. Samples were analyzed by TestAmerica Laboratories, Inc. located in Shelton, Connecticut for PCBs using United States Environmental Protection Agency (USEPA) SW-846 Method 8082.
4. All concentrations reported in dry weight parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
5. Field duplicate sample results are presented in brackets.
6. **X** indicates the soil at sampling location will be removed as part of the 2009 interim corrective measure (ICM) [for X under column titled "Soil to be Removed Via 2009 ICM"].
7. Data qualifiers are defined as follows:
   < - Aroclor was not detected at a concentration above the reported detection limit.
   J - Indicates that the associated numerical value is an estimated concentration.
8. 6 NYCRR Part 375 Commercial Use Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR) Part 375-6.8(a) and (b), effective December 14,2006.
9. Bold indicates that the result exceeds the 1 ppm 6 NYCRR Part 375 Commercial Use SCO.
10. Shading indicates that the result exceeds the 50 ppm ICM soil cleanup objectives, which is also equivalent to the threshold for a Toxic Substances Control Act (TSCA) regulated PCB waste and a New York State hazardous waste (6 NYCRR Part 371) for soil that, upon excavation, would become a waste.
11. - - = No 6 NYCRR Part 375 SCO listed.
12. Analytical results have not been validated.

TABLE 3
VERIFICATION SOIL ANALYTICAL RESULTS FOR DETECTED VOCs AND SVOCs (ppm)

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIAL SCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Location ID:	6 NYCRR 375	VS-P1-S41		VS-P1-S42		VS-P1-S43		VS-P1-S44		VS-P1-S45	VS-P1-S46
Sample Depth(Feet): Date Collected:	Commercial Use SCOs	2 - 2.5 02/13/09	4 - 4.5 02/13/09	2 - 2.5 02/13/09	4 - 4.5 02/13/09	2 - 2.5 02/13/09	4 - 4.5 02/13/09	0 - 0.2 02/13/09	0.5 - 1 02/13/09	0 - 0.2 02/13/09	0 - 0.2 02/13/09
Soil to be Removed Via 2009 ICM		X	X	X	X	X	X	X	X	X	X
VOCs											
4-Methyl-2-pentanone (MIBK)	- -	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
2-Butanone (MEK)	500	<0.012	<0.010	0.021	<0.012	0.061	<0.012 [<0.011]	NA	NA	NA	NA
2-Hexanone	- -	<0.012	<0.010	<0.011	<0.012	<0.024	<0.012 [<0.011]	NA	NA	NA	NA
Acetone	500	<0.024	0.0075 J	0.093	0.0036 J	0.27	<0.024 [<0.023]	NA	NA	NA	NA
Benzene	44	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
Carbon disulfide	- -	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
Chlorobenzene	500	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
Chloroform	350	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
cis-1,2-Dichloroethene	500	<0.0060	<0.0052	<0.0056	<0.0059	0.018	<0.0059 [<0.0057]	NA	NA	NA	NA
Ethylbenzene	- -	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
Tetrachloroethene	150	0.0012 J	<0.0052	0.014	0.0029 J	0.049	0.0011 J [0.0012 J]	NA	NA	NA	NA
Methylene chloride	500	<0.024	0.0015 JB	<0.022	<0.024	<0.049	0.0013 JB [<0.023]	NA	NA	NA	NA
Toluene	500	<0.0060	<0.0052	0.00031 JB	0.00020 JB	<0.012	0.00024 JB [0.00015 JB]	NA	NA	NA	NA
Styrene	- -	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
trans-1,2-Dichloroethene	500	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
Trichloroethene	200	<0.0060	<0.0052	0.0060	<0.0059	0.020	<0.0059 [<0.0057]	NA	NA	NA	NA
Vinyl chloride	13	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
Xylenes (total)	500	<0.0060	<0.0052	<0.0056	<0.0059	<0.012	<0.0059 [<0.0057]	NA	NA	NA	NA
Total TCL VOCs	- -	0.0012 J	0.0090 J	0.13 J	0.0067 J	0.42	0.0026 J [0.0014 J]	NA	NA	NA	NA
SVOCs											
1,2,4-Trichlorobenzene	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
2,4-Dimethylphenol	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
2-Methylnaphthalene	- -	NA	NA	NA	NA	NA	NA	0.35	<0.30	0.088 J	0.81 [0.67]
2-Methylphenol	500	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
4-Methylphenol	500	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
4-Nitroaniline	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
Acenaphthene	500	NA	NA	NA	NA	NA	NA	2.6	0.15 J	0.67	6.0 [4.5]
Acenaphthylene	500	NA	NA	NA	NA	NA	NA	0.92	<0.30	0.20 J	0.49 J [0.40 J]
Anthracene	500	NA	NA	NA	NA	NA	NA	6.9	0.39	2.0	14 [11]
Benzo(a)anthracene	5.6	NA	NA	NA	NA	NA	NA	29	1.0	8.8	44 [40]
Benzo(a)pyrene	1	NA	NA	NA	NA	NA	NA	31	1.0	9.3	39 [38]
Benzo(b)fluoranthene	5.6	NA	NA	NA	NA	NA	NA	35	1.0	11	47 [46]
Benzo(ghi)perylene	500	NA	NA	NA	NA	NA	NA	21	0.80	3.9	31 [12]
Benzo(k)fluoranthene	56	NA	NA	NA	NA	NA	NA	13	0.41	4.4	18 [11]
Benzoic acid	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	- -	NA	NA	NA	NA	NA	NA	1.7	0.32	0.81	2.7 [3.8]
Butyl benzyl phthalate	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
Carbazole	- -	NA	NA	NA	NA	NA	NA	3.1	0.074 J	0.65	4.1 [2.8]
Chrysene	56	NA	NA	NA	NA	NA	NA	31	0.97	8.4	43 [40]
Dibenzo(a,h)anthracene	0.56	NA	NA	NA	NA	NA	NA	3.2	0.30 J	1.2	5.0 [4.6]
Dibenzofuran	350	NA	NA	NA	NA	NA	NA	0.98	0.083 J	0.24 J	2.6 [1.5]
Diethyl phthalate	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
Dimethyl phthalate	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
Di-n-butyl phthalate	- -	NA	NA	NA	NA	NA	NA	0.44	0.22 J	0.32 J	1.0 [0.60 J]
Di-n-octyl phthalate	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
Fluoranthene	500	NA	NA	NA	NA	NA	NA	59	2.0	16	93 [91]
Fluorene	500	NA	NA	NA	NA	NA	NA	2.2	0.14 J	0.54	5.4 [3.7]
Indeno(1,2,3-cd)pyrene	5.6	NA	NA	NA	NA	NA	NA	26	0.83	4.8	33 [31]
Isophorone	- -	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
Naphthalene	500	NA	NA	NA	NA	NA	NA	0.57	<0.30	0.15 J	0.87 [0.84]
Pentachlorophenol	6.7	NA	NA	NA	NA	NA	NA	<1.9	<1.9	<2.1	<3.7 [<3.8]
Phenanthrene	500	NA	NA	NA	NA	NA	NA	23	1.5	6.5	51 [36]
Phenol	500	NA	NA	NA	NA	NA	NA	<0.31	<0.30	<0.33	<0.59 [<0.60]
Pyrene	500	NA	NA	NA	NA	NA	NA	45	2.1	14	79 [84]
Total Carcinogenic PAHs	- -	NA	NA	NA	NA	NA	NA	170	5.5 J	48	230 [210]
Total TCL SVOCs	- -	NA	NA	NA	NA	NA	NA	340	13 J	94 J	520 J [460 J]

TABLE 3
VERIFICATION SOIL ANALYTICAL RESULTS FOR DETECTED VOCs AND SVOCs (ppm)

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIAL SCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Notes:
1. Samples were collected by ARCADIS on the dates indicated.
2. VOCs = Volatile Organic Compounds.
3. SVOCs = Semi-Volatile Organic Compounds.
4. Samples were analyzed by TestAmerica Laboratories, Inc. located in Shelton, Connecticut for:
   - VOCs using United States Environmental Protection Agency (USEPA) SW-846 Method 8260B.
   - SVOCs using USEPA SW-846 Method 8270C.
5. Only those constituents detected in one or more samples are summarized.
6. All concentrations reported in dry weight parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
7. Field duplicate sample results are presented in brackets.
8. **X** indicates the soil at sampling location will be removed as part of the 2009 interim corrective measure (for X under column titled " Soil to be Removed Via 2009 ICM"
9. Data qualifiers are defined as follows:
   < - Constituent not detected at a concentration above the reported detection limit.
   B - Constituent was found in the sample as well as its associated blank.
   J - Indicates that the associated numerical value is an estimated concentration.
10. 6 NYCRR Part 375 Commercial Use Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR) Part 375-6.8(a) and (b), effective December 14,2006.
11. Shading indicates that the result exceeds the 6 NYCRR Part 375 Commercial Use SCO.
12. - - = No 6 NYCRR Part 375 SCO listed.
13. NA = Not Analyzed.
14. Analytical results have not been validated.

TABLE 4
IN-SITU WASTE CHARACTERIZATION ANALYTICAL RESULTS

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Location ID: Date Collected:	Waste Characterization Regulatory Limits	COMP 021309 02/13/09
Ignitability (POS/NEG)	< 140°F	neg
Corrosivity (SU)	2 ≥ pH ≥ 12.5	5.93 HF
Sulfide, Reactive (ppm)	- -	<20
Cyanide, Reactive (ppm)	- -	<0.500
TCLP VOCs (ppm)		
1,1-Dichloroethene	0.7	<0.0050
1,2-Dichloroethane	0.5	<0.0050
2-Butanone (MEK)	200	0.0067 JB
Carbon tetrachloride	0.5	<0.0050
Benzene	0.5	<0.0050
Chlorobenzene	100	<0.0050
Chloroform	6	<0.0050
Tetrachloroethene	0.5	0.045 B
Trichloroethene	0.5	0.0043 J
Vinyl chloride	0.2	<0.0050
TCLP SVOCs (ppm)		
1,4-Dichlorobenzene	7.5	<0.020
2,4,5-Trichlorophenol	400	<0.10
2,4,6-Trichlorophenol	2	<0.020
2,4-Dinitrotoluene	0.13	<0.020
2-Methylphenol	200	<0.020
4-Methylphenol	- -	<0.020
Hexachlorobenzene	0.13	<0.020
Hexachlorobutadiene	0.5	<0.020
Hexachloroethane	3	<0.020
Nitrobenzene	2	<0.020
Pentachlorophenol	100	<0.10
Pyridine, TCLP	5	<0.040
TCLP Metals (ppm)		
Arsenic	5	<0.100
Barium	100	0.310
Cadmium	1	<0.0500
Chromium	5	<0.0500
Lead	5	<0.0500
Mercury	0.2	<0.00200
Selenium	1	<0.150
Silver	5	<0.0500
TCLP Organochlorine Herbicides (ppm)		
2,4,5-TP Acid (Silvex)	1	<0.05
2,4-D	10	<0.05
TCLP Organochlorine Pesticides (ppm)		
Chlordane (technical)	0.03	<0.0025
Endrin	0.02	<0.00050
TCLP Organochlorine Pesticides (ppm) continued		
gamma-BHC (Lindane)	0.4	<0.00025
Heptachlor	0.008	<0.00025
Heptachlor epoxide	0.008	<0.00025
Methoxychlor	10	<0.0025
Toxaphene	0.5	<0.012

TABLE 4
IN-SITU WASTE CHARACTERIZATION ANALYTICAL RESULTS

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

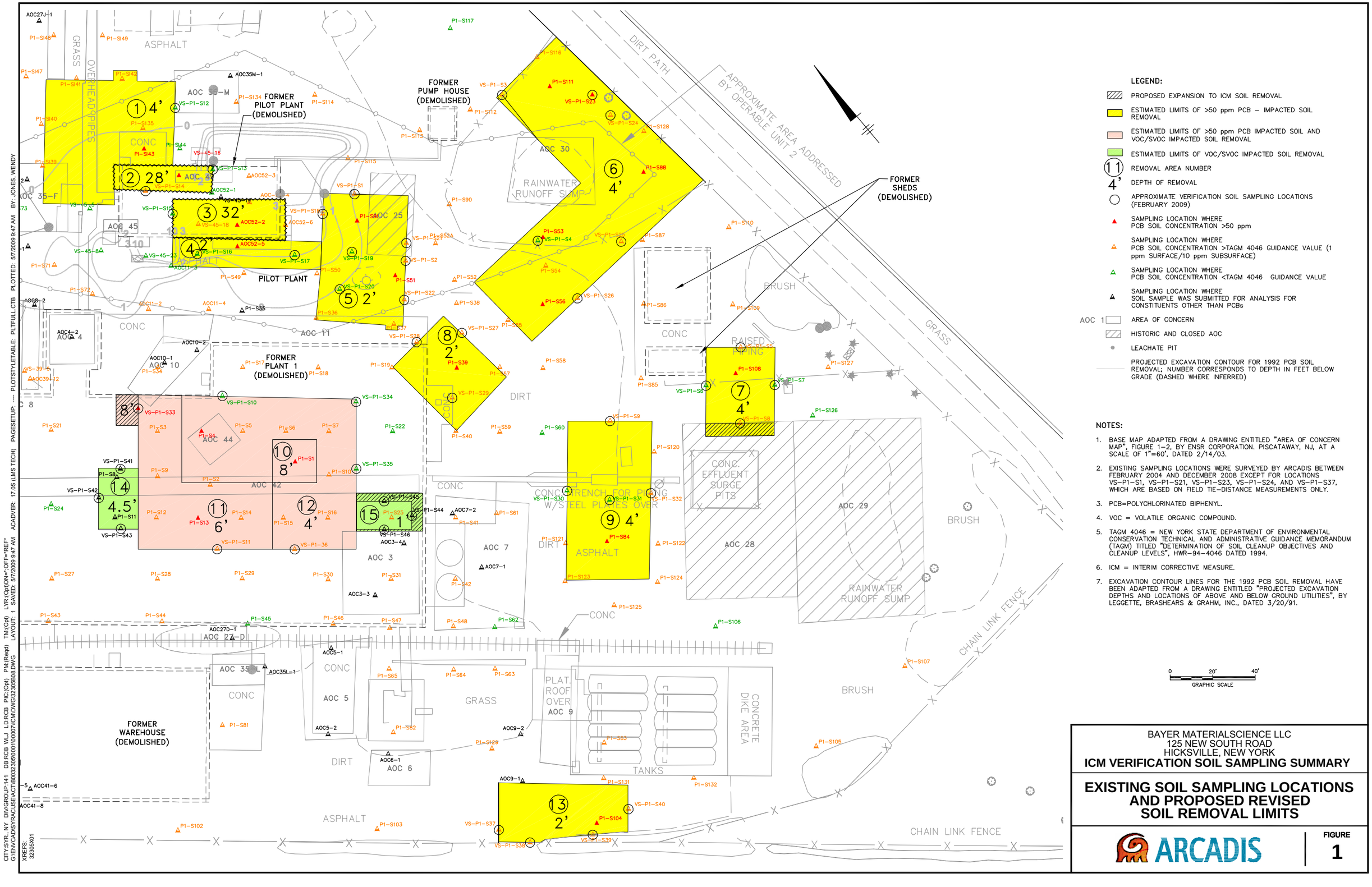
Location ID: Date Collected:	Waste Characterization Regulatory Limits	COMP 021309 02/13/09
PCBs (ppm)		
Aroclor 1016	- -	<0.020
Aroclor 1221	- -	<0.020
Aroclor 1232	- -	<0.020
Aroclor 1242	- -	<0.020
Aroclor 1248	- -	0.052
Aroclor 1254	- -	0.065
Aroclor 1260	- -	0.015 J
Total PCBs	*50	0.13 J
Detected VOCs (ppm)		
Acetone	- -	0.023 J
cis-1,2-Dichloroethene	- -	0.0061
Tetrachloroethene	- -	0.069
Trichloroethene	- -	0.0024 J
Total TCL VOCs	- -	0.10 J
Total VOC-TICs	- -	0.067 J
Detected SVOCs (ppm)		
2-Methylnaphthalene	- -	0.21 J
Acenaphthene	- -	0.54
Anthracene	- -	0.93
Benzo(a)anthracene	- -	2.5
Benzo(a)pyrene	- -	2.2
Benzo(b)fluoranthene	- -	2.7
Benzo(ghi)perylene	- -	2.1
Benzo(k)fluoranthene	- -	0.96
Bis(2-ethylhexyl)phthalate	- -	0.40
Carbazole	- -	0.44
Chrysene	- -	2.4
Dibenzo(a,h)anthracene	- -	0.61
Dibenzofuran	- -	0.23 J
Di-n-butyl phthalate	- -	0.26 J
Fluoranthene	- -	5.2
Fluorene	- -	0.42
Indeno(1,2,3-cd)pyrene	- -	2.3
Naphthalene	- -	0.20 J
Phenanthrene	- -	3.6
Pyrene	- -	5.1
Total Carcinogenic PAHs	- -	14
Total TCL SVOCs	- -	33 J
Total SVOC-TICs	- -	33 J

TABLE 4
IN-SITU WASTE CHARACTERIZATION ANALYTICAL RESULTS

INTERIM CORRECTIVE MEASURE ADDITIONAL PCB SOIL REMOVAL
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

Notes:

1. Samples were collected by ARCADIS on the date indicated.
2. PCBs = Polychlorinated Biphenyls.
3. TCLP = Toxicity Characteristic Leaching Procedure.
4. VOCs = Volatile Organic Compounds.
5. SVOCs = Semivolatile Organic Compounds.
6. TICs = Tentatively Identified Compounds.
7. * = 50 ppm is the soil cleanup objective for the 2009 ICM, which is also equivalent to the threshold for a Toxic regulated PCB waste and a New York State hazardous waste (6 NYCRR Part 371) for soil that, upon excavation, would become a waste.
8. Samples were analyzed by TestAmerica Laboratories located in Shelton, Connecticut for:
   - Ignitability using United States Environmental Protection Agency (USEPA) SW-846 Method 1030.
   - Corrosivity using USEPA SW-846 Method 9045.
   - Reactive cyanide using USEPA SW-846 Method 9012.
   - Reactive sulfide using USEPA SW-846 Method 9034.
   - TCLP VOCs using USEPA SW-846 Method 1311/8260.
   - TCLP SVOCs using USEPA SW-846 Method 1311/8270.
   - TCLP Metals using USEPA SW-846 Methods 1311/6010/7470.
   - TCLP Organochlorine Herbicides using USEPA SW-846 Method 1311/8151.
   - TCLP Organochlorine Pesticides using USEPA SW-846 Method 1311/8181.
   - PCBs using USEPA SW-846 Method 8082.
   - VOCs using USEPA SW-846 Method 8060.
   - SVOCs using USEPA SW-846 Method 8270.
9. Data qualifiers are defined as follows:
   < - Constituent not detected at a concentration above the reported detection limit.
   B = Compound was found in blank.
   J = Indicates that the associated numerical value is an estimated concentration.
10. ppm = parts per million.
11. Corrosivity/pH is reported in standard units (SU).
12. Ignitability is reported as positive or negative.



LEGEND:

- PROPOSED EXPANSION TO ICM SOIL REMOVAL
- ESTIMATED LIMITS OF >50 ppm PCB – IMPACTED SOIL REMOVAL
- ESTIMATED LIMITS OF >50 ppm PCB IMPACTED SOIL AND VOC/SVOC IMPACTED SOIL REMOVAL
- ESTIMATED LIMITS OF VOC/SVOC IMPACTED SOIL REMOVAL
- (11) REMOVAL AREA NUMBER
- 4' DEPTH OF REMOVAL
- APPROXIMATE VERIFICATION SOIL SAMPLING LOCATIONS (FEBRUARY 2009)
- SAMPLING LOCATION WHERE PCB SOIL CONCENTRATION >50 ppm
- SAMPLING LOCATION WHERE PCB SOIL CONCENTRATION >TAGM 4046 GUIDANCE VALUE (1 ppm SURFACE/10 ppm SUBSURFACE)
- SAMPLING LOCATION WHERE PCB SOIL CONCENTRATION <TAGM 4046 GUIDANCE VALUE
- SAMPLING LOCATION WHERE SOIL SAMPLE WAS SUBMITTED FOR ANALYSIS FOR CONSTITUENTS OTHER THAN PCBs
- AOC 1 AREA OF CONCERN
- HISTORIC AND CLOSED AOC
- LEACHATE PIT
- PROJECTED EXCAVATION CONTOUR FOR 1992 PCB SOIL REMOVAL; NUMBER CORRESPONDS TO DEPTH IN FEET BELOW GRADE (DASHED WHERE INFERRED)

NOTES:

1. BASE MAP ADAPTED FROM A DRAWING ENTITLED "AREA OF CONCERN MAP", FIGURE 1–2, BY ENSR CORPORATION. PISCATAWAY, NJ, AT A SCALE OF 1"=60', DATED 2/14/03.
2. EXISTING SAMPLING LOCATIONS WERE SURVEYED BY ARCADIS BETWEEN FEBRUARY 2004 AND DECEMBER 2008 EXCEPT FOR LOCATIONS VS–P1–S1, VS–P1–S21, VS–P1–S23, VS–P1–S24, AND VS–P1–S37, WHICH ARE BASED ON FIELD TIE–DISTANCE MEASUREMENTS ONLY.
3. PCB=POLYCHLORINATED BIPHENYL.
4. VOC = VOLATILE ORGANIC COMPOUND.
5. TAGM 4046 = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUM (TAGM) TITLED "DETERMINATION OF SOIL CLEANUP OBJECTIVES AND CLEANUP LEVELS", HWR–94–4046 DATED 1994.
6. ICM = INTERIM CORRECTIVE MEASURE.
7. EXCAVATION CONTOUR LINES FOR THE 1992 PCB SOIL REMOVAL HAVE BEEN ADAPTED FROM A DRAWING ENTITLED "PROJECTED EXCAVATION DEPTHS AND LOCATIONS OF ABOVE AND BELOW GROUND UTILITIES", BY LEGGETTE, BRASHEARS & GRAHM, INC., DATED 3/20/91.

0 20' 40'
GRAPHIC SCALE

BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

ICM VERIFICATION SOIL SAMPLING SUMMARY

EXISTING SOIL SAMPLING LOCATIONS AND PROPOSED REVISED SOIL REMOVAL LIMITS

ARCADIS

FIGURE 1

CITY:SYR., NY DIV/GROUP-141 DB:RCB WLJ LD:RCB PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF* PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/7/2009 9:47 AM BY: JONES, WENDY
G:\ENVCAD\SYRACUSE\ACT\B0032305\00010\0007\ICM\DWG\32305B08.DWG LAYOUT: 1 SAVED: 5/7/2009 9:47 AM ACADVER: 17.0S (LMS TECH)
XREFS: 32305X01