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File No. 70613-208

New Jersey Department of Environmental Protection
Bureau of Inspection and Review
401 E. State Street
P.O. Box 420
Mail Code 401-05D
Trenton, New Jersey 08625-0420

Attention: Matthew Turner

Subject: Response to 23 April 2015 NJDEP Correspondence
Ewing Township Industrial Land
1445 Parkway Avenue
Ewing, New Jersey
NJDEP SRP PI 011336

Dear Mr. Turner:

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, Haley & Aldrich, Inc. (Haley & Aldrich) is providing this response to email correspondence received from the New Jersey Department of Environmental Protection (NJDEP) on 23 April 2015. The email message stated the NJDEP had completed an inspection and review of the 19 June 2014 Soil Remedial Investigation Report (RIR) for Ewing Township Industrial Land (Former Delphi Interiors and Lighting Systems Division Facility; Site).

We understand that this review was prompted by a meeting between the NJDEP, a prospective property purchaser and their consultant. Just to clarify, RACER Trust is obligated and only funded, under a bankruptcy settlement between Motors Liquidation Company (MLC; the debtor; the renamed General Motors Corporation), the U.S. Environmental Protection Agency (EPA) and the State of New Jersey dated 20 October 2010, to remediate the site to non-residential criteria. Beyond non-residential site reuse, the prospective developer would be required to be address remedial actions for residential re-use.

Several issues NJDEP identified from its review were outlined in the Word document attached to the email. Mr. Robert Hare (RACER Trust) and Ms. Amy Murphy (Haley & Aldrich), the Licensed Site Remediation Professional (LSRP), spoke with Mr. Matthew Turner on 28 April 2015 to clarify the roles and responsibilities of various stakeholders including NJDEP reviewers, the Responsible Party, LSRP, potential developers, and developers' environmental consultant.

We trust this correspondence provides additional information needed to further support NJDEP's understanding of investigation and remediation of the Site consistent with the October 2010 Settlement Agreement between MLC and the State of New Jersey. Should you have any additional questions or comments, please feel free to contact me at (973) 263-3900.

Sincerely yours,
HALEY & ALDRICH, INC.



Amy K. Murphy, LSRP
Project Manager



David Hagen
Principal Consultant

c: RACER Trust; Attn: Robert Hare, Cleanup Manager

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Delphi Interior & Lighting Systems

PI 011336

General Issues

1. ***NJDEP Comments:*** The most important issue relative to the currently reviewed soil RIR is that delineation and perhaps soil remediation completed has been conducted based upon a future restricted use scenario and application of NRDCSRS. Proposed redevelopment of the former Delphi/GM facility has more recently shifted to the “Parkway Town Center” that includes a mixed residential/commercial/retail scenario with approximately 800 residential units. See the attached June 2013 Lennar developer/RACER Trust document and February 2014 Mercerspace.com article (<http://www.mercerspace.com/news/lennar-to-develop-gm-site-in-ewing/>). If the mixed use redevelopment plan was to move forward, then delineation/remediation to the NRDCSRS is not appropriate. A reevaluation based upon RDCSRS would be necessary and engineering controls to include existing concrete and asphalt (in many cases in poor condition) may not meet the presumptive remedy requirements for residential use.

RACER Response: Investigation and remediation were undertaken at the Site pursuant to the New Jersey Industrial Site Recovery Act (ISRA) and a bankruptcy settlement between Motors Liquidation Company (MLC; the debtor; the renamed General Motors Corporation), the U.S. Environmental Protection Agency (EPA) and the State of New Jersey dated 20 October 2010. Consistent with the October 2010 Settlement Agreement, estimates for cleanup of this Site were based on achieving clean up to non-residential standards. Therefore, delineation and compliance was evaluated using Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS) under the assumption that an Entire Site Soils Only Restricted Use Response Action Outcome (RAO) will be issued by the current Licensed Site Remediation Professional (LSRP – Amy Murphy) for the Site and institutional and/or engineering controls will be implemented to maintain the Site use as non-residential until such time as the property is sold and redeveloped. Subsequent to the property transfer, a new property owner will be responsible for complying with appropriate soil remediation standards (SRS) based on future redevelopment/land use plans.

2. ***NJDEP Comments:*** The current document does not address ground water conditions at the site and as already mentioned, IGWSRS have not been evaluated. This issue may be important due to the potential for vapor intrusion issues and any change to a mixed use future redevelopment.

RACER Response: Preparation of the Groundwater RIR is currently in progress and will be submitted separately from the Soil Remedial Investigation Report (Soil RIR) prior to the May 2016 deadline in accordance with the Remedial Investigation Extension Request granted by NJDEP. The impact to groundwater pathway evaluation will be presented in the Groundwater RIR.

3. ***NJDEP Comments:*** The RIR relies on a previous 2010 agreement to apply NRDCSRS at the site and the use institutional and engineering controls. In many areas the engineering controls are proposed to utilize existing concrete and asphalt cover as well as fences. Review of aerial photos ([http://www.racertrust.org/Properties/PropertyDetail/Delphi Trenton 10090/Pictures 10090](http://www.racertrust.org/Properties/PropertyDetail/Delphi_Trenton_10090/Pictures_10090)) clearly show the existing concrete and asphalt to be in poor condition and unacceptable as an engineering control without repair. It must also be pointed out that testing of the concrete

proposed for use as an engineering control had areas of visual staining and when sampled contained contamination (Cu, Cr+6, Ni, PAHs, PCBs) that would not qualify as a clean cap.

RACER Response: This RIR does not establish engineering controls. The RAR will be drafted to consider the use of the existing fence along the Site boundary as the primary engineering control to limit direct contact exposure for non-residential use. Any future development will address appropriate engineering controls.

PCBs

4. **NJDEP Comments:** Comments related to PCB soil contamination and federal TSCA policy were provided by technical coordinator Christine Lacy upon review of the Revised Remedial Action Workplan in a June 18, 2009 memo to case manager Jacqueline Bobko. Regarding PCBs, the review stated (in NJEMS);

“PCBs – PCB contamination has been proven to be present in numerous AOCs across the site at concentrations above the NJDEP direct contact criteria (.49 ppm). Due to the proposal to leave certain levels of PCBs within onsite soils, GM was required to ensure that the levels to remain are acceptable under EPA regulations, specifically the remediation of PCB contaminated waste under 40 CFR 761 (TSCA).

GM has responded by stating that TSCA regulations will be met by implementing the proposed remediation strategy. Overall low-level PCBs are present across the site up to a maximum of 27 ppm. PCB analysis will be conducted during the post-ex phase in specific areas of concern.

BEERA Comments: This is acceptable. The remaining PCB concentrations will be evaluated when the final remedial report is submitted and as part of the draft deed notice for the site.”

Upon review of the current soil RIR, additional data has been presented and discussions provided that indicate several problems relative to the address of PCBs. PCB data is presented as concentrations of individual Aroclors. As an example, at AOC-9 (pp. 72-73) maximum concentrations are provided of Aroclor 1260 and 1262 at 16 and 63 mg/kg respectively rather than a total of 79 mg/kg. Pursuant to NJDEP and TSCA guidance remedial decisions must be made based on total PCB concentrations.

Although in response to the 2009 review “GM” had responded that TSCA regulations would be met, there is no mention in the current RIR of any evaluation of TSCA requirements. TSCA under 40 CFR 761.61 allows for consideration of self-implementing remedies that would allow for PCBs to remain onsite at varying levels based upon a determination of high and low occupancy. Any areas that would have routine use (>6.7 hours/week) would normally be considered high occupancy and PCBs could only remain with a cap below 10 mg/kg. Low occupancy future use under TSCA (<6.7 hours/week) could leave PCBs onsite with proper institutional and engineering controls as high as 100 mg/kg. With the mixed use proposed redevelopment, the existing delineation to NRDCSRS and capping remediation proposed for PCBs is not in compliance with TSCA. Also note that TSCA policy does not provide any option for compliance and attainment using averaging, so any ProUCL or Spatial Weighted Averaging of PCB data above 1 mg/kg must be reevaluated. The Coordination of NJDEP and USEPA PCB Remediation Policies document available at <http://www.nj.gov/dep/srp/guidance/pcbremediation/> provides further direction regarding PCBs.

RACER Response: The referenced comment exactly stated that “General Motors believes the TSCA regulations will be met by implementing the proposed remediation of soil contaminated with and were met by the remediation historically completed at AOI 2” [AOC-02] regarding a transformer spill that occurred during plant decommissioning between 2000 and 2002. The NJDEP has agreed that the AOC-02 PCB release has been adequately addressed via the self-implementing remediation.

RACER has determined that PCBs in other AOCs, such as in AOC-09, result from pre-1978 releases based on evidence that indicates that the PCB impacted soils were part of the fill material placed in the 1950s during construction of the eastern parking lot. Consequently, RACER has followed the TSCA requirements under 40 CFR 761.50 for PCB remediation conducted in AOC-09 and for other PCBs detected outside of AOC-02.

Ecological Impact

5. **NJDEP Comments:** It was not possible to conduct a component review of the ecological assessments for Gold Run/Pond (AOC-11) and the Southern Drainage Swale (AOC-12) since no ecological assessments have been included in this RIR report. For both of these AOCs it is stated that “Contamination has been adequately delineated both horizontally and vertically with this AOC” and that “A portion of AOC was excavated in 2011; remedial activities will be reported in a future Remedial Action Report.” So the present RIR does not include information from the 2011 remediation or any level of an environmental assessment. Also note that in these AOCs delineation appears to have been conducted to the NRDCSRS when the AOCs clearly include wetland and stream sediments and the sample matrix lists some sediment sample in Table II, pp. 72-75.

It needs to be made clear to the LSRP relative to these pending RARs that ecological screening criteria (<http://www.nj.gov/dep/srp/guidance/ecoscreening/>) rather than NRDCSRS are applicable and that the Ecological Evaluation Technical Guidance document (http://www.nj.gov/dep/srp/guidance/srra/ecological_evaluation.pdf) must be followed where Environmentally Sensitive Natural Resources are involved.

RACER Response: A Baseline Ecological Evaluation (BEE) was prepared for the Site in 2003 and revised to include additional data in 2007. As reported in the initial Receptor Evaluation submitted in 2011, impacted sediment had been identified in Gold Run Pond; however, population-level ecological effects from exposure to contaminants of potential ecological concern (COPECS) are unlikely due to both the limited on-site habitat resources and the presence of higher quality habitat nearby and that additional ecological investigations at the Site are not warranted.

Additionally, based on the Conceptual Site Model detailed in the December 2008 Revised Remedial Action Workplan (RRAW), the contaminated sediment found in Gold Run Pond was thought to be acting as a source for trichloroethene (TCE) groundwater contamination. As part of the remediation conducted in 2011, the pond structure was removed and Gold Run was re-contoured to restore the hydrological profile to the original channel alignment observed in historic aerial photographs. In addition, parts of the Southern Drainage Swale were remediated due to elevated concentrations of select metals and/or polyaromatic hydrocarbons (PAHs).

Naturally Occurring Determination (Section 7.2)

6. ***NJDEP Comments:*** A total of 1080 soil samples have been collected that include analysis of beryllium. The maximum concentration detected was 11 mg/kg with the average being 0.90 mg/kg. Experience with natural background investigations have demonstrated that elevated beryllium does occur in soils in an area from Ewing – Princeton – New Brunswick. The maximum level of 11 mg/kg beryllium at the site is below the 16 mg/kg RDCSRS and since confirmed to be due to natural background and not a discharge, there are no outstanding issues relative to potential impact to ground water. The natural background determination is acceptable for beryllium.

RACER Response: No response required.

Diffuse Anthropogenic Pollution (DAP)

7. ***NJDEP Comments:*** The conclusion provided is that arsenic found in excess of the 19 mg/kg SRS is due to DAP at several AOCs as evidenced by the higher levels of arsenic in the surface soils and a decreasing trend with depth. Review of the site history and aerial photos from 1930 show the clear presence of orchards on roughly 25 acres of the site. The 1930 aerial showed the orchards already thinning out due to age and soil disturbance on much of the rest of the site indicates recently removed orchards (see attached 1930 & 2012 aerials). The argument is made that the lead to arsenic ratio typical associated with historic lead arsenate pesticide application exists in less than 30% of the samples.

The former presence of orchards and the detection of the highest levels of arsenic in surface soils in some AOCs is a clear indication of historic pesticide impact rather than DAP and must be addressed as a discharge with the soil remediation standards applied.

RACER Response: The dataset adjacent to Parkway Avenue was compared to SRS as shown on Figure 6B provided in the RIR. The arsenic in this area, whether a result of DAP or historic pesticide use, is horizontally and vertically delineated as established in the RIR. Remedial options for these impacts will be considered in the RAR and will likely consider the existing fence along the Site boundary as a primary engineering control to limit direct contact exposure to arsenic in this area.

Compliance Averaging 95% UCL

8. NJDEP Comments:

- 1) Based on the review of 95% UCL calculations, the LSRP did not determine the data distribution prior to choosing a statistical model to estimate 95% UCLs. Instead, the LSRP used all statistical models including non-parametric models that are incorporated in ProUCL 5.0 software package for calculating 95% UCLs for a given data set. Using all models for each contaminant of concern generated multiple values of 95% UCLs for each contaminant. Therefore, it became a time consuming and cumbersome task to determine which of the 95% UCLs was the right one. Furthermore, using every statistical model that is given in ProUCL 5.0 generated pages and pages of output. In addition, any area of concern that is greater than 2 acres was divided into sub-areas. That created several data sub-sets and enormous numbers of 95% UCLs.

RACER Response: The UCL values recommended by the software were used. In cases where multiple UCLs values were recommended, the highest values were selected. It is standard practice to allow ProUCL to derive UCLs based on all data distributions, as the software then recommends a UCL value to use, based on the distribution of the data and other factors. This provides a less biased interpretation of the data.

NJDEP Comments:

- 2) The report does not provide data sets (input data) that were used to calculate 95% UCLs with the results (output) for any of the contaminants detected above the NRDCSRS. Therefore, it is very time consuming and difficult to verify the results of any of the calculations for a given contaminant. Without known input data that was used to estimate 95% UCLs for each contaminant, the review became a futile exercise.

RACER Response: The soil data for each AOC has been provided as part of the Soil RIR submittal and the ProUCL outputs were provided in Appendix H.

NJDEP Comments:

- 3) More than one sample was collected from each boring and samples were divided into surface and subsurface samples. Instead of using the highest sample from each boring to calculate the UCLs of means, the LSRP used all samples that were collected from a soil boring. That created multiple data sets for each contaminant. It seems that the LSRP used the mixture of vertical and horizontal delineation soil samples for the calculations. Mixing horizontal and vertical delineation data to calculate 95% UCLs for the compliance averaging is not acceptable. The accuracy of the results (output) depends on the selection of a right model and correct input data. (for more information see http://www.nj.gov/dep/srp/guidance/#attainment_comp)

RACER Response: The requirement to use the highest results from each boring only applies to the spatially-weighted averaging technique. As such, A.2.1.4 of the attainment/compliance technical guidance states for the ProUCL calculations that “All data necessary for delineation within a given functional area and vertical zone(s) are utilized in the evaluation.”

NJDEP Comments:

- 4) The LSRP did not follow recommendations and suggestions of the ProUCL version 5.0 User Guidance document about the minimum number of observations (samples), the minimum number of distinct detected (non zero) data points and number of non-detected (zero) data points required for using ProUCL 5.0 to calculate 95% UCLs. The Guidance document indicates that each data set must have a minimum number of 8-10 distinct data points (observations) and percentage of left censored (non-detected) data points have to be 25% or less. For example, LSRP used data sets that had less than 10 data points and zero number of distinct data points to calculate 95% UCLs. In addition, the LSRP calculated 95% UCLs for the data set that had more than 50% left censored data points. Therefore, the accuracy and reliability of the results are questionable.

RACER Response: ProUCL will calculate a UCL with as few as 4 data points, and will not calculate a UCL if there is only 1 detect, regardless of the number of values in the data set. The ProUCL user's guide recommends (but does not require) a minimum of 10 data points for each type of statistical analysis that can be performed with the software. The attainment/compliance technical guidance states (section A.2.0) “The use of the software application ProUCL is suggested. Statistics manuals provide recommendations for minimum number of samples needed for this type of analysis. Too few samples may result in an unrealistically high estimate

and may call the validity of the analysis into question. Therefore, a minimum of 10 samples are required for the use of the 95 percent UCL.” Note that is indicates that fewer than 10 samples can provide high estimates of the UCL. High estimates of the UCL only interject a conservative bias.

That said, in cases where there were fewer than 10 samples, the arithmetic mean was used as the compliance statistic, per attainment/compliance technical guidance section A.1 (UCLs were still calculated and presented, but were not used to determine compliance).

NJDEP Comments:

- 5) Due to above listed deficiencies, 95% UCLs that were calculated for compliance averaging of the contaminants that were detected above the NRDCSRS at the site are questionable.

RACER Response: It is the professional opinion of the LSRP that the methodology presented in the Soil RIR to evaluate compliance with NRDCSRS is in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:26E) and based on the Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria (NJDEP, 2012).

Spatially Weighted Averaging

9. *NJDEP Comments:*

- 1) Spatially weighted averaging was conducted for compliance with the NRDCSRS and utilized 2 acre sized functional areas. This approach is acceptable for a site where the current and future use is to remain non-residential; additionally, this approach requires that a Deed Notice be implemented.

The RIR contains development plans that indicate that at least portions of the site are being developed for residential use. For these areas, as per the Attainment Guidance document, the functional areas must be a $\frac{1}{4}$ in size for contaminants whose cleanup standard is based on the ingestion pathway, and $\frac{1}{2}$ acre in size for contaminants with a cleanup standard based on the inhalation pathway.

The applicant must ensure that the spatially weighted averaging is conducted with the appropriate sized Functional Areas given the site projected re-use (residential and non-residential) as per the guidance.

RACER Response: As indicated above, RACER is responsible to remediate the Site to non-residential standards. Compliance was evaluated using NRDCSRS under the assumption that an Entire Site Soils Only Restricted Use RAO will be issued by the current LSRP for the Site and institutional and/or engineering controls will be implemented to maintain the Site use as non-residential until such time as the property is sold and redeveloped.

NJDEP Comments:

- 2) Spatially weighted averaging was conducted in AOC 01A for Aroclor 1260. This is inappropriate. It is the NJDEPs understanding that USEPA Region 2 does not allow spatially weighted averaging for PCBs subject to TSCA (> 1 ppm). As this remediation must comply with Federal regulations, it must comply with TSCA.

RACER Response: RACER has followed and complied with the applicable TSCA requirements under 40 CFR 761.50.

NJDEP Comments:

- 3) Better maps are needed that depict **each Functional Area**, the corresponding polygons, and sample points with sample IDs; and a Table listing sample IDs and concentrations.

Response: Functional area maps are provided in Appendix H (pp. 2047-2049). The Technical Requirements do not require submittal of GIS deliverables to recreate the polygons.

NJDEP Comments:

- 4) The Attainment Guidance document clearly states (pg. A-9 section A3.0) that “complete horizontal and vertical delineation using single point compliance, is required for completion of the RI.” The RIR must clearly identify, through figures/tables, the sample points that are being utilized to establish horizontal and vertical delineation for the sample locations that have concentrations above their respective standards within each functional area.

Racer Response: In June 2013, NJDEP issued a Policy Statement regarding the Site Remediation Reform Act (SRRA) requirement to complete the remedial investigation of the entire contaminated site before May 7, 2014 (N.J.S.A. 58:10C-27a(3)). In order for the Department to consider the remedial investigation complete, the following must be determined:

- (1) The nature and extent of a discharge of a contaminant both on and off site;
- (2) The impacts and potential impacts to receptors presented by the discharge; and
- (3) The need for a remedial action, and, if one is necessary, collection of information to support the evaluation of possible remedial actions.

It is the professional opinion of the LSRP that these requirements have been met with submittal of the Soil RIR.

NJDEP Comments:

- 5) GIS Deliverables. The RIR did not contain the appropriate GIS deliverable to allow the NJDEP to recreate the Thiessen polygons and verify the accuracy of the spatially weighted average calculation. Please find below a listing of the deliverables required. It is recommended that Delphi submit the deliverables for a single functional area for the NJDEP to review to ensure they are correct, prior to submitting the GIS deliverables for all functional areas.

Racer Response: As per the Technical Requirements for Site Remediation (N.J.A.C 7:26E) a GIS compatible site plan including the site boundaries and the location of all areas of concern as polygons was provided with the Soil RIR in Appendix G (provided on compact disc). The Technical Requirements do not require submittal of GIS deliverables to recreate the Thiessen polygons.

Thiessen Polygons – data deliverable requirements

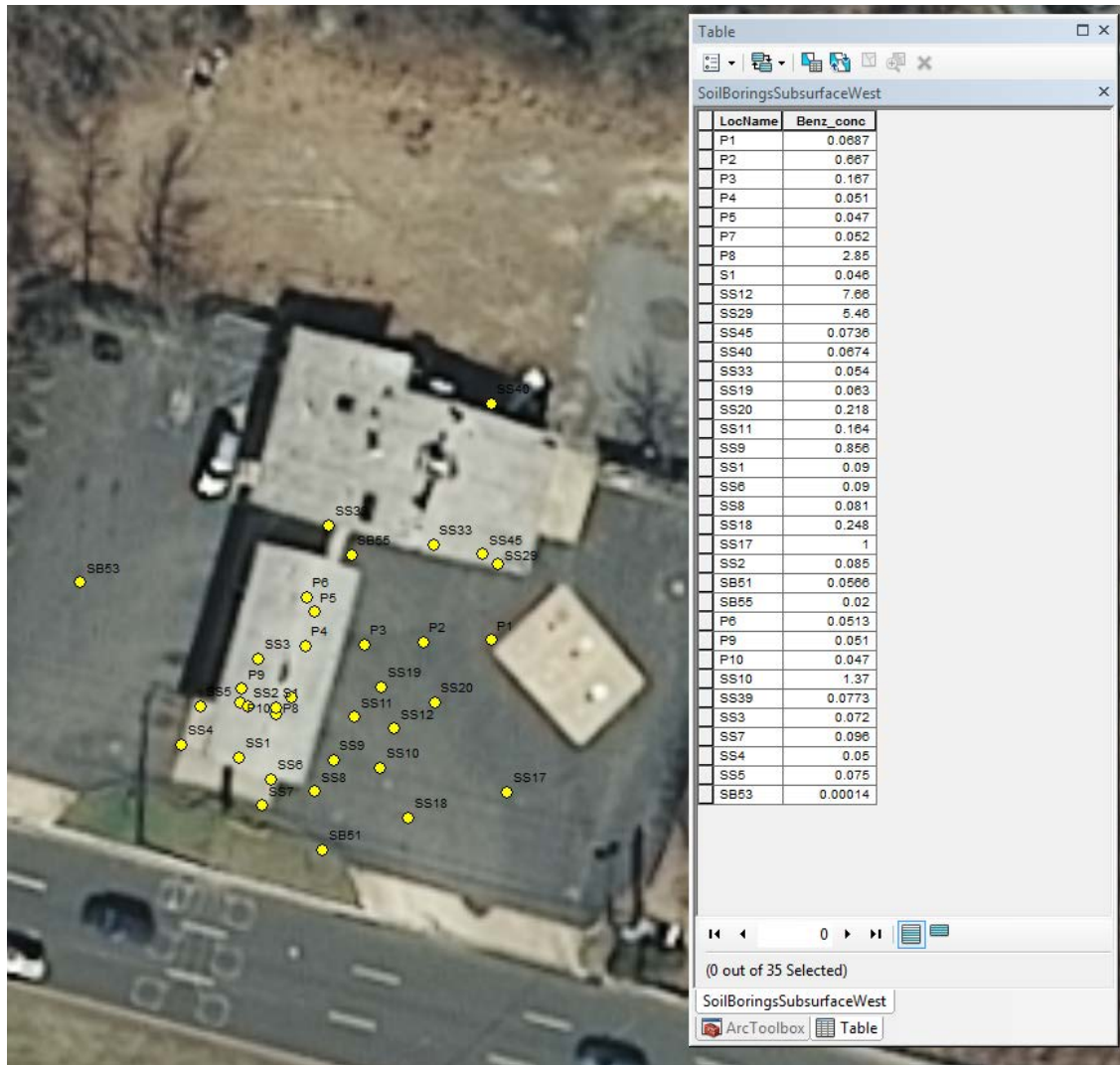
10. NJDEP Comments:

- 1) For each functional area, we need the shape file containing the input data (including location names and concentrations – see screen shot example on pg. 3 below) of that area.

Note that shapes files consist of three separate files that have the following extensions: .shp, .shx, and .dbf

- 2) The sample points with sample name, state plane coordinates (x and y coordinates), and analytical results.

- 3) We also need a shape file containing an outline of all of the functional areas.
- 4) GIS files containing any internal areas (such as building footprints and stream channels) that were excluded from the Thiessen polygons.
- 5) An Excel spreadsheet containing all calculations used in producing the final results.



Racer Response: As noted the Technical Requirements do not require submittal of detailed GIS calculations to recreate the Thiessen polygons.