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The Trusted Integrator for Sustainable Solutions

REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

May 20, 2014

Mr. Angel Rodriguez, On-Scene Coordinator
U.S. Environmental Protection Agency
Response and Prevention Branch
Caribbean Environmental Protection Division, Region II
1492 Peñuelas De Leon Ave., Suite 417
San Juan, PR 00907-4127

EPA CONTRACT No.: EP-W-06-072

TDD No.: TO-0029-0122

DOCUMENT CONTROL No.: RST 2-02-F-2690

**SUBJECT: PHASE IIIC REMOVAL ASSESSMENT SAMPLING TRIP REPORT –
PUERTO RICO OLEFINS ASBESTOS SITE, PEÑUELAS, PUERTO RICO**

Dear Mr. Rodriguez,

Enclosed please find the Phase IIIC Removal Assessment Sampling Trip Report for the wipe sampling activities conducted on January 2 and 3, 2014 at background locations up to six miles away from the Puerto Rico Olefins Asbestos Site located in Peñuelas, Puerto Rico. If you have any questions or comments, please do not hesitate to contact me at (787) 354-2489.

Sincerely,

Weston Solutions, Inc.

for Carlos Huertas
RST 2 Site Project Manager

Enclosure

cc: TDD File No.: TO-0029-0122

**PHASE IIIC REMOVAL ASSESSMENT
SAMPLING TRIP REPORT
PUERTO RICO OLEFINS ASBESTOS SITE
PEÑUELAS, PUERTO RICO**

Prepared for:

U.S. Environmental Protection Agency
Region II – Response and Prevention Branch
Edison, New Jersey 08837

Prepared by:

Removal Support Team 2
Weston Solutions, Inc.
East Division
Edison, New Jersey 08837

DC No.: RST 2-02-F-2690
TDD No.: TO-0029-0122
EPA Contract No.: EP-W-06-072

May 2014

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PHASE IIIC REMOVAL ASSESSMENT SAMPLING TRIP REPORT

SITE NAME: Puerto Rico Olefins Asbestos Site –
(Background Locations)

DC No.: RST 2-02-F-2690

TDD No.: TO-0029-0122

SAMPLING DATES: January 2 and 3, 2014

1. Site Location: Peñuelas, Puerto Rico (17°59'49.37"N / 66°43'10.17"W)
Refer to Attachment A, Figure 1: Site Location Map.

2. Sample Descriptions: 13 wipe samples, including one field blank. Refer to Attachment A, Figure 2: Background Wipe Sample Location & Validated Analytical Results Map and Attachment B, Table 1: Sample Collection Information and Validated Analytical Data Summary.

3. Laboratory Receiving Samples:

Lab Name/Location	Sample Type	Parameters
EMSL Analytical, Inc. 200 Route 130 North Cinnaminson, NJ 08077	Wipe	Asbestos

4. Sample Dispatch Data:

On January 3, 2014, Weston Solutions Inc., Removal Support Team 2 (RST 2) shipped 13 wipe samples, including one field blank, to the EMSL Analytical, Inc. laboratory located in Cinnaminson, New Jersey for asbestos analysis under Chain of Custody (COC) Number (No.) 2-010314-111646-0013 and FedEx Airbill No. 804298939030. Refer to Attachment C: Chain of Custody Record and FedEx Airbill.

5. Personnel On Site:

<u>Name</u>	<u>Representing</u>	<u>Duties On-Site</u>
Angel Rodriguez	U.S. EPA, Region II	On-Scene Coordinator
Geoffrey Garrison	U.S. EPA, Region II	On-Scene Coordinator
Angel Rivera	Puerto Rico Environmental Quality Board	Regional Director
Carlos Huertas	RST 2, Region II	Site Project Manager, Field Coordinator, Site Health and Safety, Sample Collection and Sample Management
Emilio Betancourt	RST 2, Region II	Sample Collection and Sample Management
Joel Petty	RST 2, Region II	Sample Collection, Site QA/QC and Sample Management

6. Site Background:

The Puerto Rico Olefins Asbestos Site (the Site) is located at Road 385, KM 5.4, Tallaboa, Poniente Peñuelas, Puerto Rico. During a visual inspection, the U.S. Environmental Protection Agency (EPA) identified fugitive dust clouds migrating out of the facility during demolition activities conducted by HOMECA Inc. Beginning in 2010 and continuing until the present, an asbestos abatement occurred at the Site. Improper asbestos abatement techniques may have been used at the Site resulting in potential asbestos contamination throughout the Site and in residential neighborhoods downwind of the Site.

On November 21, 2013, as part of Phase I of the Removal Assessment, the EPA On-Scene Coordinator (OSC), EPA Air Program representative, and RST 2 mobilized to the Site to perform multi-media sampling. As directed by the EPA OSC, RST 2 collected five bulk samples, including one field duplicate, four soil samples, including one field duplicate, and 10 wipe samples, including one wipe blank. Bulk samples were collected and submitted for asbestos analysis via EPA 600/R-93/116 Method using Polarized Light Microscopy (PLM). Soil samples were collected and submitted for asbestos analysis via modified EPA 600/R-93/116 Method using Transmission Electron Microscopy (TEM) with California Air Resource Board (CARB) 435 prep. Wipe samples were collected and submitted for asbestos analysis via American Society for Testing Materials (ASTM) 6480-05 Method. Samples were collected from outside areas where suspected asbestos contamination may have occurred and inside areas where asbestos may have entered the building.

On December 13, 2013, as part of Phase I of the Removal Assessment, the EPA OSC and RST 2 remobilized to the Site to collect two additional bulk samples. The additional bulk samples were collected from two specific locations as directed by the EPA OSC. The two bulk samples were collected and submitted for asbestos analysis via EPA 600/R-93/116 Method using PLM. Samples were collected from outside areas where suspected asbestos contamination may have occurred.

Based on the validated analytical results of the samples collected as part of Phase I of the Removal Assessment, asbestos was detected in bulk samples ranging from non-detect to 40 percent (%) amosite and 20% chrysotile, in soil samples ranging from 3 amosite/chrysotile asbestos structures to 9 amosite/chrysotile asbestos structures, and in wipe samples ranging from 7,760 structures per square centimeter (str/cm²) to 374,000 str/cm². The two additional bulk samples collected on December 13, 2013 were both non-detect for asbestos. The wipe blank sample was non-detect for asbestos.

On December 4 and 5, 2013, as part of Phase II of the Removal Assessment, the EPA OSC and RST 2 mobilized to the Jorge Lucas Perez Valdivieso School, located approximately 0.25 miles south of the Site, to conduct air sampling activities within classrooms identified by the EPA OSC. The school is separated into two areas referred to by RST 2 as Area 1 and Area 2. The two separate areas are separated by a road way. As directed by the EPA OSC, RST 2 established three air sampling stations within eight of the schools classrooms (CR01 through CR08). Air samples were collected from each of the established air sampling stations within each classroom but per the request of the EPA OSC only one of the air samples from each of the classrooms was submitted for asbestos analysis.

On December 5, 2013, as part of Phase II of the Removal Assessment, RST 2 shipped 11 air samples, including two lot blanks and one field blank, to the EMSL Analytical, Inc. laboratory for asbestos analysis via Method ISO 10312 - International Standard for the Determination of Asbestos Fibers - Direct Transfer. Per the request of the EPA OSC, on December 13, 2013, RST 2 shipped the additional two air samples collected on December 4, 2013 from classroom CR01 to the EMSL Analytical, Inc. laboratory for asbestos analysis via Method ISO 10312 - International Standard for the Determination of Asbestos Fibers - Direct Transfer.

Based on the validated analytical results of the samples collected as part of Phase II of the Removal Assessment, chrysotile asbestos was detected in eight of the 10 field air samples submitted for asbestos analysis. The total number of asbestos structures in the positive detections ranged between 2 and 25. The reported concentrations in the positive detections ranged between 0.0004 structures per cubic centimeter (s/cc) and 0.0032 s/cc.

On December 12 and 13, 2013, as part of Phase IIIA of the Removal Assessment, the EPA OSC and RST 2 mobilized to the Jorge Lucas Perez Valdivieso School to perform wipe sampling within the classrooms of the school. The areas identified in each classroom to be sampled were the entrance, near a window, and the dustiest area in the room. A total of 90 wipe samples, including five field blanks and one lot blank, were collected from 28 classrooms (CR01 through CR29, excluding CR27). Classroom CR27 and some other general areas of the school were not sampled due to the fact that the areas were not accessible or as directed by the EPA OSC. Wipe samples were collected and submitted for asbestos analysis via ASTM 6480-05 Method.

Based on the validated analytical results of the samples collected as part of Phase IIIA of the Removal Assessment, asbestos was detected in wipe samples ranging from non-detect to 363,000 str/cm². The wipe blank samples were non-detect for asbestos.

On December 17 through 19, 2013, as part of Phase IIIB of the Removal Assessment, the EPA OSC and RST 2 mobilized to the Tallaboa Encarnación Community to perform wipe sampling on the exterior of several properties. As directed by the EPA OSC, the area identified to be sampled had to be exposed to ambient air, but not exposed to rain or had not been cleaned recently. A total of 27 wipe samples, including two field blanks, were collected from 24 properties (P0005 through P0028). Wipe samples were collected and submitted for asbestos analysis via ASTM 6480-05 Method.

Based on the validated analytical results of the samples collected as part of Phase IIIB of the Removal Assessment, asbestos was detected in wipe samples from non-detect to 32,200,000 str/cm². The wipe blank samples were non-detect for asbestos.

As part of Phase IIIC of the investigation, RST 2 was tasked with conducting wipe sampling at background locations up to six miles away from the Site.

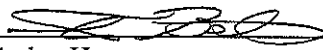
7. Phase IIIC Removal Assessment Summary:

On January 2 and 3, 2014, as part of Phase IIIC of the Removal Assessment, the EPA OSC, RST 2, and the Puerto Rico Environmental Quality Board (EQB) mobilized to background locations, selected by the EPA OSC, at different distances and directions from the Site. As directed by the EPA OSC, the area identified to be sampled had to be exposed to ambient air, but not exposed to rain or have not been cleaned recently. A total of 13 wipe samples, including one field blank, were collected from 12 properties (P0029 through P0040). Properties P0029 through P0032 were located over five miles northwest of the Site; properties P0033 through P0036 were located over one mile north of the Site; and properties P0037 through P0040 were located over two miles southeast of the Site. Wipe samples were collected and submitted for asbestos analysis via ASTM 6480-05 Method. Refer to Attachment D for the Photographic Documentation Log for the Phase IIIC Removal Assessment sampling event.

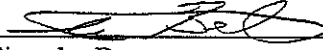
Surface dust samples were collected from areas where suspected asbestos contamination may have occurred (*i.e.*, exposed to ambient air, but not exposed to rain or have not been cleaned recently), utilizing dedicated Ghost WipesTM. Samples were collected following the general guidance within the HUD Guidelines, Chapter 5: Risk Assessment. Each sample was collected from a 10 cm by 10 cm square (100 cm²) area utilizing EPA Environmental Response Team (ERT) Standard Operating Procedure (SOP) Nos. 2001, General Field Sampling Guidelines and 2011, Chip, Wipe, and Sweep Sampling, as well as NIOSH Method 9100, as guidance.

8. Analytical Discussion:

Based on the validated analytical results of the samples collected as part of Phase IIIC of the Removal Assessment, asbestos was detected in wipe samples ranging from non-detect to 160,000 str/cm². The wipe blank sample was non-detect for asbestos. Refer to Attachment B, Table 1: Sample Collection Information and Validated Analytical Data Summary.

Report prepared by: 
for Carlos Huertas
RST 2 Site Project Manager

Date: 5/20/14

Report reviewed by: 
Timothy Benton
RST 2 Operations Manager

Date: 5/20/14

ATTACHMENT A

Figure 1: Site Location Map

Figure 2: Background Wipe Sample Location & Validated Analytical Results Map



Legend



Site Location

0 0.05 0.1 0.2 0.3 0.4
Miles



Weston Solutions, Inc.
East Division

In Association With
H & S Environmental, Inc.,
Scientific and Environmental Associates, Inc.
and Avatar Environmental, LLC.

Figure 1 Site Location Map

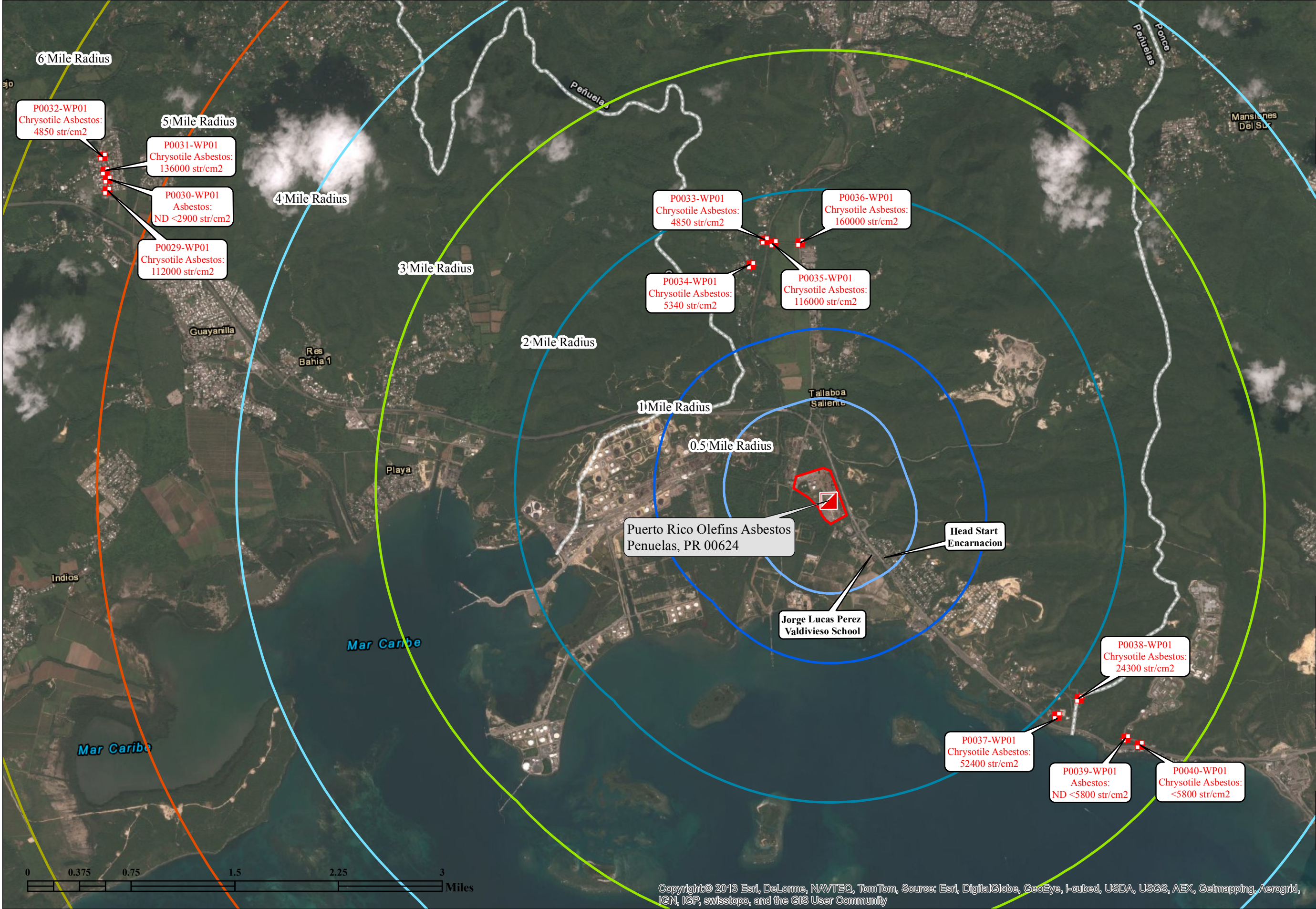
**Puerto Rico Olefins Asbestos
Penuelas, Puerto Rico**

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-09-071

GIS ANALYST: T. BENTON
EPA OSC: A. RODRIGUEZ
RST SPM: J. RODRIGUEZ
FILENAME: SITE_MAP.MXD

RX 7

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SCALE
1:42,000

LEGEND

Background Wipe Location

Site Boundary

0.5 Mile Radius

1 Mile Radius

2 Mile Radius

3 Mile Radius

4 Mile Radius

5 Mile Radius

6 Mile Radius

Note: Due to excessive particulate the analytical sensitivity of 260 str/cm² as required by the method was not reached.

Figure 2: Background Wipe Sample Location & Validated Analytical Results Map

Puerto Rico Olefins Asbestos Site
Penuelas, Puerto RicoUNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072Weston Solutions, Inc.
In Association With
Avatar Environmental, LLC,
H & S Environmental, Inc. and
Scientific and Environmental Associates, Inc.,

GIS ANALYST:	T. BENTON
EPA OSC:	A. RODRIGUEZ
RST 2 SPM:	C. HUERTAS
FILENAME:	Background Map.mxd
FIGURE:	1
REVISION:	1
DATE MODIFIED:	1/6/2014

ATTACHMENT B

Table 1: Sample Collection Information and Validated Analytical Data Summary

Table 1: Sample Collection Information and Validated Analytical Data Summary
 Puerto Rico Olefins Asbestos Site
 Peñuelas, Puerto Rico
 January 2 and 3, 2014

Sample No.	Sample Area	Area Surface	Sample Location	Sample Date	Sample Time	Matrix	Collection	Analysis	Sample Type	Asbestos Type	Asbestos Structures	Sensitivity * (str/cm ²)	Concentration (str/cm ²)
P0029-WP01-01	Top of Light	Metal	Porch	1/2/2014	12:09	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	23	4,850	112,000
P0030-WP01-01	Lid Under House	Metal	Garage	1/2/2014	12:29	Wipe	Grab	Asbestos - TEM	Field Sample	None Detected	<2.99	970	<2,990
P0031-WP01-01	Top of Wall	Concrete	Top of Wall	1/2/2014	12:43	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	28	4,850	136,000
P0032-WP01-01	Pan	Metal	Laundry Storage	1/2/2014	12:57	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	5	970	4,850
P0033-WP01-01	Washing Machine	Metal	Outside Garage	1/2/2014	13:38	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	5	970	4,850
P0034-WP01-01	Porch Ledge	Concrete	Balcony Wall	1/2/2014	13:50	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	11	485	5,340
P0035-WP01-01	Traffic Barrier	Metal	Road 384 km 3.2	1/3/2014	09:10	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	24	4,850	116,000
P0036-WP01-01	Seat	Concrete	Bus Stop	1/3/2014	09:21	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	33	4,850	160,000
P0037-WP01-01	Pressure Tank	Metal	Pool Area	1/3/2014	10:24	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	27	1,940	52,400
P0038-WP01-01	Wall Vent	Concrete	Garage	1/3/2014	10:51	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	5	4,850	24,300
P0039-WP01-01	Traffic Barrier	Metal	Jail Road	1/3/2014	11:21	Wipe	Grab	Asbestos - TEM	Field Sample	None Detected	<2.99	1,940	<5,800
P0040-WP01-01	Traffic Barrier	Metal	Jail Road	1/3/2014	11:33	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	<2.99	1,940	<5,800
FB-010213	NA	NA	NA	1/2/2014	12:05	Wipe	Grab	Asbestos - TEM	Field Blank	None Detected	<2.99	NA	NA

* Due to excessive particulate the analytical sensitivity of 260 str/cm² as required by the method was not reached.

NA - Not Applicable

TEM - Transmission Electron Microscopy

str/cm² - Structures per Square Centimeter

ATTACHMENT C

Chain of Custody Record and FedEx Airbill

PC# 0084577

CHAIN OF CUSTODY RECORD

Site #: 0029-0122

Contact Name: Smita Sumbaly

Contact Phone: 732-585-4400

No: 2-010314-111646-0013

✓ **color** #

ab: **WMS**

Lab Phone: 800-220-3675

22/07/70

[illegible]

RECEIVED
FBI
MINNAPOLIS, MINN.

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSolutions.com

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

[illegible]

②

ATTACHMENT D

Photographic Documentation Log

**Photographic Documentation Log
Puerto Rico Olefins Asbestos Site
Peñuelas, Puerto Rico
January 2 and 3, 2014**



Photo 1: Sample P0029-WP01-01. Sample collected at the exterior of property P0029.

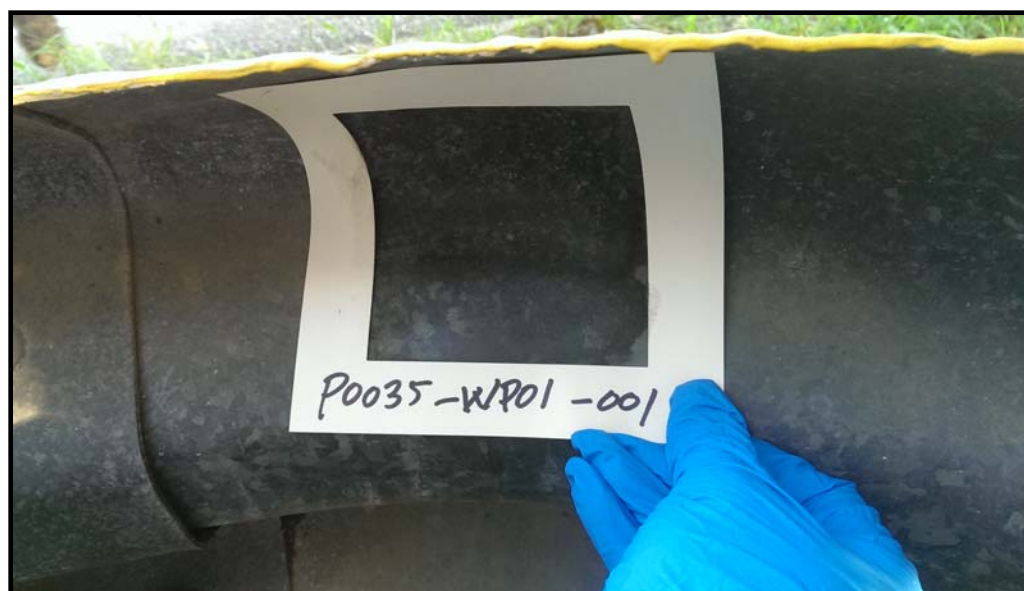


Photo 2: Sample P0035-WP01-01. Sample collected at the traffic barrier on Road 384, kilometer 3.2.

**Photographic Documentation Log
Puerto Rico Olefins Asbestos Site
Peñuelas, Puerto Rico
January 2 and 3, 2014**

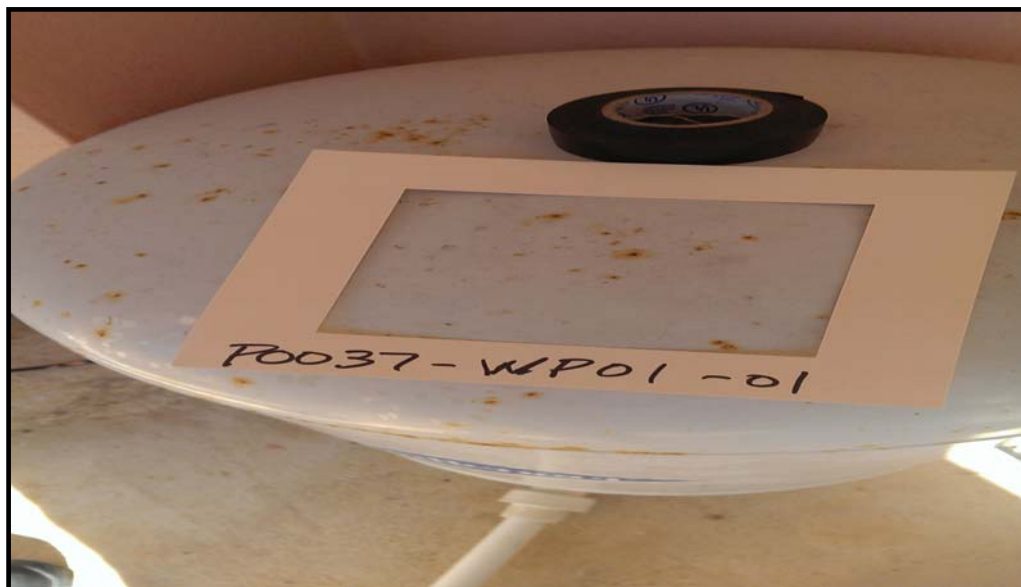


Photo 3: Sample P0037-WP01-01. Sample collected at the exterior of property P0037.



Photo 4: Sample P0038-WP01-01. Sample collected at the exterior of property P0038.