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JUL 05 2011

Mr. George Woodward
Liberty Tire Recycling, LLC
9675 Range Line Road
Port St. Lucie, FL 34987

FL DEP
WEST PALM BEACH

**RE: SITE ASSESSMENT REPORT
LIBERTY TIRE RECYCLING, LLC (FORMERLY FLORIDA TIRE RECYCLING, INC.)
9675 RANGE LINE ROAD, PORT ST. LUCIE, FLORIDA**

Dear Mr. Woodward:

Golder Associates Inc. (Golder) has prepared this Site Assessment Report (SAR) summarizing site investigation activities performed at the Liberty Tire Recycling (Liberty Tire) facility in Port St. Lucie, Florida. The purpose of the investigation was to assess potential contamination related to two fires (August and October 2010) that occurred in piles of shredded tires stored at the southwest portion of the property.

BACKGROUND AND PURPOSE

The site is an active tire recycling facility located at 9675 Range Line Road, Port St. Lucie, Florida (Figure 1). On August 31, 2010, a fire ignited near the southwest corner of the facility in the main shredded tire storage area. The fire was contained on September 1, 2010 and additional water was applied to the area to cool tire material through September 3, 2010. During fire-fighting activities, run-off water entered the neighboring property to the west, currently used for cattle ranching. Berms constructed to contain run-off were not completed until September 2, 2010 due to safety considerations and access restrictions during active fire-fighting activities. Liberty Tire contracted Hydrologic Associates USA, Inc. (HAU) to install absorbent material to mitigate impacts associated with run-off along the property boundary on September 2 and 3, 2010.

On October 6, 2010, a second fire ignited in the main shredded tire storage area. High winds spread the fire quickly and ignited an adjacent pile of heavy and off-road equipment tires. The fire was extinguished on the night of October 6, 2010 and additional water was applied to the material until the afternoon of October 7, 2010. Although run-off water in the main shredded tire storage area was contained by berms constructed during the August 31, 2010 fire, water was observed flowing offsite to a ditch along the south border of the heavy and off-road equipment tire pile. Since the occurrence of the second fire, Liberty Tire has removed fire-damaged material from the location.

Golder mobilized to the site on February 3 and 4, 2011 to collect soil, surface water and groundwater samples to identify constituents of concern (COCs) for the next phase of assessment work. Based on Golder's findings and results of HAU's sampling, Golder performed additional assessment activities on May 4 through May 6, 2011 to install monitoring wells and to collect soil and groundwater samples, as depicted in Figure 2. Follow-up delineation and confirmation sampling was performed on June 14, 2011.

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PRELIMINARY INVESTIGATION ACTIVITIES

Soil Screening and Sampling

A soil, surface water and groundwater investigation was conducted in February 2011 to characterize potential impacts in suspected soil source areas in the southwest corner of the property, as well as immediately west of the property boundary. Borings were advanced to approximately 4 feet below ground surface (bgs), the approximate depth of the water table across the site, to collect soil samples from five boring locations (see Figure 3). Soil samples were collected at the following intervals; 0-0.5 feet bgs, 0.5-2 feet bgs, and 2-4 feet bgs, and field screened for volatile organic compounds (VOCs) using an organic vapor analyzer (OVA). Soil samples were submitted to a National Environmental Laboratory Accreditation Conference (NELAC) certified laboratory for analysis of VOCs by Environmental Protection Agency (EPA) Method 8260, semivolatile organic compounds (SVOCs) by EPA Method 8270, total recoverable petroleum hydrocarbons (TRPH) by the Florida PRO (FL PRO) Method, and the Target Analyte List of metals, plus titanium, by EPA Method 6010. The samples from the upper two intervals (0- 0.5 feet bgs and 0.5-2 feet bgs) were analyzed while the 2-4 feet bgs samples were placed on hold. After review of the results, certain deeper samples were analyzed for a limited scope of constituents of concern to evaluate the potential vertical extent of impacts. Soil screening and sampling logs are included in Attachment A.

Results indicated that only one soil boring location contained constituents in soil that exceeded Florida Department of Environmental Protection (FDEP) commercial/industrial soil cleanup target levels (SCTLs). TRPHs were detected at boring GSB-3 0-0.5' bgs (4,700 mg/kg), at a concentration greater than the SCTL value of 2,700 mg/kg. In the same sample, benzo(a)pyrene was detected at a concentration of 1.2 mg/kg, greater than the SCTL of 0.7 mg/kg and the benzo(a)pyrene toxicity equivalent quotient (TEQ) was calculated at 1.5 mg/kg, greater than the benzo(a)pyrene TEQ value of 0.7 mg/kg. Soil screening locations are presented on Figure 3. A summary of detections in soil is presented in Table 1 and the benzo(a)pyrene TEQ calculation summary is presented in Table 2.

Surface Water Sampling

Surface water samples were collected from four locations (GSW-1, GSW-2, GSW-3, and GSW-4), located in the southwestern corner of the property. Surface water sample GSW-1 was collected from an onsite drainage ditch to the north and east of the former scrap tire piles. GSW-2 was collected from a pool of standing water within the footprint of the former scrap tire piles. GSW-3 was collected from the drainage ditch directly south of the former scrap tire piles and GSW-4 was collected from the small irrigation pond on the adjacent property west of the former scrap tire piles. Surface water samples were submitted to the laboratory to be analyzed for the same constituents as the soil samples. For surface water samples collected from surface water features located on the facility property, no constituents were detected at concentrations greater than the Class V surface water standards. For surface water samples collected from sampling locations GSW-3 and GSW-4 on the adjacent ranch property, only zinc (8,900 µg/L) was detected in the sample from GSW-3 at a concentration greater than the Class V commercial/industrial surface water standard of 1,000 µg/L. In May 2011, an excavation of the surface of the southern ditch banks was performed by Liberty Tire, and Golder returned to the property on June 14th, 2011 to perform follow-up confirmation sampling at GSW-3. Laboratory results indicated that following excavation activities, zinc was reported at a concentration of 196 µg/L, which does not exceed the Class V surface water standard of 1,000 µg/L. Surface water sampling locations are presented on Figure 3 and the summary of surface water detections is presented in Table 3.

Groundwater Sampling

During the preliminary assessment, one temporary piezometer was installed on the offsite property west of the southwest corner of the property boundary. The piezometer was constructed of 1-inch diameter Schedule 40 polyvinyl chloride (PVC) casing flush threaded (w/o-ring) to a 0.01-inch slot size Schedule 40 PVC screen. The 5-foot long well riser and 5-foot long screen were connected with flush-threaded joints and installed to 7 feet bgs. Annular space between the borehole wall and the well screen was filled with 20/30 grade silica sand filter pack from the bottom of the borehole to the top of the well screen. The

piezometer was developed by purging a sufficient volume to clear fines from the surrounding formation and to reduce turbidity in the groundwater sample. Additionally, water quality parameters including; pH, specific conductance (SC), temperature, turbidity, dissolved oxygen (DO), and oxidation reduction potential (ORP), were measured using calibrated electronic water quality equipment (i.e., YSI 556 MPS and Hach 2100P) and recorded in the field. The groundwater sample was submitted for laboratory analysis of constituents listed above for soil and surface water samples.

Groundwater collected from the temporary piezometer GPZ-1, contained some common naturally-occurring metals (aluminum, arsenic, iron and thallium) that exceeded GCTLs. The piezometer location is presented on Figure 3 and the results of detections are summarized in Table 4. These constituents were likely elevated because the temporary piezometer produced samples with higher turbidity, resulting in metals concentrations that do not represent true dissolved concentrations. A permanent well was installed in the vicinity of GPZ-1 during the May event. Please see the results for this well in the text below.

SECOND PHASE INVESTIGATION ACTIVITIES

Soil Screening and Sampling

Golder returned to the site on May 4th through 6th to further delineate potential impacts. Borings were advanced to approximately 4 feet below ground surface (bgs), the approximate depth of the water table across the site, to collect soil samples from 20 boring locations (see Figure 4). Thirteen soil borings were advanced from within the footprint of the former shredded tire and off-road tire piles; five borings were located offsite adjacent to the property boundary; and two soil samples, one onsite (GSB-24) and one offsite (GSB-25), were collected far from the investigation area to serve as background soil samples. Soil samples were collected at the same intervals as before and field screened for VOCs using an OVA. Soil samples were collected from the three intervals in each soil boring location. The samples from the upper two intervals (0- 0.5 feet bgs, 0.5-2 feet bgs) were submitted to a NELAC-certified laboratory for analysis while the 2-4 feet bgs samples were again placed on hold pending receipt of shallow sample analytical data. Based on detections of constituents reported during the preliminary investigation, samples collected during the second phase of investigation were analyzed for VOCs by EPA Method 8260; SVOCs by EPA Method 8270 and EPA Method 8270 SIM; TRPH by the FL PRO Method; and aluminum, arsenic, iron, manganese, thallium, and zinc by EPA Method 6010. After review of the results, certain deeper samples were analyzed for a limited scope of constituents of concern to establish vertical delineation of impacted soil. Soil screening and sampling logs are included in Attachment A.

Results indicated that none of the soil samples exceeded FDEP commercial/industrial SCTLs for metals or VOCs. Benzene was detected at a concentration slightly greater than the leachability value of 7 µg/kg in soil sample GSB-13 0-0.5' (7.29 µg/kg); however, because benzene was not detected in groundwater or surface water samples, only the direct exposure SCTLs would apply for benzene. The summaries of detections for metals and VOCs in soil are presented in Tables 5 and 6, respectively.

TRPH was detected in the sample collected from boring GSB-13 at 0-0.5 foot bgs (4,420 mg/kg) at a concentration greater than the SCTL value of 2,700 mg/kg. In 12 additional samples, TRPH was detected at concentrations greater than the leachability SCTL of 340 mg/kg. TRPH speciation by TPHCWG Method was performed for four of the samples with the most elevated concentrations of TRPH, to evaluate if specific carbon chains exceeded their CTLs. Speciation results indicated that none of the samples exceeded the CTLs for the carbon chain groups. Summaries of detections for TRPH are presented in Table 7 and TRPH speciation data are presented in Table 8.

Laboratory results indicated that the soil samples GSB-13 0-0.5' and GSB-25 0-0.5' exceeded the commercial/industrial cleanup target level for benzo(a)pyrene. Benzo(a)pyrene TEQs were detected at concentrations above residential SCTLs in soil samples GSB-6 0-0.5', GSB-11 0-0.5', GSB-12 0-0.5', GSB-13 0.5-2', GSB-19 0-0.5', and GSB-21 0.5-2'.

Background soil boring GSB-25 was located along the south drainage ditch near an asphalt-paved surface and trace amounts of asphalt may have been present in the 0-0.5 foot sample, contributing to elevated concentrations of TRPHs and SVOCs. Golder returned to the site on June 14, 2011 to provide additional lateral delineation to residential SCTLs on the eastern side of the impacts for benzo(a)pyrene TEQs and to take a confirmation sample of boring location GSB-25 (soil sample GSB-25C 0-0.5'). To prevent possible asphalt contamination, vegetation and the top inch of top-soil was stripped before collecting the soil sample. Analytical results indicated that soil samples collected from GSB-25C and GSB-26 did not contain TRPH or benzo(a)pyrene TEQs above residential SCTLs. A summary of SVOC detections in soil is presented in Table 9 and the benzo(a)pyrene TEQ calculation summary is presented in Table 10.

Monitoring Well Installation

During the second phase of the assessment, three monitoring wells were installed onsite within the footprint of the former scrap tire piles and four monitoring wells were installed on the offsite property in locations where runoff water from fire-fighting activities had been observed. Prior to conducting intrusive investigation activities, a pilot boring was advanced at each monitoring well location to approximately 4 feet bgs to check for underground utilities. Once the location was cleared of underground utilities, a shallow soil boring was advanced using a hollow-stem auger (HSA) attachment on a Geoprobe 6620 DT drill rig. Drill cuttings were observed during the drilling to describe the encountered lithology and determine an appropriate interval (i.e., apparent high transmissivity) for monitoring well screen placement. Once an appropriate interval was identified, based on lithology, the monitoring well was installed.

Based on the water table observed in GPZ-1, the monitoring wells were installed to approximately 12 feet bgs to monitor the shallow surficial aquifer and intercept the water table. The 10-foot well screens were set between 2 and 12 feet bgs.

The newly-installed monitoring wells were constructed of 2-inch diameter Schedule 40 polyvinyl chloride (PVC) casing flush threaded (w/o-ring) to a 0.01-inch slot size Schedule 40 PVC screen. The well risers and screens were connected with flush-threaded joints. Annular space between the borehole walls and the well screens were filled with 20/30 grade silica sand filter pack from the bottom of the boreholes to the top of the well screens. An approximate one-foot thick fine (i.e., 30/65) grade silica sand seal was placed above the sand filter pack. The remaining open annulus was filled with Portland cement grout to complete the surface seal.

The wells were completed with aluminum "stick-up" protective casings. The casings were secured in 2-foot square by approximately 6-inch deep concrete pads which sloped away from the well to prevent surface water infiltration. The risers were capped with a water-tight expandable locking plug. Locations of monitoring wells are presented on Figure 5. Monitoring well construction details are summarized in Table 11 and well installation logs are included in Attachment B.

Well development was performed to establish a good hydraulic connection with the aquifer. Development was continued until the purged water remained visibly clear of suspended solids.

All existing and newly installed well locations were surveyed for x,y,z coordinates by a Florida-registered land surveyor. The top-of-casing (TOC) and ground surface of each well were surveyed consistent with North American Vertical Datum of 1988 (NAVD 88).

Investigation Derived Waste (IDW) (e.g., drill cuttings and development water) was containerized in 55-gallon drums and staged at the Site for future disposal in accordance with state and federal regulations as non-hazardous waste.

Groundwater Elevation Measurements

A synoptic round of water level measurements was completed on May 6, 2011. Depth to groundwater was measured at each well to the nearest 0.01-foot relative to the top of the well casing using an electronic water level indicator. Groundwater elevations relative to the North American Vertical Datum

(NAVD) of 1988 were calculated based on the water level measurements and TOC surveyed elevations (Table 10). The calculated groundwater elevations were used to develop a potentiometric contour map, presented on Figure 6. Based on the interpreted potentiometric surface, the groundwater flow direction in the shallow zone of the surficial aquifer is to the southwest.

Using the hydraulic conductivity values and well to well distance measurements, the hydraulic gradient was calculated to be 0.001 feet/foot (ft/ft). This calculated gradient represents that the surface of the shallow surficial aquifer is relatively flat, indicative of relatively slow moving groundwater. Groundwater flow and horizontal hydraulic gradient calculations are presented in Attachment C.

Groundwater Sampling Procedures

Groundwater samples were collected on May 6, 2011 from the seven monitoring wells located on and adjacent to the site. Prior to sampling, the monitoring wells were purged a minimum of one well volume to assure representative formation groundwater was sampled. Additionally, water quality parameters including; pH, SC, temperature, turbidity, DO, and ORP, were measured using calibrated electronic water quality equipment (i.e., YSI 556 MPS and Hach 2100P) and recorded in the field. Once WQP readings stabilized (e.g., generally three consecutive readings within published deviations), groundwater samples were collected. Field sample records and equipment calibration records are provided in Attachment D.

All groundwater samples were placed in laboratory provided sample containers, labeled, carefully packed into a standard cooler with ice, and submitted to a NELAC-certified laboratory. Samples were submitted for analysis of VOCs by EPA Method 8260; SVOCs by EPA Method 8270; TRPH by FL PRO method; and aluminum, arsenic, iron, manganese thallium, and zinc by EPA Method 6010.

Groundwater Sampling Results

A brief discussion of the analytical results is presented below. A summary of detections for each groundwater sample collected are summarized on Table 12. Complete groundwater analytical laboratory reports and chain-of-custody forms are included in Attachment E.

VOCs, and TRPH were not detected at concentrations above GCTLs in groundwater samples from the monitoring wells. Bis(2-ethylhexyl)phthalate was detected in the sample from MW-7 at a concentration of 45.3 µg/L, greater than the GCTL of 6 µg/L. Bis(2-ethylhexyl)phthalate was not detected above the MDL in the other groundwater samples collected from onsite of offsite monitoring wells.

Aluminum was detected in the sample collected from MW-3 at a concentration of 0.328 milligrams per liter (mg/L), greater than the GCTL of 0.2. Arsenic was detected only in offsite monitoring well MW-7, at a concentration of 0.011 mg/L, slightly over than the GCTL of 0.010 mg/L. Iron was detected in samples from each well, except MW-2, at concentrations greater than the GCTL (which is a secondary drinking standard MCL and not a health-based standard). Iron exceedances reported for the samples ranged from 2.52 mg/L to 20.7 mg/L. Manganese was detected in three wells, MW-1 (1.13 mg/L), MW-2 (1.24 mg/L), and MW-6 (0.0609 mg/L) at concentrations greater than the GCTL of 0.05 mg/L. Zinc was not detected in samples at concentrations greater than GCTLs, and thallium was not detected above the method detection limit.

CONCLUSIONS AND RECOMMENDATIONS

Soil sampling results indicate that only samples GSB-3 0-0.5' and GSB-13 0-0.5' exceeded commercial/industrial SCTLs for benzo(a)pyrene and the benzo(a)pyrene TEQs, and that delineation to residential CTLs has been satisfied. Based on TRPH speciation results, soil with the highest concentrations of TRPH did not exceed residential or commercial cleanup target levels for individual carbon chain groups. Thus, we can conclude that the remainder of the samples, which had concentrations of TRPH less than the samples for which speciation was analyzed, do not exceed the TRPH carbon chain-specific SCTLs. Golder recommends performing a source removal around GSB-3 and GSB-13 to 1' bgs to remove impacted soil (see Figure 4 for approximate excavation boundary).

TABLES

TABLE 1
SOIL ANALYTICAL SUMMARY OF DETECTIONS

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

			Sample ID	GSB-1 0-0.5	GSB-1 0.5-2	GSB-1 2-4	GSB-2 0-0.5	GSB-2 0.5-2	GSB-2 2-4	GSB-3 0-0.5	GSB-3 0.5-2	GSB-3 2-4	GSB-4 0-0.5	GSB-4 0.5-2	GSB-5 0-0.5	
			Sample Date	2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011
			Sample Depth (feet bgs)	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5	
Cleanup Target Levels	Residential	Commercial														
Metals by EPA Method 6010B (mg/kg)																
Aluminum	80,000	*	120	75	NS	140	100	NS	2,300	1,500	NS	2,000	NS	500		
Antimony	27	370	0.14 U	0.14 U	NS	7.5 V	4.7 V	NS	0.32 U	3.4 V	NS	0.18 U	NS	0.14 U		
Arsenic	2.1	12	0.25 U	0.25 U	NS	0.57 U	0.56 U	NS	0.59 U	0.58 U	NS	0.87	NS	0.36		
Barium	120**	130,000	1.2	0.68	NS	1.2	1.1	NS	25	9.7	NS	27	NS	1.8		
Beryllium	120	1,400	0.0037 I	0.0024 U	NS	0.0054 U	0.0053 U	NS	0.081	0.045	NS	0.075	NS	0.016		
Cadmium	82	1,700	0.022	0.012 I	NS	0.0079 U	0.0078 U	NS	0.9	0.38	NS	0.066	NS	0.025		
Calcium	NA	NA	690 V	870 V	NS	890 V	1,100 V	NS	31,000 V	8,000 V	NS	14,000 V	NS	860 V		
Chromium	210	470	0.88	0.71	NS	20	13	NS	22	25	NS	3.6	NS	1.2		
Cobalt	1,700	42,000	0.76	4	NS	11	6.5	NS	38	24	NS	8.9	NS	0.67		
Copper	150**	89,000	4.8	6.2	NS	140	95	NS	140	110	NS	26	NS	8.2		
Iron	53,000	*	720	1,700	NS	71,000	48,000	NS	42,000	60,000	NS	5,600	NS	1,200		
Lead	400	1,400	1	0.56	NS	0.3 I	0.13 U	NS	41	21	NS	2.4	NS	1.3		
Magnesium	NA	NA	13	9.4	NS	3.9 I	10 I	NS	410	150	NS	170	NS	22		
Manganese	3,500	43,000	8.2	12	NS	430	290	NS	250	310	NS	34	NS	14		
Nickel	340**	35,000	0.44	0.41	NS	23	15	NS	17	23	NS	2.3	NS	0.48		
Potassium	NA	NA	16	18	NS	30	21	NS	220	100	NS	77	NS	27		
Selenium	440	11,000	0.21 U, J4	0.21 U	NS	0.47 U	0.47 U	NS	0.49 U	0.48 U	NS	0.28 U	NS	0.21 U		
Silver	410	8,200	0.033 U	0.033 U	NS	1	0.71	NS	0.69	0.93	NS	0.066 I	NS	0.033 U		
Sodium	NA	NA	4.9 I	9.6	NS	16	13	NS	240	120	NS	53	NS	15		
Thallium	6	150	0.3 I	0.14 U	NS	0.32 U	0.32 U	NS	0.34 U	0.33 U	NS	0.20 I	NS	0.14 U		
Vanadium	67**	10,000	0.35	0.23	NS	1.6	1.1	NS	5.8	4.4	NS	4	NS	0.97		
Zinc	26,000	630,000	38 J4	180	NS	560	310	NS	3300	2300	NS	790	NS	88		
Mercury	3	17	0.0048 I	0.0018 I	NS	0.0034 I	0.0030 I	NS	0.041	0.02	NS	0.0078	NS	0.014		
Titanium	NA	NA	4.5	4.2	NS	3.1	3.2	NS	15	10	NS	8.6	NS	5.3		
TRPH by Florida Pro Method (mg/kg)																
TRPH	460	2,700	32	610	11 I, Q	670	390	61 Q	4700	1500	4.8 I	480	11 I	27		
Notes on Page 3																



TABLE 1
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Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID			GSB-1 0-0.5	GSB-1 0.5-2	GSB-1 2-4	GSB-2 0-0.5	GSB-2 0.5-2	GSB-2 2-4	GSB-3 0-0.5	GSB-3 0.5-2	GSB-3 2-4	GSB-4 0-0.5	GSB-4 0.5-2	GSB-5 0-0.5
Sample Date			2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011
Sample Depth (feet bgs)			0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5
VOCs by EPA Method 8260C (µg/kg)														
1,2,4-Trimethylbenzene	18,000	95,000	1.2 U	1.2 U	NS	4.1	1.1 U	NS	1.6 U	1.2 U	NS	1.5 U	NS	1.1 U
1,3,5-Trimethylbenzene	15,000	80,000	1.2 U	1.1 U	NS	3.3 I	1.1 U	NS	1.6 U	1.2 U	NS	1.5 U	NS	1.1 U
2-Butanone (MEK)	16,000,000	110,000,000	20	2.4 U	NS	2.6 U	2.3 U	NS	3.3 U	24	NS	3.1 U	NS	2.3 U
4-Methyl-2-pentanone (MBIK)	4,300,000	440,000,000	1.4 I	1.2 U	NS	5.6 I	4.1 I	NS	1.6 U	3.6 I	NS	1.5 U	NS	1.1 U
Acetone	11,000,000	68,000,000	74	52	NS	68	50	NS	3.6 U	81	NS	3.4 U	NS	2.5 U
Benzene	1,200	1,700	1.5 U	1.4 U	NS	5.3	1.4 U	NS	2.3 I	1.7 I	NS	1.8 U	NS	1.3 U
Carbon Disulfide	270,000	1,500,000	1.5 U	1.4 U	NS	3.4 I	1.3 U	NS	4.0 I, V	1.5 U	NS	1.8 U	NS	1.4 I, V
Ethylbenzene	1,500,000	9,200,000	1.3 U	1.2 U	NS	5.6	1.2 U	NS	4.0 I	2.7 I	NS	1.6 U	NS	1.2 U
Isopropylbenzene	220,000	1,200,000	1.5 U	1.4 U	NS	2.6 I	1.4 U	NS	1.9 U	1.5 U	NS	1.8 U	NS	1.3 U
Methylene Chloride	17,000	26,000	8.8 I, V	8.8 I, V	NS	9.8 I, V	8.7 I, V	NS	4.1 I, V	8.2 I, V	NS	6.6 I, V	NS	5.9 I, V
Styrene	3,600,000	23,000,000	1.2 U	1.1 U	NS	3.8	1.1 U	NS	1.5 U	1.2 U	NS	1.4 U	NS	1.1 U
Tetrachloroethylene (PCE)	8,800	18,000	1.5 U	1.8 I	NS	1.5 U	1.4 U	NS	1.9 U	1.5 U	NS	1.8 U	NS	1.3 U
Toluene	7,500,000	60,000,000	1.7 U	1.6 U	NS	12	2.7 I	NS	3.0 I	2.4 I	NS	2.0 U	NS	1.5 U
Xylenes (total)	130,000	700,000	4.6 U	4.3 U	NS	12	4.2 U	NS	8.6 I	6.2 I	NS	5.5 U	NS	4.1 U
n-Butylbenzene	NA	NA	1.3 U	1.2 U	NS	5	1.2 U	NS	1.7 U	1.3 U	NS	1.6 U	NS	1.1 U
n-Propylbenzene	NA	NA	1.4 U	1.3 U	NS	8.8	1.2 U	NS	1.7 U	1.4 U	NS	1.6 U	NS	1.2 U
Notes on Page 3														



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Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID			GSB-1 0-0.5	GSB-1 0.5-2	GSB-1 2-4	GSB-2 0-0.5	GSB-2 0.5-2	GSB-2 2-4	GSB-3 0-0.5	GSB-3 0.5-2	GSB-3 2-4	GSB-4 0-0.5	GSB-4 0.5-2	GSB-5 0-0.5
Sample Date			2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/3/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011	2/4/2011
Sample Depth (feet bgs)			0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5
SVOCs by EPA Method 8270C (µg/kg)														
1-Methylnaphthalene	200,000	1,800,000	10 U	10 U	NS	12 U	12 U	NS	180 I	35 I	NS	14 U	NS	10 U
2-Methylnaphthalene	210,000	2,100,000	18 U	18 U	NS	20 U	20 U	NS	280 I	56 I	NS	24 U	NS	18 U
3,3'-Dichlorobenzidine	2,100	9,900	21 U	21 U	NS	23 U	23 U	NS	180 U	160 I	NS	28 U	NS	21 U
7,12-Dimethylbenz(a)anthracene	NA	NA	21 U	21 U	NS	54 I	23 U	NS	180 U	24 U	NS	28 U	NS	21 U
Acenaphthene	2,400,000	20,000,000	13 U	13 U	NS	14 U	14 U	NS	110 U	18 I	NS	17 U	NS	13 U
Acenaphthylene	1,800,000	20,000,000	11 U	12 U	NS	13 U	13 U	NS	230 I	50 I	NS	15 U	NS	12 U
Anthracene	21,000,000	300,000,000	11 U	12 U	NS	13 U	13 U	NS	350 I	85 I	NS	15 U	NS	12 U
Benzo(a)anthracene	#	BaP TEQ	13 U	32 I	NS	26 I	23 I	NS	1500 I	280	NS	32 I	NS	13 U
Benzo(a)pyrene	100	700	13 U	42 I	NS	49 I	33 I	NS	1200 I	220	NS	48 I	NS	13 U
Benzo(b)fluoranthene	#	BaP TEQ	13 U	78 I	NS	74 I	46 I	NS	830 I	200 I	NS	58 I	NS	13 U
Benzo(g,h,i)perylene	2,500,000	52,000,000	21 U	87 I	NS	84 I	28 I	NS	940 I	210	NS	48 I	NS	21 U
Benzo(k)fluoranthene	#	BaP TEQ	21 U	23 I	NS	34 I	23 U	NS	580 I	100 I	NS	28 U	NS	21 U
Benzoic Acid	180,000,000	*	320 I	290 U	NS	330 U	320 U	NS	2500 U	330 U	NS	380 U	NS	290 U
Chrysene	#	BaP TEQ	13 U	75 I	NS	90 I	40 I	NS	2100	490	NS	41 I	NS	13 U
Di-n-octyl phthalate	17,000,000	39,000,000	15 U	16 I	NS	17 U	16 U	NS	150 I	17 U	NS	20 U	NS	15 U
Fluoranthene	3,200,000	59,000,000	10 U	38 I	NS	65 I	12 U	NS	1100 I	290	NS	29 I	NS	10 U
Fluorene	2,600,000	33,000,000	13 U	13 U	NS	14 U	14 U	NS	170 I	36 I	NS	17 U	NS	13 U
Indeno(1,2,3-cd)pyrene	#	BaP TEQ	10 U	27 I	NS	12 U	12 U	NS	350 I	100 I	NS	14 U	NS	10 U
N-Nitrosodiphenylamine	180,000	730,000	26 U	26 U	NS	29 U	29 U	NS	230 U	37 I	NS	35 U	NS	26 U
Naphthalene	55,000	300,000	11 U	11 U	NS	18 I	12 U	NS	470 I	78 I	NS	15 I	NS	11 U
Phenanthrene	2,200,000	36,000,000	13 U	13 U	NS	43 I	14 U	NS	870 I	280	NS	22 I	NS	13 U
Pyrene	2,400,000	45,000,000	16 U	130 I	NS	110 I	40 U	NS	5700	1000	NS	58 I	NS	16 U
bis(2-ethylhexyl) phthalate	72,000	390,000	59 I	890	NS	380	150 I	NS	2900	750	NS	310	NS	55 I
Notes: bgs - below ground surface NS - sample was not analyzed for the constituent at this interval V - Method Blank Contamination J4 - Estimated Result BaP TEQ - cumulative criteria for these parameters compared to criteria for benzo(a)pyrene. VOCs - Volatile Organic Compounds While the entire VOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table. SVOCs - Semi-volatile Organic Compounds While the entire SVOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table. * - Contaminant is not a health concern for this exposure scenario ** - Direct exposure value based on acute toxicity considerations Bold font indicates constituent concentration was reported above the laboratory reported method detection limit. Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels														
NA - FDEP soil cleanup target level criteria not available U - The compound was analyzed for but not detected I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. Q - sample analyzed outside of hold time TRPH - Total Recoverable Petroleum Hydrocarbons														

Entered by: JCK
Checked by: KMG
Reviewed by: JPO



TABLE 2
SOIL ANALYTICAL SUMMARY
(BENZO(A)PYRENE TOXICITY EQUIVALENTS)

Liberty Tire Recycling, LLC.
 Port St. Lucie, Florida

Sample		Sample Interval (feet bgs)	Targeted PAH Constituents Used For Calculation										Result		
Sample ID	Date Collected		Benzo(a) pyrene (mg/kg)	Benzo(a) anthracene (mg/kg)	Benzo(b) fluoranthene (mg/kg)	Benzo(k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h) anthracene (mg/kg)	Indeno (1,2,3-c,d) pyrene (mg/kg)	Total Benzo(a) pyrene equivalents (mg/kg)					
Commercial/Industrial Direct Exposure SCTL			0.7	#	#	#	#	#	#	#	0.7				
TEF Value			1	0.1	0.1	0.01	0.001	1	0.1	1					
GSB-1 0-0.5	2/3/2011	0-0.5	0.013	U	0.013	U	0.021	U	0.013	U	0.010	U	1		
			0.007		0.001		0.000		0.000		0.001		0.0		
GSB-1 0.5-2	2/3/2011	0.5-2	0.042	I	0.032	I	0.078	I	0.075	I	0.027	I	0.1		
			0.042		0.003		0.008		0.000		0.008		0.003		
GSB-2 0-0.5	2/3/2011	0-0.5	0.049	I	0.026	I	0.074	I	0.034	I	0.090	I	0.12	U	
			0.049		0.003		0.007		0.000		0.000		0.001		0.1
GSB-2 0.5-2	2/3/2011	0.5-2	0.033	I	0.023	I	0.046	I	0.023	U	0.040	I	0.017	U	0.0
			0.033		0.002		0.005		0.000		0.000		0.000		0.001
GSB-3 0-0.5	2/4/2011	0-0.5	1.200	I	1.500	I	0.830	I	0.580	I	2.100	I	0.350	I	1.5
			1.200		0.150		0.083		0.006		0.002		0.070		0.035
GSB-3 0.5-2	2/4/2011	0.5-2	0.220		0.280		0.200	I	0.1000	I	0.490	I	0.100	I	0.3
			0.220		0.028		0.020		0.001		0.000		0.009		0.010
GSB-4 0-0.5	2/4/2011	0-0.5	0.048	I	0.032	I	0.058	I	0.028	U	0.041	I	0.021	U	0.1
			0.048		0.003		0.006		0.000		0.000		0.011		0.001
GSB-5 0-0.5	2/4/2011	0-0.5	0.013	U	0.013	U	0.013	U	0.021	U	0.013	U	0.016	U	0.0
			0.007		0.001		0.001		0.000		0.000		0.008		0.001

Notes:

bgs - below ground surface

mg/kg - milligrams per kilogram

MDL - Method Detection Limit

PQL - Practical Quantitation Limit

PAHs - Polycyclic Aromatic Hydrocarbons

- Concentrations for listed PAHs must be converted to benzo(a)pyrene TEF values.

Total TEQ - Sum of the TEQ concentrations of listed PAH parameters compared to the appropriate direct exposure SCTL for benzo(a)pyrene using the approach described in the February 2005 Final Technical Report: Development of Cleanup Target Levels For Chapter 62-777, F.A.C.

To Calculate:

If the value is greater than the PQL and is not estimated, then use the stated value.

I - The reported value is between the laboratory MDL and the laboratory PQL, use full value.

U - Compound was analyzed for but not detected. The reported value is the laboratory MDL, use 1/2 the value.

TEF - Toxicity Equivalency Factor used to convert specific PAHs to benzo(a)pyrene equivalents.

TEQ - Toxicity Equivalent

SCTL - Soil Cleanup Target Level per Chapter 62-777, Table II, FAC.

Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.

Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels

Notes:

bgs - below ground surface
 mg/kg - milligrams per kilogram
 MDL - Method Detection Limit
 PQL - Practical Quantitation Limit

PAHs - Polycyclic Aromatic Hydrocarbons

- Concentrations for listed PAHs must be converted to benzo(a)pyrene TEQ values.

Total TEQ - Sum of the TEQ concentrations of listed PAH parameters compared to the appropriate direct exposure SCTL for benzo(a)pyrene using the approach described in the February 2005 Final Technical Report: Development of Cleanup Target Levels For Chapter 62-777, F.A.C.

To Calculate:

If the value is greater than the PQL and is not estimated, then use the stated value.

I - The reported value is between the laboratory MDL and the laboratory PQL, use full value.

U - Compound was analyzed for, but not detected. The reported value is the laboratory MDL, use 1/2 the value.

TEF - Toxicity Equivalency Factor used to convert specific PAHs to benzo(a)pyrene equivalents.

TEQ - Toxicity Equivalent

SCTL - Soil Cleanup Target Level per Chapter 62-777, Table II, F.A.C.

Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.

Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels

Prepared by: JCK
 Checked by: KMG
 Reviewed by: JPO

TABLE 3
SURFACE WATER ANALYTICAL SUMMARY OF DETECTIONS

Liberty Tire Recycling, LLC
Port St. Lucie, Florida

Sample ID Sample Date				GSW-1 2/3/2011	GSW-2 2/3/2011	GSW-3 2/4/2011	GSW-3C 6/14/2011	GSW-4 2/4/2011
Cleanup Target Levels				Stormwater Ditch	Standing Water	Drainage Swale	Retention Pond	
Class III Surface Water	Class IV Surface Water	Class V Surface Water						
Hardness by SM2340B Potentially Applicable Standard*				Class V				Class IV
Hardness				190	320	530		240
Metals by EPA Method 6010B (µg/l)								
Aluminum	NA	NA	NA	760	61 U	4000	NS	61 U
Antimony	4300	NA	NA	6.0 U	6.0 U	6.0 U	NS	6.0 U
Arsenic	50	50	50	8.5 U	12	20	NS	8.5 U
Barium	NA	NA	NA	36	29	95	NS	27
Beryllium	0.13	500	NA	0.37	0.37	0.61	NS	0.33
Cadmium	0.64(H)	NA	NA	0.32 U	0.32 U	0.7	NS	0.32 U
Calcium	NA	NA	NA	73000	120000	200000	NS	87000
Chromium	223(H)	223(H)	223(H)	2.1 I	0.73 I	15	NS	0.72 I
Cobalt	NA	NA	NA	1.2 I	3.3 I	79	NS	1.6 I
Copper	25.2(H)	500	500	19	15	390	NS	2.8 I
Iron	1000	1000	NA	1100	820	25000	NS	570
Lead	14(H)	50	50	1.3 U	1.3 U	21	NS	1.3 U
Magnesium	NA	NA	NA	3000	3400	9000	NS	4700
Manganese	NA	NA	NA	65	510	1100	NS	440
Nickel	124(H)	100	NA	1.1 U	1.1 U	11	NS	1.1 U
Potassium	NA	NA	NA	5100	8200	42000	NS	15000
Selenium	5	71	NA	6.8 U	6.8 U	6.8 U	NS	6.8 U
Silver	0.07	NA	NA	0.44 U	0.44 U	0.44 U	NS	0.44 U
Sodium	NA	NA	NA	16000	20000	48000	NS	20000
Thallium	6.3	NA	NA	8.7 I	13 I	5.5 U	NS	10 I
Titanium	NA	NA	NA	7.8	0.6 I	40	NS	0.65 I
Vanadium	NA	NA	NA	2.1	0.18 U	13	NS	0.31 I
Zinc	321(H)	1000	1000	270	170	8900	196	51
Mercury	0.012	0.2	0.2	0.014 U	0.014 U	0.070 I	NS	0.014 U
TRPH by Florida Pro Method (µg/l)								
TRPH	5000***	NA	NA	620	2,100	1,600	NS	1,200
VOCs by EPA Method 8260C (µg/l)								
Acetone	1,700	NA	NA	3.3 U	6.6 U	9.1 I	NS	3.3 U
Methylene Chloride	NA	NA	NA	0.32 U	1.5 I, V	1.5 I, V	NS	0.32 U
See notes on Page 2.								

TABLE 3
SURFACE WATER ANALYTICAL SUMMARY OF DETECTIONS

Liberty Tire Recycling, LLC
Port St. Lucie, Florida

	Sample ID Sample Date			GSW-1 2/3/2011	GSW-2 2/3/2011	GSW-3 2/4/2011	GSW-3C 6/14/2011	GSW-4 2/4/2011	
	Cleanup Target Levels								
	Class III Surface Water	Class IV Surface Water	Class V Surface Water	Stormwater Ditch	Standing Water	Drainage Swale		Retention Pond	
Hardness by SM2340B			Potentially Applicable Standard*			Class V			Class IV
Hardness				190	320	530		240	
SVOCs by EPA Method 8270C (µg/l)									
Di-n-octyl phthalate	NA	NA	NA	52	2.0 U	2.0 U	NS	2.0 U	
Notes:									
* - Status of surface water bodies have not yet been determined.									
*** - Surface Water Cleanup Target Levels from on Chapter 62-777 F.A.C.									
Surface water criteria is from Chapter 62-302.530 F.A.C. Criteria for hardness-dependent metals calculated using an average hardness of 320 mg/l									
µg/l - micrograms per liter									
NA - Surface water criteria not available.									
U - The compound was analyzed for but not detected									
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.									
V - Method Blank Contamination									
H - Criteria for metal of concern is hardness dependant									
TRPH - Total Recoverable Petroleum Hydrocarbons									
VOCs - Volatile Organic Compounds									
While the entire VOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table.									
SVOCs - Semi-volatile Organic Compounds									
While the entire SVOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table.									
Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.									
Sample exceeds FDEP Surface Water Cleanup Target Levels									

Entered by: JCK
 Checked by: KMG
 Reviewed by: JPO

TABLE 4
GROUNDWATER ANALYTICAL SUMMARY OF DETECTIONS

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

		Sample ID	GPZ-1
		Sample Date	2/4/2011
		Cleanup Target Levels	
		Groundwater Cleanup	Temporary Piezometer
Metals by EPA Method 6010B (µg/l)			
Aluminum	200**		890
Antimony	6*		6.0 U
Arsenic	10*		17
Barium	2000*		29
Beryllium	4*		0.4
Cadmium	5*		0.32 U
Calcium	NA		87000
Chromium	100*		1.8 I
Cobalt	140		3.6 I
Copper	1000**		2.5 I
Iron	300**		20000
Lead	15*		1.3 U
Magnesium	NA		8400
Manganese	50**		15
Nickel	100*		1.1 U
Potassium	NA		410
Selenium	50*		6.8 U
Silver	100**		0.44 U
Sodium	160000*		25000
Thallium	2*		9.8 I
Titanium	NA		11
Vanadium	49		5.1
Zinc	5000**		17
Mercury	2*		0.014 U
TRPH by Florida Pro Method (µg/l)			
TRPH	5000***		340 I
See notes on Page 2.			

**TABLE 4
GROUNDWATER ANALYTICAL SUMMARY OF DETECTIONS**

**Liberty Tire Recycling, LLC.
Port St. Lucie, Florida**

		Sample ID	GPZ-1
		Sample Date	2/4/2011
		Cleanup Target Levels	
		Groundwater Cleanup	Temporary Piezometer
VOCs by EPA Method 8260C (µg/l)			
Acetone	6300***		6.6 U
Methylene Chloride	5*		1.6 I, V
SVOCs by EPA Method 8270C (µg/l)			
Di-n-octyl phthalate	140***		2.0 U
Notes:			
* - Chapter 62-302.530 F.A.C. primary drinking water standard			
** - Chapter 62-302.530 F.A.C. secondary drinking water standard			
*** - Groundwater Cleanup Target Levels from on Chapter 62-777 F.A.C.			
µg/l - micrograms per liter			
NA - Groundwater criteria not available.			
U - The compound was analyzed for but not detected			
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.			
V - Method Blank Contamination			
H - Criteria for metal of concern is hardness dependant			
TRPH - Total Recoverable Petroleum Hydrocarbons			
VOCs - Volatile Organic Compounds			
While the entire VOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table.			
SVOCs - Semi-volatile Organic Compounds			
While the entire SVOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table.			
Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.			
Sample exceeds FDEP Groundwater Cleanup Target Levels			

Entered by: JCK
Checked by: KMG
Reviewed by: JPO

TABLE 5
SOIL ANALYTICAL SUMMARY OF DETECTIONS - METALS
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

			Sample ID	GSB-6 0-0.5	GSB-6 0.5-2	GSB-7 0-0.5	GSB-7 0.5-2	GSB-8 0-0.5	GSB-8 0.5-2	GSB-9 0-0.5	GSB-9 0.5-2	GSB-10 0-0.5
			Sample Date	5/4/2011	5/4/2011	5/5/2011	5/5/2011	5/4/2011	5/4/2011	5/4/2011	5/4/2011	5/5/2011
			Sample Depth (feet bgs)	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5
			Moisture %	5.99	6.93	21.83	17.06	7.76	9.09	10.25	8.59	19.69
Cleanup Target Levels			Residential	Commercial								
Metals by EPA Method 6010B (mg/kg)												
Aluminum	80,000	*	14.2	6.06	1 U	1 U	1.23 I	1 U	1.48 I	1 U	1 U	
Arsenic	2.1	12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
Iron	53,000	*	5970	236	149	130	8270	28.5	3640	79.6	45.6	
Manganese	3,500	43,000	33.5	2.5	2.41	3.75	50.5	1.11 I	28.3	1 U	1.94 I	
Zinc	26,000	630,000	2.71	1 U	1 U	1 U	4.1	1 U	1.63 I	1 U	1 U	
			Sample ID	GSB-10 0.5-2	GSB-11 0-0.5	GSB-11 0.5-2	GSB-12 0-0.5	GSB-12 0.5-2	GSB-13 0-0.5	GSB-13 0.5-2	GSB-13 2-4	GSB-14 0-0.5
			Sample Date	5/5/2011	5/6/2011	5/6/2011	5/4/2011	5/4/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011
			Sample Depth (feet bgs)	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5
			Moisture %	27.41	25.70	13.00	10.29	18.31	16.30	7.71	8.05	8.18
Cleanup Target Levels			Residential	Commercial								
Metals by EPA Method 6010B (mg/kg)												
Aluminum	80,000	*	1.96 I	4.35 J	20.4	5.27	1 U	5.46	7.1	NS	10.2	
Arsenic	2.1	12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NS	0.1 U	
Iron	53,000	*	572	42800	4020	34000	100	95700	15700	NS	3390	
Manganese	3,500	43,000	12.5	301	22.5	232	3.04	1030	88	NS	22.7	
Zinc	26,000	630,000	1.16 I	23 J	1 U	10	1 U	71.9	7.4	NS	1.6 I	
			Sample ID	GSB-14 0.5-2	GSB-15 0-0.5	GSB-15 0.5-2	GSB-16 0-0.5	GSB-16 0.5-2	GSB-16 2-4	GSB-17 0-0.5	GSB-17 0.5-2	GSB-18 0-0.5
			Sample Date	5/5/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011
			Sample Depth (feet bgs)	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5
			Moisture %	17.92	14.30	8.35	11.60	9.22	39.20	9.08	7.02	9.04
Cleanup Target Levels			Residential	Commercial								
Metals by EPA Method 6010B (mg/kg)												
Aluminum	80,000	*	14.4	9.5	8.33	12.6	14	NS	14.1	14.6	1 U	
Arsenic	2.1	12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NS	0.1 U	0.1 U	0.1 U	
Iron	53,000	*	7630	1830	1710	11700	7720	NS	21800	10700	172	
Manganese	3,500	43,000	47.4	1.85 I	1.69 I	63.5	44.3	NS	140	56.4	1.39 I	
Zinc	26,000	630,000	1.59 I	1 U	1 U	1 U	1 U	NS	9.74	3.58	1 U	
See notes on Page 2.												



TABLE 5
SOIL ANALYTICAL SUMMARY OF DETECTIONS - METALS
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID			GSB-18 0.5-2	GSB-19 0-0.5	GSB-19 0.5-2	GSB-20 0-0.5	GSB-20 0.5-2	GSB-21 0-0.5	GSB-21 0.5-2	GSB-21 2-4	GSB-22 0-0.5
Sample Date			5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011
Sample Depth (feet bgs)			0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5
Moisture %			10.20	6.73	7.19	9.22	21.80	6.60	7.64	8.63	15.89
Cleanup Target Levels		Residential	Commercial								
Metals by EPA Method 6010B (mg/kg)											
Aluminum	80,000	*	1 U	9.18	11.5	8.57	7.94	13.1	7.16	NS	1.58 I
Arsenic	2.1	12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NS	0.1 U
Iron	53,000	*	32.5	6080	980	8090	986	4810	2510	NS	85.3
Manganese	3,500	43,000	1 U	26.2	4.73	44.3	4.37	27.4	12	NS	1.41 I
Zinc	26,000	630,000	1 U	1.75 I	1 U	2.22	1 U	4.44	1 U	NS	1 U
Sample ID			GSB-22 0.5-2	GSB-23 0-0.5	GSB-23 0.5-2	GSB-24 0-0.5	GSB-24 0.5-2	GSB-24 2-4	GSB-25 0-0.5	GSB-25 0.5-2	GSB-25 2-4
Sample Date			5/5/2011	5/5/2011	5/5/2011	5/4/2011	5/4/2011	5/4/2011	5/6/2011	5/6/2011	5/6/2011
Sample Depth (feet bgs)			0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4
Moisture %			21.03	9.02	21.82	6.60	6.48	10.30	53.76	10.76	19.50
Cleanup Target Levels		Residential	Commercial								
Metals by EPA Method 6010B (mg/kg)											
Aluminum	80,000	*	23.1	1 U	2.23	2.68	6.77	NS	7.9	1 U	NS
Arsenic	2.1	12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NS	0.1 U	0.1 U	NS
Iron	53,000	*	951	59.2	423	1540	5740	NS	15100	170	NS
Manganese	3,500	43,000	1.86 I	1.94 I	1.39 I	9.13	19.7	NS	71.8	3.91	NS
Zinc	26,000	630,000	1 U	1 U	1 U	1.9 I	5.27	NS	193	1.6 I	NS
Notes:											
bgs - below ground surface											
* - Contaminant is not a health concern for this exposure scenario											
** - Direct exposure value based on acute toxicity considerations											
*** - Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.											
NS - sample was not analyzed for the constituent at this interval											
U - The compound was analyzed for but not detected											
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.											
Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.											
Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels											

Prepared by: JCK
Checked by: KDC
Reviewed by: JPO

TABLE 6
SOIL ANALYTICAL SUMMARY OF DETECTIONS - VOCs
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

			Sample ID	GSB-6 0-0.5	GSB-6 0.5-2	GSB-7 0-0.5	GSB-7 0.5-2	GSB-8 0-0.5	GSB-8 0.5-2	GSB-9 0-0.5	GSB-9 0.5-2	GSB-10 0-0.5	GSB-10 0.5-2	GSB-11 0-0.5	GSB-11 0.5-2	GSB-12 0-0.5	GSB-12 0.5-2	GSB-13 0-0.5
			Sample Date	5/4/2011	5/4/2011	5/5/2011	5/5/2011	5/4/2011	5/4/2011	5/4/2011	5/4/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/4/2011	5/4/2011	5/6/2011
			Sample Depth (feet bgs)	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5
			Moisture %	5.99	6.93	21.83	17.06	7.76	9.09	10.25	8.59	19.69	27.41	25.70	13.00	10.29	18.31	16.30
Cleanup Target Levels		Residential	Commercial															
VOCs by EPA Method 8260C (µg/kg)																		
1,2,4-Trimethylbenzene	18,000	95,000	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	7.71 I
2-Butanone (MEK)	16,000,000	110,000,000	3 U	3 U	3 U	3 U	10.7 J	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
4-Isopropyltoluene	960,000	5,600,000	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	10.8 I	3 U	3 U	3 U	48.8
Acetone	11,000,000	68,000,000	15 U	15 U	15 U	15 U	57.8 J	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	29.3 I
Benzene	1,200	1,700	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	6.98 I	3 U	3 U	3 U	7.29 I
Ethylbenzene	1,500,000	9,200,000	3 U	3 U	3 U	3 U	3 U	3 U	3.27 I	3 U	3 U	3 U	3 U	9.28 I	3 U	3 U	3 U	15.1
Isopropylbenzene	220,000	1,200,000	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	4.72 I
Methyl isobutyl ketone	4,300,000	440,000,000	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
n-Propylbenzene	NA	NA	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	7.36 I
Styrene	3,600,000	23,000,000	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	5.03 I	3 U	3 U	3 U	8.1 I
Toluene	7,500,000	60,000,000	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	13.6	3 U	3 U	3 U	16.6
Xylenes	130,000	700,000	5 U	5 U	5 U	5 U	5 U	5 U	16.7 I	5 U	5 U	5 U	5 U	20.4	5 U	5 U	5 U	41
			Sample ID	GSB-13 0.5-2	GSB-13 2-4	GSB-14 0-0.5	GSB-14 0.5-2	GSB-15 0-0.5	GSB-15 0.5-2	GSB-16 0-0.5	GSB-16 0.5-2	GSB-16 2-4	GSB-17 0-0.5	GSB-17 0.5-2	GSB-18 0-0.5	GSB-18 0.5-2	GSB-19 0-0.5	GSB-19 0.5-2
			Sample Date	5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011
			Sample Depth (feet bgs)	0.5-2	2-4	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
			Moisture %	7.71	8.05	8.18	17.92	14.30	8.35	11.60	9.22	39.20	9.08	7.02	9.04	10.20	6.73	7.19
Cleanup Target Levels		Residential	Commercial															
VOCs by EPA Method 8260C (µg/kg)																		
1,2,4-Trimethylbenzene	18,000	95,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U
2-Butanone (MEK)	16,000,000	110,000,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U
4-Isopropyltoluene	960,000	5,600,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U
Acetone	11,000,000	68,000,000	18.7 I	NS	15 U	15 U	15 U	15 U	21 I	20.5 I	NS	15 U	15 U	29.6 I	15 U	15 U	15 U	15 U
Benzene	1,200	1,700	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Ethylbenzene	1,500,000	9,200,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Isopropylbenzene	220,000	1,200,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Methyl isobutyl ketone	4,300,000	440,000,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	5.77 I	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U
n-Propylbenzene	NA	NA	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U
Styrene	3,600,000	23,000,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U
Toluene	7,500,000	60,000,000	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U
Xylenes	130,000	700,000	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U
See notes on Page 2.																		

TABLE 6
SOIL ANALYTICAL SUMMARY OF DETECTIONS - VOCs
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID			GSB-20 0-0.5	GSB-20 0.5-2	GSB-21 0-0.5	GSB-21 0.5-2	GSB-21 2-4	GSB-22 0-0.5	GSB-22 0.5-2	GSB-23 0-0.5	GSB-23 0.5-2	GSB-24 0-0.5	GSB-24 0.5-2	GSB-24 2-4	GSB-25 0-0.5	GSB-25 0.5-2	GSB-25 2-4
Sample Date			5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/4/2011
Sample Depth (feet bgs)			0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4
Moisture %			9.22	21.80	6.60	7.64	8.63	15.89	21.03	9.02	21.82	6.60	6.48	10.30	53.76	10.76	19.50
Cleanup Target Levels		Residential	Commercial														
VOCs by EPA Method 8260C (µg/kg)																	
1,2,4-Trimethylbenzene	18,000	95,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
2-Butanone (MEK)	16,000,000	110,000,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
4-Isopropyltoluene	960,000	5,600,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
Acetone	11,000,000	68,000,000	15 U	20 I	15 U	128 J	NS	15 U	15 U	15 U	15 U	15 U	15 U	NS	15 U	15 U	NS
Benzene	1,200	1,700	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
Ethylbenzene	1,500,000	9,200,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
Isopropylbenzene	220,000	1,200,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
Methyl isobutyl ketone	4,300,000	440,000,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
n-Propylbenzene	NA	NA	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
Styrene	3,600,000	23,000,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
Toluene	7,500,000	60,000,000	3 U	3 U	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U	3 U	NS	3 U	3 U	NS
Xylenes	130,000	700,000	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS
Notes:																	
bgs - below ground surface																	
NA - FDEP soil cleanup target level criteria not available																	
NS - sample was not analyzed for the constituent at this interval																	
U - The compound was analyzed for but not detected																	
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.																	
J - Estimated Result																	
VOCs - Volatile Organic Compounds																	
While the entire VOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table.																	
Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.																	
Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels																	

Prepared by: JCK
Checked by: KDC
Reviewed by: JPO



TABLE 7
SOIL ANALYTICAL SUMMARY OF DETECTIONS - TRPH
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID			GSB-6 0-0.5	GSB-6 0.5-2	GSB-7 0-0.5	GSB-7 0.5-2	GSB-8 0-0.5	GSB-8 0.5-2	GSB-9 0-0.5	GSB-9 0.5-2	GSB-10 0-0.5	GSB-10 0.5-2	GSB-11 0-0.5	GSB-11 0.5-2	GSB-12 0-0.5	GSB-12 0.5-2	GSB-13 0-0.5
Sample Date			5/4/2011	5/4/2011	5/5/2011	5/5/2011	5/4/2011	5/4/2011	5/4/2011	5/4/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/4/2011	5/4/2011	5/6/2011
Sample Depth (feet bgs)			0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5
Moisture %			5.99	6.93	21.83	17.06	7.76	9.09	10.25	8.59	19.69	27.41	25.70	13.00	10.29	18.31	16.30
Cleanup Target Levels	Residential	Commercial															
TRPH by Florida Pro Method (mg/kg)																	
TRPH	460	2,700	601	27.7	11.1	6.82 I	205	4 U	155	4 U	6.96 I	111	1,800	45.7	2,000	26.7	4,420
Sample ID			GSB-13 0.5-2	GSB-13 2-4	GSB-14 0-0.5	GSB-14 0.5-2	GSB-15 0-0.5	GSB-15 0.5-2	GSB-16 0-0.5	GSB-16 0.5-2	GSB-16 2-4	GSB-17 0-0.5	GSB-17 0.5-2	GSB-18 0-0.5	GSB-18 0.5-2	GSB-19 0-0.5	GSB-19 0.5-2
Sample Date			5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011
Sample Depth (feet bgs)			0.5-2	2-4	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
Moisture %			7.71	8.05	8.18	17.92	14.30	8.35	11.60	9.22	39.20	9.08	7.02	9.04	10.20	6.73	7.19
Cleanup Target Levels	Residential	Commercial															
TRPH by Florida Pro Method (mg/kg)																	
TRPH	460	2,700	741	15.2	123	80.6	12.2 J	60.7	481	435	39.5	166	151	214	4 U	1,070	40.6
Sample ID			GSB-20 0-0.5	GSB-20 0.5-2	GSB-21 0-0.5	GSB-21 0.5-2	GSB-21 2-4	GSB-22 0-0.5	GSB-22 0.5-2	GSB-23 0-0.5	GSB-23 0.5-2	GSB-24 0-0.5	GSB-24 0.5-2	GSB-24 2-4	GSB-25 0-0.5	GSB-25 0.5-2	GSB-25 2-4
Sample Date			5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/5/2011
Sample Depth (feet bgs)			0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4
Moisture %			9.22	21.80	6.60	7.64	8.63	15.89	21.03	9.02	21.82	6.60	6.48	10.30	53.76	10.76	19.50
Cleanup Target Levels	Residential	Commercial															
TRPH by Florida Pro Method (mg/kg)																	
TRPH	460	2,700	353	30.5	458	457	10.7	4 U	5.07 I	10.2	5.7 I	614	217	30.5	1,600	268	47.3
Notes: bgs - below ground surface U - The compound was analyzed for but not detected I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. J - Estimated Result TRPH - Total Recoverable Petroleum Hydrocarbons Bold font indicates constituent concentration was reported above the laboratory reported method detection limit. Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels																	

Prepared by: JCK
Checked by: KDC
Reviewed by: JPO



TABLE 8
SOIL ANALYTICAL SUMMARY - TRPH SPECIATION
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID	Date Collected	C10-C12 Aliphatic Hydrocarbons	C10-C12 Aromatic Hydrocarbons	C12-C16 Aliphatic Hydrocarbons	C12-C16 Aromatic Hydrocarbons	C16-C21 Aromatic Hydrocarbons	C16-C35 Aliphatic Hydrocarbons	C21-C35 Aromatic Hydrocarbons	C5-C6 Aliphatic Hydrocarbons	C5-C7 Aromatic Hydrocarbons	C6-C8 Aliphatic Hydrocarbons	C7-C8 Aromatic Hydrocarbons	C8-C10 Aliphatic Hydrocarbons	C8-C10 Aromatic Hydrocarbons
Direct Exposure Residential		1700	900	2900	1500	1300	42000	2300	6200	340	8700	490	850	460
GSB-11 0-0.5'	5/6/2011	46 U	36 U	46 U	36 U	36 U	46 U	36 U	46 U	36 U	46 U	36 U	46 U	36 U
GSB-12 0-0.5'	5/4/2011	38 U	30 U	68 I	30 U	130	880	770	38 U	30 U	38 U	30 U	38 U	30 U
GSB-13 0-0.5'	5/6/2011	40 U	32 U	280	240	780	2800	2200	40 U	32 U	40 U	32 U	40 U	32 U
GSB-25 0-0.5'	5/5/2011	130 U	100 U	130 U	100 U	100 U	130 U	100 U	130 U	100 U	130 U	100 U	130 U	100 U

Notes:

bgs - below ground surface

U - The compound was analyzed for but not detected

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

TRPH - Total Recoverable Petroleum Hydrocarbons

Regulatory and Guidance Limits are taken from Florida Administrative Code 62-770

Bold font indicates a detection above the method detection limit (MDL)

Entered by: JCK
 Checked by: KDC
 Reviewed by: JPO



TABLE 9
SOIL ANALYTICAL SUMMARY OF DETECTIONS - SVOCs
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID Sample Date Sample Depth (feet bgs) Moisture %			GSB-6 0-0.5	GSB-6 0.5-2	GSB-7 0-0.5	GSB-7 0.5-2	GSB-8 0-0.5	GSB-8 0.5-2	GSB-9 0-0.5	GSB-9 0.5-2	GSB-10 0-0.5	GSB-10 0.5-2	GSB-11 0-0.5	GSB-11 0.5-2
			5/4/2011	5/4/2011	5/5/2011	5/5/2011	5/4/2011	5/4/2011	5/4/2011	5/4/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011
			0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2
			5.99	6.93	21.83	17.06	7.76	9.09	10.25	8.59	19.69	27.41	25.70	13.00
Cleanup Target Levels		Residential	Commercial											
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/kg)														
1-methyl-Naphthalene	200,000	1,800,000	660 U	66 U	66 U	66 U	66 U	66 U	330 U	66 U	66 U	66 U	660 U	66 U
2-methyl-Naphthalene	210,000	2,100,000	660 U	66 U	66 U	66 U	66 U	66 U	330 U	66 U	66 U	66 U	660 U	66 U
Benzo(a)pyrene	100	700	144	33 U	33 U	33 U	33 U	33 U	58.2 I	33 U	33 U	33 U	192	33 U
Benzo(b)fluoranthene	#	BaP TEQ	60 U	33 U	33 U	33 U	33 U	33 U	146	33 U	33 U	33 U	60 U	33 U
Benzo(g,h,i)perylene	2,500,000	52,000,000	60 U	66 U	66 U	66 U	66 U	66 U	30 U	66 U	66 U	66 U	60 U	66 U
Fluoranthene	3,200,000	59,000,000	60 U	66 U	66 U	66 U	66 U	66 U	30 U	66 U	66 U	66 U	60 U	66 U
Naphthalene	55,000	300,000	660 U	66 U	66 U	66 U	66 U	66 U	330 U	66 U	66 U	66 U	660 U	66 U
Phenanthrene	2,200,000	36,000,000	60 U	66 U	66 U	66 U	66 U	66 U	30 U	66 U	66 U	66 U	60 U	66 U
Pyrene	2,400,000	45,000,000	711	66 U	66 U	66 U	66 U	66 U	384	66 U	66 U	66 U	1150	66 U
SVOCs (µg/kg)														
Bis(2-ethylhexyl)phthalate	72,000	390,000	3110 J	100 U	100 U	100 U	100 U	100 U	1090 J	100 U	100 U	100 U	6330 J	127 J
See notes on Page 4.														

TABLE 9
SOIL ANALYTICAL SUMMARY OF DETECTIONS - SVOCs
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

			Sample ID		GSB-12 0-0.5	GSB-12 0.5-2	GSB-13 0-0.5	GSB-13 0.5-2	GSB-13 2-4	GSB-14 0-0.5	GSB-14 0.5-2	GSB-15 0-0.5	GSB-15 0.5-2	GSB-16 0-0.5	GSB-16 0.5-2	GSB-16 2-4		
			Sample Date		5/4/2011	5/4/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	
			Sample Depth (feet bgs)		0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4
			Moisture %		10.29	18.31	16.30	7.71	8.05	8.18	17.92	14.30	8.35	11.60	9.22	39.20		
Cleanup Target Levels			Residential	Commercial														
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/kg)																		
1-methyl-Naphthalene	200,000	1,800,000	660 U	66 U	1650 U	330 U	NS	330 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
2-methyl-Naphthalene	210,000	2,100,000	660 U	66 U	1650 U	330 U	NS	330 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
Benzo(a)pyrene	100	700	440	33 U	3260 J	195	NS	30 U	33 U	33 U	33 U	33 U	33 U	33 U	33 U	NS		
Benzo(b)fluoranthene	#	BaP TEQ	827	33 U	3910 J	589	NS	30 U	33 U	33 U	33 U	33 U	33 U	33 U	33 U	NS		
Benzo(g,h,i)perylene	2,500,000	52,000,000	618	66 U	2850 J	305	NS	30 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
Chrysene	#	BaP TEQ	703	66 U	4050 J	436	NS	30 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
Fluoranthene	3,200,000	59,000,000	60 U	66 U	3650 J	682	NS	30 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
Naphthalene	55,000	300,000	660 U	66 U	1650 U	330 U	NS	330 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
Phenanthrene	2,200,000	36,000,000	60 U	66 U	2290 J	488	NS	30 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
Pyrene	2,400,000	45,000,000	1840	66 U	8010 J	798	NS	30 U	66 U	66 U	66 U	66 U	66 U	66 U	66 U	NS		
SVOCs (µg/kg)																		
Bis(2-ethylhexyl)phthalate	72,000	390,000	4080 J	100 U	12800 J	2390	NS	500 U	264 J	100 U	100 U	232	100 U	NS				
See notes on Page 4.																		

TABLE 9
SOIL ANALYTICAL SUMMARY OF DETECTIONS - SVOCs
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

			Sample ID	GSB-17 0-0.5	GSB-17 0.5-2	GSB-18 0-0.5	GSB-18 0.5-2	GSB-19 0-0.5	GSB-19 0.5-2	GSB-20 0-0.5	GSB-20 0.5-2	GSB-21 0-0.5	GSB-21 0.5-2	GSB-21 2-4	GSB-22 0-0.5	
			Sample Date	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011
			Sample Depth (feet bgs)	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	
			Moisture %	9.08	7.02	9.04	10.20	6.73	7.19	9.22	21.80	6.60	7.64	8.63	15.89	
Cleanup Target Levels	Residential	Commercial														
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/kg)																
1-methyl-Naphthalene	200,000	1,800,000	66 U	66 U	66 U	66 U	330 U	66 U	330 U	66 U	330 U	66 U	NS	66 U		
2-methyl-Naphthalene	210,000	2,100,000	66 U	66 U	66 U	66 U	330 U	66 U	330 U	66 U	330 U	66 U	NS	66 U		
Benzo(a)pyrene	100	700	33 U	33 U	33 U	33 U	247	33 U	30 U	33 U	30 U	222	NS	33 U		
Benzo(b)fluoranthene	#	BaP TEQ	33 U	122	33 U	33 U	444	33 U	30 U	33 U	30 U	33 U	NS	33 U		
Benzo(g,h,i)perylene	2,500,000	52,000,000	166 J	111 I	66 U	66 U	254	66 U	30 U	66 U	175	207	NS	66 U		
Chrysene	#	BaP TEQ	66 U	116 I	66 U	66 U	569	66 U	30 U	66 U	30 U	66 U	NS	66 U		
Fluoranthene	3,200,000	59,000,000	66 U	66 U	66 U	66 U	30 U	66 U	30 U	66 U	30 U	127 I	NS	66 U		
Naphthalene	55,000	300,000	66 U	66 U	66 U	66 U	330 U	66 U	330 U	66 U	330 U	66 U	NS	66 U		
Phenanthrene	2,200,000	36,000,000	66 U	66 U	66 U	66 U	30 U	66 U	30 U	66 U	30 U	128 I	NS	66 U		
Pyrene	2,400,000	45,000,000	143 J	138	66 U	66 U	1020	66 U	230 U	66 U	185	1080	NS	66 U		
SVOCs (µg/kg)																
Bis(2-ethylhexyl)phthalate	72,000	390,000	406 J	227	100 U	100 U	3940 J	100 U	609 J	100 U	640 J	522	NS	100 U		
See notes on Page 4.																



TABLE 9
SOIL ANALYTICAL SUMMARY OF DETECTIONS - SVOCs
MAY 2011 EVENT

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample ID Sample Date Sample Depth (feet bgs) Moisture %			GSB-22 0.5-2	GSB-23 0-0.5	GSB-23 0.5-2	GSB-24 0-0.5	GSB-24 0.5-2	GSB-24 2-4	GSB-25 0-0.5	GSB-25 0.5-2	GSB-25 2-4	GSB-25C 0-0.5	GSB-26 0-0.5	GSB-26 0.5-2
			5/5/2011	5/5/2011	5/5/2011	5/6/2011	5/6/2011	5/6/2011	5/5/2011	5/5/2011	5/5/2011	6/14/2011	6/14/2011	6/14/2011
			0.5-2	0-0.5	0.5-2	0-0.5	0.5-2	2-4	0-0.5	0.5-2	2-4	0-0.5	0-0.5	0.5-2
			21.03	9.02	21.82	6.60	6.48	10.30	53.76	10.76	19.50	2.43	7.76	9.84
Cleanup Target Levels		Residential	Commercial											
Polycyclic Aromatic Hydrocarbons (PAHs) (µg/kg)														
1-methyl-Naphthalene	200,000	1,800,000	66 U	66 U	66 U	660 U	66 U	NS	660 U	66 U	NS	10.1 I	60 U	20.6
2-methyl-Naphthalene	210,000	2,100,000	66 U	66 U	66 U	660 U	66 U	NS	660 U	66 U	NS	16.3	60 U	27.7
Benzo(a)pyrene	100	700	33 U	33 U	33 U	60 U	33 U	NS	1500	33 U	NS	6 U	60 U	6 U
Benzo(b)fluoranthene	#	BaP TEQ	33 U	33 U	33 U	60 U	33 U	NS	2430	33 U	NS	6 U	60 U	6 U
Benzo(g,h,i)perylene	2,500,000	52,000,000	66 U	66 U	66 U	60 U	66 U	NS	2040	138 J	NS	6 U	60 U	6 U
Chrysene	#	BaP TEQ	66 U	66 U	66 U	60 U	66 U	NS	2050	66 U	NS	6 U	60 U	6 U
Fluoranthene	3,200,000	59,000,000	66 U	66 U	66 U	60 U	66 U	NS	1110	66 U	NS	6 U	60 U	6 U
Naphthalene	55,000	300,000	66 U	66 U	66 U	660 U	66 U	NS	660 U	66 U	NS	6 U	60 U	28.1
Phenanthrene	2,200,000	36,000,000	66 U	66 U	66 U	60 U	66 U	NS	60 U	66 U	NS	6 U	60 U	6 U
Pyrene	2,400,000	45,000,000	66 U	66 U	66 U	60 U	66 U	NS	4160	66 U	NS	6 U	60 U	6 U
SVOCs (µg/kg)														
Bis(2-ethylhexyl)phthalate	72,000	390,000	100 U	100 U	100 U	60 U	100 U	NS	26700 J	406 J	NS	NS	NS	NS
Notes:														
bgs - below ground surface														
NS - sample was not analyzed for the constituent at this interval														
U - The compound was analyzed for but not detected														
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.														
J - Estimated Result														
SVOCs - Semi-volatile Organic Compounds														
While the entire SVOC list was analyzed, only those parameters for which at least one detection was reported are listed in the table.														
BaP TEQ - cumulative criteria for these parameters compared to criteria for benzo(a)pyrene.														
Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.														
Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels														

Prepared by: JCK
Checked by: KDC
Reviewed by: JPO



TABLE 10
SOIL ANALYTICAL SUMMARY
(BENZO(A)PYRENE TOXICITY EQUIVALENTS)

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample			Targeted PAH Constituents Used For Calculation												Result
Sample ID	Date Collected	Sample Interval (feet bgs)	Benzo(a) pyrene (mg/kg)	Benzo(a) anthracene (mg/kg)	Benzo(b) fluoranthene (mg/kg)	Benzo(k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h) anthracene (mg/kg)	Indeno (1,2,3-c,d) pyrene (mg/kg)	Total Benzo(a) pyrene equivalents (mg/kg)					
Commercial/Industrial Direct Exposure SCTL			0.7	#	#	#	#	#	#	0.7					
TEF Value			1	0.1	0.1	0.01	0.001	1	0.1	1					
GSB-6 0-0.5	5/4/2011	0-0.5	0.144	0.060	0.060	0.060	0.289	0.060	0.060	0.2					
			0.144	0.003	0.003	0.000	0.000	0.030	0.003						
GSB-6 0.5-2	5/4/2011	0.5-2	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-7 0-0.5	5/5/2011	0-0.5	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-7 0.5-2	5/5/2011	0.5-2	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-8 0-0.5	5/4/2011	0-0.5	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-8 0.5-2	5/4/2011	0.5-2	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-9 0-0.5	5/4/2011	0-0.5	0.058	0.030	0.146	0.030	0.030	0.030	0.030	0.1					
			0.058	0.002	0.007	0.000	0.000	0.015	0.002						
GSB-9 0.5-2	5/4/2011	0.5-2	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-10 0-0.5	5/5/2011	0-0.5	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-10 0.5-2	5/5/2011	0.5-2	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-11 0-0.5	5/6/2011	0-0.5	0.192	0.060	0.060	0.060	0.460	0.060	0.060	0.2					
			0.192	0.003	0.003	0.000	0.000	0.030	0.003						
GSB-11 0.5-2	5/6/2011	0.5-2	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-12 0-0.5	5/4/2011	0-0.5	0.440	0.060	0.827	0.060	0.703	0.060	0.060	0.6					
			0.440	0.003	0.083	0.000	0.001	0.030	0.003						
GSB-12 0.5-2	5/4/2011	0.5-2	0.033	0.033	0.033	0.033	0.066	0.033	0.033	0.0					
			0.017	0.002	0.002	0.000	0.000	0.017	0.002						
GSB-13 0-0.5	5/6/2011	0-0.5	3.260	0.150	3.910	0.150	4.050	0.150	0.150	3.7					
			3.260	0.008	0.391	0.001	0.004	0.075	0.008						

See notes on Page 3.

TABLE 10
SOIL ANALYTICAL SUMMARY
(BENZO(A)PYRENE TOXICITY EQUIVALENTS)

Liberty Tire Recycling, LLC.
 Port St. Lucie, Florida

Sample			Targeted PAH Constituents Used For Calculation												Result		
Sample ID	Date Collected	Sample Interval (feet bgs)	Benzo(a) pyrene (mg/kg)		Benzo(a) anthracene (mg/kg)		Benzo(b) fluoranthene (mg/kg)		Benzo(k) fluoranthene (mg/kg)		Chrysene (mg/kg)		Dibenzo(a,h) anthracene (mg/kg)		Indeno (1,2,3-c,d) pyrene (mg/kg)		Total Benzo(a) pyrene equivalents (mg/kg)
Commercial/Industrial Direct Exposure SCTL			0.7		#		#		#		#		#		#		0.7
TEF Value			1		0.1		0.1		0.01		0.001		1		0.1		1
GSB-13 0.5-2	5/6/2011	0.5-2	0.195		0.030	U	0.589		0.030	U	0.436		0.030	U	0.030	U	0.3
			0.195		0.002		0.059		0.000		0.000		0.015		0.002		
GSB-14 0-0.5	5/5/2011	0-0.5	0.030	U	0.030	U	0.030	U	0.030	U	0.030	U	0.030	U	0.030	U	0.0
			0.015		0.002		0.002		0.000		0.000		0.015		0.002		
GSB-14 0.5-2	5/5/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-15 0-0.5	5/6/2011	0-0.5	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-15 0.5-2	5/6/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-16 0-0.5	5/6/2011	0-0.5	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-16 0.5-2	5/6/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-17 0-0.5	5/6/2011	0-0.5	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-17 0.5-2	5/6/2011	0.5-2	0.033	U	0.033	U	0.122		0.033	U	0.116	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.012		0.000		0.000		0.017		0.002		
GSB-18 0-0.5	5/6/2011	0-0.5	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-18 0.5-2	5/6/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-19 0-0.5	5/6/2011	0-0.5	0.247		0.030	U	0.444		0.030	U	0.569		0.030	U	0.030	U	0.3
			0.247		0.002		0.044		0.000		0.001		0.015		0.002		
GSB-19 0.5-2	5/6/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-20 0-0.5	5/6/2011	0-0.5	0.030	U	0.030	U	0.030	U	0.030	U	0.030	U	0.030	U	0.030	U	0.0
			0.015		0.002		0.002		0.000		0.000		0.015		0.002		
GSB-20 0.5-2	5/6/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-21 0-0.5	5/6/2011	0-0.5	0.030	U	0.030	U	0.030	U	0.030	U	0.066	U	0.030	U	0.030	U	0.0
			0.015		0.002		0.002		0.000		0.000		0.015		0.002		
GSB-21 0.5-2	5/6/2011	0.5-2	0.222		0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.2
			0.222		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-22 0-0.5	5/5/2011	0-0.5	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-22 0.5-2	5/5/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-23 0-0.5	5/5/2011	0-0.5	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-23 0.5-2	5/5/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	0.0
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		
GSB-24 0-0.5	5/6/2011	0-0.5	0.060	U	0.060	U	0.060	U	0.060	U	0.060	U	0.060	U	0.060	U	0.1
			0.030		0.003		0.003		0.000		0.000		0.030		0.003		

See notes on Page 3.

See notes on Page 3.

TABLE 10
SOIL ANALYTICAL SUMMARY
(BENZO(A)PYRENE TOXICITY EQUIVALENTS)

Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Sample			Targeted PAH Constituents Used For Calculation												Result		
Sample ID	Date Collected	Sample Interval (feet bgs)	Benzo(a) pyrene (mg/kg)		Benzo(a) anthracene (mg/kg)		Benzo(b) fluoranthene (mg/kg)		Benzo(k) fluoranthene (mg/kg)		Chrysene (mg/kg)		Dibenzo(a,h) anthracene (mg/kg)		Indeno (1,2,3-c,d) pyrene (mg/kg)		Total Benzo(a) pyrene equivalents (mg/kg)
Commercial/Industrial Direct Exposure SCTL			0.7		#		#		#		#		#		#		0.7
TEF Value			1		0.1		0.1		0.01		0.001		1		0.1		1
GSB-24 0.5-2	5/6/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		0.0
GSB-25 0-0.5	5/5/2011	0-0.5	1.500		0.060	U	2.430		0.060	U	2.050		0.060	U	0.060	U	
			1.500		0.003		0.243		0.000		0.002		0.030		0.003		1.8
GSB-25 0.5-2	5/5/2011	0.5-2	0.033	U	0.033	U	0.033	U	0.033	U	0.066	U	0.033	U	0.033	U	
			0.017		0.002		0.002		0.000		0.000		0.017		0.002		0.0
GSB-25C 0-0.5	6/14/2011	0-0.5	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	
			0.003		0.000		0.000		0.000		0.000		0.003		0.000		0.0
GSB-26 0-0.5	6/14/2011	0-0.5	0.060	U	0.060	U	0.060	U	0.060	U	0.060	U	0.060	U	0.060	U	
			0.030		0.003		0.003		0.000		0.000		0.030		0.003		0.1
GSB-26 0.5-2	6/14/2011	0.5-2	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	0.006	U	
			0.003		0.000		0.000		0.000		0.000		0.003		0.000		0.0

Notes:

bgs - below ground surface

mg/kg - milligrams per kilogram

MDL - Method Detection Limit

PQL - Practical Quantitation Limit

PAHs - Polycyclic Aromatic Hydrocarbons

- Concentrations for listed PAHs must be converted to benzo(a)pyrene TEQ values.

Total TEQ - Sum of the TEQ concentrations of listed PAH parameters compared to the appropriate direct exposure SCTL for benzo(a)pyrene using the approach described in the February 2005 Final Technical Report: Development of Cleanup Target Levels For Chapter 62-777, F.A.C.

To Calculate:

If the value is greater than the PQL and is not estimated, then use the stated value.

I - The reported value is between the laboratory MDL and the laboratory PQL, use full value.

U - Compound was analyzed for, but not detected. The reported value is the laboratory MDL, use 1/2 the value.

TEF - Toxicity Equivalency Factor used to convert specific PAHs to benzo(a)pyrene equivalents.

TEQ - Toxicity Equivalent

SCTL - Soil Cleanup Target Level per Chapter 62-777, Table II, FAC.

Bold font indicates constituent concentration was reported above the laboratory reported method detection limit.

Shading indicates exceedance of FDEP commercial direct exposure soil cleanup target levels

Prepared by: KDC
Checked by: JCK
Reviewed by: JPO

**Liberty Tire Recycling, LLC.
Port St. Lucie, Florida**

MONITORING WELLS												
WELL NO.	MW-1			MW-2			MW-3			MW-4		
DIAMETER	2			2			2			2		
WELL DEPTH	12			12			12			12		
SCREEN INTERVAL	2-12			2-12			2-12			2-12		
TOC ELEVATION	28.17			27.15			28.59			28.47		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
5/6/11	21.82	6.35		21.48	5.67		21.63	6.96		21.59	6.88	
WELL NO.	MW-5			MW-6			MW-7					
DIAMETER	2			2			2					
WELL DEPTH	12			12			12					
SCREEN INTERVAL	2-12			2-12			2-12					
TOC ELEVATION	28.98			27.08			27.64					
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
5/6/11	21.47	7.51		21.41	5.67		21.39	6.25				

Notes:

TOC = Top of Casing
DTW = Depth to Water
FP = Free Product

Blank = No Data
Elevation and DTW measurements are reported in linear feet

Entered by: JCK
Checked by: KDC
Reviewed by: JPO

TABLE 12
GROUNDWATER ANALYTICAL SUMMARY OF DETECTIONS

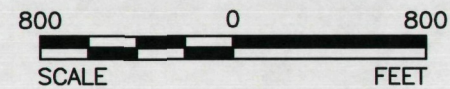
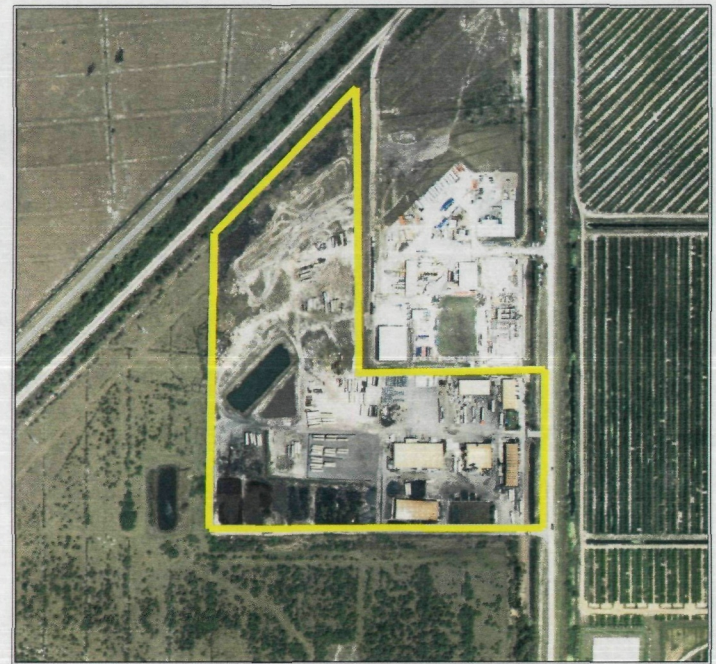
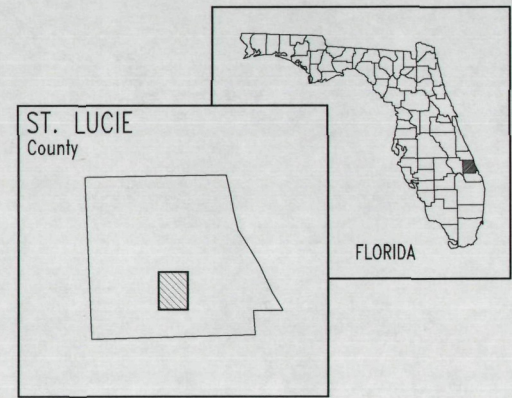
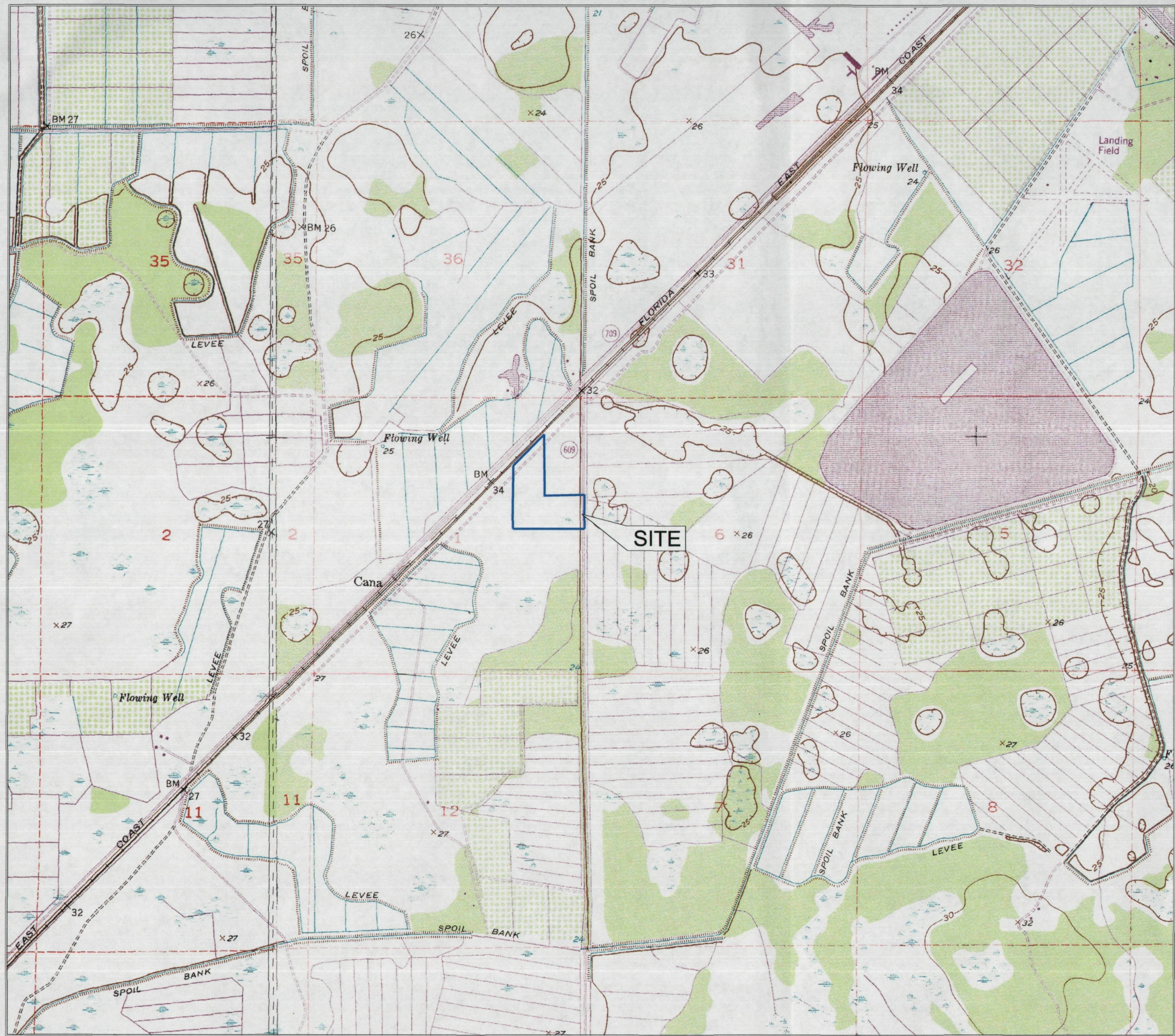
Liberty Tire Recycling, LLC.
Port St. Lucie, Florida

Detected Constituents	Sample ID	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Sample Date	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011	5/6/2011
	GCTL							
Metals by EPA Method 6010B (mg/l)								
Aluminum	0.2**	0.0768	0.0777	0.328	0.0772	0.01 U	0.133	0.0783
Arsenic	0.01*	0.001 U	0.0015 I	0.00211	0.00148 I	0.00557	0.0089	0.011
Iron	0.3**	17.9	0.128	2.52	8.44	12	20.7	12.4
Manganese	0.05**	1.13	1.24	0.0367	0.0462	0.0365	0.0609	0.0414
Zinc	5**	0.01 U	0.01 U	0.0119 I	0.01 U	0.01 U	0.0312	0.01 U
VOCs by EPA Method 8260C (µg/l)								
Acetone***	6,300	9.04 I	8.71 I	7.38 I	5 U	5 U	5 U	6.84 I
SVOCs by EPA Method 8270C (µg/l)								
Bis(2-ethylhexyl)phthalate	6*	3 U	3 U	3 U	3 U	3 U	3 U	45.3
TRPH by Florida Pro Method (µg/l)								
Petroleum Range Organics (C8-C40)	5000***	3960	752	149 I	100 U	431	630	879
Laboratory pH								
pH		6.82	6.97	5.83	6.47	6.95	6.82	6.86
Notes: GCTL- Groundwater Cleanup Target Level µg/L - micrograms per liter * - Chapter 62-302.530 F.A.C. primary drinking water standard ** - Chapter 62-302.530 F.A.C. secondary drinking water standard *** - Groundwater Cleanup Target Levels from on Chapter 62-777 F.A.C. U-Values are below the laboratory method detection limit I - Values are between the laboratory method detection limit and the laboratory practical quantitation limit. Bold font indicates constituent concentration was reported above the laboratory reported method detection limit Sample exceeds FDEP Groundwater Cleanup Target Levels								

Entered by: JCK
Checked by: KDC
Reviewed by: JPO

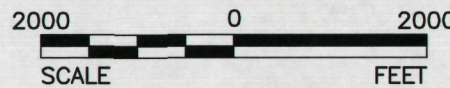
FIGURES

Drawing file: 10382740-E002.dwg Jun 30, 2011 - 11:45am



REFERENCES

- 1.) USGS TOPOGRAPHIC MAP, 7.5 MIN. QUADRANGLE MAP SERIES: FORT PIERCE SW AND NORTH OF BLUEFIELD QUADRANGLES, ST. LUCIE COUNTY, FLORIDA.



REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RW
PROJECT						
LIBERTY TIRE RECYCLING PORT ST. LUCIE, ST. LUCIE COUNTY, FLORIDA						
TITLE						
SITE LOCATION MAP						
PROJECT No.			103-82740	FILE No.		
DESIGN			JCK	06/24/11		
CADD			BCL	06/30/11		
CHECK			JCK	06/30/11		
REVIEW			JPO	06/30/11		
SCALE			AS SHOWN	REV.		
				0		



FIGURE 1

N:\File\2010\103-82740 Liberty Tire Recycling\I - Site Assessment Report\10382740-E003.dwg | 6/24/2011 3:50 PM | Blucero | Jacksonville, FL



LEGEND

	PROPERTY BOUNDARY
	EXISTING DITCH
	INITIAL PHASE SOIL SAMPLE LOCATION
	SECOND PHASE SOIL SAMPLE LOCATION
	MONITORING WELL LOCATION
	SURFACE WATER SAMPLE LOCATION
	TEMPORARY PIEZOMETER GROUNDWATER SAMPLE LOCATION

REFERENCES

- 1.) PROPERTY BOUNDARIES FROM ST. LUCIE COUNTY PROPERTY APPRAISER DATABASE, DATED 2010.
- 2.) AERIAL FROM AERIALS EXPRESS, DATED FEBRUARY 16, 2010.



LIBERTY TIRE RECYCLING
PORT ST. LUCIE, ST. LUCIE COUNTY,
FLORIDA

PROJECT

SOIL SAMPLE AND MONITORING
WELL LOCATIONS

TITLE

PROJECT No.	103-82740
FILE No.	10382740-E003
REV. 0	SCALE AS SHOWN
DESIGN	JCK 06/24/11
CADD	BCL 06/30/11
CHECK	JCK 06/30/11
REVIEW	JPO 06/30/11

FIGURE 2

N:\File\2010\103-82740 Liberty Tire Recycling\1E - Site Assessment Report\10382740-E004.dwg | 6/24/2011 3:58 PM | Blucero | Jacksonville, FL



LEGEND

- PROPERTY BOUNDARY
- EXISTING DITCH
- GSB-4 ○
- GSW-3 ▲
- GPZ-1 ⊕
- INITIAL PHASE SOIL SAMPLE LOCATION
- SURFACE WATER SAMPLE LOCATION
- TEMPORARY PIEZOMETER GROUNDWATER SAMPLE LOCATION

REFERENCES

- 1.) PROPERTY BOUNDARIES FROM ST. LUCIE COUNTY PROPERTY APPRAISER DATABASE, DATED 2010.
- 2.) AERIAL FROM AERIALS EXPRESS, DATED FEBRUARY 16, 2010.

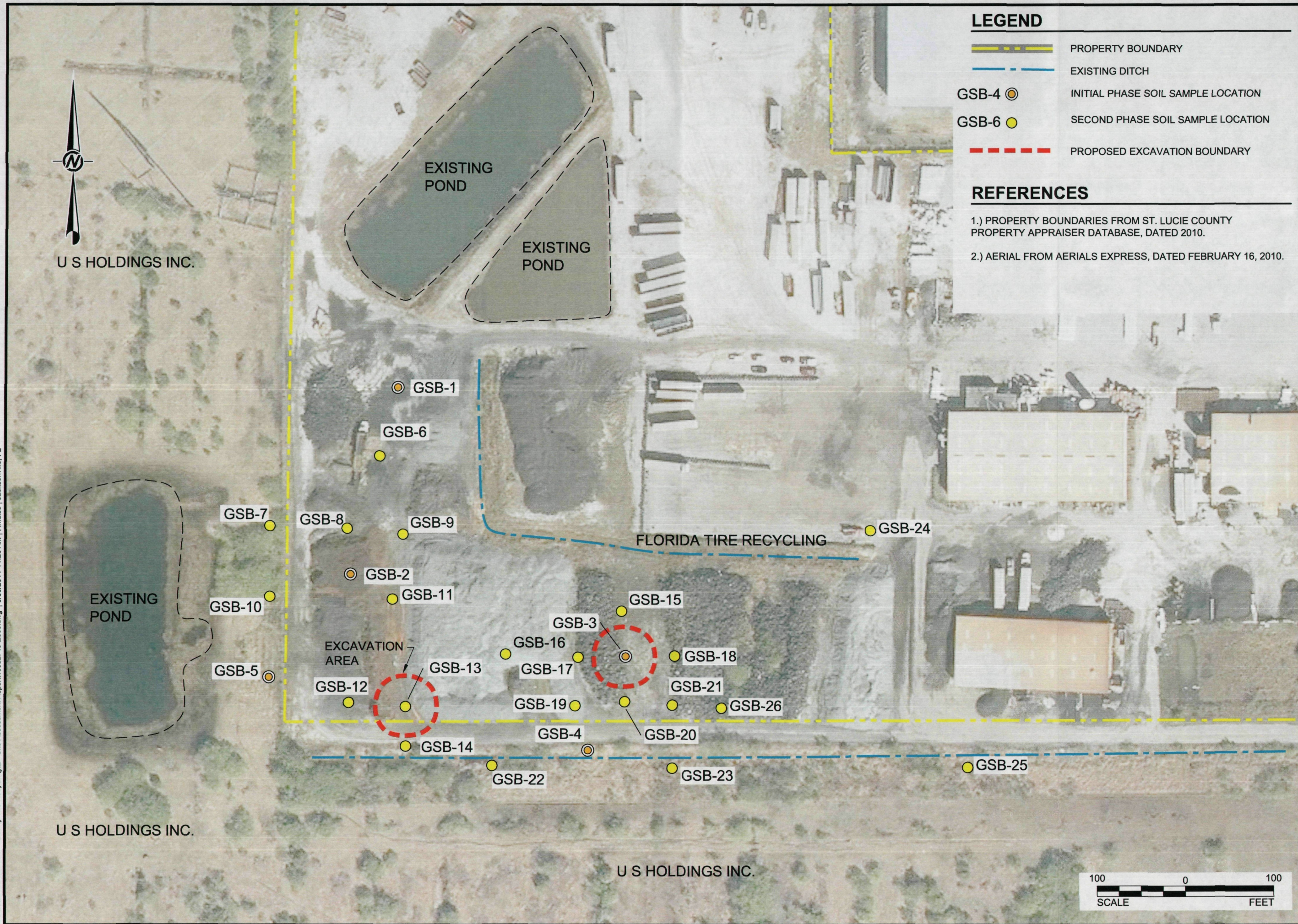
LIBERTY TIRE RECYCLING
PORT ST. LUCIE, ST. LUCIE COUNTY,
FLORIDA

**INITIAL ASSESSMENT
SOIL, GROUNDWATER, AND
SURFACE WATER SAMPLE
LOCATIONS**

PROJECT No.	103-82740
FILE No.	10382740-E004
REV. 0	SCALE AS SHOWN
DESIGN	JCK 06/24/11
CADD	BCL 06/30/11
CHECK	JCK 06/30/11
REVIEW	JPO 06/30/11

FIGURE 3

N:\File\2010\103-82740 Liberty Tire Recycling\1E - Site Assessment Report\10382740-E005.dwg | 6/30/2011 11:26 AM | Rmluse | Jacksonville, FL



LEGEND

- PROPERTY BOUNDARY
- EXISTING DITCH
- GSB-4 INITIAL PHASE SOIL SAMPLE LOCATION
- GSB-6 SECOND PHASE SOIL SAMPLE LOCATION
- PROPOSED EXCAVATION BOUNDARY

REFERENCES

- 1.) PROPERTY BOUNDARIES FROM ST. LUCIE COUNTY PROPERTY APPRAISER DATABASE, DATED 2010.
- 2.) AERIAL FROM AERIALS EXPRESS, DATED FEBRUARY 16, 2010.



LIBERTY TIRE RECYCLING
PORT ST. LUCIE, ST. LUCIE COUNTY,
FLORIDA

SECOND PHASE SOIL SAMPLE LOCATIONS

TITLE		
PROJECT No.	103-82740	
FILE No.	10382740-E005	
REV. 0	SCALE	AS SHOWN
DESIGN	JCK	06/24/11
CADD	BCL	06/30/11
CHECK	JCK	06/30/11
REVIEW	JPO	06/30/11

FIGURE 4

N:\File\2010\103-82740 Liberty Tire Recycling\I - Site Assessment Report\10382740-E006.dwg | 6/24/2011 4:06 PM | Blucero | Jacksonville, FL



LEGEND

- PROPERTY BOUNDARY
- EXISTING DITCH
- MW-1 MONITORING WELL LOCATION

REFERENCES

- 1.) PROPERTY BOUNDARIES FROM ST. LUCIE COUNTY PROPERTY APPRAISER DATABASE, DATED 2010.
- 2.) AERIAL FROM AERIALS EXPRESS, DATED FEBRUARY 16, 2010.



LIBERTY TIRE RECYCLING
PORT ST. LUCIE, ST. LUCIE COUNTY,
FLORIDA

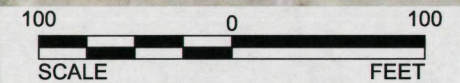
PROJECT

SECOND PHASE
MONITORING WELL LOCATIONS

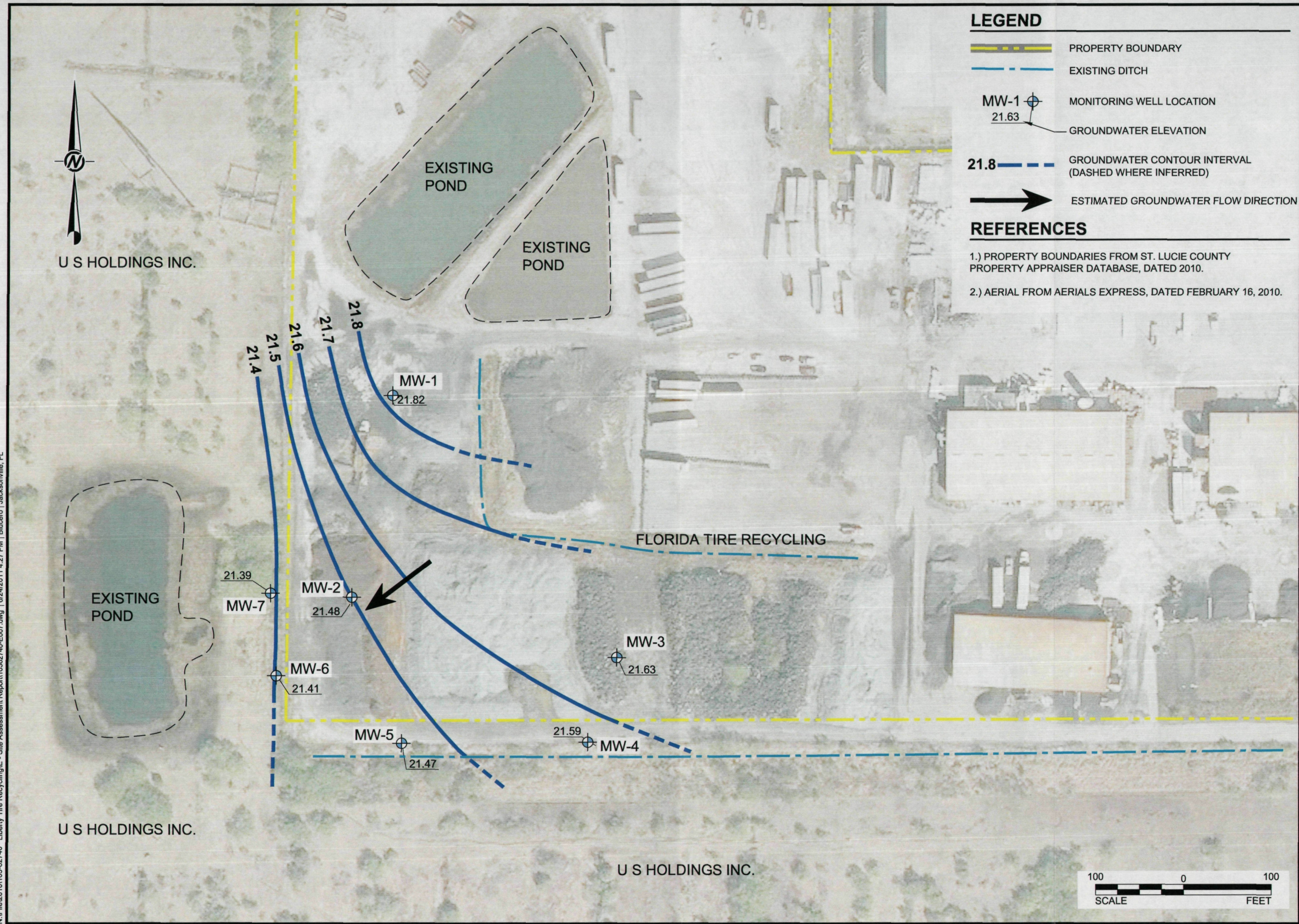
TITLE

PROJECT No.	103-82740
FILE No.	10382740-E006
REV. 0	SCALE AS SHOWN
DESIGN	JCK 06/24/11
CADD	BCL 06/30/11
CHECK	JCK 06/30/11
REVIEW	JPO 06/30/11

FIGURE 5



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Golder Associates

PROJECT

LIBERTY TIRE RECYCLING
PORT ST. LUCIE, ST. LUCIE COUNTY,
FLORIDA

TITLE

POTENTIOMETRIC MAP
SHALLOW SURFICIAL AQUIFER
- MAY 6, 2011 -

PROJECT No.	103-82740
FILE No.	10382740-E007
REV. 0	SCALE AS SHOWN
DESIGN	JCK 06/24/11
CADD	BCL 06/30/11
CHECK	JCK 06/30/11
REVIEW	JPO 06/30/11

FIGURE 6

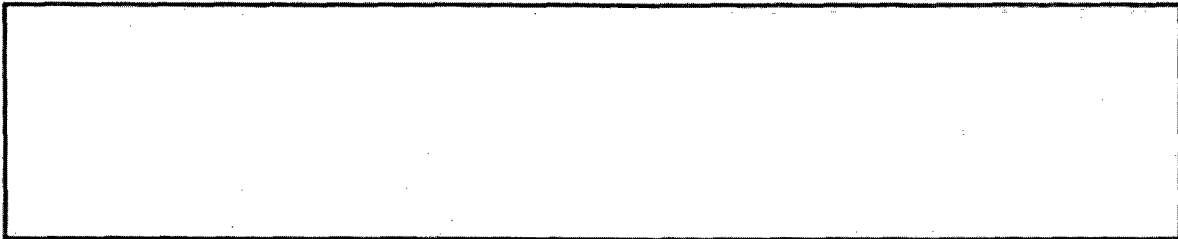
ATTACHMENT A
SOIL SAMPLING LOGS

SOIL SAMPLE COLLECTION FORM

Project Name: L-82614 Tree
 Project Number: 163-82740
 Sampled by: JE/BD
 Sampling Location: Pence St, Lucie, FL

Sample ID: GSB-1
 Date: 2/3/11
 Sampling Method: Hand Auger
 Type of Sampling Equipment: Stainless Steel Bucket

SAMPLE COLLECTION LOCATION SKETCH:



Sample ID	Time Collected	Sample Depth Interval	Soil Description
GSB-1	1520	0-0.5	Gray to dk grey med sand, to fine, to fine debris
GSB-1	1525	0.5-2	Gray to lt grey med-fine sand, to fine, to fine debris
GSB-1	1530	2-4	SAND to 2.5, dk grey SAND, 1.5 to 3.5 brown clayey sand to 4, water @ 2.5'

OVA
 193 PPB
 10 PPB
 3 PPB

Analysis	Container Type and Size	Containers Per Sample	Number of Samples	Composite or Grab	Comments
8260	40 ml	4	3	G	
TAL + TOL 8260, TAL + TOL	8 oz CG	1	3	G	

of Custody #: _____
 Shuttle ID: _____
 Trip Blank ID: _____
 Lab Name: _____
 Air Bill #: _____

REMARKS: _____

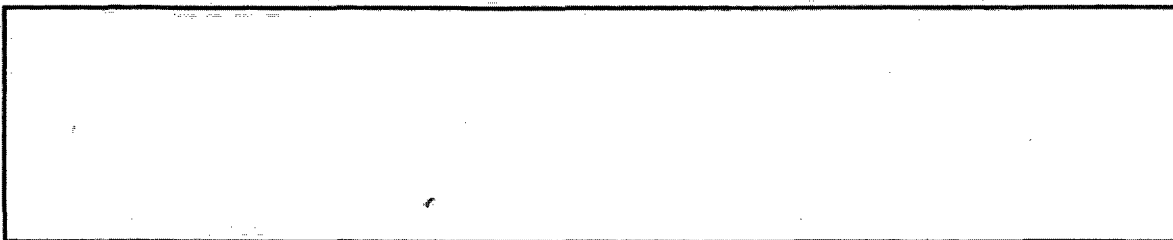
 Field Team Leader: [Signature]

SOIL SAMPLE COLLECTION FORM

Project Name: LIBERTY FIRE
 Project Number: 103-82746
 Sampled by: JK/BSO
 Sampling Location: PORT ST LUCIA FL

Sample ID: G5B-3
 Date: 2/4/11
 Sampling Method: Hand Auger
 Type of Sampling Equipment: Stainless Steel bucket

SAMPLE COLLECTION LOCATION SKETCH:



Sample ID	Time Collected	Sample Depth Interval	Soil Description
G5B-3	0815	0-0.5	DK gray f. SAND, li fines, and lines
↓	0820	0.5-2	SPH w/ @ 1.0
↓	0925	2-4	lt gray to brown fne. SAND, to-1-fines, to organics (wet)

UVA (ppm)
 0.7
 0.4
 0.3

Analysis	Container Type and Size	Containers Per Sample	Number of Samples	Composite or Grab	Comments
8260	40 ml	4	2	G	
TAL 1T, 8270 TRPH	803 CG	1	2	G	

of Custody #: _____
 Shuttle ID: _____
 Trip Blank ID: _____
 Lab Name: _____
 Air Bill #: _____

REMARKS: perched water table in vicinity @ top
then goes down to lower

Field Team Leader: [Signature]

SOIL SAMPLE COLLECTION FORM

Project Name: LARRY TALK
 Project Number: 03-82746
 Sampled by: JK/BD
 Sampling Location: Bar Silver Fl

Sample ID: GSB-5
 Date: 2/1/11
 Sampling Method: Hand Aug
 Type of Sampling Equipment: Stainless Steel Bucket

SAMPLE COLLECTION LOCATION SKETCH:

Sample ID	Time Collected	Sample Depth Interval	Soil Description
GSB-5	1050	0-0.5	Gray to dk gray med sand to org. silty loess
	1055	0.5-2	From med sand, to fine, to org.
	1100	2-4	From med sand, to low to 3.5, olive gr clayey sand to 4' 0.0

URA
 0.0
 0.0
 0.0

Analysis	Container Type and Size	Containers Per Sample	Number of Samples	Composite or Grab	Comments

of Custody #: _____
 Shuttle ID: _____
 Trip Blank ID: _____
 Lab Name: _____
 Air Bill #: _____

REMARKS: _____

 Field Team Leader: _____

Soil Screening Log

Site Name: LIBERTY TANK

Sampling Crew: J. King

Date: 5/5/11

Site Location: Post St/1046 FL

Collection Method: HAND AUGER / DPT

Project Number: 103-82740

Boring ID.	Depth (Feet BGS)	Sample Identification	OVA READING (ppm)			Odor	ASTM Soil Class	Soil Description/Comments
			Unfiltered	Filtered	Actual			
✓ GSB-23	0-0.5	5/5/11 1600			0.0	none	SP	Br f. - med sand, tr fines
	0.5-2	5/5/11 1600			0.0	none	SP-SC	SAA to 1.5 - Br clayey SAND
	2-4	5/5/11 1600			0.0	none	SP-SC	SAA to 3, lt gray f. SAND, li fines
✓ GSB-22	0-0.5	5/5/11 1615			0.0	none	SP	Br-gr f. - med sand tr fines
	0.5-2	5/5/11 1615			0.0	none	SP-SC	SAA to 1.0 Br clayey SAND
	2-4	5/5/11 1615			0.0	none	SP	Gray to lt gray f. SAND, li-silt fines
✓ GSB-24	0-0.5	5/5/11 1645			0.0	none	SP	Br f. SAND
	0.5-2	5/5/11 1645			0.0	none	SP	Gr - lt gr f. SAND, tr - li fines
	2-4	5/5/11 1645			0.0	none	SP	Br f. - med SAND, tr fines
✓ GSB-25	0-0.5	5/5/11 1715			0.0	none	SP	DK brown f. SAND and organics
	0.5-2	5/5/11 1715			0.0	none	SP	Brown to lt brown fine to med (SPM) to fines, to org
	2-4	5/5/11 1715			0.0	none	SP	SAA
✓ GSB-16	0-0.5	5/6/11 0955			7.3	low	SP	DK brown f. SAND, li-silt fines, tr fine
	0.5-2	5/6/11 0955			0.8	none	SP	Br f. SAND to med SAND tr fines
	2-4	5/6/11 0955			0.0	none	SP	lt gr to br f. SAND med SAND, tr fines
✓ GSB-15	0-0.5	5/6/11 1020			0.0	none	SP	DK br f. SAND li fines, li fines
	0.5-2	5/6/11 1020			0.0	none	SP-1	Br f. - med SAND tr fines
	2-4	5/6/11 1020			0.0	none	SP	SAA to 3, DK br f. SAND some fines
✓ B-17	0-0.5	5/6/11 1055			0.8	none	SP	lt dk br - dk gr f. SAND tr fines, li fines
	0.5-2	5/6/11 1055			0.0	none	SP	brown fine - med SAND tr fines
	2-4	5/6/11 1055			0.0	none	SP	lt br to br f. - med SAND
✓ GSB-17	0-0.5	5/6/11 1135			0.0	none	SP	lt dk gr - br f. SAND li fines, li fines
	0.5-2	5/6/11 1135			0.0	none	SP	dk br f. SAND tr - li fines
	2-4	5/6/11 1135			0.0	none	SP	Br f. - med SAND, tr fines

Soil Screening Log

Site Name: Liberty Line

Sampling Crew: J. King, K. Blewins

Date: 5/6/11

Site Location: Port St. Louis, Mo

Collection Method: DPT

Project Number: 103-82740

[illegible]

Soil Screening Log

Site Name: Liberty Trng
 Site Location: Port St Louis Tr

Sampling Crew: JKing, K Blewins
 Collection Method: DPT /

Date: 5/4/11 - 5/5/11
 Project Number: 103-82740

Boring ID.	Depth (Feet BGS)	Sample Identification	OVA READING (ppm)			Odor	ASTM Soil Class	Soil Description/Comments
			Unfiltered	Filtered	Actual			
✓ GSB-6	0-0.5	5/4/11 1500			0.00	none	SP	dk br. f. sand, to 1' fine
	0.5-2	5/4/11 1500			0.00	none	SP	dk br. f. sand, to fines
	2-4	5/4/11 1500			0.00	none	SP	dk br. f. sand, to fines, 3.5' - dk br. f. sand to 1' fine
✓ GSB-8	0-0.5	5/4/11 1520			0.00	none	SP	dk br. f. sand, to fines, to fine
	0.5-2	5/4/11 1520			0.00	none	SP	dk br. f. sand, to fines
	2-4	5/4/11 1520			0.00	none	SP	dk br. f. sand, to fines, to clayey sand 0.5-4
✓ GSB-9	0-0.5	5/4/11 1545			0.40	none	SP	dk br. f. sand, to fines, to fine
	0.5-2	5/4/11 1545			0.00	none	SP	dk br. f. sand, to fines
	2-4	5/4/11 1545			0.00	none	SP	dk br. f. sand, to fines, to clayey sand
✓ GSB-11	0-0.5	5/6/11 0825			1.1	none	SP	dk br. f. sand, to fines, to fine
	0.5-2	5/6/11 0825			1.0	none	SP	SAB
	2-4	5/6/11 0825			0.0	none	SP	Br. f. med. sand, to fines
✓ GSB-12	0-0.5	5/4/11 1625			0.00	none	SP	dk br. f. sand, to fines, to fines
	0.5-2	5/4/11 1625			0.00	none	SP	dk br. f. sand, to fines, to fines
	2-4	5/4/11 1625			0.00	none	SP	SAB to 3.5', to clayey sand to 4'
✓ GSB-13	0-0.5	5/6/11 0900			93.4	faint	SP	dk br. f. sand, to fines, to fine
	0.5-2	5/6/11 0900			23.4	faint	SP	dk br. f. sand, to fines, to fine
	2-4	5/6/11 0900			5.5	none	SP	Brown fine-med. sand, to 1' fine
✓ GSB-10	0-0.5	5/5/11 1515			0.0	none	SP	Grey fine to med. sand, to fines
	0.5-2	5/5/11 1515			0.0	none	SP	SAB
	2-4	5/5/11 1515			0.0	none	SP	dk br. f. sand, to fines, 3.5' - brown clayey sand
✓ GSB-7	0-0.5	5/5/11 1535			0.0	none	SP	dk br. f. sand, to fines
	0.5-2	5/5/11 1535			0.0	none	SP	SAB
	2-4	5/5/11 1535			0.0	none	SP	dk br. f. sand, to med. sand, 3' - brown clayey sand

SOIL SAMPLE COLLECTION FORM

Project Name: Liberty Tree
 Project Number: 103-82740
 Sampled by: JK/KC
 Sample Location: Port St. Louis IL

Sample ID: GSB-25C
 Date: 6/14/11
 Sampling Method: Hand Auger
 Type of Sampling Equipment: Stainless Steel Bucket

SAMPLE COLLECTION LOCATION SKETCH:

Sample ID	Time Collected	Sample Depth Interval	Soil Description
GSB-25C	0710	0-0.5	4 grey to grey fine SAND, to organics

Analysis	Container Type and Size	Containers Per Sample	Number of Samples	Composite or Grab	Comments
8270 SIM	8oz CG	1	1	G	

Chain of Custody #:
 Shuttle ID:
 Trip Blank ID:
 Lab Name:
 Air Bill #:

REMARKS:
 Field Team Leader: [Signature]

SOIL SAMPLE COLLECTION FORM

Project Name: LIBERTY TIRE
 Project Number: 103-82746
 Sampled by: JK/KC
 Sampling Location: Port St. Louis FL

Sample ID: G5B-26
 Date: 6/14/11
 Sampling Method: HAND AUGER
 Type of Sampling Equipment: Stainless Steel bucket

SAMPLE COLLECTION LOCATION SKETCH:

~50' east of G5B-21

Sample ID	Time Collected	Sample Depth Interval	Soil Description
G5B-26	0720	0-0.5	dk br to dk gray f. SAND, 1: fines and fine debris
V	0720	0.5-2	SAND to 1.5', br-gray f. SAND, to fines 1.5-2'

Analysis	Container Type and Size	Containers Per Sample	Number of Samples	Composite or Grab	Comments
82705+	802LG	1	2	G	

of Custody #: _____
 Shuttle ID: _____
 Trip Blank ID: _____
 Lab Name: _____
 Air Bill #: _____

REMARKS: _____

 Field Team Leader: [Signature]

ATTACHMENT B
MONITORING WELL CONSTRUCTION LOGS

MONITORING WELL CONSTRUCTION LOG MW-1

SHEET 1 of 1

PROJECT: Liberty Tire
PROJECT NUMBER: 103-82740
DRILLED DEPTH: 12.0 ft
LOCATION: Port St. Lucie, FL

DRILL METHOD: HSA
DRILL RIG: Geoprobe 6620DT
DATE STARTED: 5/4/11
DATE COMPLETED: 5/4/11
WEATHER: Partly Cloudy / Sunny

COORDS: N: 1,074,239.7 E: 823,324.7
GS ELEVATION: 25.6 ft
TOC ELEVATION: 28.2 ft
TEMPERATURE: 85 °F

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			MONITORING WELL DIAGRAM and NOTES	NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG ELEV. DEPTH (ft)			
0		0.0 - 2.0 Dark brown fine SAND, trace to little fines.	SP-SM				WELL CASING Interval: -3 - 2 ft bgs Material: sch 40 pvc Diameter: 2 Joint Type: threaded WELL SCREEN Interval: 2 - 12 ft bgs Material: sch 40 pvc Diameter: 2 Slot Size: 0.010 inch End Cap: 3 inch FILTER PACK Interval: 1 - 12 ft bgs Type: 20/30 silica sand Quantity: 7 bags FILTER PACK SEAL Interval: 0.5 - 1 ft bgs Type: 30/65 Fine Sand Quantity: 1/2 bag ANNULUS SEAL Interval: 0 - 0.5 ft bgs Type: Portland Cement Type Quantity: 1.5 gallons
25		2.0 - 4.0 Brown fine SAND, trace fines.		23.6 2.0			
		4.0 - 9.0 Light brown fine SAND, little fines.	SP-SM	21.6 4.0			
5							
		9.0 - 12.0 Tan fine SAND, little fines.	SP-SM	16.6 9.0			
10							
15		Boring completed at 12.0 ft		13.6			

LOG SCALE: 1 in = 2 ft
DRILLING COMPANY: Probe Domain
DRILLER: Josh

GA INSPECTOR: J. King
CHECKED BY: M. Hampton
DATE: 6/30/11



MW CONSTRUCTION LOG - STICKUP ONLY LIBERTY TIRE.GPJ GOLDER NJ-PA.GDT 6/30/11

MONITORING WELL CONSTRUCTION LOG MW-2

SHEET 1 of 1

PROJECT: Liberty Tire
PROJECT NUMBER: 103-82740
DRILLED DEPTH: 12.0 ft
LOCATION: Port St. Lucie, FL

DRILL METHOD: HSA
DRILL RIG: Geoprobe 6620DT
DATE STARTED: 5/4/11
DATE COMPLETED: 5/4/11
WEATHER: Partly Cloudy / Sunny

COORDS: N: 1,074,009.6 E: 823,278.3
GS ELEVATION: 24.5 ft
TOC ELEVATION: 27.2 ft
TEMPERATURE: 85 °F

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			MONITORING WELL DIAGRAM and NOTES	NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG ELEV. DEPTH (ft)			
0		0.0 - 2.0 Brown fine SAND.	SP				WELL CASING Interval: -3 - 2 ft bgs Material: sch 40 pvc Diameter: 2 Joint Type: threaded WELL SCREEN Interval: 2 - 12 ft bgs Material: sch 40 pvc Diameter: 2 Slot Size: 0.010 inch End Cap: 3 inch FILTER PACK Interval: 1 - 12 ft bgs Type: 20/30 silica sand Quantity: 4 bags FILTER PACK SEAL Interval: 0.5 - 1 ft bgs Type: 30/65 Fine Sand Quantity: 1/2 bag ANNULUS SEAL Interval: 0 - 0.5 ft bgs Type: Portland Cement Quantity: 1.5 gallons
		2.0 - 5.0 Light brown fine SAND.	SP	22.5 2.0			
		5.0 - 12.0 Tan fine SAND, little fines.	SP-SM	19.5 5.0			
12.0		Boring completed at 12.0 ft		12.5			

LOG SCALE: 1 in = 2 ft

DRILLING COMPANY: Probe Domain
DRILLER: Josh

GA INSPECTOR: J. King
CHECKED BY: M. Hampton
DATE: 6/30/11



MW CONSTRUCTION LOG - STICKUP ONLY LIBERTY TIRE.GPJ GOLDER NJ-PA.GDT 6/30/11

MONITORING WELL CONSTRUCTION LOG MW-3

SHEET 1 of 1

PROJECT: Liberty Tire
PROJECT NUMBER: 103-82740
DRILLED DEPTH: 12.0 ft
LOCATION: Port St. Lucie, FL

DRILL METHOD: HSA
DRILL RIG: Geoprobe 6620DT
DATE STARTED: 5/4/11
DATE COMPLETED: 5/4/11
WEATHER: Partly Cloudy / Sunny

COORDS: N: 1,073,939.9 E: 823,579.2
GS ELEVATION: 26.0 ft
TOC ELEVATION: 28.6 ft
TEMPERATURE: 85 ° F

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE				MONITORING WELL DIAGRAM and NOTES	NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)			
0		0.0 - 2.0 Tire debris.						WELL CASING Interval: -3 - 2 ft bgs Material: sch 40 pvc Diameter: 2 Joint Type: threaded WELL SCREEN Interval: 2 - 12 ft bgs Material: sch 40 pvc Diameter: 2 Slot Size: 0.010 inch End Cap: 3 inch FILTER PACK Interval: 1 - 12 ft bgs Type: 20/30 silica sand Quantity: 5 bags FILTER PACK SEAL Interval: 0.5 - 1 ft bgs Type: 30/65 Fine Sand Quantity: 1/2 bag ANNULUS SEAL Interval: 0 - 0.5 ft bgs Type: Portland Cement Quantity: 1.5 gallons
25					24.0			
		2.0 - 5.0 Brown / dark brown fine SAND.	SP		2.0			
					21.0			
5		5.0 - 12.0 Brown fine SAND.			5.0			
20			SP					
10								
15								
		Boring completed at 12.0 ft			14.0			
15								

LOG SCALE: 1 in = 2 ft
DRILLING COMPANY: Probe Domain
DRILLER: Josh

GA INSPECTOR: J. King
CHECKED BY: M. Hampton
DATE: 6/30/11



MW CONSTRUCTION LOG - STICKUP ONLY LIBERTY TIRE.GPJ GOLDER N.J.P.A.GDT 6/30/11

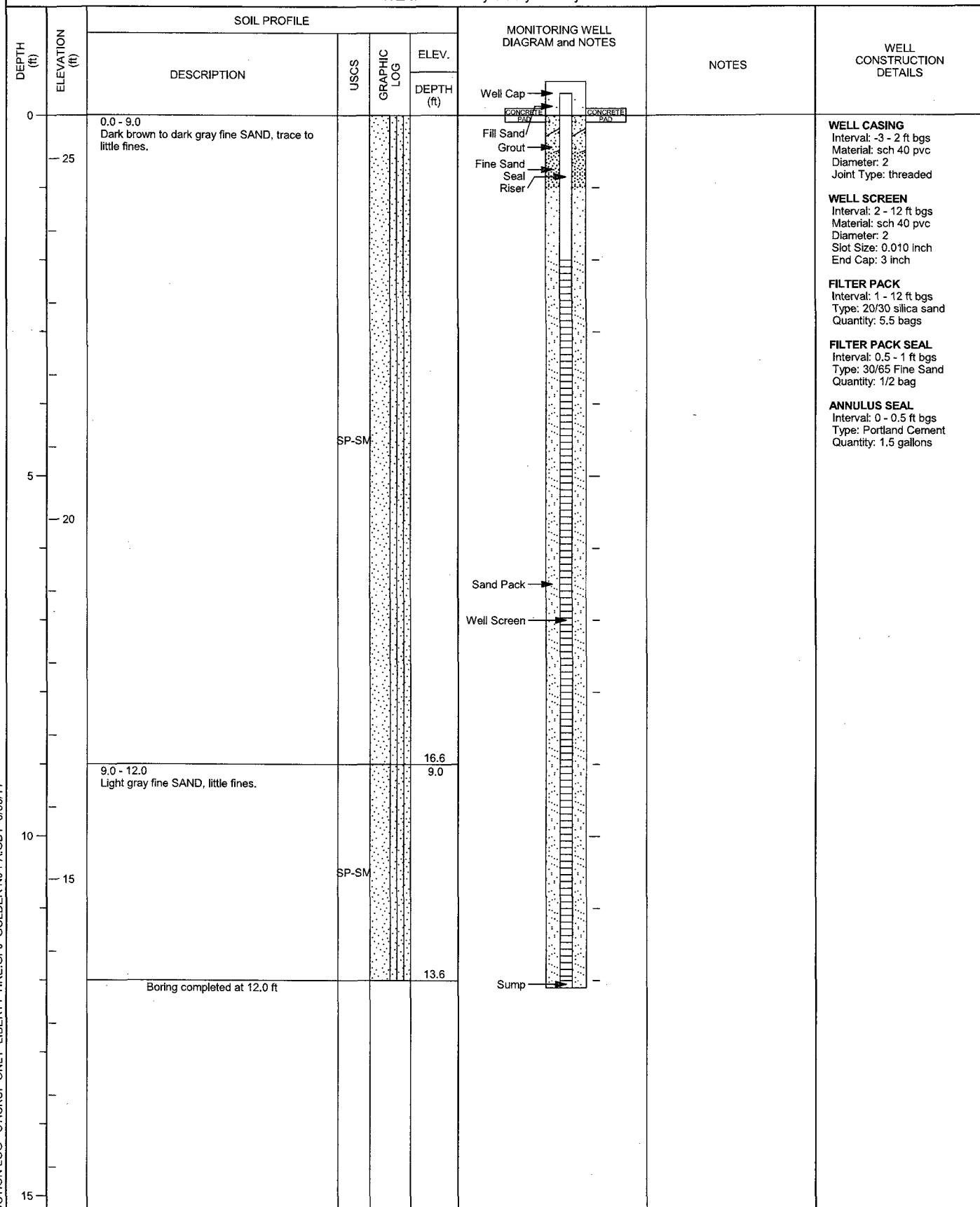
MONITORING WELL CONSTRUCTION LOG MW-4

SHEET 1 of 1

PROJECT: Liberty Tire
PROJECT NUMBER: 103-82740
DRILLED DEPTH: 12.0 ft
LOCATION: Port St. Lucie, FL

DRILL METHOD: HSA
DRILL RIG: Geoprobe 6620DT
DATE STARTED: 5/5/11
DATE COMPLETED: 5/5/11
WEATHER: Partly Cloudy / Cloudy

COORDS: N: 1,073,843.2 E: 823,546.4
GS ELEVATION: 25.6 ft
TOC ELEVATION: 28.5 ft
TEMPERATURE: 85 °F



LOG SCALE: 1 in = 2 ft

DRILLING COMPANY: Probe Domain
DRILLER: Josh

GA INSPECTOR: J. King
CHECKED BY: M. Hampton
DATE: 6/30/11



MW CONSTRUCTION LOG - STICKUP ONLY LIBERTY TIRE.GPJ GOLDER NJ-PA.GDT 6/30/11

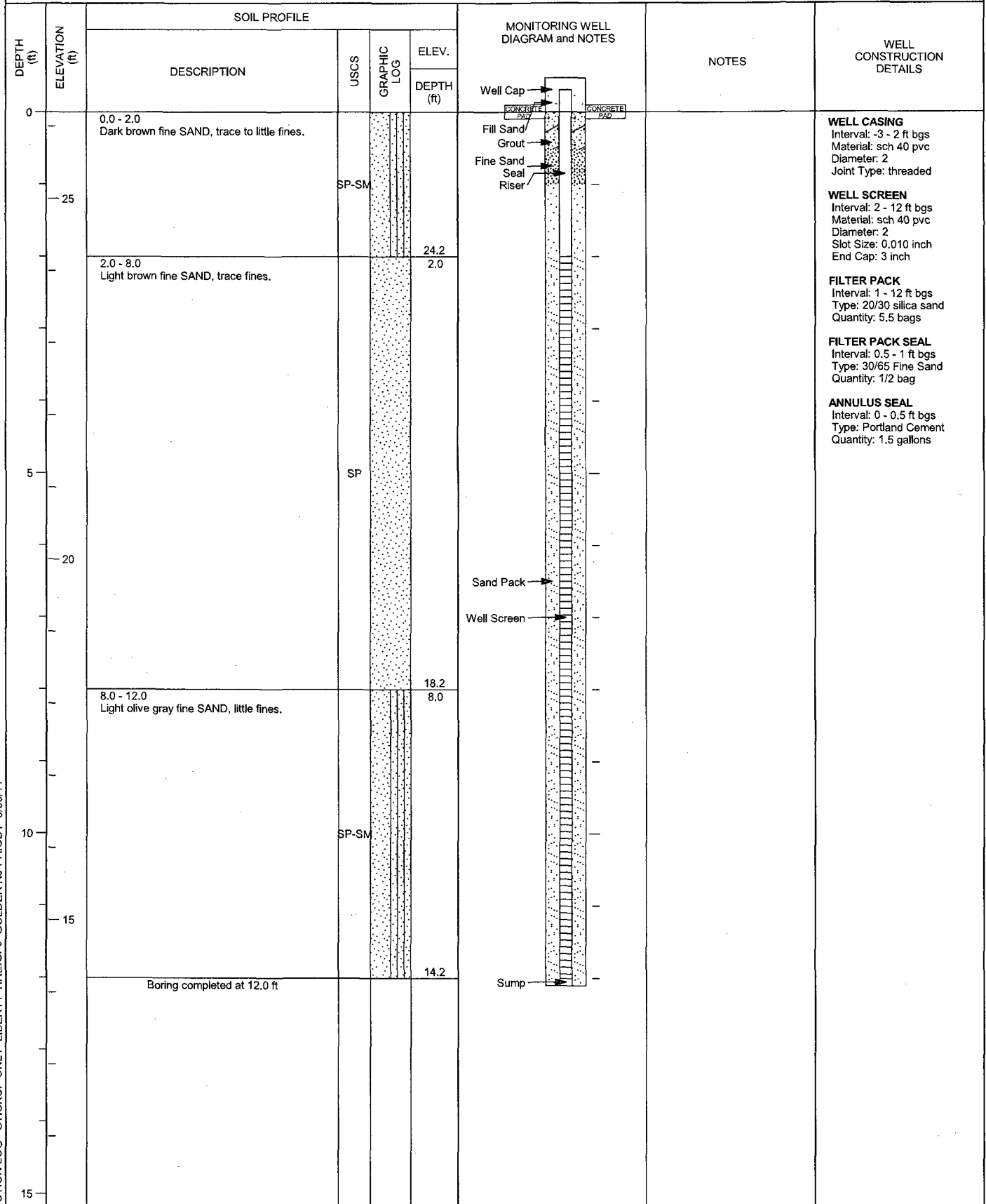
MONITORING WELL CONSTRUCTION LOG MW-5

SHEET 1 of 1

PROJECT: Liberty Tire
PROJECT NUMBER: 103-82740
DRILLED DEPTH: 12.0 ft
LOCATION: Port St. Lucie, FL

DRILL METHOD: HSA
DRILL RIG: Geoprobe 6620DT
DATE STARTED: 5/5/11
DATE COMPLETED: 5/5/11
WEATHER: Partly Cloudy / Cloudy

COORDS: N: 1,073,841.6 E: 823,334.7
GS ELEVATION: 26.2 ft
TOC ELEVATION: 29.0 ft
TEMPERATURE: 85 ° F



LOG SCALE: 1 in = 2 ft

DRILLING COMPANY: Probe Domain

DRILLER: Josh

GA INSPECTOR: J. King

CHECKED BY: M. Hampton

DATE: 6/30/11



MW CONSTRUCTION LOG - STICKUP ONLY LIBERTY TIRE.GPJ GOLDER N.J.P.A.GDT 6/30/11

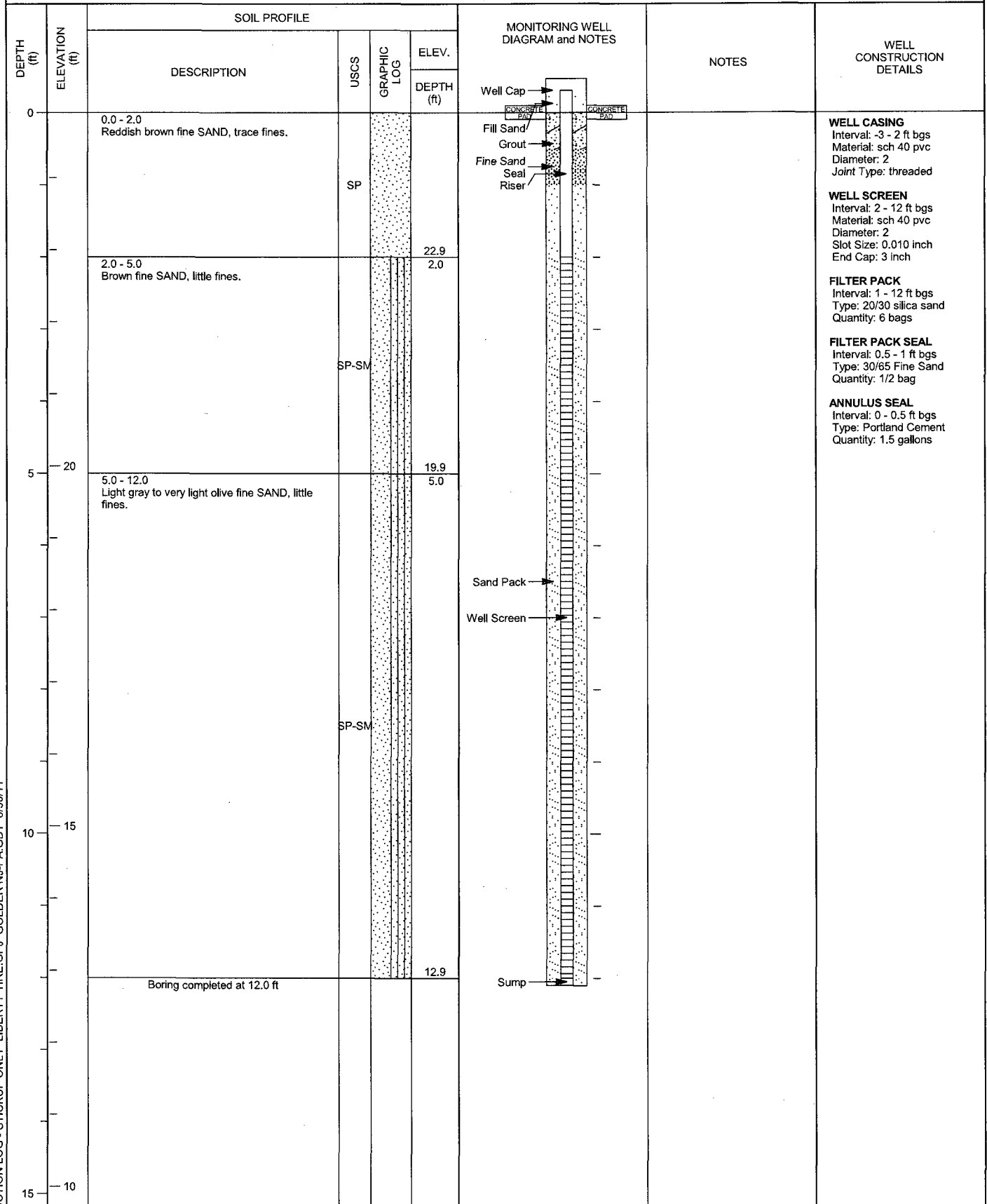
MONITORING WELL CONSTRUCTION LOG MW-6

SHEET 1 of 1

PROJECT: Liberty Tire
PROJECT NUMBER: 103-82740
DRILLED DEPTH: 12.0 ft
LOCATION: Port St. Lucie, FL

DRILL METHOD: HSA
DRILL RIG: Geoprobe 6620DT
DATE STARTED: 5/5/11
DATE COMPLETED: 5/5/11
WEATHER: Partly Cloudy / Cloudy

COORDS: N: 1,073,919.4 E: 823,192.5
GS ELEVATION: 24.9 ft
TOC ELEVATION: 27.1 ft
TEMPERATURE: 85 °F



LOG SCALE: 1 in = 2 ft
DRILLING COMPANY: Probe Domain
DRILLER: Josh

GA INSPECTOR: J. King
CHECKED BY: M. Hampton
DATE: 6/30/11



MW CONSTRUCTION LOG - STICKUP ONLY LIBERTY TIRE.GPJ GOLDER N.J.P.A.GDT 6/30/11

MONITORING WELL CONSTRUCTION LOG MW-7

SHEET 1 of 1

PROJECT: Liberty Tire
PROJECT NUMBER: 103-82740
DRILLED DEPTH: 12.0 ft
LOCATION: Port St. Lucie, FL

DRILL METHOD: HSA
DRILL RIG: Geoprobe 6620DT
DATE STARTED: 5/5/11
DATE COMPLETED: 5/5/11
WEATHER: Partly Cloudy / Cloudy

COORDS: N: 1,074,014.0 E: 823,186.1
GS ELEVATION: 25.0 ft
TOC ELEVATION: 27.6 ft
TEMPERATURE: 85 °F

DEPTH (ft)	ELEVATION (ft)	SOIL PROFILE			MONITORING WELL DIAGRAM and NOTES	NOTES	WELL CONSTRUCTION DETAILS
		DESCRIPTION	USCS	GRAPHIC LOG ELEV. DEPTH (ft)			
0	25	0.0 - 2.0 Reddish brown fine SAND, trace fines.	SP				WELL CASING Interval: -3 - 2 ft bgs Material: sch 40 pvc Diameter: 2 Joint Type: threaded WELL SCREEN Interval: 2 - 12 ft bgs Material: sch 40 pvc Diameter: 2 Slot Size: 0.010 inch End Cap: 3 inch FILTER PACK Interval: 1 - 12 ft bgs Type: 20/30 silica sand Quantity: 5 bags FILTER PACK SEAL Interval: 0.5 - 1 ft bgs Type: 30/65 Fine Sand Quantity: 1/2 bag ANNULUS SEAL Interval: 0 - 0.5 ft bgs Type: Portland Cement Quantity: 1.5 gallons
		2.0 - 5.0 Brown fine SAND, little fines.	SP-SM	23.0 2.0			
		5.0 - 12.0 Light gray to very light olive fine SAND, little fines.	SP-SM	20.0 5.0			
5	20						
10	15						
		Boring completed at 12.0 ft		13.0			
15	10						

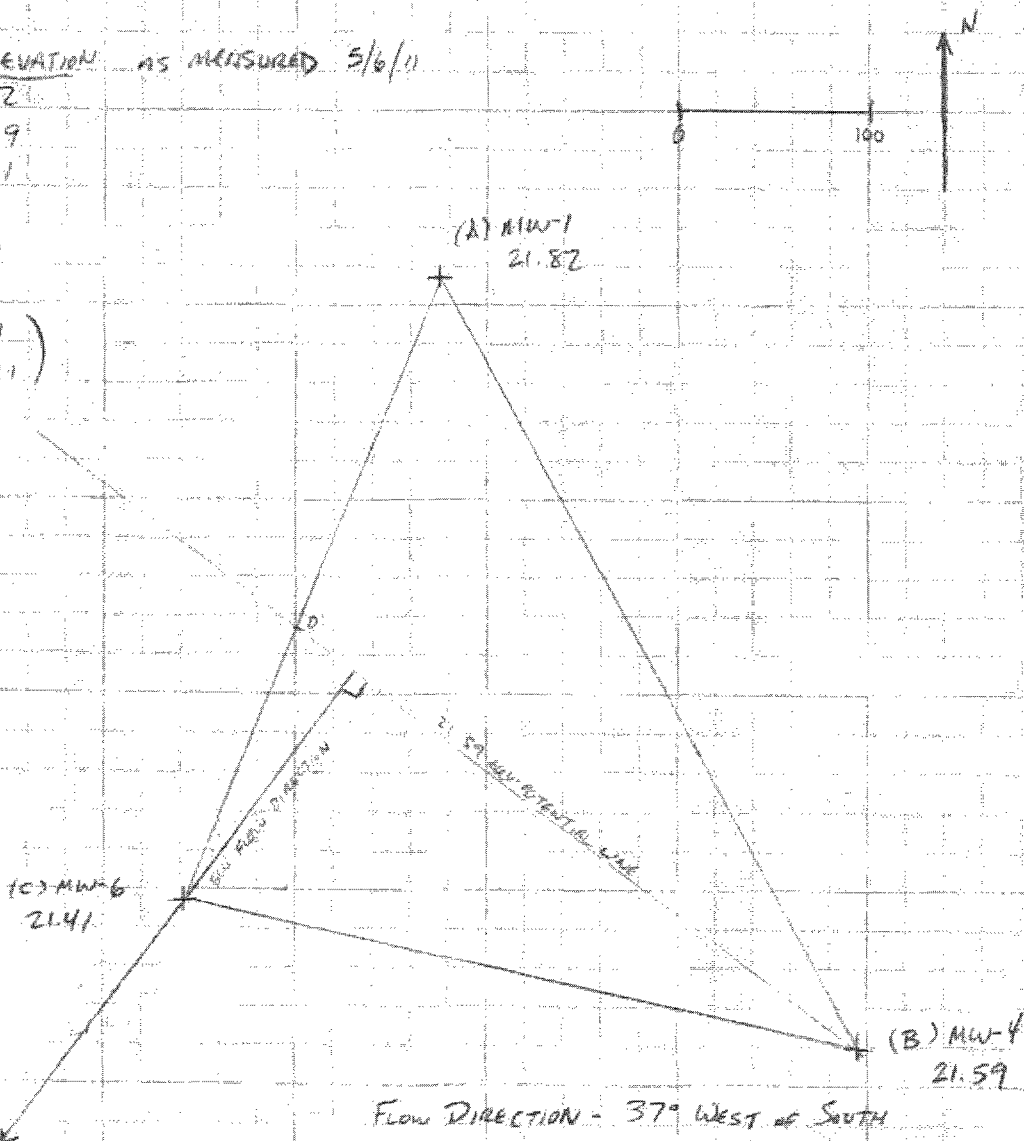
LOG SCALE: 1 in = 2 ft
DRILLING COMPANY: Probe Domain
DRILLER: Josh

GA INSPECTOR: J. King
CHECKED BY: M. Hampton
DATE: 6/30/11



MW CONSTRUCTION LOG - STICKUP ONLY LIBERTY TIRE.GPJ GOLDER.NJ-PA.GDT 6/30/11

ATTACHMENT C
HYDRAULIC CONDUCTIVITY AND GRADIENT CALCULATIONS



ATTACHMENT D
GROUNDWATER AND SURFACE WATER SAMPLING LOGS

Form FD 9000-24

SITE NAME: <u>HEARTY TAIL</u>		SITE LOCATION: <u>PORT ST LUCIA</u>	
WELL NO: <u>GPZ-1</u>	SAMPLE ID: <u>GPZ-1</u>		DATE: <u>2/4/11</u>

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION <i>Jason King Brian Dugan / Boulder</i>				SAMPLER (SY) SIGNATURE(S) <i>[Signature]</i>			SAMPLING INITIATED AT: <i>1230</i>		SAMPLING ENDED AT: <i>1235</i>		
PUMP OR TUBING DEPTH IN WELL (feet): <i>9'</i>				TUBING MATERIAL CODE: <i>PE</i>		FIELD-FILTERED: Y <i>N</i> Filtration Equipment Type:		FILTER SIZE: _____ μ m			
FIELD DECONTAMINATION: PUMP Y <i>N</i>				TUBING Y <i>N</i> (replaced)		DUPLICATE: Y <i>N</i>					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
<i>GPE-1</i>	<i>3</i>	<i>46 ml</i>	<i>CG</i>	<i>HCl</i>	<i>-</i>	<i><2</i>	<i>8260 Full</i>		<i>SM</i>		<i><100</i>
<i>1</i>	<i>1</i>	<i>1L</i>	<i>AG</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>8270 Full</i>		<i>APP</i>		<i>~250</i>
<i>1</i>	<i>1</i>	<i>1L</i>	<i>AG</i>	<i>H₂SO₄</i>	<i>-</i>	<i><2</i>	<i>TRPH - G PRO</i>		<i>APP</i>		<i>~250</i>
<i>1</i>	<i>1</i>	<i>500 ml</i>	<i>PE</i>	<i>HNO₃</i>	<i>-</i>	<i><2</i>	<i>See Method + T.</i>		<i>APP</i>		<i>~250</i>
REMARKS:											
CO2 (mg/l):				Fe+2 (mg/l):			H2S (mg/l):				
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)											
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)											

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater) "J" = indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

Revision Date: February 12, 2009

DEP-SOP-001/01
FT 1100 Field Measurement of Hydrogen Ion Activity (pH)

Form FD 9000-7: Field Parameter Data Sheet for Surface Water

SURVEY/PROJECT: LIBERTY TIRE RECYCLING

SAMPLERS: B. DUGAN / J. KENZ

METER # 02599/HT-6

STATION NUMBER	STATION DESCRIPTION	PARAMETER	DATE	TIME	TOTAL DEPTH	SAMPLE DEPTH	WATER TEMP	DO	%SAT DO	COND	ORP SALINITY	PH	TURBIDITY
		UNIT	yy/mm/dd	hr:min	feet	feet	Celsius	mg/L	%	uS/cm	mV ppt	su	NTU
		STORET CODE	73672		81903	68	10	299	301	94	480	400	82078
GSW-1	ON SITE SE RETENTION POND		02/03/11	1500	-	1'	25.13	8.63	104.52	452	165.5	7.28	49.6
GSW-2	ON SITE CENTER POOL		02/03/11	1600	-	0.5'	26.19	5.66	70.6	750	60.4	7.88	5.78
GSW-3	OFF SITE EAST END OF SHALE ON SOUTHWEST		02/04/11	1010	-	0.25'	18.52	4.45	47.67	1368	66.4	7.10	10.8
GSW-4	OFF SITE WEST RETENTION POND		02/04/11	1035	-	0.25'	20.57	3.33	37.52	629	63.3	7.39	5.00

FIELD CONDITIONS FOR STATION# GSW-1 AT TIME 1458:

CLOUD COVER (%): 70% WIND DIRECTION: NE TIDAL STAGE: N/A
PREVIOUS RAINFALL: N 1 inch WIND SPEED (MPH/KNOTS): 5-10 mph WAVE CONDITIONS: LIGHT Chop

Note: This Sheet is used for recording Sample Data – Calibration information must also be documented



INSTRUMENT NO. 02519

Project Number: 103-82740

Project Name: Liberty Tire Recycling

Units: DO-mg/L ORP-mV

Standard Air Calibration Chamber in Air (Table FS 2200-2)

Standard ORP 220mV @25C

Standard

Acceptable calibration check is if the meter reads within ± 0.3 mg/L of the value of appropriate calibration standard. Need to record DO readings in mg/L and use Table FS 2200-2 "Dissolved Oxygen Saturation".

5.79 46.3 73.4
69.4 429 5.64



Field Instrument Turbidity Calibration Records

INSTRUMENT (MAKE/MODEL NO.) *NACA 2100* INSTRUMENT NO. *HT-6*

Project Number: 103-82740 **Project Name: Liberty Tire Recycling**

Standard Vendor: Hach

Prepared Date: Aug '09 Where Prepared: Golder Assoc.

Purchase Date: Aug '09 **Expiration Date:** Aug '11 **Lot Number:** See below

Units: Nephelometric Turbidity Unit

Standard 0.1-10 Nephelometric Turbidity Unit Lot Number: A9212

Standard 11.0-40 Nephelometric Turbidity Unit Lot Number: A9211

Standard 41.0-100 Nephelometric Turbidity Unit Lot Number: A9216

Standard >100 Nephelometric Turbidity Unit Lot Number: A9215

[illegible]

Calibration values for turbidity needs to be within 10% of the standard for values between 0.1-10 NTU; 8% for values between 11-40 NTU; 6.5% for values between 41-100 NTU and 5% for values >100 NTU.



INSTRUMENT (MAKE/MODEL NO.) YSI 556 INSTRUMENT NO. 02599

Project Number: 103-82740 **Project Name:** Liberty Tire Recycling

Prepared Date: April '10 Where Prepared: Golder Assoc.

Purchase Date: April '10 **Expiration Date:** See below **Grade:** _____ **Units:** Standard Units

Standard 4.01 @ 25 Deg C Lot # 0019-15 Exp Date: Jan '12 Purch Date Apr '10

Standard 7.00 @ 25 Deg C Lot # 0008-24 Exp Date Jan '12 Purch Date Apr '10

Standard 10.0 @ 25 Deg C Lot # 9364-03 Exp Date Jan '11 Purch Date Apr '10

[illegible]

Acceptable calibration check is if the meter reads within ± 0.2 pH units of the value of appropriate calibration standard.



INSTRUMENT (MAKE/MODEL NO.) NSE 556

INSTRUMENT NO. 02599

STANDARD INFORMATION

Project Number: 103-82740 Project Name: Liberty Tire

Standard Vendor: GEOTECH

Prepared Date: NOV 2007 **Where Prepared:** GEOTECH

Grade: _____ Units: umhos/uS-cm

Standard 84	Lot # 91589	Exp Date Sept. '11	Pur Date Sept '10
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Standard	500	Lot #	91587	Exp Date	Sept. '11	Pur Date	Sept. '10
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Standard 2000	Lot # 91588	Exp Date Sept. '11	Pur Date Sept. '10
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[illegible]

Acceptable calibration check is if the meter reads within +/- 5% of the appropriate calibration standard.

GROUNDWATER SAMPLING LOG

SITE NAME: Liberty Tree		SITE LOCATION: Port St. Lucie	
WELL NO: MW-1	SAMPLE ID: MW-1	DATE: 5-6-11	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Kirk B. Davis / GAO				SAMPLER(S) SIGNATURE(S): [Signature]			SAMPLING INITIATED AT: 1658		SAMPLING ENDED AT: 1705	
PUMP OR TUBING DEPTH IN WELL (feet): 10				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y ☒ Filtration Equipment Type: ☒		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y ☒ TUBING Y ☒ (replaced)							DUPLICATE: Y ☒			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			SAMPLE PUMP FLOW RATE (mL per minute)	
MW 1	2	CG	40mL	HCl	—	—	8260		RFP1	0.07
	2	AG	1L	—	—	—	8260		AP1	0.07
↓	1	AG	1L	H ₂ SO ₄	—	—	F1000		AP1	0.07
	1	PE	250mL	HNO ₃	—	—	metal		AP1	0.07
REMARKS: 1700 CO2 (mg/l): _____ Fe+2 (mg/l): _____ H2S (mg/l): _____										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)
"J" = indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

Revision Date: February 12, 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: <u>Liberty Time</u>	SITE LOCATION: <u>Point St. Lucie</u>
WELL NO: <u>MW-3</u>	DATE: <u>5-6-11</u>

PURGING DATA

WELL DIAMETER (inches): <u>2</u>	TUBING DIAMETER (inches): <u>1/4</u>	WELL SCREEN INTERVAL DEPTH: <u>2</u> feet to <u>12</u> feet	STATIC DEPTH TO WATER (feet): <u>6.96</u>	PURGE PUMP TYPE OR BAILER: <u>PP</u>
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <u>23' static - 6.96' = 16.04' feet</u> X <u>0.16</u> gallons/foot = <u>2.57</u> gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = <u> </u> gallons + (<u> </u> gallons/foot X <u> </u> feet) + <u> </u> gallons = <u> </u> gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <u>9</u>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <u>9</u>	PURGING INITIATED AT: <u>0949</u>	PURGING ENDED AT: <u>1031</u>	TOTAL VOLUME PURGED (gallons): <u> </u>

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	ORP (J)	COLOR/ODOR (describe)
1001	1.5	1.5	0.13	7.3	7.3	27.52	238	1.30	77.0	101.4	SLT. BR / NOOD
1005	0.4	1.9	0.1	7.3	5.48	27.88	223	1.63	54.6	87.8	"
1010	0.3	2.2	0.06	7.3	5.46	29.09	215	1.47	38.9	73.4	"
1014	0.2	2.4	0.05	7.3	5.44	29.36	212	1.39	33.5	65.9	"
1024	0.8	3.0	0.06	7.3	5.46	29.74	208	1.28	27.7	53.5	"
1030	0.3	3.3	0.05	7.3	5.39	29.70	206	1.26	18.4	58.1	"
1034	0.3	3.6	0.07	7.3	5.38	29.67	206	1.25	17.0	47.6	"
1038	0.3	3.9	0.07	7.3	5.77	29.71	208	1.23	15.3	45.4	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <u>Kel Blevins / GWR</u>				SAMPLER(S) SIGNATURE(S): <u>Kel Blevins</u>				SAMPLING INITIATED AT: <u>1040</u>		SAMPLING ENDED AT: <u>1055</u>	
PUMP OR TUBING DEPTH IN WELL (feet): <u> </u>				TUBING MATERIAL CODE: <u>PE</u>				FIELD-FILTERED: Y <u>(N)</u>		FILTER SIZE: <u> </u> μm	
FIELD DECONTAMINATION: PUMP Y <u>(N)</u> TUBING Y <u>(N) (replaced)</u>				DUPLICATE: Y <u>(N)</u>							

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (gpm per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-3	2	CG	40mL	HCl	-	-	8260	RFP1	0.07
↓	2	AG	1L	-	-	-	8270	APP	0.07
↓	1	AG	1L	H ₂ SO ₄	-	-	FE 120	APP	0.07
↓	1	PE	250mL	HNO ₃	-	-	METAL	APP	0.07

REMARKS: ST-104

CO₂ (mg/L): Fe+2 (mg/L): H₂S (mg/L):

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)
"J" = indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: LIBERTY TIRE		SITE LOCATION: PORT ST LUCIE	
WELL NO: MW-4	SAMPLE ID: MW-4		DATE: 5-6-11

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 4	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 6.88	PURGE PUMP TYPE OR BAILER: PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) 23' STEEL = (15 feet - 6.88 feet) X 0.16 gallons/foot = 1.3 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill but if applicable) = gallons + (gallons/foot X feet) + gallons = gallons				

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 10	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 10	PURGING INITIATED AT: 1135	PURGING ENDED AT: 1231	TOTAL VOLUME PURGED (gallons): 4.2
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[illegible]

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Kirk Blevins / Golden		SAMPLER(S) SIGNATURE(S): <i>Kirk Blevins</i>		SAMPLING INITIATED AT: 1231	SAMPLING ENDED AT: 1245
PUMP OR TUBING DEPTH IN WELL (feet): 10		TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y ☒ N	FILTER SIZE: _____ µm	

FIELD DECONTAMINATION:	PUMP	Y	☒ N	TUBING	Y	☒ N (replaced)	DUPLICATE:	Y	☒ N
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[illegible]

REMARKS: ST = 12

CO₂ (mg/l):

Fe+2 (mg/l):

H₂S (mg/l) :

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $< 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings < 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

"J" = indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: LIBERTY TAGE		SITE LOCATION: Point St Lucie	
WELL NO: MW-6	SAMPLE ID: MW-6	DATE: 5-6-11	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: KAC BERTZ / JAW KAC / GUSON				SAMPLER(S) SIGNATURE(S): [Signature]			DATING INITIATED AT: 1446		DATING ENDED AT: 1505	
PUMP OR TUBING DEPTH IN WELL (feet): 10				TUBING MATERIAL CODE: PE			FIELD-FILTERED: Y ☒ No ☐		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y ☒ TUBING Y ☒ (replaced)							DUPLICATE: Y ☒			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
MW-b	2	CG	400ml	HCl	—	—	8260	RFPP	0.05	
	2	AG	1L	—	—	—	8270	APP	0.05	
	1	AG	1L	H ₂ SO ₄	—	—	FLPRO	APP	0.05	
	1	PE	250ml	HNO ₃	—	—	METALS	APP	0.05	
REMARKS: ST-1450 C02 (mg/l): Fe+2 (mg/l): H2S (mg/l):										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) **Turbidity:** all readings < 20 NTU; optionally $+ 5$ NTU or $+ 10\%$ (whichever is greater)

"J" = indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.

Revision Date: February 12, 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: <u>LIBERTY TIRE</u>		SITE LOCATION: <u>Post St Lulze</u>	
WELL NO: <u>MW-7</u>	SAMPLE ID: <u>MW-7</u>	DATE: <u>5-6-11</u>	

PURGING DATA

WELL DIAMETER (inches): <u>2</u>	TUBING DIAMETER (inches): <u>1/4</u>	WELL SCREEN INTERVAL DEPTH: <u>2</u> feet to <u>12</u> feet	STATIC DEPTH TO WATER (feet): <u>6.25</u>	PURGE PUMP TYPE OR BAILER: <u>PP</u>
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <u>23' stick-up</u> = (<u>15</u> feet - <u>6.25</u> feet) X <u>0.16</u> gallons/foot = <u>1.4</u> gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons				

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <u>10</u>		FINAL PUMP OR TUBING DEPTH IN WELL (feet): <u>10</u>		PURGING INITIATED AT: <u>1517</u>		PURGING ENDED AT: <u>1612</u>		TOTAL VOLUME PURGED (gallons): <u>3.7</u>			
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND. (circle units) μmhos/cm or <u>μS/cm</u>	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (J)	COLOR/ODOR (describe)
1537	1.4	1.4	0.09	6.5	5.91	25.19	724	0.87	15.41	39.2	com/none
1542	0.3	1.7	0.07	6.5	6.04	25.17	726	0.85	12.8	32.8	"
1547	0.3	2.0	0.06	6.5	6.06	25.36	727	0.83	9.80	41.0	"
1554	0.5	2.5	0.07	6.5	5.84	25.36	731	0.84	8.55	2.2	"
1601	0.5	3.0	0.08	6.5	5.86	25.35	732	0.84	7.06	46.3	"
1609	0.5	3.5	0.06	6.5	5.78	25.30	732	0.85	5.47	46.7	"
1612	0.2	3.7	0.07	6.5	5.52	25.30	722	0.85	5.00	51.0	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <u>Kirk Blevins / Golder</u>				SAMPLER(S) SIGNATURE(S): <u>[Signature]</u>				SAMPLING INITIATED AT: <u>1612</u>		SAMPLING ENDED AT: <u>1630</u>	
PUMP OR TUBING DEPTH IN WELL (feet): <u>10</u>				TUBING MATERIAL CODE: <u>PE</u>				FIELD-FILTERED: Y <u>(N)</u>		FILTER SIZE: <u> </u> μm	
FIELD DECONTAMINATION: PUMP Y <u>(N)</u> TUBING Y <u>(N) replaced</u>				DUPLICATE: Y <u>(N)</u>							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
MW-7	2	CG	40mL	HCl	-	-	8260		RFN		
↓	2	AG	1L	-	-	-	8270		APP		
↓	1	AG	1L	H ₂ SO ₄	-	-	FLOD		APP		
↓	1	PE	250mL	HNO ₃	-	-	METALS		APP		

REMARKS: ST-1615
CO₂ (mg/L): Fe+2 (mg/L): H₂S (mg/L):

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)
"J" = indicates that the calibration result for the parameter of concern was outside of the acceptable criteria for standard range.



INSTRUMENT (MAKE/MODEL NO.) YSI 556 MPS INSTRUMENT NO. 4

STANDARD INFORMATION

Project Number: 5-6-11 Project Name: LIBERTY TIRE

Standard Vendor: LSS

Prepared Date: APR 2010 Where Prepared: GOLDER ASSOCIATES

Purchase Date: APR 2010 **Expiration Date:** Varies **Grade:** N/A **Units:** Standard Units

Standard 4.01 @25 °C Lot # 0236-12 Exp Date AUG 2012 Purch Date APR 2010

Standard 7.00 @25 °C Lot # 0259-02 Exp Date SEP 2012 Purch Date APR 2010

Standard 10.0 @25°C Lot # 0265-05 Exp Date SEP 2011 Purch Date APR 2010

[illegible]

Acceptable calibration check is if the meter reads within ± 0.2 pH units of the value of appropriate calibration standard.



STANDARD INFORMATION

Standard Vendor: AQUA SOLUTIONS/LABCHEM

Grade: N/A **Units:** umhos/uS-cm

Standard 100@25 °C Lot # A082-11 Exp Date APR 2012 Pur Date MAR 2011

Standard 500@25 °C Lot # 91587 Exp Date SEP 2011 Pur Date SEP 2010

Standard 2000@25 °C Lot # 91588 Exp Date SEP 2011 Pur Date SEP 2010

[illegible]

Note: Standards and instrument response readings are corrected to 25°C.



Field Instrument Dissolved Oxygen & Oxidation-Reduction Potential Calibration Records

INSTRUMENT (MAKE/MODEL NO.) YSI 556 MPS INSTRUMENT NO. 4

STANDARD INFORMATION

Project Number: _____ Project Name: LTR

Standard Vendor: GEOTECH

Prepared Date: APR 2010 Where Prepared: GOLDER ASSOCIATES

Grade: N/A **DO Units:** mg/L **ORP Units:** mV

ORP Standard 220@25°C Lot #11B102018 Exp Date OCT 2011 Pur Date MAR 2011

DO Standard Air Calibration Chamber in Air (Table FS 2200-2)

Standard

Standard _____

[illegible]

Acceptable calibration check is if the meter reads within ± 0.3 mg/L of the value of appropriate calibration standard. Need to record DO readings in mg/L and use Table FS 2200-2 "Dissolved Oxygen Saturation". ORP calibration reading must be within ± 10 mV from the theoretical redox standard value at that temperature.

INSTRUMENT (MAKE/MODEL NO.) HACH 2100 P INSTRUMENT NO. A17-5

Standard Vendor: HACH

Purchase Date: AUG 2009 **Expiration Date:** AUG 2011 **Lot Number:** SEE BELOW

Standard < 0.1 Nephelometric Turbidity Unit LOT # A9212

Standard 20 Nephelometric Turbidity Unit LOT# A9211

Standard 100 Nephelometric Turbidity Unit LOT# A9216

Standard 800 Nephelometric Turbidity Unit LOT# A9215

Calibration values for turbidity needs to be within 10% of the standard for values between 0.1-10 NTU; 8% for values between 11-40 NTU; 6.5% for values between 41-100 NTU and 5% for values >100 NTU.

ATTACHMENT E
LABORATORY ANALYTICAL DATA