UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

Inspection Date: March 15 - 16, 2010 **EPA ID Number:** not applicable

Facility Name: Frisco Neighborhood Soil Survey
Physical Location: Public areas within 1 mile of Exide Technologies
Frisco, Texas

Mailing Address: Mr. Ron Patterson
Assistant City Manager
6101 Frisco Square Blvd.
Frisco, TX 75034

Type of Ownership: _Federal _State _County X Municipal _Private/Commercial

Inspection Participants: (name and phone number)
Lead EPA Inspector: Melissa L. Smith 214-665-7357 **Initials (3):** M.L.S.
Other Participants:

Name	Title	Phone No.
Paul James, US EPA	Inspector	214-665-6445
Ryan Rosser, US EPA	Inspector	214-665-2247
Patty Willis, US EPA	Inspector	214-665-8356
Ron Patterson, Frisco	Assistant City Manager	972-292-5102
Tim Sanz, Frisco ISD	Env Health & Safety Coordinator	469-633-6340
Blake Vaughn, Frisco ISD	Director of Maintenance	469-633-6000
Liz Scaggs, Southwest Geoscience	Senior Project Manager	214-350-5469
Jason Minter, Southwest Geoscience		214-350-5469

Facility Description: Various public city-owned properties within approximately 1 mile of the Exide Technologies plant in Frisco, Texas.

Generator Status: **Not applicable**
_LQG (>1000kg/mo) __SQG (100kg/mo to 1000kg/mo) __CESQG (<100kg/mo) _TSDF

Inspection Type: X EPA Lead _State Lead _CSE _CEI
_CDI X Sampling _Multi-Media _Other

Reason for Evaluation:
_ (01)Follow up _ (02)Case Development X (03)Sampling
_ (04)Citizen Complaint _ (07)General _ (16)CAV
_ (63)US/Mexico _ (65)CAV-US/Mexico

Peer Reviewed by: _____ **Date:** 1/20/2011

Frisco Neighborhood Soil Survey Summary

Summary of Inspection:

On March 15 and 16, 2010, staff from EPA's Hazardous Waste Enforcement Branch and Air/Toxics and Inspection Coordination Branch, collected surface soil samples from thirteen (13) publicly accessible areas within approximately one mile of the Exide facility, as well as one location farther away as a background comparison. The purpose of the sampling was to determine the potential concentration of lead and cadmium in the surface soil to determine if additional investigation of residential areas is warranted and to document if there is a potential threat to human health or the environment from contaminant accumulation in soil due to emissions from the facility. Photographs taken during the sampling event are included in Attachment 1. Representatives from the City of Frisco were present during the sampling event and were provided with split samples.

EPA collected a total of thirty-eight (38) soil samples from the following fourteen (14) locations within in the City of Frisco (See Attachment 2 for a map of approximate sample locations):

Frisco Independent School District (FISD) Child Development Center
ZT Acker Special Programs Center and Office Complex
Ida Lee Bright Elementary School
Frisco High School
Downtown Gazebo
Gallegos Park
First Street Park
Frisco Heritage Center
Senior Center at Frisco Square
Grand Park
Oakbrook Park
Caddo Trail
Frisco Police Headquarters
Beavers Bend Park (background sample location)

EPA used sampling procedures recommended in the February 18, 2000, U.S. EPA Environmental Response Team Standard Operating Procedures for soil sampling and in the August 2003 EPA Superfund Lead-Contaminated Residential Sites Handbook. Specifically:

1. EPA delineated between one and four 50-square foot sampling squares at defined locations, depending on the size of the area. Each sample square was measured, flagged, and documented with Global Positioning System (GPS) coordinates;

2. A 5-point composite sample was collected from each sample square. Each sample was collected using a dedicated disposable plastic scoop, or a dedicated stainless steel trowel depending upon the consistency of the soil. Each composite was composed of 0 – 1 inch depth aliquots taken from the four corners and center of the sample square. Vegetation was removed prior to collection of the aliquots. The aliquots for each sample were placed into a dedicated resealable plastic bag and homogenized.

3. Each sample bag was scanned using a calibrated portable x-ray fluorescence (XRF)

analyzer to determine approximate lead and cadmium concentrations. Lithological data and XRF data were recorded for each sample on a Soil Grid Composite Log (Attachment 3).

4. Samples were transferred from the bags into four pre-cleaned 8-oz glass jars using dedicated disposable plastic scoops. Two jars for each sample were provided to the City of Frisco. The other two jars for each sample were labeled, custody-sealed, placed in sealed plastic bags with bubble wrap, placed in coolers with ice at 4° C, maintained under chain-of-custody, and shipped via overnight express service to the EPA laboratory in Houston, Texas.

5. All samples were sent to the laboratory; however, samples were designated on the chain of custody to either be analyzed or held. One sample per location was designated for laboratory analysis. For locations with more than one sample collected, the sample with the highest XRF reading was designated for laboratory analysis. In the event that laboratory analytical data differed significantly from the field XRF data, the held samples would be analyzed. Designated samples were analyzed by the laboratory for total lead and cadmium concentrations in both the fine fraction of the soil (i.e. "dust-sized" particles at or less than 250 microns) and in the soil as a whole using EPA approved method 6010 (SW 846 method 6010). Laboratory analytical results are included in Attachment 4.

Sample Results:

XRF Field Screening: All of the samples were scanned in the field with the XRF for lead and cadmium. All of the XRF results for both lead and cadmium were below the EPA screening levels for residential soil (which is 400 ppm for lead and 39 ppm for cadmium).

Laboratory Analysis of Fine Fraction: Eighteen (18) samples were sieved for the fine fraction (dust-sized particles) and analyzed by the EPA laboratory in Houston for lead and cadmium concentration. All samples were below the EPA screening level for cadmium in residential soil. Four (4) of the sieved samples exceeded the EPA screening level for lead in residential soil; however, the screening level is based on soil concentrations as a whole, not on sieved or fine fractions of the soil. The fine fraction concentrations are used in determining locations for further evaluation of soil concentrations as a whole. The locations of these samples were in front of the library at the Frisco High School (FSS-HS-003 and FSS-DP-019), in front of the Senior Center (FSS-SC-031), west of the playground at First Street Park (FSS-FS-017), and at Beavers Bend Park (FSS-BG-038; background location). Samples collected from Frisco High School (FSS-HS-003 and FSS-DP-019) were reanalyzed due to differences observed in lead concentrations between the sample and the duplicate sample (FSS-BG-DP-019). The reanalyzed samples again exhibited differences indicating variability in the concentration within the fine fraction. The City of Frisco also had the split samples sieved and analyzed for these four locations. All of the concentrations in the split samples were below EPA screening levels. Analytical results provided by the City of Frisco are included as Attachment 5.

Laboratory Analysis of Whole Soil: Eighteen (18) soil samples (unsieved) were analyzed by the EPA laboratory for total lead and cadmium concentrations. All samples were below the EPA screening level for lead and cadmium in residential soil and were comparable to XRF results

obtained in the field; therefore, the held samples were not analyzed. The Frisco High School samples (FSS-HS-003 and FSS-DP-019) were reanalyzed to verify and confirm the concentrations. The reanalyzed samples were again below the screening levels for lead and cadmium. The City also analyzed the unsieved samples for the four (4) locations mentioned above. The unsieved samples were all below the EPA screening level for lead and cadmium.

Summary:

In March 2010, thirty-eight (38) surface soil samples were collected from thirteen (13) publicly accessible areas in Frisco within approximately 1 mile of the Exide Technologies facility, and one area farther from the facility as a background comparison. The purpose of the sampling was to determine the potential concentration of lead and cadmium in the surface soil to determine if additional investigation of residential areas is warranted and to document if there is a potential threat to human health or the environment from lead and cadmium accumulation in soil due to emissions from the facility. Samples were analyzed for lead and cadmium concentrations and compared to EPA human health screening levels for residential soil. Sample results confirmed that concentrations are below regulatory levels of concern and no further testing or remedial action is needed for those areas that were sampled.

Summary of Off-site Samples Collected:

Sample Name	Location	Description
FSS-HS-001	Frisco High School	Band practice field
FSS-HS-002	Frisco High School	Front of main entrance
FSS-HS-003	Frisco High School	Front of library
FSS-HS-004	Frisco High School	Sports practice field
FSS-IL-005	Ida Lee Bright Elementary	Near playground
FSS-IL-006	Ida Lee Bright Elementary	North field
FSS-IL-007	Ida Lee Bright Elementary	Front of school
FSS-ZT-008	ZT Acker Special Program Center	South field
FSS-ZT-009	ZT Acker Special Program Center	Courtyard
FSS-ZT-010	ZT Acker Special Program Center	Front of school
FSS-CD-011	FISD Child Development Center	SW of playground
FSS-CD-012	FISD Child Development Center	SE of playground
FSS-CD-013	FISD Child Development Center	Near back of school
FSS-DG-014	Downtown Gazebo	SE corner of 4th and Main St.
FSS-GA-015	Gallegos Park	NE portion of park
FSS-GA-016	Gallegos Park	SE portion of park
FSS-FS-017	First Street Park	W of playground
FSS-FS-018	First Street Park	NE of playground
FSS-DP-019	Frisco High School	Duplicate of FSS-HS-003
FSS-DP-020	ZT Acker Special Program Center	Duplicate of FSS-ZT-010
FSS-DP-021	FISD Child Development Center	Duplicate of FSS-CD-013
FSS-DP-022	Downtown Gazebo	Duplicate of FSS-DG-014
FSS-PD-023	Police Station	North field
FSS-PD-024	Police Station	NE field
FSS-CT-025	Caddo Trail	West portion of park
FSS-CT-026	Caddo Trail	NE portion of park
FSS-CT-027	Caddo Trail	North central portion of park
FSS-OP-028	Oakbrook Park	East adjacent to ball field
FSS-OP-029	Oakbrook Park	North adjacent to playground
FSS-OP-030	Oakbrook Park	West portion of park
FSS-SC-031	Senior Center	North of building
FSS-HC-032	Heritage Center	Adjacent to gazebo
FSS-GR-033	Grand Park	NE corner
FSS-GR-034	Grand Park	SE corner
FSS-GR-035	Grand Park	SW of building
FSS-GR-036	Grand Park	West of building
FSS-BG-037	Beavers Bend Park	Background
FSS-BG-038	Beavers Bend Park	Background

Field Screening and Analytical Results for Lead (all values are in parts per million [ppm]):

Sample Name	XRF (mean concentration)	Lab (Whole Soil)	Lab (Fine Fraction)	Split Sample (Whole Soil)	Split Sample (Fine Fraction)
FSS-HS-001	16.85	not analyzed (NA)	NA	NA	NA
FSS-HS-002	16.22	NA	NA	NA	NA
FSS-HS-003 (reanalyzed)	18.88	18.3 16.3	1100 118	20.8	21.5
FSS-HS-004	15.69	NA	NA	NA	NA
FSS-IL-005	15.57	NA	NA	NA	NA
FSS-IL-006	Not detected	NA	NA	NA	NA
FSS-IL-007	18.33	18.6	216	NA	NA
FSS-ZT-008	23.95	NA	NA	NA	NA
FSS-ZT-009	40.98	NA	NA	NA	NA
FSS-ZT-010	37.87	37.5	156	NA	NA
FSS-CD-011	61.28	NA	NA	NA	NA
FSS-CD-012	69.05	NA	NA	NA	NA
FSS-CD-013	108.43	256	142	NA	NA
FSS-DG-014	28.92	46.8	67.6	NA	NA
FSS-GA-015	52.43	NA	NA	NA	NA
FSS-GA-016	49.49	69.6	200	NA	NA
FSS-FS-017	99.04	144	428	20.3	182
FSS-FS-018	63.20	NA	NA	NA	NA
FSS-DP-019 (reanalyzed)	18.88	16.9 18.3	196 637	22	23.4
FSS-DP-020	37.87	39	85	NA	NA
FSS-DP-021	108.43	123	123	NA	NA
FSS-DP-022	28.92	45	54.1	NA	NA
FSS-PD-023	29.36	28.7	66.9	NA	NA
FSS-PD-024	22.10	NA	NA	NA	NA
FSS-CT-025	34.09	27.3	57.8	NA	NA
FSS-CT-026	22.13	NA	NA	NA	NA
FSS-CT-027	21.29	NA	NA	NA	NA
FSS-OP-028	17.04	NA	NA	NA	NA
FSS-OP-029	20.82	NA	NA	NA	NA
FSS-OP-030	28.21	24.6	51.7	NA	NA
FSS-SC-031	26.36	41	453	31	55.2
FSS-HC-032	43.95	37.7	189	NA	NA
FSS-GR-033	24.94	NA	NA	NA	NA
FSS-GR-034	58.59	71.2	224	NA	NA
FSS-GR-035	27.92	NA	NA	NA	NA
FSS-GR-036	33.70	NA	NA	NA	NA
FSS-BG-037	18.52	NA	NA	NA	NA
FSS-BG-038	19.62	14.8	545	135	16.4

Attachments:

1. Photograph Log
2. Map of Sample Locations
3. Soil Composite Log
4. EPA Laboratory Analytical Data and Chain of Custody Records
5. City of Frisco Laboratory Analytical Data

Frisco Neighborhood Soil Survey Summary

ATTACHMENT 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 1

Photographer: Melissa Smith	Date: 03/15/10	Time: 8:01 AM
City/County: Frisco / Collin County		State: TX
Location: Frisco High School		
Subject: Band practice area on NW side of school. Pink flags denote the grid and composite sample locations.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 2

Photographer: Melissa Smith	Date: 03/15/10	Time: 8:53 AM
City/County: Frisco / Collin County		State: TX
Location: Frisco High School		
Subject: XRF screening of band practice area sample.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 3

Photographer: Melissa Smith	Date: 03/15/10	Time: 8:59 AM
City/County: Frisco / Collin County		State: TX
Location: Frisco High School		
Subject: Front of school. Pink flags denote grid and composite sample locations.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 4

Photographer: Melissa Smith	Date: 03/15/10	Time: 10:45 AM
City/County: Frisco / Collin County		State: TX
Location: Ida Lee Bright Elementary		
Subject: Playground area east of school.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 5

Photographer: Melissa Smith	Date: 03/15/10	Time: 10:45 AM
City/County: Frisco / Collin County		State: TX
Location: Ida Lee Bright Elementary		
Subject: Playground east of school.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 6

Photographer: Melissa Smith	Date: 03/15/10	Time: 12:23 PM
City/County: Frisco / Collin County		State: TX
Location: ZT Acker Special Program Center		
Subject: Play field south of building.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 7

Photographer: Melissa Smith	Date: 03/15/10	Time: 12:40 PM
City/County: Frisco / Collin County		State: TX
Location: ZT Acker Special Program Center		
Subject: Courtyard in center of building.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 8

Photographer: Melissa Smith	Date: 03/15/10	Time: 2:08 PM
City/County: Frisco / Collin County		State: TX
Location: ZT Acker Special Program Center		
Subject: Front of building.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 9

Photographer: Melissa Smith	Date: 03/15/10	Time: 2:09 PM
City/County: Frisco / Collin County		State: TX
Location: FISD Child Development Center		
Subject: Playground south of building.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 10

Photographer: Melissa Smith	Date: 03/15/10	Time: 2:10 PM
City/County: Frisco / Collin County		State: TX
Location: FISD Child Development Center		
Subject: Sample location south of playground.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 11

Photographer: Melissa Smith	Date: 03/15/10	Time: 3:30 PM
City/County: Frisco / Collin County		State: TX
Location: Downtown Gazebo		
Subject: Downtown Gazebo sampling location.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 12

Photographer: Melissa Smith	Date: 03/15/10	Time: 2:10 PM
City/County: Frisco / Collin County		State: TX
Location: Gallegos Park		
Subject: Sampling grid at the southeast corner of park.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 13

Photographer: Melissa Smith	Date: 03/15/10	Time: 4:26 PM
City/County: Frisco / Collin County		State: TX
Location: First Street Park		
Subject: Playground at First Street Park.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 14

Photographer: Melissa Smith	Date: 03/16/10	Time: 8:51 AM
City/County: Frisco / Collin County		State: TX
Location: Frisco Police Department		
Subject: Labeling sample containers.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 15

Photographer: Melissa Smith	Date: 03/16/10	Time: 10:08 AM
City/County: Frisco / Collin County		State: TX
Location: Frisco Police Department		
Subject: Sample area north of police dept. parking lot.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 16

Photographer: Melissa Smith	Date: 03/16/10	Time: 10:09 AM
City/County: Frisco / Collin County		State: TX
Location: Frisco Police Department		
Subject: Exide property looking north from police department.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 17

Photographer: Melissa Smith	Date: 03/16/10	Time: 2:49 PM
City/County: Frisco / Collin County		State: TX
Location: Heritage Center		
Subject: Sample area near gazebo at Heritage Center.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 18

Photographer: Melissa Smith	Date: 03/16/10	Time: 2:49 PM
City/County: Frisco / Collin County		State: TX
Location: Senior Center		
Subject: Sample area in front of Senior Center.		

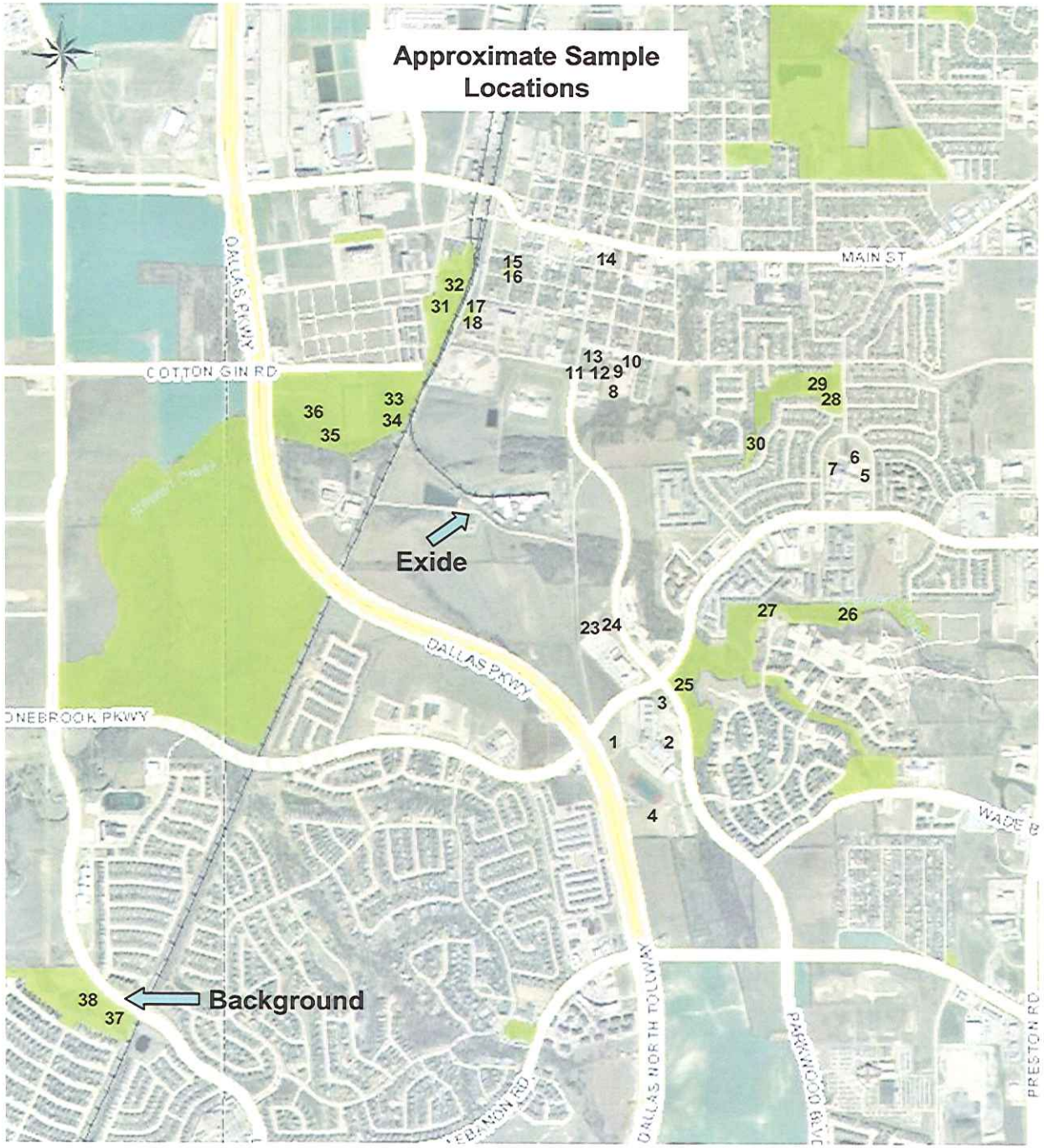
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Official Photograph Log

Photo # 19

Photographer: Melissa Smith	Date: 03/16/10	Time: 3:32 PM
City/County: Frisco / Collin County		State: TX
Location: Grand Park		
Subject: Sampling areas on southeast side of park; Exide facility in background.		

ATTACHMENT 2


Approximate Sample Locations
MAIN ST
COTTON GIN RD
DALLAS PKWY
Exide
Background
38
37
36
35
34
33
32
31
18
17
16
15
14
13
12
11
10
9
8
29
28
30
7
6
5
27
26
25
24
23
3
2
1
4
PRESTON RD

ATTACHMENT 3

Soil Grid Composite Log

Grid/Node ID: FSS-HS-001

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: Frisco High School Band Practice Field
Notes

Page 1 of 1
Date: March 15, 2010
Start Time: 0810
Finish Time: 0847
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA DRK. BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 20 % F ANG SUB RND (NA)
SLT/CLY: 70 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON (LOW) MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: (NOC) / COH ___
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	14	ND
Trial 2	23	ND
Trial 3	16	ND
Trial 4	14	ND
Trial 5	ND	ND

Notes: ALL TESTS WENT WELL. NO ISSUES

Send to Lab? yes-hold
Tag Number: 6-303277
6-303275

Soil Grid Composite Log

Grid/Node ID: FSS-HS-002

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: FRISCO HIGH SCHOOL
FRONT OF SCHOOL @ MAIN ENTRY.
Notes

Page 1 of 1
Date: March 15, 2010
Start Time: 0857
Finish Time: 0924
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA DRK BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 10 % F ANG SUB RND (NA)
SLT/CLY: 80 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FIRM-MOD
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	13	ND
Trial 2	14	ND
Trial 3	20	ND
Trial 4	21	ND
Trial 5	13	ND

Notes:

Send to Lab? yes-hold
Tag Number: 6-303274
6-303276

Soil Grid Composite Log

Grid/Node ID: FSS-HS-003

Field Data

Project: *Frisco Neighborhood Soil Survey*
Location: *Frisco, Texas*
Site/Area: FRISCO HIGH SCHOOL
IN FRONT OF SCHOOL LIBRARY
Notes

Page 1 of 1
Date: *March* 15, *2010*
Start Time: 9:26
Finish Time: 9:40
Avg Top Depth: *Feet*
Avg Bottom Depth: *Feet*
Sampler 1: *Melissa Smith*
Sampler 2: *Ryan Rosser*
GPS Operator: *Patricia Willis*
XRF Operator: *Paul James, P.G.*
Sample Method: *Five-point Composite / 0-0.25 ft bgs.*

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA
Coloration: (UNI) MTD VAR STN
Texture: GVL: % ANG SUB RND NA
SND: 10 % F ANG SUB RND (NA)
SLT/CLY: 80 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON (LOW) MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) LOOSE-SOFT
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: *From grid composite.*

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	22	ND
Trial 2	20	ND
Trial 3	17	ND
Trial 4	14	ND
Trial 5	23	ND

Notes:

Send to Lab? yes

Tag Number: 6-303273
6-303272

Soil Grid Composite Log

Grid/Node ID: FSS-HS-004

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: FRISCO HIGH SCHOOL PRACTICE FIELD
Notes

Page 1 of 1
Date: March , 2010
Start Time: 0955
Finish Time: 10:05
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural (Fill) Uncertain
Color: (MUN) GSA LT. BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 60 % F ANG SUB RND NA
SLT/CLY: 15 %
ORG: 25 %

Sorting: (WEL) MOD POR NA
Plasticity: (NON) LOW MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: (NOC) COH ___
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	ND	ND
Trial 2	16	ND
Trial 3	ND	ND
Trial 4	ND	ND
Trial 5	ND	ND

Notes:

Send to Lab? yes-hold
Tag Number: 6-3032168
6-3032169

Soil Grid Composite Log

Grid/Node ID: FSS-IL-005

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: IDA LEE BRIGHT ELEM. PLAY GROUND AREA.
Notes

Page 1 of 1
Date: March 15, 2010
Start Time: 10:42
Finish Time: 11:00
Avg Top Depth: 0.1 Feet
Avg Bottom Depth: 0.4 Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA LT BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
76 SND: ~~80~~ % F ANG SUB RND NA
SLT/CLY: ~~16~~ 20 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: (NON) LOW MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: (NOC) / COH ___
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	ND	ND
Trial 2	ND	ND
Trial 3	ND	ND
Trial 4	ND	ND
Trial 5	16	ND

Notes:

Send to Lab? yes-hold
Tag Number: 6-303269
6-303268

Soil Grid Composite Log

Grid/Node ID: FSS-IL-006

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: IDA LEE WRIGHT ELEM. NORTH FIELD
Notes:

Page ____ of ____
Date: March , 2010
Start Time: 11:00
Finish Time: 11:18
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill (Uncertain)
Color: (MUN) GSA TAN TO BROWN
Coloration: UNI MTD (VAR) STN
Texture: GVL: ____ % ____ ANG SUB RND NA
SND: 70 % 5 ANG (SUB) RND NA
SLT/CLY: 20 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: (NON) (LOW) MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: (NOC) COH ____
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	ND	ND
Trial 2	ND	ND
Trial 3	ND	ND
Trial 4	ND	ND
Trial 5	ND	ND

Notes:

Send to Lab? yes-hold
Tag Number: b-303267
b-303266

Soil Grid Composite Log

Grid/Node ID: FSS-IL-007

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: IDA LEE BRIGHT ELE. FRONT OF SCHOOL
Notes

Page ____ of ____
Date: March , 2010
Start Time: 11:20
Finish Time: 11:35
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DARK BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 10 % F ANG SUB RND NA
SLT/CLY: 90 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	17	ND
Trial 2	ND	ND
Trial 3	15	ND
Trial 4	17	ND
Trial 5	24	ND

Notes:

Send to Lab? yes

Tag Number: 6-303263
6-303262

Soil Grid Composite Log

Grid/Node ID: FSS-ZT-008

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: Z.T. ACKERT SPECIAL PROGRAM CENTER SOUTH FIELD.
Notes

Page 1 of 1
Date: March 15, 2010
Start Time: 11:48
Finish Time: 12:20
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA DK. BROWN
Coloration: UNI MTD (VAR) STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: ___ % ___ ANG SUB RND NA
SLT/CLY: 80 %
ORG: 20 %

Sorting: WEL MOD (POR) NA
Plasticity: NON LOW MED (HGH) NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) STIFF
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	ND	ND
Trial 2	ND	ND
Trial 3	28	ND
Trial 4	20	ND
Trial 5	ND	ND

Notes:

Send to Lab? yes-hold
Tag Number: 6-303264
6-303265

Soil Grid Composite Log

Grid/Node ID: FSS-ZT-009

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: Z.T. ACHER SPECIAL PROGRAM CENTER COURT YARD.
Notes

Page 1 of 1
Date: March 15, 2010
Start Time: 12:30
Finish Time: 12:35
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 20 % F ANG SUB RND (NA)
SLT/CLY: 60 %
ORG: 20 %

Sorting: WEL MOD (POR) NA
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / COH FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	39	ND
Trial 2	43	ND
Trial 3	45	ND
Trial 4	33	ND
Trial 5	45	ND

Notes:

Send to Lab? y-hold
Tag Number: 6-303260
6-303261

Soil Grid Composite Log

Grid/Node ID: FSS-ZT-010

Field Data

Project: Frisco Neighborhood Soil Survey

Location: Frisco, Texas

Site/Area: TZ AHARZD SPECIAL PROGRAM CENTER - IN FRONT OF FACILITY

Notes

Page 1 of 1

Date: March 15, 2010

Start Time: 1352

Finish Time: 1405

Avg Top Depth: Feet

Avg Bottom Depth: Feet

Sampler 1: Melissa Smith

Sampler 2: Ryan Rosser SAMPLER

GPS Operator: Patricia Willis

XRF Operator: Paul James, P.G. SAMPLER

Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat

Long:

DOP:

Notes:

Lithological Data

Material: (Natural) Fill Uncertain

Color: (MUN) GSA DRK BROWN

Coloration: (UNI) MTD VAR STN

Texture: GVL: ___ % ___ ANG SUB RND NA

SND: 10 % F ANG SUB RND (NA)

SLT/CLY: 80 %

ORG: 10 %

Sorting: WEL MOD POR (NA)

Plasticity: NON LOW (MED) HGH NA

Moisture: DRY (MST) WET SAT NA

Cementation: (NON) SLT MOD WEL NA

Strength: NOC (COH) FIRM

Upper Contact: SHP GRD DIF SME (NA)

Observed: STN SHN ODR PRD (NA)

Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	25	ND
Trial 2	51	ND
Trial 3	44	ND
Trial 4	32	ND
Trial 5	37	ND

Notes:

Send to Lab? yes

Tag Number: 6-303258

6-303259

Soil Grid Composite Log

Grid/Node ID: FSS-~~TB~~CD-011

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: FSS-CD-011
SW Playground
Notes

Page 1 of 1
Date: March 15, 2010
Start Time: 1410
Finish Time: 1420
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DRK BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 10 % (F) ANG SUB RND NA
SLT/CLY: 80 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC /(COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	82	ND
Trial 2	52	ND
Trial 3	56	ND
Trial 4	49	ND
Trial 5	68	ND

Notes:

Send to Lab? yes-hold
Tag Number: 6303256
6303257

Soil Grid Composite Log

Grid/Node ID: FSS-CD-12

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: CHILD DEVELOPMENT CENTER SOUTHEAST CORNER PLAYGROUND
Notes

Page ____ of ____
Date: March , 2010
Start Time: 1423
Finish Time: 1440
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill Uncertain
Color: (MUN) GSA DARK BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND (NA)
SND: 10 % F ANG SUB RND (NA)
SLT/CLY: 80 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	80	N.D
Trial 2	76	ND
Trial 3	79	ND
Trial 4	60	ND
Trial 5	50	ND

Notes:

Send to Lab? yes-hold
Tag Number: 6-303254
6-303255

Soil Grid Composite Log

Grid/Node ID: FSS-CD-13

Field Data

Project: *Frisco Neighborhood Soil Survey*
Location: *Frisco, Texas*
Site/Area: CHILD DEV. CENTER NEAR BUILDING
Notes

Page 1 of 1
Date: *March 15, 2010*
Start Time: 1442
Finish Time: 1500
Avg Top Depth: - Feet
Avg Bottom Depth: - Feet
Sampler 1: *Melissa Smith*
Sampler 2: *Ryan Rosser*
GPS Operator: *Patricia Willis*
XRF Operator: *Paul James, P.G.*
Sample Method: *Five-point Composite / 0-0.25 ft bgs.*

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) (Fill) Uncertain
Color: (MUN) GSA DARK BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 10 % FMC ANG SUB RND NA
SLT/CLY: 70 %
ORG: 20 %

Sorting: WEL MOD POR (NA)
Plasticity: NON (LOW) (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: (FRI) (NOC) (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other: SOME FILL IN MIX.

NOTES: *From grid composite.*

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	102	ND
Trial 2	107	ND
Trial 3	108	ND
Trial 4	131	ND
Trial 5	95	ND

Notes:

Send to Lab? yes

Tag Number: 6-303253
6-303252

Soil Grid Composite Log

Grid/Node ID: FSS-DG-014

Field Data

Project: Frisco Neighborhood Soil Survey

Location: Frisco, Texas

Site/Area: DOWN TOWN GAZEBO 4TH MAIN (SE CORNER)

Notes

Page 1 of 1

Date: March 15, 2010

Start Time: 1522

Finish Time: 1525

Avg Top Depth: ~ Feet

Avg Bottom Depth: ~ Feet

Sampler 1: Melissa Smith

Sampler 2: Ryan Rosser

GPS Operator: Patricia Willis

XRF Operator: Paul James, P.G.

Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat

Long:

DOP:

Notes:

Lithological Data

Material: Natural (Fill) Uncertain

Color: (MUN) GSA BOWN

Coloration: UNI MTD VAR STN

Texture: GVL: ___ % ___ ANG SUB RND NA

SND: 10 % ___ ANG SUB RND NA

SLT/CLY: 20 %

ORG: 70 %

Sorting: WEL MOD POR (NA)

Plasticity: (NON) LOW MED HGH NA

Moisture: DRY (MST) WET SAT NA

Cementation: (NON) SLT MOD WEL NA

Strength: (NOC) / COH ___

Upper Contact: SHP GRD DIF SME (NA)

Observed: STN SHN ODR PRD (NA)

Other: MOSTLY MULCH.

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	29	ND
Trial 2	28	ND
Trial 3	32	ND
Trial 4	32	ND
Trial 5	25	ND

Notes:

Send to Lab? yes

Tag Number: 6-303250

6-303251

Soil Grid Composite Log

Grid/Node ID: FSS-GA-015

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: GALLEGOS PARK NORTH PORTION
Notes: EAST

Page 1 of 1
Date: March 15, 2010
Start Time: 1540
Finish Time: 1555
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DARK BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 5 % F ANG SUB RND NA
SLT/CLY: 80 %
ORG: 15 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW MED (HGH) NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) STIFF
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	46	ND
Trial 2	54	ND
Trial 3	50	ND
Trial 4	59	ND
Trial 5	54	ND

Notes:

Send to Lab? y-hold
Tag Number: 6-303248
6-303249

Soil Grid Composite Log

Grid/Node ID: FSS-GA-06

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: GALLEGO PARK SOUTHEAST PORTION
Notes

Page 1 of 1
Date: March 5, 2010
Start Time: 1600
Finish Time: 1615
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DK. BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: ___ % ___ ANG SUB RND NA
SLT/CLY: 85 %
ORG: 15 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW MED (HGH) NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) STIFF
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	26	ND
Trial 2	52	ND
Trial 3	94	ND
Trial 4	56	ND
Trial 5	60	ND

Notes:

Send to Lab? yes
Tag Number: 6-303246
6-303247

Soil Grid Composite Log

Grid/Node ID: FSS-FS-017

Field Data

Project: Frisco Neighborhood Soil Survey

Location: Frisco, Texas

Site/Area: FIRST STREET PARK WEST OF PLAYGROUND.

Notes

Page 1 of 1

Date: March 15, 2010

Start Time: 1640

Finish Time: 1650

Avg Top Depth: ~ Feet

Avg Bottom Depth: ~ Feet

Sampler 1: Melissa Smith

Sampler 2: Ryan Rosser

GPS Operator: Patricia Willis

XRF Operator: Paul James, P.G.

Sample Method: Five-point Composite / 0-0.25 ft bgs.

SAMPLE AT NEC

GPS Data

Lat

Long:

DOP:

Notes:

Lithological Data

Material: (Natural) Fill Uncertain

Color: (MUN) GSA DK. BROWN

Coloration: (UNI) MTD VAR STN

Texture: GVL: ___ % ___ ANG SUB RND NA

SND: 5 % F ANG SUB RND NA

SLT/CLY: 85 %

ORG: 10 %

Sorting: WEL MOD POR (NA)

Plasticity: NON LOW MED (HGH) NA

Moisture: DRY (MST) WET SAT NA

Cementation: (NON) SLT MOD WEL NA

Strength: NOC (COH) FIRM

Upper Contact: SHP GRD DIF SME (NA)

Observed: STN SHN ODR PRD (NA)

Other: NOTE TRACE FRAG. OF CALECHE.

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	94	ND
Trial 2	71	ND
Trial 3	59	ND
Trial 4	84	ND
Trial 5	187	ND

Notes:

Send to Lab? yes

Tag Number: 6-303245

6-303244

Soil Grid Composite Log

Grid/Node ID: FSS-FS-018

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area:
Notes: FIRST STREET PARK NE CORNER

Page 1 of 1
Date: March 15, 2010
Start Time: 1655
Finish Time: 1705
Avg Top Depth: ~ Feet
Avg Bottom Depth: ~ Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DCL BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 10 % F ANG SUB RND NA
SLT/CLY: 80 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: (NON) LOW MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	51	ND
Trial 2	66	ND
Trial 3	76	ND
Trial 4	52	ND
Trial 5	70	ND

Notes:

Send to Lab? y hold
Tag Number: 6-303243
6-303242

Soil Grid Composite Log

Grid/Node ID: FSS-PD-023

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: POLICE STATION
NORTH FIELD OF STATION

Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 0950
Finish Time: 0955
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:

Notes:

Lithological Data

Material: Natural (Fill) Uncertain
Color: (MUN) GSA TROWN (LT TO DRK)
Coloration: UNI (MTD) VAR STN
Texture: GVL: 10 % F ANG SUB RND NA
SND: 30 % FMK ANG ~~SUB~~ RND NA
SLT/CLY: 55 %
ORG: 5 %

Sorting: WEL MOD (POR) NA
Plasticity: (NON LOW) MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) LOOSE
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other: NOTED TRACE FRAGMENTS OF CALICHE

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	22	ND
Trial 2	25	ND
Trial 3	36	ND
Trial 4	33	ND
Trial 5	33	ND

Notes:

Send to Lab? Y

Tag Number: ~~6-303241~~ MLS
~~6-303240~~ MLS
6-303181
6-303180

Soil Grid Composite Log

Grid/Node ID: FSS-PD-024

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: POLICE STATION
FIELD NE OF STATION
Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 1000
Finish Time: 1005
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA DRK BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 5 % F ANG SUB RND NA
SLT/CLY: 75 %
ORG: 20 %

Sorting: WEL MOD POR (NA)
Plasticity: NON (LOW MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	17	ND
Trial 2	17	ND
Trial 3	28	ND
Trial 4	76	ND
Trial 5	22	ND

Notes:

Send to Lab? hold

Tag Number: 6-303182
6-303183

Soil Grid Composite Log

Grid/Node ID: FSS-CT-025

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: CADDO TRAIL
WEST PORTION OF PARK

Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 1037
Finish Time: 1050
Avg Top Depth: – Feet
Avg Bottom Depth: – Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:

Notes:

Lithological Data

Material: Natural (Fill) To Uncertain
Color: (MUN) GSA
Coloration: UNI (MTD) VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 10 % F ANG SUB RND NA
SLT/CLY: 50 %
ORG: ~~20~~ % 40%

Sorting: WEL MOD POR (NA)
Plasticity: (NON) LOW MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	25	ND
Trial 2	41	ND
Trial 3	28	ND
Trial 4	43	ND
Trial 5	34	ND

Notes:

Send to Lab? Y

Tag Number: 6-303184
6-303185

Soil Grid Composite Log

Grid/Node ID: FSS-CT-0216

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: CADDO TRAIL PARK
N-EAST PORTION OF PARK

Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 1110
Finish Time: 1120
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:

Notes:

Lithological Data

Material: Natural ~~Fill~~ ~~Uncertain~~
Color: (MUN) GSA DK. BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 20 % F ANG SUB RND NA
SLT/CLY: 70 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: (NON) LOW MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) LOOSE
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	25	ND
Trial 2	ND	ND
Trial 3	19	ND
Trial 4	ND	ND
Trial 5	22	ND

Notes:

Send to Lab? hold

Tag Number: 6-303186
6-303187

Soil Grid Composite Log

Grid/Node ID: FSS-CT-027

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: CADDO TRAIL PARK
NORTH - CENTER PORTION OF PARK
Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 11:27
Finish Time: 11:35
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA LT BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: % ANG SUB RND NA
SND: 10 % F ANG SUB RND NA
SLT/CLY: 50 %
ORG: 40 %

Sorting: WEL MOD POR (NA)
Plasticity: (NON) LOW MED HGH NA
Moisture: (DRY) (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) LOOSE
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	21	ND
Trial 2	26	ND
Trial 3	17	ND
Trial 4	25	ND
Trial 5	18	ND

Notes:

Send to Lab? hold

Tag Number: 6-303188
6-303189

Soil Grid Composite Log

Grid/Node ID: FSS-OB-028

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: OAKBROOK PARK
EAST SIDE OF PARK
ADJACENT TO BALL FIELD
Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 1247
Finish Time: 1310
Avg Top Depth: Feet
Avg Bottom Depth: ~~1~~ Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND (NA)
SND: 10 % F ANG SUB RND (NA)
SLT/CLY: 60 %
ORG: 30 %

Sorting: WEL MOD POR (NA)
Plasticity: NON (LOW) MED HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) Loose
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	22	ND
Trial 2	12	ND
Trial 3	ND	ND
Trial 4	17	ND
Trial 5	ND	ND

Notes:

Send to Lab? Hold
Tag Number: 6-303191

*not enough volume for 2 jars.

Soil Grid Composite Log

Grid/Node ID: FSS-OP-029

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: OAKBROOK PARK NORTH SIDE - ADJACENT TO PLAYGROUND
Notes

Page ____ of ____
Date: March , 2010
Start Time: 1300
Finish Time: 1324
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DARK BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 1 % ___ ANG SUB RND NA
SLT/CLY: 90 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW MED (HGH) NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) STIFF
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	18	ND
Trial 2	ND	ND
Trial 3	ND	ND
Trial 4	24	ND
Trial 5	ND	ND

Notes:

Send to Lab? Hold

Tag Number: 6-303192
6-303193

Soil Grid Composite Log

Grid/Node ID: FSS-OP-030

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: OAKBROOK PARK WEST-SIDE

Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 1330
Finish Time: 1335
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:

Notes:

Lithological Data

Material: Natural Fill Uncertain
Color: (MUN) GSA BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 15 % F ANG SUB RND NA
SLT/CLY: 70 %
ORG: 15 %

Sorting: WEL MOD POR (NA)
Plasticity: (NON) (LOW) (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) FIRM
Upper Contact: (SHP) GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other: TRACE CALECHE NOTE -

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	28	ND
Trial 2	21	ND
Trial 3	32	ND
Trial 4	28	ND
Trial 5	31	ND

Notes:

Send to Lab? YES

Tag Number: 6-303194
6-303195

Soil Grid Composite Log

Grid/Node ID: FSS-SC-031

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: FRISCO SENIOR CENTER

Notes

Page 1 of 1
Date: March 16 2010
Start Time: 1425
Finish Time: 1437
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:

Notes:

Lithological Data

Material: ~~Natural~~ Fill Uncertain
Color: MUN GSA DARK BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: ___ % ___ ANG SUB RND NA
SLT/CLY: 90 %
ORG: 10 %

Sorting: WEL MOD POR NA
Plasticity: NON LOW MED HGH NA
Moisture: DRY MST WET SAT NA
Cementation: NON SLT MOD WEL NA
Strength: NOC COH STIFF
Upper Contact: SHP GRD DIF SME NA
Observed: STN SHN ODR PRD NA
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	20	ND
Trial 2	31	ND
Trial 3	26	ND
Trial 4	23	ND
Trial 5	32	ND

Notes:

Send to Lab? YES

Tag Number: 6-303196
6-303197

Soil Grid Composite Log

Grid/Node ID: FSS-HC-032

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: HERITAGE CENTER NEXT TO GAZEBO.
Notes
Page 1 of 1
Date: March 16, 2010
Start Time: 1437
Finish Time: 1447
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DK. BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: S % F ANG SUB RND NA
SLT/CLY: 85 %
ORG: 10 %

Sorting: WEL MOD (POR) NA
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) STIFF
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	49	ND
Trial 2	34	ND
Trial 3	41	ND
Trial 4	52	ND
Trial 5	45	ND

Notes:

Send to Lab? YES

Tag Number: 6-303198
6-303199

Soil Grid Composite Log

Grid/Node ID: FSS-GR-033

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: GRAND PARK NE CORNER
Notes

Page 1 of 1
Date: March 16, 2010
Start Time: 1515
Finish Time: 1520
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill Uncertain
Color: (MUN) GSA
Coloration: UNI MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: ___ % ___ ANG SUB RND NA
SLT/CLY: ___ %
ORG: ___ %

Sorting: WEL MOD POR NA
Plasticity: NON LOW MED HGH NA
Moisture: DRY MST WET SAT NA
Cementation: NON SLT MOD WEL NA
Strength: NOC / COH
Upper Contact: SHP GRD DIF SME NA
Observed: STN SHN ODR PRD NA
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	31	ND
Trial 2	19	ND
Trial 3	18	ND
Trial 4	28	ND
Trial 5	30	ND

Notes:

Send to Lab? hold

Tag Number: 6-303200
6-303201

Soil Grid Composite Log

Grid/Node ID: FSS-GR-034

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: GRAND PARK SE CORNER
Notes

Page ____ of ____
Date: March , 2010
Start Time: 1525
Finish Time: 1527
Avg Top Depth: 0 Feet
Avg Bottom Depth: 0.25 Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill (Uncertain)
Color: (MUN) GSA DK. BROWN
Coloration: (UNI) MTD VAR STN
Texture: GVL: ___ % ___ ANG SUB RND NA
SND: 10 % F ANG SUB RND NA
SLT/CLY: 60 %
ORG: 30 %

Sorting: WEL MOD POR (NA)
Plasticity: NON (LOW) (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) LOOSE
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other: SILTY LOAM

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	51	ND
Trial 2	53	ND
Trial 3	76	ND
Trial 4	54	ND
Trial 5	59	ND

Notes:

Send to Lab? YES

Tag Number: L0-303202
L0-303203

Soil Grid Composite Log

Grid/Node ID: FSS-GR-035

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: GRAND PARK SW CORNER OF THE BUILDING
Notes

Page ____ of ____
Date: March , 2010
Start Time: 1545
Finish Time: 1552
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DARK BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ____ % ____ ANG SUB RND NA
SND: ____ % ____ ANG SUB RND NA
SLT/CLY: 100 %
ORG: T %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW MED (HGH) NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	23	ND
Trial 2	36	ND
Trial 3	25	ND
Trial 4	29	ND
Trial 5	26	ND

Notes:

Send to Lab? Hold

Tag Number: 6-303204
6-303205

Soil Grid Composite Log

Grid/Node ID: FSS-GR-036

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: GRAND PARK
FYNW WEST OF THE BUILDING.
Notes

Page ____ of ____
Date: March , 2010
Start Time: 1555
Finish Time: 1600
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: (Natural) Fill Uncertain
Color: (MUN) GSA DARK BROWN
Coloration: UNI MTD VAR STN
Texture: GVL: ____ % ____ ANG SUB RND NA
SND: 5 % F ANG SUB RND NA
SLT/CLY: 85 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW MED (HGH) NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	29	ND
Trial 2	47	ND
Trial 3	24	ND
Trial 4	35	ND
Trial 5	34	ND

Notes:

Send to Lab? Hold

Tag Number: 6-303206
6-303207

Soil Grid Composite Log

Grid/Node ID: FSS-BG-037

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: BEAVERS BEND PARK
BACK GROUND
Notes

Page ____ of ____
Date: March , 2010
Start Time: 1620
Finish Time: 1633
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill Uncertain
Color: (MUN) GSA
Coloration: UNI MTD VAR STN
Texture: GVL: 1 % F (ANG) SUB RND NA
SND: 10 % FM ANG SUB RND NA
SLT/CLY: 80 %
ORG: 10 %

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC / (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES:
From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	ND	ND
Trial 2	ND	ND
Trial 3	ND	ND
Trial 4	ND	ND
Trial 5	~~ND~~ 18	ND

Notes:

Send to Lab? Hold

Tag Number: 6-303208
6-303210

Soil Grid Composite Log

Grid/Node ID: FSS-BG-038

Field Data

Project: Frisco Neighborhood Soil Survey
Location: Frisco, Texas
Site/Area: BEAVERS BEND PARK BACK-GROUND.
Notes

Page ____ of ____
Date: March , 2010
Start Time: 1625
Finish Time: 1635
Avg Top Depth: Feet
Avg Bottom Depth: Feet
Sampler 1: Melissa Smith
Sampler 2: Ryan Rosser
GPS Operator: Patricia Willis
XRF Operator: Paul James, P.G.
Sample Method: Five-point Composite / 0-0.25 ft bgs.

GPS Data

Lat
Long:
DOP:
Notes:

Lithological Data

Material: Natural Fill Uncertain
Color: (MUN) GSA
Coloration: UNI MTD VAR STN
Texture: GVL: I % F (ANG) SUB RND NA
SND: 25 % FM (ANG) SUB RND NA
SLT/CLY: 70 %
ORG: ~~10~~ % 5%

Sorting: WEL MOD POR (NA)
Plasticity: NON LOW (MED) HGH NA
Moisture: DRY (MST) WET SAT NA
Cementation: (NON) SLT MOD WEL NA
Strength: NOC (COH) FIRM
Upper Contact: SHP GRD DIF SME (NA)
Observed: STN SHN ODR PRD (NA)
Other:

NOTES: From grid composite.

XRF Screening Data

	Pb (PPM)	Cd (PPM)
Trial 1	22	ND
Trial 2	ND	ND
Trial 3	16	ND
Trial 4	17	ND
Trial 5	24	ND

Notes:

Send to Lab? YES

Tag Number: 6-303209
6-303211

ATTACHMENT 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory

Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name ----------Frisco Neighborhood Soil Survey

Sample Collection Date(s)-- 03/15/10 - 03/16/10

Contact---------- Melissa Smith (6EN-HX)

Report Date---------- 04/22/10

Project #---------- 10RCRA127

Work Order(s)----------1003016

Analyses included in this report:

Metals ICP 6010B
Solids, Dry Weight

Metals ICP 6010B (No Dry Wt)

Report Narrative

Sample Management:

Even numbered samples were dried and sieved (250 micron) prior to digestion and analysis.

Metals ICP: Batch B0C3105:

MS1/MSD1/MS4/MSD4: Cadmium spike recoveries are low; the results are qualified and may be biased low.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

Reporting limits are adjusted for sample size and matrix interference.

Report Approvals:

Richard McMillin
Region 6 Laboratory Manager

David Neleigh
Region 6 Laboratory Branch Chief

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: Frisco Neighborhood Soil Survey Project Number: 10RCRA127

Data Management Coordinator: Christy Warren

Christy Warren 4/28/10
Data Management Coordinator Signature Date

Date Transmitted: 4/28/10

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

Melissa Smith 5/4/10
Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

Melissa Smith 5/19/10
Signature Date

Please provide a reason for holding:

Due to variations in the data, ~~one~~ additional analyses may be needed. Please hold all samples until a final determination is made regarding add'l analyses.

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
3	1003016-01	Solid	3/15/10 9:40	03/18/10 08:55
3	1003016-02	Solid	3/15/10 9:40	03/18/10 08:55
7	1003016-03	Solid	3/15/10 11:35	03/18/10 08:55
7	1003016-04	Solid	3/15/10 11:35	03/18/10 08:55
10	1003016-05	Solid	3/15/10 14:05	03/18/10 08:55
10	1003016-06	Solid	3/15/10 14:05	03/18/10 08:55
13	1003016-07	Solid	3/15/10 15:00	03/18/10 08:55
13	1003016-08	Solid	3/15/10 15:00	03/18/10 08:55
14	1003016-09	Solid	3/15/10 15:25	03/18/10 08:55
14	1003016-10	Solid	3/15/10 15:25	03/18/10 08:55
16	1003016-11	Solid	3/15/10 16:15	03/18/10 08:55
16	1003016-12	Solid	3/15/10 16:15	03/18/10 08:55
17	1003016-13	Solid	3/15/10 16:50	03/18/10 08:55
17	1003016-14	Solid	3/15/10 16:50	03/18/10 08:55
19	1003016-15	Solid	3/15/10 9:40	03/18/10 08:55
19	1003016-16	Solid	3/15/10 9:40	03/18/10 08:55
20	1003016-17	Solid	3/15/10 14:05	03/18/10 08:55
20	1003016-18	Solid	3/15/10 14:05	03/18/10 08:55
21	1003016-19	Solid	3/15/10 15:00	03/18/10 08:55
21	1003016-20	Solid	3/15/10 15:00	03/18/10 08:55
22	1003016-21	Solid	3/15/10 15:25	03/18/10 08:55
22	1003016-22	Solid	3/15/10 15:25	03/18/10 08:55
23	1003016-23	Solid	3/16/10 9:55	03/18/10 08:55
23	1003016-24	Solid	3/16/10 9:55	03/18/10 08:55
25	1003016-25	Solid	3/16/10 10:50	03/18/10 08:55
25	1003016-26	Solid	3/16/10 10:50	03/18/10 08:55
30	1003016-27	Solid	3/16/10 13:35	03/18/10 08:55
30	1003016-28	Solid	3/16/10 13:35	03/18/10 08:55
31	1003016-29	Solid	3/16/10 14:37	03/18/10 08:55
31	1003016-30	Solid	3/16/10 14:37	03/18/10 08:55
32	1003016-31	Solid	3/16/10 14:47	03/18/10 08:55
32	1003016-32	Solid	3/16/10 14:47	03/18/10 08:55
34	1003016-33	Solid	3/16/10 15:27	03/18/10 08:55
34	1003016-34	Solid	3/16/10 15:27	03/18/10 08:55
38	1003016-35	Solid	3/16/10 16:35	03/18/10 08:55

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
38	1003016-36	Solid	3/16/10 16:35	03/18/10 08:55

Environmental Protection Agency
Region 6 Laboratory
10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-01 **Station ID: 3**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.541 g
%Solids: 74.28
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U	L	0.6	1	03/30/10	04/08/10
Lead (7439-92-1)	**18.3**		3.7	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-02 **Station ID: 3**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.484 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**1,100**		3.1	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-03 **Station ID: 7**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.505 g
%Solids: 70.47
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.7	1	03/30/10	04/08/10
Lead (7439-92-1)	**18.6**		4.2	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-04 **Station ID: 7**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.499 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**216**		3.0	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-05 **Station ID: 10**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.513 g
%Solids: 75.17
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/08/10
Lead (7439-92-1)	**37.5**		3.9	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-06 **Station ID: 10**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.537 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**156**		2.8	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-07 **Station ID: 13**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.505 g
%Solids: 74.96
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.7	1	03/30/10	04/08/10
Lead (7439-92-1)	**256**		4.0	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-08 **Station ID: 13**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.507 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**142**		3.0	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-09 **Station ID: 14**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.511 g
%Solids: 54.05
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.9	1	03/30/10	04/08/10
Lead (7439-92-1)	**46.8**		5.4	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-10 **Station ID: 14**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.548 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**67.6**		2.7	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-11 **Station ID: 16**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.506 g
%Solids: 69.83
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.7	1	03/30/10	04/08/10
Lead (7439-92-1)	**69.6**		4.2	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-12 **Station ID: 16**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.501 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**200**		3.0	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-13 **Station ID: 17**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.51 g
%Solids: 66.90

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.7	1	03/30/10	04/08/10
Lead (7439-92-1)	**144**		4.4	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-14 **Station ID: 17**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.573 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.4	1	03/30/10	04/08/10
Lead (7439-92-1)	**428**		2.6	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-15 **Station ID: 19**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.509 g
%Solids: 74.87

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.7	1	03/30/10	04/08/10
Lead (7439-92-1)	**16.9**		3.9	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-16 **Station ID: 19**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.494 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**196**		3.0	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-17 **Station ID: 20**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.507 g
%Solids: 77.70

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/08/10
Lead (7439-92-1)	**39.0**		3.8	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-18 **Station ID: 20**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.513 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/08/10
Lead (7439-92-1)	**85.0**		2.9	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-19 **Station ID: 21**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.501 g
%Solids: 77.90
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/09/10
Lead (7439-92-1)	**123**		3.8	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-20 **Station ID: 21**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.524 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**123**		2.9	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-21 **Station ID: 22**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.519 g
%Solids: 56.54
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.9	1	03/30/10	04/09/10
Lead (7439-92-1)	**45.0**		5.1	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-22 **Station ID: 22**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.478 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**54.1**		3.1	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-23 **Station ID: 23**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.506 g
%Solids: 78.22

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/09/10
Lead (7439-92-1)	**28.7**		3.8	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-24 **Station ID: 23**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.537 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**66.9**		2.8	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-25 **Station ID: 25**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.503 g
%Solids: 74.92

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.7	1	03/30/10	04/09/10
Lead (7439-92-1)	**27.3**		4.0	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-26 **Station ID: 25**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.515 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**57.8**		2.9	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-27 **Station ID: 30**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.506 g
%Solids: 78.87

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/09/10
Lead (7439-92-1)	**24.6**		3.8	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-28 **Station ID: 30**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.51 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**51.7**		2.9	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-29 **Station ID: 31**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.541 g
%Solids: 75.30

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/09/10
Lead (7439-92-1)	**41.0**		3.7	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-30 **Station ID: 31**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.473 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**453**		3.2	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-31 **Station ID: 32**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.517 g
%Solids: 78.90

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U	L	0.6	1	03/30/10	04/09/10
Lead (7439-92-1)	**37.7**		3.7	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-32 **Station ID: 32**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.477 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**189**		3.1	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-33 **Station ID: 34**

Batch: B0C3105
Sample Type: Solid

Date Collected: 03/16/10
Sample Weight: 0.513 g
%Solids: 76.27

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/09/10
Lead (7439-92-1)	**71.2**		3.8	"	"	"

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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-34 **Station ID: 34**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/16/10
Sample Weight: 0.506 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**224**		3.0	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-35 **Station ID: 38**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/16/10
Sample Weight: 0.535 g
%Solids: 80.85
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.6	1	03/30/10	04/09/10
Lead (7439-92-1)	**14.8**		3.5	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-36 **Station ID: 38**

Batch: B0C3105
Sample Type: Solid
Date Collected: 03/16/10
Sample Weight: 0.516 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		0.5	1	03/30/10	04/09/10
Lead (7439-92-1)	**545**		2.9	"	"	"

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Metals by EPA Method 6010B - ICP - Quality Control

Batch: B0C3105 **Sample Type: Solid**

Blank (B0C3105-BLK1)

Prepared: 3/30/2010 Analyzed: 4/8/2010

Targets

ANALYTE	Result mg/kg wet	Analyte Qualifiers	Reporting Limit
Cadmium	U		0.5
Lead	U		3.0

LCS (B0C3105-BS1)

Prepared: 3/30/2010 Analyzed: 4/8/2010

Targets

ANALYTE	Result mg/kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Cadmium	4.6		0.5	5.00	92.5	75-125
Lead	37.5		3.0	40.0	93.8	75-125

Matrix Spike (B0C3105-MS1)

Source: 1003016-01 Prepared: 3/30/2010 Analyzed: 4/8/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Cadmium	4.4		0.6	6.29		70.6 #	75-125
Lead	60.1		3.8	50.3	18.3	82.9	75-125

Matrix Spike (B0C3105-MS2)

Source: 1003016-11 Prepared: 3/30/2010 Analyzed: 4/8/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Cadmium	5.4		0.7	6.96		77.2	75-125
Lead	114		4.2	55.7	69.6	79.0	75-125

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Metals by EPA Method 6010B - ICP - Quality Control

Batch: B0C3105 **Sample Type: Solid**

Matrix Spike (B0C3105-MS3)

Source: 1003016-21 Prepared: 3/30/2010 Analyzed: 4/9/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Cadmium	7.6		0.9	8.69		87.1	75-125
Lead	112		5.2	69.5	45.0	96.4	75-125

Matrix Spike (B0C3105-MS4)

Source: 1003016-31 Prepared: 3/30/2010 Analyzed: 4/9/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Cadmium	3.4		0.6	5.94		57.3 #	75-125
Lead	80.2		3.6	47.6	37.7	89.3	75-125

Matrix Spike Dup (B0C3105-MSD1)

Source: 1003016-01 Prepared: 3/30/2010 Analyzed: 4/8/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	4.2		0.6	6.04		69.8 #	75-125	5.20	20
Lead	59.0		3.6	48.3	18.3	84.2	75-125	1.75	20

Matrix Spike Dup (B0C3105-MSD2)

Source: 1003016-11 Prepared: 3/30/2010 Analyzed: 4/8/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	5.8		0.7	7.13		80.8	75-125	6.86	20
Lead	120		4.3	57.1	69.6	88.7	75-125	5.63	20

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Metals by EPA Method 6010B - ICP - Quality Control

Batch: B0C3105 **Sample Type: Solid**

Matrix Spike Dup (B0C3105-MSD3)

Source: 1003016-21 Prepared: 3/30/2010 Analyzed: 4/9/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	7.0		0.8	8.07		86.7	75-125	7.79	20
Lead	114		4.8	64.5	45.0	107	75-125	1.62	20

Matrix Spike Dup (B0C3105-MSD4)

Source: 1003016-31 Prepared: 3/30/2010 Analyzed: 4/9/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	4.1		0.6	5.83		69.9 #	75-125	18.0	20
Lead	87.1		3.5	46.7	37.7	106	75-125	8.31	20

Reference (B0C3105-SRM1)

Prepared: 3/30/2010 Analyzed: 4/9/2010

Targets

ANALYTE	Result mg/kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	10.1		0.5	10.9		92.2	70.6-128		
Lead	61.9		3.0	56.9		109	72.7-127		

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
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ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO.:
PROJECT NAME: FRISCO SOIL SURVEY
SAMPLERS: (Signature) [signatures]

KEY: ⊗ = ANALYZE
X = ON HOLD

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS	Pb + Cd (6010B)	Pb + Cd (250 mesh sieved)	REMARKS: TAG No.:
1	3-15-10	0847	X		FSS-HS-001	2	X	X	6-303277, 6-303275
2		0924	X		FSS-HS-002	2	X	X	6-303274, 6-303276
3		0940	X		FSS-HS-003	2	⊗	⊗	6-303273, 6-303272
4		[illegible]	X		FSS-HS-004	2	X	X	6-303268, 6-303269
5		[illegible]	X		FSS-IL-005	2	X	X	6-303269, 6-303268
6		1118	X		FSS-IL-006	2	X	X	6-303267, 6-303266
7		1135	X		FSS-IL-007	2	⊗	⊗	6-303263, 6-303262
8		1220	X		FSS-ZT-008	2	X	X	6-303264, 6-303265
9		1235	X		FSS-ZT-009	2	X	X	6-303260, 6-303261
10		1405	X		FSS-ZT-010	2	⊗	⊗	6-303258, 6-303259
11		1420	X		FSS-CD-011	2	X	X	6-303256, 6-303257
12		1440	X		FSS-CD-012	2	X	X	6-303254, 6-303255
13		1500	X		FSS-CD-013	2	⊗	⊗	6-303253, 6-303252
14		1525	X		FSS-DG-014	2	⊗	⊗	6-303250, 6-303251
15	↓	1555	X		FSS-DG-015	2	X	X	6-303248, 6-303249

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Melissa Smith to Fedex	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 3/18/10 8:55	Remarks: KEY: ⊗ = ANALYZE; X = HOLD ANALYSIS; Cooler Temp = 5°C. (Cooler 2)	
Shipped by:		Airbill Number:			

Cooler 1 Temp = 8°C.

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files; Green to Report, Yellow Returns with Warrant

EPA 7500-53 (11/96)

• US GOVERNMENT PRINTING OFFICE: 2008 JJ 760-345

Environmental Protection Agency

Region 6 Laboratory

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ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO.:
PROJECT NAME: FRISCO SOIL SURVEY
SAMPLERS (Signature): [signatures]

KEY: ⊗ = ANALYZE
X = ON HOLD

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Pb + Cd (6010B)	Pb + Cd (250 micron screening)	REMARKS / TAG No.:
16	3-15-10	1615	X		FSS-GA-016	2	⊗	⊗	6-303246, 6-303247
17	↓	1650	X		FSS-FS-017	2	⊗	⊗	6-303245, 6-303244
18		1705	X		FSS-FS-018	2	X	X	6-303243, 6-303242
19		0940	X		FSS-DP-019	2	⊗	⊗	6-303241, 6-303240
20		1415	X		FSS-DP-020	2	⊗	⊗	6-303239, 6-303238
21		1500	X		FSS-DP-021	2	⊗	⊗	6-303237, 6-303236
22	↓	1525	X		FSS-DP-022	2	⊗	⊗	6-303234, 6-303235
23	3-16-10	0955	X		FSS-PD-023	2	⊗	⊗	6-303181, 6-303180
24		1005	X		FSS-PD-024	2	X	X	6-303182, 6-303183
25		1050	X		FSS-CT-025	2	⊗	⊗	6-303184, 6-303185
26		1120	X		FSS-CT-026	2	X	X	6-303186, 6-303187
27		1135	X		FSS-CT-027	2	X	X	6-303188, 6-303189
28		1310	X		FSS-OP-028	1	X		6-303191
29		1324	X		FSS-OP-029	2	X	X	6-303192, 6-303-193
30	↓	1335	X		FSS-OP-030	2	⊗	⊗	6-303194, 6-303195

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[signature] to FedEx	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 3/18/10 8:55	Remarks	Cooler 1 Temp = 6°C. Cooler 2 Temp = 5°C. KEY = ⊗ ANALYZE X = HOLD ANALYSIS
Shipped by:		Airbill Number:			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files; Green to Report; Yellow Returns with Warrant

EPA 7500-53 (11/08)

6 — 08254

US GOVERNMENT PRINTING OFFICE: 2004 LI 780-348

Environmental Protection Agency
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ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO.:
PROJECT NAME: Frisco Soil Survey
SAMPLERS: (Signature) [signatures]

Key (X) = ANALYZE
X = ON HOLD

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Pb + Cd (Gold B)	Pb+Cd / 250 micron sieved	REMARKS
31	3/16/10	1437	X		FSS-SC-031	2	(X)	(X)	6-303196, 6-303197
32	|	1447	X		FSS-HC-032	2	(X)	(X)	6-303198 6-303199
33	|	1520	X		FSS-GR-033	2	X	X	6-303200 6-303201
34	|	1527	X		FSS-GR-034	2	(X)	(X)	6-303202, 6-303203
35	|	1552	X		FSS-GR-035	2	X	X	6-303204, 6-303205
36	|	1600	X		FSS-GR-036	2	X	X	6-303206, 6-303207
37	|	1633	X		FSS-BG-037	2	X	X	6-303208, 6-303210
38	↓	1635	X		FSS-BG-038	2	(X)	(X)	6-303209 6-303211

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] to Fedex	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	3/18/10 8:55	Cooler 1 Temp = 6°C. KEY= (X) = ANALYZE X = ON HOLD Cooler 2 Temp = 5°C.	
Shipped by		Airbill Number:			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files; Green to Report; Yellow Returns with Warrant

EPA 7500-53 (11/95)

6-08272

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Environmental Protection Agency
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Notes and Definitions

L	The identification of the analyte is acceptable; the reported value may be biased low. The actual value is expected to be greater than the reported value.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
AES	Atomic Emission Spectrometer
CVAA	Cold Vapor Atomic Absorption
ECD	Electron Capture Detector
GC	Gas Chromatograph
GFAA	Graphite Furnace Atomic Absorption
ICP	Inductively Coupled Plasma
MS	Mass Spectrometer
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
TCLP	Toxicity Characteristic Leaching Procedure
U	Undetected
#	Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory

Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name ----------Frisco Neighborhood Soil Survey

Sample Collection Date(s)-- 03/15/10

Contact---------- Melissa Smith (6EN-HX)

Report Date---------- 05/28/10

Project #---------- 10RCRA127

Work Order(s)----------1003016

Analyses included in this report:

Metals ICP 6010B
Metals ICP 6010B (No Dry Wt)
Solids, Dry Weight

Report Narrative

Sample Management:

Samples 1003016-01, -02, -15, and -16 were reanalyzed per the customer's request.

Samples 1003016-02 and -16 were dried and sieved (250 micron) prior to digestion and analysis.

ICP Metals: Batch B0E2601:

MSD2: The lead spike is high; the result is qualified and may be biased high.

The RPD is outside the acceptance range due to difficulty in obtaining a homogeneous pair of samples.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

Reporting limits are adjusted for sample size and matrix interference.

Report Approvals:

Richard McMillin
Region 6 Laboratory Manager

David Neleigh
Region 6 Laboratory Branch Chief

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: Frisco Neighborhood Soil Survey Project Number: 10RCRA127

Data Management Coordinator: Christy Warren

Christy Warren 5/28/10
Data Management Coordinator Signature Date

Date Transmitted: 5/28/10

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

_____ / ___ / _____
Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

_____ _____
Signature Date

Please provide a reason for holding:

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
3	1003016-01	Solid	3/15/10 9:40	03/18/10 08:55
3	1003016-02	Solid	3/15/10 9:40	03/18/10 08:55
19	1003016-15	Solid	3/15/10 9:40	03/18/10 08:55
19	1003016-16	Solid	3/15/10 9:40	03/18/10 08:55

Environmental Protection Agency
Region 6 Laboratory
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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-01RE1 **Station ID: 3**

Batch: B0E2601
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.508 g
%Solids: 74.28
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		2.0	3	05/26/10	05/26/10
Lead (7439-92-1)	**16.3**	**K**	11.9	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-02RE1 **Station ID: 3**

Batch: B0E2601
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.502 g
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		1.5	3	05/26/10	05/26/10
Lead (7439-92-1)	**118**		9.0	"	"	"

Metals by EPA Method 6010B - ICP

Lab ID: 1003016-15RE1 **Station ID: 19**

Batch: B0E2601
Sample Type: Solid
Date Collected: 03/15/10
Sample Weight: 0.516 g
%Solids: 74.87
Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		1.9	3	05/26/10	05/26/10
Lead (7439-92-1)	**18.3**		11.6	"	"	"

Environmental Protection Agency
Region 6 Laboratory
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Metals by EPA Method 6010B - ICP

Lab ID: 1003016-16RE1 **Station ID: 19**

Batch: B0E2601
Sample Type: Solid

Date Collected: 03/15/10
Sample Weight: 0.513 g

Sample Qualifiers:

Targets

Analyte (CAS Number)	Result mg/kg	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Cadmium (7440-43-9)	U		1.5	3	05/26/10	05/26/10
Lead (7439-92-1)	**637**		8.8	"	"	"

Environmental Protection Agency
Region 6 Laboratory
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Percent Solids - Quality Control

Duplicate (B0E2602-DUP1)

Source: 1003016-01RE1 Prepared: 5/25/2010 Analyzed: 5/25/2010

Targets

ANALYTE	Result %	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD	RPD Limit
% Solids	76.15				74.28	2.49	20

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Metals by EPA Method 6010B - ICP - Quality Control

Batch: B0E2601 **Sample Type: Solid**

Blank (B0E2601-BLK1)

Prepared: 5/26/2010 Analyzed: 5/26/2010

Targets

ANALYTE	Result mg/kg wet	Analyte Qualifiers	Reporting Limit
Cadmium	U		0.5
Lead	U		3.0

LCS (B0E2601-BS1)

Prepared: 5/26/2010 Analyzed: 5/26/2010

Targets

ANALYTE	Result mg/kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Cadmium	4.8		0.5	5.00	95.3	75-125
Lead	38.0		3.0	40.0	95.0	75-125

Matrix Spike (B0E2601-MS1)

Source: 1003016-01RE1 Prepared: 5/26/2010 Analyzed: 5/26/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Cadmium	6.3		2.0	6.61		94.8	75-125
Lead	70.9		11.9	52.9	16.3	103	75-125

Matrix Spike (B0E2601-MS2)

Source: 1003016-02RE1 Prepared: 5/26/2010 Analyzed: 5/26/2010

Targets

ANALYTE	Result mg/kg	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Cadmium	4.4		1.5	4.95		88.8	75-125
Lead	161		8.9	39.6	118	109	75-125

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Metals by EPA Method 6010B - ICP - Quality Control

Batch: B0E2601 **Sample Type: Solid**

Matrix Spike Dup (B0E2601-MSD1)

Source: 1003016-01RE1 Prepared: 5/26/2010 Analyzed: 5/26/2010

Targets

ANALYTE	Result mg/kg dry	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	6.3		2.0	6.54		95.8	75-125	0.11	20
Lead	62.9		11.8	52.3	16.3	89.0	75-125	12.0	20

Matrix Spike Dup (B0E2601-MSD2)

Source: 1003016-02RE1 Prepared: 5/26/2010 Analyzed: 5/26/2010

Targets

ANALYTE	Result mg/kg	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	4.5		1.5	4.99		90.2	75-125	2.36	20
Lead	325		9.0	39.9	118	518 #	75-125	67.4 #	20

Reference (B0E2601-SRM1)

Prepared: 5/26/2010 Analyzed: 5/26/2010

Targets

ANALYTE	Result mg/kg wet	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Cadmium	11.1		0.5	10.9		101	70.6-128		
Lead	58.5		3.0	56.9		103	72.7-127		

Environmental Protection Agency

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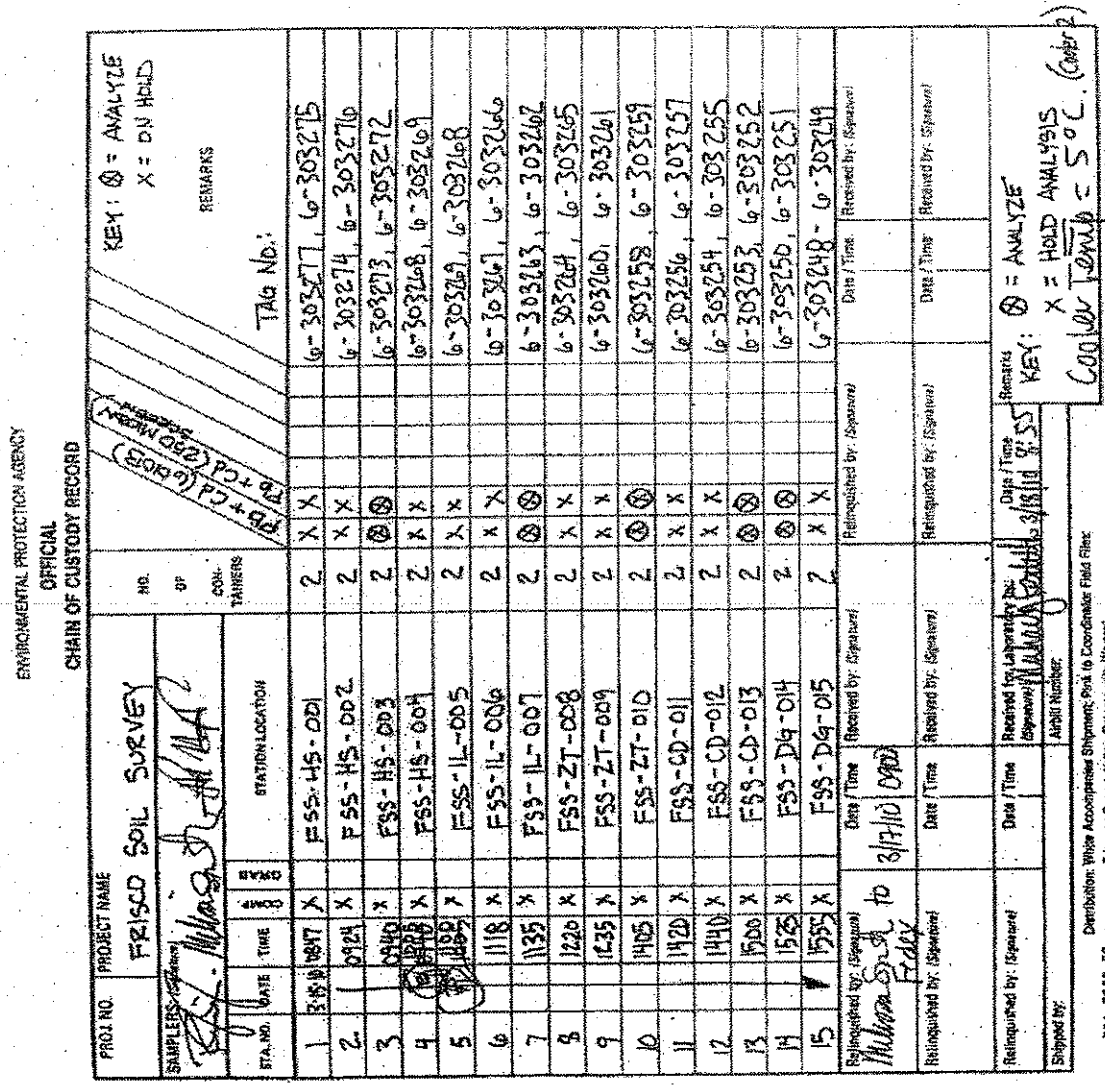

ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO. | PROJECT NAME: FRISCO SOIL SURVEY | NO. OF CONTAINERS

SAMPLERS (Signature): [illegible]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Pb + Cd (Low Conc.)	Pb + Cd (Low Conc.)	TAG No.:	REMARKS
1	3/6/10	0847	X		FSS-HS-001	2	X	X	6-303277, 6-303275	
2		0924	X		FSS-HS-002	2	X	X	6-303274, 6-303276	
3		0940	X		FSS-HS-003	2	⊗	⊗	6-303273, 6-303272	
4		1018	X		FSS-HS-004	2	X	X	6-303268, 6-303269	
5		1100	X		FSS-IL-005	2	X	X	6-303261, 6-303268	
6		1118	X		FSS-IL-006	2	X	X	6-303267, 6-303266	
7		1135	X		FSS-IL-007	2	⊗	⊗	6-303263, 6-303262	
8		1220	X		FSS-ZT-008	2	X	X	6-303264, 6-303265	
9		1235	X		FSS-ZT-009	2	X	X	6-303260, 6-303261	
10		1405	X		FSS-ZT-010	2	⊗	⊗	6-303258, 6-303259	
11		1420	X		FSS-CD-011	2	X	X	6-303256, 6-303257	
12		1440	X		FSS-CD-012	2	X	X	6-303254, 6-303255	
13		1500	X		FSS-CD-013	2	⊗	⊗	6-303253, 6-303252	
14		1526	X		FSS-DG-014	2	⊗	⊗	6-303250, 6-303251	
15		1555	X		FSS-DG-015	2	X	X	6-303248, 6-303249	

KEY: ⊗ = ANALYZE
X = DO NOT HOLD

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Relinquished by: (Signature) — Date / Time — Received for Laboratory by: (Signature) [illegible] — Date / Time 3/8/10 0755 — Remarks KEY: ⊗ = ANALYZE X = HOLD ANALYSIS Cooler Temp = 5.0 C. (Cooler 2) Cooler 1 Temp = 6.8253

Shipped by: — Airbill Number:

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files
Green to Report; Yellow Returns with Warrant

EPA 7500-53
(11/90)

Environmental Protection Agency
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ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO.:
PROJECT NAME: FRISCO SOIL SURVEY
SAMPLERS: (Signature) [signature]

KEY: ⊗ = ANALYZE
X = ON HOLD

STA. NO.	DATE	TIME	COMP.	GRAB.	STATION LOCATION	NO. OF CON-TAINERS	Pb + Cd (6010B)	Pb + Cd (250 micron sieved)	REMARKS (TAG No.)
16	3-15-10	1615	X		FSS-GA-016	2	⊗	⊗	6-303246, 6-303247
17	↓	1650	X		FSS-FS-017	2	⊗	⊗	6-303245, 6-303244
18		1705	X		FSS-FS-018	2	X	X	6-303243, 6-303242
19		0940	X		FSS-DP-019	2	⊗	⊗	6-303241, 6-303240
20		1405	X		FSS-DP-020	2	⊗	⊗	6-303239, 6-303238
21		1500	X		FSS-DP-021	2	⊗	⊗	6-303237, 6-303236
22		1525	X		FSS-DP-022	2	⊗	⊗	6-303234, 6-303235
23	3-16-10	0955	X		FSS-PD-023	2	⊗	⊗	6-303181, 6-303180
24		1005	X		FSS-PD-024	2	X	X	6-303182, 6-303183
25		1050	X		FSS-CT-025	2	⊗	⊗	6-303184, 6-303185
26		1120	X		FSS-CT-026	2	X	X	6-303186, 6-303187
27		1135	X		FSS-CT-027	2	X	X	6-303188, 6-303189
28		1310	X		FSS-OP-028	1	X		6-303191
29		1324	X		FSS-OP-029	2	X	X	6-303192, 6-303-193
30	↓	1335	X		FSS-OP-030	2	⊗	⊗	6-303194, 6-303195

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] to FedEx	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 3/18/10 8:55	Remarks: Cooler 1 Temp = 6°C. Cooler 2 Temp = 5°C. KEY = ⊗ ANALYZE X = HOLD ANALYSIS	
Shipped by:		Airbill Number:			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files; Green to Report; Yellow Returns with Warrant

EPA 7500-53 (11/05)

6-08254

U.S. GOVERNMENT PRINTING OFFICE: 2004 U 760-348

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ENVIRONMENTAL PROTECTION AGENCY
OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO.:
PROJECT NAME: Frisco Soil Survey
SAMPLERS: (Signature) [signatures]

Key ⊗ = ANALYZE
X = ON HOLD

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Pb + Cd (6010B)	Pb/Cd (250 micron sieved)	REMARKS
31	3/16/10	1437	X		FSS-SC-031	2	⊗	⊗	6-303196, 6-303197
32		1447	X		FSS-HC-032	2	⊗	⊗	6-303198 6-303199
33		1520	X		FSS-GR-033	2	X	X	6-303200, 6-303201
34		1527	X		FSS-GR-034	2	⊗	⊗	6-303202, 6-303203
35		1552	X		FSS-GR-035	2	X	X	6-303204, 6-303205
36		1600	X		FSS-GR-036	2	X	X	6-303206, 6-303207
37		1633	X		FSS-BG-037	2	X	X	6-303208, 6-303210
38	↓	1685	X		FSS-BG-038	2	⊗	⊗	6-303209 6-303211

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature] to Fedex	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 3/18/10 8:55	Remarks: Cooler 1 Temp = 6°C. KEY = ⊗ = ANALYZE X = ON HOLD Cooler 2 Temp = 5°C.	
Shipped by:		Airbill Number:			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files; Green to Report; Yellow Returns with Warrant

EPA 7500-53 (11/05)

6-08272

US GOVERNMENT PRINTING OFFICE: 2004 JJ 780-345

Environmental Protection Agency
Region 6 Laboratory
10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Notes and Definitions

K	The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
AES	Atomic Emission Spectrometer
CVAA	Cold Vapor Atomic Absorption
ECD	Electron Capture Detector
GC	Gas Chromatograph
GFAA	Graphite Furnace Atomic Absorption
ICP	Inductively Coupled Plasma
MS	Mass Spectrometer
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
TCLP	Toxicity Characteristic Leaching Procedure
U	Undetected
#	Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

ENVIRONMENTAL PROTECTION AGENCY

OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	Pb + Cd (6010/13)	Pb + Cd (Z5D MKGN SCREEN)				KEY: ⊗ = ANALYZE, X = ON HOLD
	FRISCO SOIL SURVEY							
SAMPLERS: (Signature) Kelly L. Milligan Sr.								REMARKS
STA. NO. / DATE / TIME / COMP. / GRAB / STATION LOCATION								TAG NO.:
1	3-15-10 0847 X	FSS-HS-001	2	X	X			6-303277, 6-303275
2	0924 X	FSS-HS-002	2	X	X			6-303274, 6-303276
3	0940 X	FSS-HS-003	2	⊗	⊗			6-303273, 6-303272
4	~~0940~~ 1005 X	FSS-HS-004	2	X	X			6-303268, 6-303269
5	~~1005~~ 1105 X	FSS-IL-005	2	X	X			6-303269, 6-303268
6	1118 X	FSS-IL-006	2	X	X			6-303267, 6-303266
7	1135 X	FSS-IL-007	2	⊗	⊗			6-303263, 6-303262
8	1220 X	FSS-ZT-008	2	X	X			6-303264, 6-303265
9	1235 X	FSS-ZT-009	2	X	X			6-303260, 6-303261
10	1405 X	FSS-ZT-010	2	⊗	⊗			6-303258, 6-303259
11	1420 X	FSS-CD-011	2	X	X			6-303256, 6-303257
12	1440 X	FSS-CD-012	2	X	X			6-303254, 6-303255
13	1500 X	FSS-CD-013	2	⊗	⊗			6-303253, 6-303252
14	1525 X	FSS-DG-014	2	⊗	⊗			6-303250, 6-303251
15	1555 X	FSS-DG-015	2	X	X			6-303248 - 6-303249

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Melissa Smith to Fedex	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				KEY: ⊗ = ANALYZE, X = HOLD ANALYSIS	
Shipped by:		Airbill Number:			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files; Green to Report; Yellow Returns with Warrant

EPA 7500-53 (11/96)

6 – 08253

ENVIRONMENTAL PROTECTION AGENCY

OFFICIAL
CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	Pb + Cd (6010B)	Pb + Cd (250 MICRON SCREEN)				KEY: ⊗ = ANALYZE, X = ON HOLD
	FRISCO SOIL SURVEY							
SAMPLERS: (Signature)								REMARKS
STA. NO. / DATE / TIME / COMP. / GRAB / STATION LOCATION								TAG NO.:
16 / 3-15-10 / 1615 / X /	FSS-GA-016	2	⊗	⊗				6-303246, 6-303247
17 /	1650 / X /	FSS-FS-017	2	⊗	⊗			6-303245, 6-303244
18 /	1705 / X /	FSS-FS-018	2	X	X			6-303243, 6-303242
19 /	0940 / X /	FSS-DP-019	2	⊗	⊗			6-303241, 6-303240
20 /	1405 / X /	FSS-DP-020	2	⊗	⊗			6-303239, 6-303238
21 /	1500 / X /	FSS-DP-021	2	⊗	⊗			6-303237, 6-303236
22 /	1525 / X /	FSS-DP-022	2	⊗	⊗			6-303234, 6-303235
23 / 3-16-10 / 0855 / X /	FSS-PD-023	2	⊗	⊗				6-303181, 6-303180
24 /	1005 / X /	FSS-PD-024	2	X	X			6-303182, 6-303183
25 /	1050 / X /	FSS-CT-025	2	⊗	⊗			6-303184, 6-303185
26 /	1120 / X /	FSS-CT-026	2	X	X			6-303186, 6-303187
27 /	1135 / X /	FSS-CT-027	2	X	X			6-303188, 6-303189
29 /	1310 / X /	FSS-OP-028	1	X				6-303191
29 /	1324 / X /	FSS-OP-029	2	X	X			6-303192, 6-303-193
30 / ↓ /	1335 / X /	FSS-OP-030	2	⊗	⊗			6-303194, 6-303195

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Melissa Smith to Fedex	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				KEY = ⊗ ANALYZE X = HOLD ANALYSIS	
Shipped by:		Airbill Number:			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files;
Green to Report; Yellow Returns with Warrant

EPA 7500-53
(11/96)

6 — 08254

ENVIRONMENTAL PROTECTION AGENCY

OFFICIAL CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	Pb + Cd (10DIDB)	Pb + Cd (250 MICRON SIEVE)					Key ⓧ = ANALYZE X = ON HOLD
	Frisco Soil Survey								REMARKS
SAMPLERS: (Signature)									

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Pb + Cd (10DIDB)	Pb + Cd (250 MICRON SIEVE)					REMARKS
31	3/16/10	1437	X		FSS-SC-031	2	ⓧ	ⓧ					6-303196, 6-303197
32		1447	X		FSS-HC-032	2	ⓧ	ⓧ					6-303198, 6-303199
33		1520	X		FSS-GR-033	2	X	X					6-303200, 6-303201
34		1527	X		FSS-GR-034	2	ⓧ	ⓧ					6-303202, 6-303203
35		1552	X		FSS-GR-035	2	X	X					6-303204, 6-303205
36		1600	X		FSS-GR-036	2	X	X					6-303206, 6-303207
37		1633	X		FSS-BG-037	2	X	X					6-303208, 6-303210
38	↓	1635	X		FSS-BG-038	2	ⓧ	ⓧ					6-303209, 6-303211

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Melissa Smith to Fedex	3/17/10 0900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				KEY = ⓧ = ANALYZE X = ON HOLD	
Shipped by:		Airbill Number:			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files; Green to Report; Yellow Returns with Warrant

EPA 7500-53 (11/96)

6 — 08272

ATTACHMENT 5

TABLE 1
Soil Survey, Frisco, Texas
SOIL ANALYTICAL RESULTS

Sample I.D.	Sample Date	Type	Total Solids %	Lead (mg/Kg)
TRRP Tier 1 $^{Total}Soil_{Comb}$ Residential Soil PCL (0.5-Acre Source Area)			N/A	500
Texas Specific Background Concentration			N/A	15
FSS-HS-003	03/15/10	Total Fraction	75	20.8
		Fine Fraction	96	21.5
FSS-FS-017	3/15/10	Total Fraction	67	20.3
		Fine Fraction	96	182
FSS-HS-019	3/15/10	Total Fraction	74	22.0
		Fine Fraction	95	23.4
FSS-SC-031	3/16/10	Total Fraction	75	31.0
		Fine Fraction	94	55.2
FSS-BG-038	3/16/10	Total Fraction	85	135
		Fine Fraction	96	16.4

mg/Kg - milligrams/Kilogram

N/A - Not Applicable

Environmental Laboratories
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400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
Arkansas: 88-0647
Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Attached is our analytical report for the samples received for your project. Below is a list of your individual sample descriptions with our corresponding laboratory number. We also have enclosed a copy of the Chain of Custody that was received with your samples and a form documenting the condition of your samples upon arrival. Please note any unused portion of the samples may be discarded upon expiration of the EPA holding time for the analysis performed or after 30 days from the above report date, unless you have requested otherwise.

ERMI Environmental Laboratories certifies that all results contained in this report were produced in accordance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise noted. The results presented apply to the samples analyzed in accordance with the chain-of-custody document(s) furnished with the samples. This report is intended for the sole use of the customer for whom the work was performed and must be reproduced, without modification, in its entirety.

Sample Identification

Laboratory ID #	Client Sample ID	Matrix	Sampled Date/Time	Received Date/Time
1007392-01	FSS-HS-003 [Total Fraction]	Solid	03/15/10 09:40	07/14/10 12:34
1007392-02	FSS-HS-003 [Fine Fraction]	Solid	03/15/10 09:40	07/14/10 12:34
1007392-03	FSS-FS-017 [Total Fraction]	Solid	03/15/10 16:50	07/14/10 12:34
1007392-04	FSS-FS-017 [Fine Fraction]	Solid	03/15/10 16:50	07/14/10 12:34
1007392-05	FSS-HS-019 [Total Fraction]	Solid	03/15/10 09:40	07/14/10 12:34
1007392-06	FSS-HS-019 [Fine Fraction]	Solid	03/15/10 09:40	07/14/10 12:34

Case Narrative

These samples were originally received on 03/17/10 at 1015 and were immediately placed on hold pending results from the EPA. On 07/14/10 it was requested that these samples be pulled off of hold and analyzed for Total and Fine Lead using special preparation instructions provided to us via email by Liz Scaggs.

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

Environmental Laboratories
Bethany Tech Center • Suite 190
400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
Arkansas: 88-0647
Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Page: Page 2 of 12
Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

The analytical data and results contained in this report, as well as their supporting data, conform with Texas Risk Reduction Program (TRRP), 30 TAC, Section 350, requirements and are of sufficient and documented quality to meet both TRRP objectives, TCEQ regulatory guidance No. RG-366/TRRP-13 and the project-based objective of achieving the lowest method detection limit (i.e., the TRRP Critical PCL where reasonably achievable or, if not reasonably achievable, the MQL). All information concerning analytical parameters, methods and protocols that might bear upon or otherwise affect the accuracy of the analytical data in this report have been provided or otherwise disclosed herein. The data were obtained using applicable and appropriate EPA SW-846 or Texas Commission on Environmental Quality approved analytical protocols, methodologies and quality assurance/quality control standards. **ERMI Environmental Laboratories** certifies that its quality control program is substantially and materially consistent with the International Organization for Standardization "Guide 25: General Requirements the Competence of Calibration and Testing Laboratories (ISO 25 3rd Edition, 1990)," as amended or the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. The entire analytical data package for this report, including the supporting quality control data, will be retained and maintained for at least five (5) years (or such longer period of time as may be required by TRRP) from the report date at the offices of **ERMI Environmental Laboratories, 400 W. Bethany, Suite 190, Allen, Texas 75013.**

I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Thank you for the opportunity to serve your environmental chemistry analysis needs. If you have any questions or concerns regarding this report please contact our Customer Service Department at the phone number below.

Respectfully submitted,

Kendall K. Brown

Kendall K. Brown
President

Environmental Laboratories
Bethany Tech Center • Suite 190
400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
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Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Laboratory ID #: 1007392-01
Sample Type: Composite
Sample Description: FSS-HS-003 [Total Fraction]
Matrix: Solid
Sample Date/Time: 03/15/10 0940
Sample Collected By: Melissa Smith [US EPA] — Customer

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	75	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	52.63	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.28	0.04	mg/kg dry	5.26	M4	0G20018	07/21/10 1401	SPS	R-01
Lead	20.8	0.70	0.1	mg/kg dry	5.26	M4	0G20018	07/21/10 1401	SPS	R-01

Local: (972) 727-1123 Long Distance: (800) 228-ERMI FAX: (972) 727-1175

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Arkansas: 88-0647
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Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Laboratory ID #: 1007392-02
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-HS-003 [Fine Fraction]
Sample Date/Time: 03/15/10 0940

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	96	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	100.00	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.42	0.04	mg/kg dry	10.00	M4	0G20018	07/21/10 1408	SPS	R-01
Lead	21.5	1.04	0.1	mg/kg dry	10.00	M4	0G20018	07/21/10 1408	SPS	R-01

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State Certifications
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Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Laboratory ID #: 1007392-03
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-FS-017 [Total Fraction]
Sample Date/Time: 03/15/10 1650

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	67	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	52.08	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.31	0.04	mg/kg dry	5.21	M4	0G20018	07/21/10 1414	SPS	R-01
Lead	20.3	0.78	0.1	mg/kg dry	5.21	M4	0G20018	07/21/10 1414	SPS	R-01

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

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Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Laboratory ID #: 1007392-04
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-FS-017 [Fine Fraction]
Sample Date/Time: 03/15/10 1650

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	96	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	98.04	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	0.82	0.41	0.04	mg/kg dry	9.80	M4	0G20018	07/21/10 1421	SPS	R-01
Lead	182	1.03	0.1	mg/kg dry	9.80	M4	0G20018	07/21/10 1421	SPS	R-01

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

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State Certifications
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Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Page: Page 7 of 12
Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Laboratory ID #: 1007392-05
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-HS-019 [Total Fraction]
Sample Date/Time: 03/15/10 0940

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	74	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	49.02	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.27	0.04	mg/kg dry	4.90	M4	0G20018	07/21/10 1428	SPS	R-01
Lead	22.0	0.66	0.1	mg/kg dry	4.90	M4	0G20018	07/21/10 1428	SPS	R-01

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

Environmental Laboratories
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400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
Arkansas: 88-0647
Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Laboratory ID #: 1007392-06
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-HS-019 [Fine Fraction]
Sample Date/Time: 03/15/10 0940

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	95	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	102.04	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.43	0.04	mg/kg dry	10.20	M4	0G20018	07/21/10 1435	SPS	R-01
Lead	23.4	1.07	0.1	mg/kg dry	10.20	M4	0G20018	07/21/10 1435	SPS	R-01

Local: (972) 727-1123 Long Distance: (800) 228-ERMI FAX: (972) 727-1175

Environmental Laboratories
Bethany Tech Center • Suite 190
400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
Arkansas: 88-0647
Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Conventional Chemistry Parameters - Quality Control

Analyte(s)	Result	*SDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Blank (0G20028-BLK1)										
Prepared & Analyzed: 07/20/10 16:55										
% Solids	ND	0.040	%							
Duplicate (0G20028-DUP1)										
Prepared & Analyzed: 07/20/10 16:55					Source: 1007389-01					
% Solids	76	0.040	%		75			1	4	
Duplicate (0G20028-DUP2)										
Prepared & Analyzed: 07/20/10 16:55					Source: 1007459-01					
% Solids	88	0.040	%		90			2	4	

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Metals (Total) - Quality Control

Analyte(s)	Result	*SDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Blank (0G20018-BLK1) Prepared & Analyzed: 07/20/10 12:46										
Acid Digestion of Sludges/Solids	**Completed**	N/A	-							
Cadmium	**ND**	N/A	mg/kg wet							
Lead	**ND**	N/A	mg/kg wet							
Laboratory Control Sample (0G20018-BS1) Prepared & Analyzed: 07/20/10 12:46										
Acid Digestion of Sludges/Solids	**Completed**	N/A	-				0-0			
Cadmium	**24.1**	N/A	mg/kg wet	25.0		96	85-115			
Lead	**24.5**	N/A	mg/kg wet	25.0		98	85-114			
Laboratory Control Sample Duplicate (0G20018-BSD1) Prepared & Analyzed: 07/20/10 12:46										
Acid Digestion of Sludges/Solids	**Completed**	N/A	-				0-0		0	
Cadmium	**24.3**	N/A	mg/kg wet	25.0		97	85-115	1	5	
Lead	**24.8**	N/A	mg/kg wet	25.0		99	85-114	1	5	
Matrix Spike (0G20018-MS1) Prepared & Analyzed: 07/20/10 12:46					**Source: 1007387-01**					
Acid Digestion of Sludges/Solids	**Completed**	N/A	-		ND		0-0			
Cadmium	**27.9**	N/A	mg/kg wet	26.0	ND	107	75-125			
Lead	**31.4**	N/A	mg/kg wet	26.0	2.65	110	75-125			
Matrix Spike (0G20018-MS2) Prepared & Analyzed: 07/20/10 12:46					**Source: 1007392-06**					
Acid Digestion of Sludges/Solids	**Completed**	N/A	-		ND		0-0			
Cadmium	**53.9**	N/A	mg/kg dry	52.5	ND	103	75-125			
Lead	**76.5**	N/A	mg/kg dry	52.5	23.4	101	75-125			

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Metals (Total) - Quality Control

Analyte(s)	Result	*SDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Matrix Spike Duplicate (0G20018-MSD1) Prepared & Analyzed: 07/20/10 12:46					Source: 1007387-01					
Acid Digestion of Sludges/Solids	**Completed**	N/A	-		ND		0-0		0	
Cadmium	**26.7**	N/A	mg/kg wet	25.5	ND	105	75-125	4	15	
Lead	**29.9**	N/A	mg/kg wet	25.5	2.65	107	75-125	5	20	
Matrix Spike Duplicate (0G20018-MSD2) Prepared & Analyzed: 07/20/10 12:46					Source: 1007392-06					
Acid Digestion of Sludges/Solids	**Completed**	N/A	-		ND		0-0		0	
Cadmium	**57.1**	N/A	mg/kg dry	53.5	ND	107	75-125	6	15	
Lead	**86.1**	N/A	mg/kg dry	53.5	23.4	117	75-125	12	20	
Post Spike (0G20018-PS1) Prepared: 07/20/10 12:46 Analyzed: 07/21/10 12:42					Source: 1007387-01					
Cadmium	**0.97**	N/A	mg/l	1.00	-0.004	97	75-120			
Lead	**1.11**	N/A	mg/l	1.00	0.05	106	75-125			

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:40

Notes and Definitions

The results presented in this report were generated using those methods given in 40 CFR Part 136 for Water and Wastewater samples and in SW-846 for RCRA/Solid Waste samples.

R-01	The higher reporting limit is due to dilutions required for analysis as a result of a high concentration of target and/or non-target parameters in this sample.
S-14	This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RPD	Relative Percent Difference
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
ug/kg	micrograms per kilogram
ug/l	micrograms per liter
exc	Not covered under scope of NELAP accreditation.
F*	Calculated factor rounded to 3 significant figures. Concentration factor when <1.00 and dilution factor when >1.00.
Inst	Instrument Identification
Anlst	Analyst Initials
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
naa	This analysis/parameter is not accreditable under the current NELAP program

Local: (972) 727-1123 Long Distance: (800) 228-ERMI FAX: (972) 727-1175

Laboratory Data Package Cover Page

This data package for Laboratory Job Number 1007392 consists of:

- [x] This signature page, the laboratory review checklist, and the following reportable data:
- [x] **R1** Field chain-of-custody documentation;
- [x] **R2** Sample identification cross-reference;
- [x] **R3** Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- [x] **R4** Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- [x] **R5** Test reports/summary forms for blank samples;
- [x] **R6** Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- [x] **R7** Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- [x] **R8** Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- [x] **R9** List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- [x] **R10** Other problems or anomalies.
- [x] The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: [ ] This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kendall K. Brown	Kendall K. Brown	President	07/26/10
Name (Printed)	Signature	Official Title (Printed)	Date

Laboratory Review Checklist: Reportable Data

Laboratory Name:	**ERMI Environmental Laboratories**	LRC Date:	07/26/10
Project Name:	**Frisco Soil Sampling**	Laboratory Job Number:	1007392
Reviewer Name:	**Leslie Underwood**	Prep Batch Number(s):	0G20018,0G20028,0G22017

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test reports**					
		Were all samples prepared and analyzed within holding times?		X			E001
		Other than those results < MQL, were all other raw values bracketed by calibration standards?			X		
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		If required for the project, TICs reported?			X		
R4	O	**Surrogate recovery data**					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test reports/summary forms for blank samples**					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	**Laboratory control samples (LCS):**					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	**Matrix spike (MS) and matrix spike duplicate (MSD) data:**					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical duplicate data:**					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method quantitation limits (MQLs):**					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?			X		
		Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other problems/anomalies:**					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name:	ERMI Environmental Laboratories	LRC Date:	07/26/10
Project Name:	Frisco Soil Sampling	Laboratory Job	1007392
Reviewer Name:	Leslie Underwood	Prep Batch Number(s):	0G20018,0G20028,0G22017

# [1]	A [2]	Description	Yes	No	NA [3]	NR [4]	ER# [5]
S1	OI	Initial calibration (ICAL):					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?			X		
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?			X		
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration:					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation:					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post-digestion spikes, and method of standard additions:					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies:					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation:					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures:					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC):					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5):					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name:	**ERMI Environmental Laboratories**	**LRC Date:**	**07/26/10**
Project Name:	**Frisco Soil Sampling**	**Laboratory Job**	**1007392**
Reviewer Name:	**Leslie Underwood**	**Prep Batch Number(s):**	**0G20018,0G20028,0G22017**

ER# [1]	Description
E001	Sample 1007392-01 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007392-02 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007392-03 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007392-04 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007392-05 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007392-06 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed.

1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: DALLAS
Project Manager: Liz Scaggs

Laboratory: ERMI
Address:
Contact:
Phone:
PO/SO #: 0105035B

Sampler's Name: Melissa Smith (USEPA)
Sampler's Signature:

Proj. No.: 0105035B
Project Name: Frisco Soil Sampling
No/Type of Containers: 2/9oz G

ANALYSIS REQUESTED: TH Pb, Cd; Tit Pb, Cd (250 micron screen); Hold

Lab use only
Due Date:
Temp. of coolers when received (C°): IR01 1.8oc 2.7oc
Page 1 of 3

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TH Pb, Cd	Tit Pb, Cd (250 micron screen)	Hold	Lab Sample ID (Lab Use Only)
S	3.15.10	0852	x		FSS-HS-001									✓	
		0924			FSS-HS-002									✓	
		0940			FSS-HS-003									✓	1007392-01/02
		1005			FSS-HS-004									✓	
		1100			FSS-IL-005									✓	
		1118			FSS-IL-006									✓	
		1135			FSS-IL-007									✓	
		1220			FSS-ZT-008									✓	
		1235			FSS-ZT-009									✓	
		1405			FSS-ZT-010									✓	

Turn around time ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3.16.10	1804		3.16.10	1805
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3-17-10	0825		3-17-10	0825
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3-17-10	9:18		3/17/10	918
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3/17/10	1015	Kathy Weems	3/17/10	10:15

NOTES:

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Laboratory: ERMI
Address:
Contact:
Phone:
PO/SO #: 0105035B

Office Location Dallas
Project Manager Liz Scaggs

Sampler's Name: Melissa Smith (USEPA)
Sampler's Signature:

Proj. No.: 0105035B
Project Name: Frisco Soil Sampling
No/Type of Containers: 2 | 9oz G

ANALYSIS REQUESTED: TH Pb, Cd | TH Pb, Cd (250 Micron screen) | Hold

Lab use only
Due Date:
Temp. of coolers when received (C°): IR01 1 1.1oc | 2 3.4oc | 3 3.2oc | 4 | 5
Page 2 of 3

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TH Pb, Cd	TH Pb, Cd (250 Micron screen)	Hold	Lab Sample ID (Lab Use Only)
S	3.15.10	1420	X		FSS-CD-011									✓	
		1440			FSS-CD-012									✓	
		1500			FSS-CD-013									✓	
		1525			FSS-DG-014									✓	
		1555			FSS-GA-015									✓	
		1615			FSS-GA-016									✓	
		1650			FSS-FS-017									✓	1007392-03/04
		1705			FSS-FS-018									✓	
		0940			FSS-HS-DP-019									✓	1007392-05/06
		1405			FSS-DP-020									✓	

Liz should be HS not DP sorry

Turn around time ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3.16.10	1804		3-16-10	1805
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	0825	3-17-10		3/17/10	0825
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3-17-10	9:18		3/17/10	918
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3/17/10	1015	Kathy Weems	3/17/10	1015

NOTES:

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: DALLAS
Project Manager: Liz Scaggs

Laboratory: ERMI
Address:
Contact:
Phone:
PO/SO #: 01050035B

Sampler's Name: Melissa Smith (USEPA)
Sampler's Signature:

Proj. No.: 01050035B
Project Name: Frisco Soil Sampling
No/Type of Containers: 2 1 9oz G

ANALYSIS REQUESTED: TH Pb, Cd | TH Pb, Cd (250 micron screen) | HOLD

Lab use only
Due Date:
Temp. of coolers when received (C°): TRO
1 1.5oc 2 5.8oc 3 2.7oc 4 5

Page 3 of 3

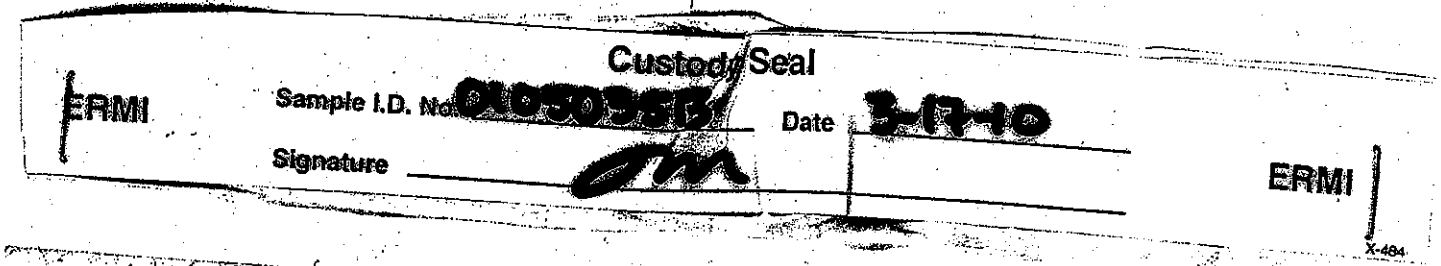
Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TH Pb, Cd	TH Pb, Cd (250 micron screen)	HOLD	Lab Sample ID (Lab Use Only)
S	3.15.10	1500	X		FSS-DP-021								✓		
↓	↓	1525	X		FSS-DP-022								✓		

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

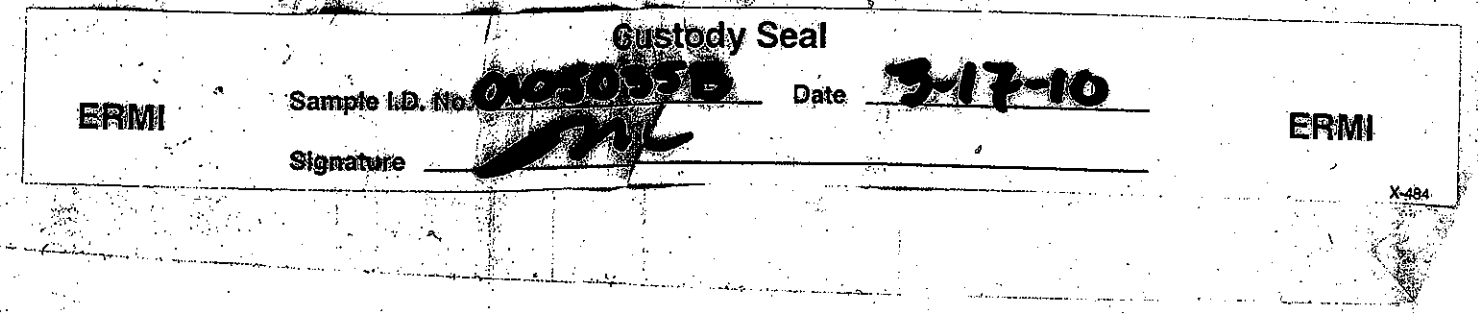
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3.16.10	1804		3-16-10	1800
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3/7/10	0825		3/7/10	0825
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3-17-10	9:18		3/17/10	918
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3/17/10	1015	Kathy Williams	3/17/10	10:15

NOTES:

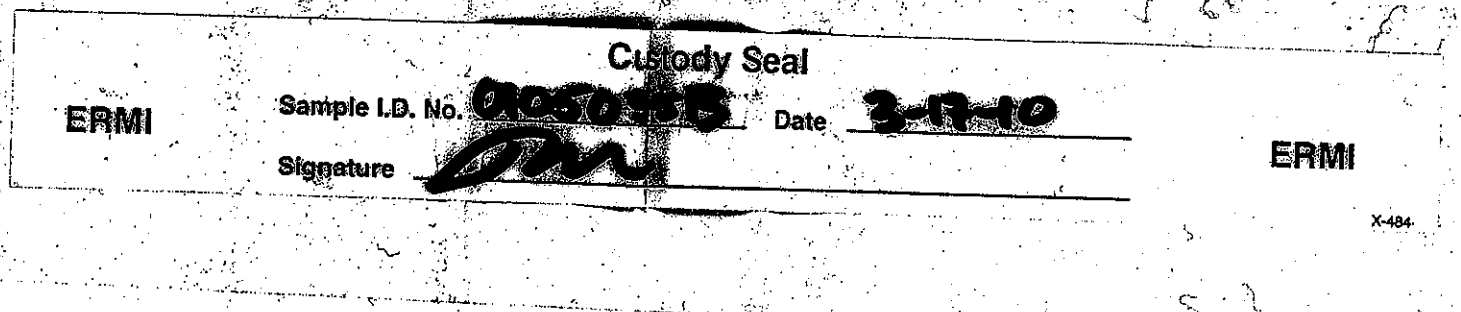
Matrix: W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
Container: WW - Wastewater VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other



Cooler 1
1.8°C



Cooler 2
4.8°C



Cooler 3
2.2°C

1000372

Falcon X-Press We Deliver

P.O. BOX 940303
PLANO, TX 75094-0303
(972) 881-7577

NOTARY SERVICE AVAILABLE

No.

SHIPPER
NAME Southwest Geoscience
ADDRESS 2351 W Northgate
CITY Dallas, TX 75220 SUITE 332
REFERENCE NO.

CONSIGNEE
NAME Erin
ADDRESS 400 E Belmont
CITY Allen, TX 75013 SUITE 190
ATTN:

DATE 3/17/10

Falcon Charges
- ☐ PREPAID
- ☐ COLLECT
- ☐ ROUND TRIP
- ☐ NIGHT-WEEKEND

Type of Delivery
- ☒ X-Press
- ☐ 2 HOUR
- ☐ 4 HOUR
- ☐ NEXT DAY

NO. PCS.	DESCRIPTION AND REMARKS	WEIGHT	CHARGES	
			WEIGHT CHARGE	
			WAITING TIME CHG	
			DELIVERY CHARGE	
			TOTAL CHARGES	

WAITING TIME

NOT RESPONSIBLE FOR FREIGHT CLAIMS AFTER 72 HRS. NOT RESPONSIBLE FOR CONCEALED DAMAGE, DUE AND PAYABLE PLANO, COLLIN COUNTY, TEXAS

DRIVER NAME & NO.

DRIVER NAME & NO.

TIME OF DEL. 10:15

$50 DECLARED VALUE UNLESS SPECIFIED HERE $

RECEIVED BY x Kathy Weems

RECEIVED BY x Kathy Weems

100392

Lab Number(s): 1007392

ERMI

Sample Preservation Documentation*

On Ice (Circle One): YES OR NO (check if on Dry Ice_____)

Parameters	Containers #	Size	Required Preservation	Sample Container	Circle pH Note any discrepancy
Metals			pH < 2	Glass or Plastic	pH < 2
Dissolved Metals			Unpreserved prior to being filtered, Cool**	Glass or Plastic	
Hexavalent Chromium			CWA - pH 9.3-9.7, Cool; RCRA - Cool	Glass or Plastic	Checked At Analysis
Semivolatiles, Pesticides, PCBs, Herbicides			Cool	Glass only with Teflon lid	Chlorine ☐yes ☐no
VOA (BTEX, MTBE, 624, 8260, TPH-GRO)			Cool, pH < 2 Zero Head Space	40 ml VOA vial	DO NOT OPEN
VOA (TPH-1005)			Cool, Zero Head Space Please check if collected in pre-weighed vials_____	40 ml VOA vial	DO NOT OPEN
Phos., NO_3/NO_2, NH_3N, COD, TKN,TOC			Cool, pH < 2	Glass or Plastic	pH < 2
TDS, BOD, CBOD, Cond, pH, TSS, F, SO_4, Cl, Alk, Sulfite			Cool	Glass or Plastic, Plastic only if F	
Phenols, TPH-DRO			Cool, pH < 2	Glass only Teflon lid_____ Foil lid_____	pH < 2
Oil & Grease, TPH (by 1664a)			Cool, pH < 2	Glass only Teflon lid_____ Foil lid_____	DO NOT Check pH
Cyanide			Cool, pH >12	Glass or Plastic	pH > 12 Chlorine ☐yes ☐no Sulfide ☐yes ☐no ☐na
Sulfide			Cool, pH > 9	Glass or Plastic	pH > 9
Bacteria			Cool	Plastic Sterile Cup	
Soil, Sludge, Solid, Oil, Liquid	44	8oz	Cool Note: please check if collected in pre-weighed vials_____	Sleeve	

Metals Preserved By Login ☐yes ☐no Trip Blanks Received ☐yes ☒no

COMMENTS: Only 3 off hold at this time. RC 7/14/10

*This form is used to document sample preservation. Circle parameter requested. Fill in number and size of containers received. Check pH (adjust if needed) and note if different from what is required and make a notation of any samples not received on ice. Note any incorrect sample containers or preservation on chain-of-custody.

**Cool means cooled to ≤6°C but not frozen.

Preservation Checked By _____ Date 7/14/10 Time 1151

1000.0-3.2 2/17/09

kdy 7/10/08

Q:\Form Masters\1000.0-3.2 Sample Preservation Form

Environmental Laboratories
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State Certifications
Arkansas: 88-0647
Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Attached is our analytical report for the samples received for your project. Below is a list of your individual sample descriptions with our corresponding laboratory number. We also have enclosed a copy of the Chain of Custody that was received with your samples and a form documenting the condition of your samples upon arrival. Please note any unused portion of the samples may be discarded upon expiration of the EPA holding time for the analysis performed or after 30 days from the above report date, unless you have requested otherwise.

ERMI Environmental Laboratories certifies that all results contained in this report were produced in accordance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise noted. The results presented apply to the samples analyzed in accordance with the chain-of-custody document(s) furnished with the samples. This report is intended for the sole use of the customer for whom the work was performed and must be reproduced, without modification, in its entirety.

Sample Identification

Laboratory ID #	Client Sample ID	Matrix	Sampled Date/Time	Received Date/Time
1007389-01	FSS-SC-031 [Total Fraction]	Solid	03/16/10 14:37	07/14/10 12:34
1007389-02	FSS-SC-031 [Fine Fraction]	Solid	03/16/10 14:37	07/14/10 12:34
1007389-03	FSS-BG-038 [Total Fraction]	Solid	03/16/10 16:35	07/14/10 12:34
1007389-04	FSS-BG-038 [Fine Fraction]	Solid	03/16/10 16:35	07/14/10 12:34

Case Narrative

These samples were originally received on 03/17/10 at 1015 and were immediately placed on hold pending results from the EPA. On 07/14/10 it was requested that these samples be pulled off of hold and analyzed for Total and Fine Lead using special preparation instructions provided to us via email by Liz Scaggs.

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Report of Sample Analysis

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ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

The analytical data and results contained in this report, as well as their supporting data, conform with Texas Risk Reduction Program (TRRP), 30 TAC, Section 350, requirements and are of sufficient and documented quality to meet both TRRP objectives, TCEQ regulatory guidance No. RG-366/TRRP-13 and the project-based objective of achieving the lowest method detection limit (i.e., the TRRP Critical PCL where reasonably achievable or, if not reasonably achievable, the MQL). All information concerning analytical parameters, methods and protocols that might bear upon or otherwise affect the accuracy of the analytical data in this report have been provided or otherwise disclosed herein. The data were obtained using applicable and appropriate EPA SW-846 or Texas Commission on Environmental Quality approved analytical protocols, methodologies and quality assurance/quality control standards. **ERMI Environmental Laboratories** certifies that its quality control program is substantially and materially consistent with the International Organization for Standardization "Guide 25: General Requirements the Competence of Calibration and Testing Laboratories (ISO 25 3rd Edition, 1990)," as amended or the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. The entire analytical data package for this report, including the supporting quality control data, will be retained and maintained for at least five (5) years (or such longer period of time as may be required by TRRP) from the report date at the offices of **ERMI Environmental Laboratories, 400 W. Bethany, Suite 190, Allen, Texas 75013.**

I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Thank you for the opportunity to serve your environmental chemistry analysis needs. If you have any questions or concerns regarding this report please contact our Customer Service Department at the phone number below.

Respectfully submitted,

Kendall K. Brown
President

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Laboratory ID #: 1007389-01
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-SC-031 [Total Fraction]
Sample Date/Time: 03/16/10 1437

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	75	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	52.63	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.28	0.04	mg/kg dry	5.26	M4	0G20018	07/21/10 1333	SPS	R-01
Lead	31.0	0.70	0.1	mg/kg dry	5.26	M4	0G20018	07/21/10 1333	SPS	R-01

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Laboratory ID #: 1007389-02
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-SC-031 [Fine Fraction]
Sample Date/Time: 03/16/10 1437

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	94	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	100.00	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.43	0.04	mg/kg dry	10.00	M4	0G20018	07/21/10 1340	SPS	R-01
Lead	55.2	1.06	0.1	mg/kg dry	10.00	M4	0G20018	07/21/10 1340	SPS	R-01

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Laboratory ID #: 1007389-03
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-BG-038 [Total Fraction]
Sample Date/Time: 03/16/10 1635

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	85	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	51.02	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	0.81	0.24	0.04	mg/kg dry	5.10	M4	0G20018	07/21/10 1347	SPS	R-01
Lead	135	0.60	0.1	mg/kg dry	5.10	M4	0G20018	07/21/10 1347	SPS	R-01

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Laboratory ID #: 1007389-04
Sample Type: Composite
Matrix: Solid
Sample Collected By: Melissa Smith [US EPA]
Customer
Sample Description: FSS-BG-038 [Fine Fraction]
Sample Date/Time: 03/16/10 1635

Analyte(s)	Result	SDL	MQL	Units	F*	Inst	Batch	Analysis Date/Time	Anlst	Flag
Conventional Chemistry Parameters, SM 2540G										
% Solids	96	0.040	0.2	%	1.00	W3	0G20028	07/20/10 1655	KBM	S-14
Metals (Total), EPA 3050B										
Acid Digestion of Sludges/Solids	Completed	N/A	N/A	-	100.00	DB2	0G20018	07/20/10 1246	SPS	
Metals (Total), EPA 6010B										
Cadmium	ND	0.42	0.04	mg/kg dry	10.00	M4	0G20018	07/21/10 1354	SPS	R-01
Lead	16.4	1.05	0.1	mg/kg dry	10.00	M4	0G20018	07/21/10 1354	SPS	R-01

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Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Conventional Chemistry Parameters - Quality Control

Analyte(s)	Result	*SDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Blank (0G20028-BLK1) Prepared & Analyzed: 07/20/10 16:55										
% Solids	ND	0.040	%							
Duplicate (0G20028-DUP1) Prepared & Analyzed: 07/20/10 16:55					Source: 1007389-01					
% Solids	76	0.040	%		75			1	4	
Duplicate (0G20028-DUP2) Prepared & Analyzed: 07/20/10 16:55					Source: 1007459-01					
% Solids	88	0.040	%		90			2	4	

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Hwy, Suite 3321
Dallas, TX 75220
ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Metals (Total) - Quality Control

Analyte(s)	Result	*SDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Blank (0G20018-BLK1) Prepared & Analyzed: 07/20/10 12:46										
Acid Digestion of Sludges/Solids	Completed	N/A	-							
Cadmium	ND	N/A	mg/kg wet							
Lead	ND	N/A	mg/kg wet							
Laboratory Control Sample (0G20018-BS1) Prepared & Analyzed: 07/20/10 12:46										
Acid Digestion of Sludges/Solids	Completed	N/A	-				0-0			
Cadmium	24.1	N/A	mg/kg wet	25.0		96	85-115			
Lead	24.5	N/A	mg/kg wet	25.0		98	85-114			
Laboratory Control Sample Duplicate (0G20018-BSD1) Prepared & Analyzed: 07/20/10 12:46										
Acid Digestion of Sludges/Solids	Completed	N/A	-				0-0		0	
Cadmium	24.3	N/A	mg/kg wet	25.0		97	85-115	1	5	
Lead	24.8	N/A	mg/kg wet	25.0		99	85-114	1	5	
Matrix Spike (0G20018-MS1) Prepared & Analyzed: 07/20/10 12:46					**Source: 1007387-01**					
Acid Digestion of Sludges/Solids	Completed	N/A	-		ND		0-0			
Cadmium	27.9	N/A	mg/kg wet	26.0	ND	107	75-125			
Lead	31.4	N/A	mg/kg wet	26.0	2.65	110	75-125			
Matrix Spike (0G20018-MS2) Prepared & Analyzed: 07/20/10 12:46					**Source: 1007392-06**					
Acid Digestion of Sludges/Solids	Completed	N/A	-		ND		0-0			
Cadmium	53.9	N/A	mg/kg dry	52.5	ND	103	75-125			
Lead	76.5	N/A	mg/kg dry	52.5	23.4	101	75-125			

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Report of Sample Analysis

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ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Metals (Total) - Quality Control

Analyte(s)	Result	*SDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Matrix Spike Duplicate (0G20018-MSD1) Prepared & Analyzed: 07/20/10 12:46					Source: 1007387-01					
Acid Digestion of Sludges/Solids	**Completed**	N/A	-		ND		0-0		0	
Cadmium	**26.7**	N/A	mg/kg wet	25.5	ND	105	75-125	4	15	
Lead	**29.9**	N/A	mg/kg wet	25.5	2.65	107	75-125	5	20	
Matrix Spike Duplicate (0G20018-MSD2) Prepared & Analyzed: 07/20/10 12:46					Source: 1007392-06					
Acid Digestion of Sludges/Solids	**Completed**	N/A	-		ND		0-0		0	
Cadmium	**57.1**	N/A	mg/kg dry	53.5	ND	107	75-125	6	15	
Lead	**86.1**	N/A	mg/kg dry	53.5	23.4	117	75-125	12	20	
Post Spike (0G20018-PS1) Prepared: 07/20/10 12:46 Analyzed: 07/21/10 12:42					Source: 1007387-01					
Cadmium	**0.97**	N/A	mg/l	1.00	-0.004	97	75-120			
Lead	**1.11**	N/A	mg/l	1.00	0.05	106	75-125			

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Report of Sample Analysis

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ATTN: Liz Scaggs

Project: Frisco Soil Sampling
Project #: 0105035B
Print Date/Time: 07/30/10 11:18

Notes and Definitions

The results presented in this report were generated using those methods given in 40 CFR Part 136 for Water and Wastewater samples and in SW-846 for RCRA/Solid Waste samples.

R-01	The higher reporting limit is due to dilutions required for analysis as a result of a high concentration of target and/or non-target parameters in this sample.
S-14	This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RPD	Relative Percent Difference
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
ug/kg	micrograms per kilogram
ug/l	micrograms per liter
exc	Not covered under scope of NELAP accreditation.
F*	Calculated factor rounded to 3 significant figures. Concentration factor when <1.00 and dilution factor when >1.00.
Inst	Instrument Identification
Anlst	Analyst Initials
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
naa	This analysis/parameter is not accreditable under the current NELAP program

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

Laboratory Data Package Cover Page

This data package for Laboratory Job Number 1007389 consists of:

- [x] This signature page, the laboratory review checklist, and the following reportable data:
- [x] **R1** Field chain-of-custody documentation;
- [x] **R2** Sample identification cross-reference;
- [x] **R3** Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- [x] **R4** Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- [x] **R5** Test reports/summary forms for blank samples;
- [x] **R6** Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- [x] **R7** Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- [x] **R8** Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- [x] **R9** List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- [x] **R10** Other problems or anomalies.
- [x] The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: [ ] This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Kendall K. Brown	Kendall K. Brown	President	07/26/10
Name (Printed)	Signature	Official Title (Printed)	Date

Laboratory Review Checklist: Reportable Data

Laboratory Name:	**ERMI** Environmental Laboratories	LRC Date:	07/26/10
Project Name:	Frisco Soil Sampling	Laboratory Job Number:	1007389
Reviewer Name:	Leslie Underwood	Prep Batch Number(s):	0G20018,0G20028,0G22017

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	O	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	O	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	O	Test reports					
		Were all samples prepared and analyzed within holding times?		X			E001
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	O	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	O	Laboratory control samples (LCS)					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	O	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	O	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	O	Method quantitation limits (MQLs)					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?			X		
		Are unadjusted MQLs included in the laboratory data package?	X				
R10	O	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Reportable Data

Laboratory Name:	ERMI Environmental Laboratories	LRC Date:	07/26/10
Project Name:	Frisco Soil Sampling	Laboratory Job	1007389
Reviewer Name:	Leslie Underwood	Prep Batch Number(s):	0G20018,0G20028,0G22017

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	O/I	Initial calibration (ICAL):					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?			X		
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?			X		
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	O/I	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration:					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	O/I	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation:					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions:					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	O/I	Method detection limit (MDL) studies:					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	O/I	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	O/I	Standards documentation:					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	O/I	Compound/analyte identification procedures:					
		Are the procedures for compound/analyte identification documented?	X				
S14	O/I	Demonstration of analyst competency (DOC):					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	O/I	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5):					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	O/I	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports

Laboratory Name:	ERMI Environmental Laboratories	LRC Date:	07/26/10
Project Name:	Frisco Soil Sampling	Laboratory Job	1007389
Reviewer Name:	Leslie Underwood	Prep Batch Number(s):	0G20018,0G20028,0G22017

ER# [1]	Description
E001	Sample 1007389-01 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007389-02 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007389-03 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed. Sample 1007389-04 failed hold criteria for Dry Weight 2540G. -This analysis was performed outside the recommended holding time. This analysis is used only for dry weight calculation and is representative of the total solids present in the sample at the time the dry weight corrected analyses were performed.

1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Laboratory: ERMC
Address:
Contact:
Phone:
PO/SO #: 0105035B

Office Location: Dallas
Project Manager: Liz Scaggs

Sampler's Name: Melissa Smith (USEPA)
Sampler's Signature:

Proj. No.: 0105035B
Project Name: Frisco Soil Sampling
No/Type of Containers: 2/903G

ANALYSIS REQUESTED: TH Pb, Cd | TH Pb, Cd (250 micron) | HOLD

Lab use only
Due Date:
Temp. of coolers when received (C°): TR01 1.8ºC | 2.4ºC | 2.2ºC
Page 1 of 2

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TH Pb, Cd	TH Pb, Cd (250 micron)	HOLD	Lab Sample ID (Lab Use Only)
S	3.16.10	0955	x		FSS-PD-023							✓			
		1005			FSS-PD-024							✓			
		1050			FSS-CT-025							✓			
		1120			FSS-CT-026							✓			
		1135			FSS-CT-027							✓			
		1310			FSS-OP-028							✓			
		1324			FSS-OP-029							✓			
		1335			FSS-OP-030							✓			
		1437			FSS-SC-031							✓			1007389-01 / 02
		1447			FSS-HC-032							✓			

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3.16.10	1804		3-16-10	1805
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3-17-10	0825	Jack Moore	3-17-10	0825
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Jack M	3-17-10	9-18	James Quinn	3/17/10	918
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
James Quinn	3/17/10	1015	Kathy Weems	3/17/10	10:15

NOTES:

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: Dallas
Project Manager: Liz Scaggs

Laboratory: ERMI
Address:
Contact:
Phone:
PO/SO #: 0105035B

Lab use only
Due Date:

Temp. of coolers when received (C°): IR-01
1 2 3 4 5
1.8°C 3.4°C 2.2°C

Page 2 of 2

Sampler's Name: Nehssa Smith (USEPA)
Sampler's Signature:

Proj. No.: 0105035B
Project Name: Frisco Soil Sampling
No/Type of Containers: 2 | 9oz G

ANALYSIS REQUESTED: TH Pb, Cd | TH Pb, Cd (250 micron) | HOLD

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TH Pb, Cd	TH Pb, Cd (250 micron)	HOLD	Lab Sample ID (Lab Use Only)
S	3.16.10	1520	X		FSS-GR-033									✓	
		1527			FSS-GR-034									✓	
		1552			FSS-GR-035									✓	
		1600			FSS-GR-036									✓	
		1632			FSS-BG-037									✓	
		1635			FSS-BG-038									✓	1007389-03/04

Turnaround time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	3.16.10	1804		3-16-10	1805
	3-17-10	0825	Josh Moore	3/17/10	0825
Josh M	3/17/10	9.18	James Owino	3/17/10	918
James Owino	3/17/10	1015	Kathy Weeminks	3/17/10	10:15

NOTES:

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

Custody Seal

ERMI

Sample I.D. No. [illegible] Date 3-8-10

Signature [signature]

ERMI

X-484

Cooler 1
1.8°C

Custody Seal

ERMI

Sample I.D. No. [illegible] Date 3-17-10

Signature [signature]

ERMI

X-484

cooler 2
4.8°C

Custody Seal

ERMI

Sample I.D. No. [illegible] Date 3-8-10

Signature [signature]

ERMI

X-484

Cooler 3
2.2°C

1003894

Falcon X-Press We Deliver

P.O. BOX 940303
PLANO, TX 75094-0303
(972) 881-7577

NOTARY SERVICE AVAILABLE

No.

SHIPPER
NAME Southwest Geoscience
ADDRESS 2351 W Northwest Hwy SUITE 332
CITY Dallas, TX 75220
REFERENCE NO.

CONSIGNEE
NAME Ermi
ADDRESS 400 W Belmont SUITE 190
CITY Allen, TX 75013
ATTN:

DATE 3/17/10

Falcon Charges
- ☐ PREPAID
- ☐ COLLECT
- ☐ ROUND TRIP
- ☐ NIGHT-WEEKEND

Type of Delivery
- ☐ X-Press
- ☐ 2 HOUR
- ☐ 4 HOUR
- ☐ NEXT DAY

NO. PCS.	DESCRIPTION AND REMARKS	WEIGHT	CHARGES	
			WEIGHT CHARGE	
			WAITING TIME CHG	
			DELIVERY CHARGE	
			TOTAL CHARGES	

WAITING TIME

NOT RESPONSIBLE FOR FREIGHT CLAIMS AFTER 72 HRS. NOT RESPONSIBLE FOR CONCEALED DAMAGE, DUE AND PAYABLE PLANO, COLLIN COUNTY, TEXAS

$50 DECLARED VALUE UNLESS SPECIFIED HERE $

DRIVER NAME & NO.

DRIVER NAME & NO.

TIME OF DEL. 10:15

RECEIVED BY x Kathy Weems

RECEIVED BY x Kathy Weems

100389

Lab Number(s): 1007389

ERMI

Sample Preservation Documentation*

On Ice (Circle One): YES OR NO (check if on Dry Ice_____)

Parameters	Containers #	Size	Required Preservation	Sample Container	Circle pH Note any discrepancy
Metals			pH < 2	Glass or Plastic	pH < 2
Dissolved Metals			Unpreserved prior to being filtered, Cool**	Glass or Plastic	
Hexavalent Chromium			CWA - pH 9.3-9.7, Cool; RCRA - Cool	Glass or Plastic	DO NOT ANALYZE
Semivolatiles, Pesticides, PCBs, Herbicides			Cool	Glass only with Teflon lid	Chlorine ☐yes ☐no
VOA (BTEX, MTBE, 624, 8260, TPH-GRO)			Cool, pH < 2 Zero Head Space	40 ml VOA vial	DO NOT OPEN
VOA (TPH-1005)			Cool, Zero Head Space Please check if collected in pre-weighed vials_____	40 ml VOA vial	DO NOT OPEN
Phos., NO_3/NO_2, NH_3N, COD, TKN,TOC			Cool, pH < 2	Glass or Plastic	pH < 2
TDS, BOD, CBOD, Cond, pH, TSS, F, SO_4, Cl, Alk, Sulfite			Cool	Glass or Plastic, Plastic only if F	
Phenols, TPH-DRO			Cool, pH < 2	Glass only Teflon lid____ Foil lid_____	pH < 2
Oil & Grease, TPH (by 1664a)			Cool, pH < 2	Glass only Teflon lid____ Foil lid_____	DO NOT [illegible]
Cyanide			Cool, pH >12	Glass or Plastic	pH > 12 Chlorine ☐yes ☐no Sulfide ☐yes ☐no ☐na
Sulfide			Cool, pH > 9	Glass or Plastic	pH > 9
Bacteria			Cool	Plastic Sterile Cup	
Soil, Sludge, Solid, Oil, Liquid	3	40z	Cool Note: please check if collected in pre-weighed vials_____	glass	

Metals Preserved By Login ☐yes ☐no **Trip Blanks Received** ☐yes ☑no

COMMENTS: Only 2 left held at this time. DC 7/11/10

*This form is used to document sample preservation. Circle parameter requested. Fill in number and size of containers received. Check pH (adjust if needed) and note if different from what is required and make a notation of any samples not received on ice. Note any incorrect sample containers or preservation on chain-of-custody.

**Cool means cooled to ≤6°C but not frozen.

Preservation Checked By _____ 3-19-10 Date 1159 Time

1000.0-3.2 2/17/09

kdy 7/10/08

Q:\Form Masters\1000.0-3.2 Sample Preservation Form