



Appendix A

Field Notes



Soil and Sediment Core Collection
and Processing Notes

CONTENTS

Location Mayflower, AR

Date 7-27-13

Project / Client DARSP / Xoum

SEP-DA-033

Saturday July 27, 2013

Weather: Cloudy 85°F

0545 On site for safety meeting.

0630 Begin preparing for the collection of
Sediment cores within Lake Conway.

0900 Met with Stans Airboat. Tjerson
is the operator.

0915 Begin loading boat for sample collection
at SED-04-033 located in Lake
Conway adjacent to Highway 89
within the boom.

0945 SED-DA-033

Water Depth = 4.30

Probe Depth = 3.0

Penetration Depth = 2.0

Recovery = 1.5/1.6 - Two cores

GPS Coordinates: NAD 83

$$N \ 34.97121^\circ$$

W 092, 41513

4 Location May Flower, AR Date 7-27-13
Project / Client DARSP/XOM
SED-DA-034

1000 Set up at SED-DA-034 located
even with Peninsula of house located
on the East side approx 200' from shore.
This sample was expected to be
within the boom but at this location,
the boom is only 50' from Highway 89.

* Sample collected outside of boom.

1010 SED-DA-034
Water Depth = 4.1
Probe Depth = 3.5
Penetration Depth = 2.5
Recovery = 2.5/1.8 - Two Cores
GPS Coordinates: NAD 83
N 34.97142°
W 092.41458°

Set up on SED-DA-035. We will
be collecting enough cores here for an
MS/MSD, located where it appears on the
figure.

5 Location May Flower Date 7-27-13
Project / Client DARSP/XOM
SED-DA-035

1400 SED-DA-035
Water Depth = 4.6'
Probe Depth = 3.5'
Penetration Depth = 2.0/2.0/2.0/1.0/1.0/1.0/
Recovery = 1.8/1.7/2.0/1.0/1.2/1.0
GPS Coordinates: NAD 83
N 34.97146°
W 092.41455°

1445 Off the lake for the day

900 Set up sample process area

910 Calibrate Mini RAE 3000 P.I.D.

Fresh air cal = 0.0 ppm ✓

Isobutylene 100 ppm cal = 100.1 ppm ✓
Lot # 43003-05920 DARSP Team On Site: Rhiannon Parmelee, Brian Lovgren, Dave Prost, Danny Mays
Ryan Lewis

930 Samples from sediment collected from homogenized interval homogenized in disposable aluminum tray and homogenized and collected with disposable plastic spoon.

945 Collect SED-DA-033(0-0.5) DB4

Depth	Time	PID (ppm)	Description
→ 0-0.5	945	130	SILT(ML), brown, trace organics, saturated
0.5-1	950	12.3	silty CLAY(CL), gray, trace organics, saturated
1-1.5	955	7.2	CLAY(CL), gray, trace organics, wet

1010 Collect SED-DA-034

Depth	Time	PID	Description
→ 0-0.5	1010	6.7	clayey SILT(ML), brown, trace organics, mild odor, saturated
0.5-1.0	1015	7.4	silty CLAY(CL), gray, low plasticity no odor
1.0-1.5	1020	7.1	CLAY(CL), gray, low plasticity, no odor

→ For all sed samples 0-0.5 collect 2-16 oz jars for grain size (LAN)
 1-4 oz RCRA Metals (LAN) 1-8 oz TOC/BC (ALS)
 1-8 oz PAH TEH (B+B) 1-Terracore (LAN)

1-16 oz 1/2 full archive (LAN) ① *Site in the Rain*

1500 SED-EB-01-072713 Collected from aluminum pan

Filled - 3-VoAs w/ HCL Preserve for VOCs (Lan.)

1 - 500 mL w/ HNO₃ Preserve for RCRA metals + V/L

2 - VoAs w/ HCL Preserve for BC/TOC (ALS)

2 - 1 L amber jars for PAHs + TEH (B+B)

1400 Collect SED-DA-035

Depth	Time	PID	Description
0-0.5 *MS/MSD	1400	9.2	SILT (ML), brown, trace organics, mild odor, saturated
0.5-1.0	1405	10 9.0	Clayey SILT (ML), brown to gray @ 1', saturated
1.0-1.5	1410	10.8	silty CLAY (CL), gray, low plasticity, wet

1710 Collect SED-TB-01-072713 2-VOCs 8260 (LAN)
2-PBA

* MS/MSD Bottle count

+2 - 8 oz PAH, TEH (B+B)

+1 - 8 oz TOC/BC (ALS)

+2 - Terracore kits (LAN)

+1 - 4 oz RCRA Metals + V + Ni (LAN)

1715 IDW-PPE taken to cover^{rolloff} in 2 clear, taped PPE trashbags
- Sediment taken to residential soil rolloff, 2-gallons

4

Location May Flower, AR Date 7-27-13Project / Client DARSP/XOMSED-DA-034

1000 Set up at SED-DA-034 located even with Peninsula of house located on the East side approx 200' from shore. This sample was expected to be within the boom but at this location, the boom is only 50' from Highway 89.

* Sample collected outside of boom.

1010 SED-DA-034

Water Depth = 4.1

Probe Depth = 3.5

Penetration Depth = 2.5

Recovery = 2.5/1.8 - Two Cores

GPS Coordinates: NAD 83

N 34.97142°

W 092.41458°

Set up on SED-DA-035. We will be collecting enough cores here for an MS/MSD. Located where it appears on the figure.

5

Location May Flower, AR Date 7-27-13Project / Client DARSP/XOMSED-DA-0351400 SED-DA-035

Water Depth = 4.6'

Probe Depth = 3.5'

Penetration Depth = 2.0/2.0/2.0/1.0/1.0/1.0/

Recovery = 1.8/1.7/2.0/1.0/1.2/1.0

GPS Coordinates: NAD 83

N 34.97212° ~~N 34.97146°~~ BWLW 092.41557° ~~W 092.41455°~~ BWL

1445 Off the lake for the day

Sunday July 28, 2013

Weather: Clear 85°F

0700 On site for safety meeting.

0730 Begin preparation for the collection of additional cores on Lake Conway
DA-030, DA-037, DA-038.

0850 Met with Jason the boat operator at Paradise Landing. On our way to SED-DA-036

Location Mayflower, AR Date 7-28-13Project / Client DARSP / XOMSED-DA-036 / SED-DA-0370915 SED-DA-036

Water Depth = 4.7'

Probe Depth = 3.5'

Penetration Depth = 2.0 / 1.3 / 0.8 / 1.1

Recovery = 1.6 / 1.1 / 0.3 / 1.3

GPS Coordinates: NAD 83

BWL N 34.97212 N 34.97232

BWL W 092.41542 W 092.41431

This location is approx 400' North of
Dock and 400' West of Dock.

1010 Set up on SED-DA-037, This is
located approx 300' east of peninsula as it
appears on the Figure

1015 SED-DA-037

Water Depth = 4.8'

Probe Depth = 3.2'

Penetration Depth = 1.6 / 1.8

Recovery = 1.4 / 1.5

GPS Coordinates: NAD 83

N 34.97302°

W 092.41502°

Location Mayflower, AR Date 7-28-13Project / Client DARSP / XOMSED-DA-038

Set up on SED-DA-38, Located
as it appears on the Figure

1115 SED-DA-038

Water Depth = 5.3'

Probe Depth = 3.3'

Penetration Depth = 1.8 / 1.6

Recovery = 1.6 / 1.5

GPS Coordinates: NAD 83

N 34.97314

W 092.41387

Completed on Lake Conway.

1300 Met with Mike Airboat operator
within the Cove.

1330 Begin set up on SED-DA-032
located most north within the cove

8

Location Mayflower, AR Date 7-28-13Project / Client DARSP/XomSED-DA-032 / SED-DA-031

1400

SED-DA-032

Water Depth = 3.2

Probe Depth = 3.2

Penetration Depth = 1.8/1.9

Recovery = 1.6/1.8

GPS Coordinates NAD83

N 34.97046

W 092.41477

Set up on SED-DA-031 located
approx 200' South west of 032.

1430

SED-DA-031

Water Depth = 3.5

Probe Depth =

Penetration Depth = 2.0/2.0

Recovery = 1.8'/1.5'

GPS coordinates NAD83

N 34.97002°

W 092.41502

Off the Cove for the day. Help process.

9

Location Mayflower, AR DateProject / Client DARSP/Xom

645 Safety Meeting

Sediment sampling staff: Rhiannon Parmelee, Brian Lovgren, Dave Drost, Daniel Mays, Ryan Lewis

Samples Collected from lexane tubing and homogenized using disposable plastic spoons in a disposable aluminum tray

0915 Collect SED-DA-036 (1.5' Recovery)

Depth	Time	(Ziplock) PID	(Archive) PID	Description
0-0.5 *DUP-01	915	9.5	0.0	SILT(ML), brown, saturated, trace organics, no odor
0.5-1.0	920	12.1	0.0	silty CLAY(CL), gray, trace organics, saturated, no odor
1.0-1.5	925	14.2	0.0	CLAY(CL), gray, trace organics, wet, no odor

1010 Calibrate PID, same Model + Gas as 7-27-13
 Zero cal = 0.0v
 Iso 100ppm cal = 100.0v

1020 Measure VOCs in empty

Zip-Lock quart = 3.7 ppm
 Zip-Lock gallon = 4.0 ppm

* SED-DA-DUP-01-072813 Collected

* 1-Terracore kit
 1-8oz PAH, TET
 1-4oz RCRA Metals
 1-8oz TOC/BC

1015 Collect SED-DA-037 (1.5' Recovery)

<u>Depth</u>	<u>Time</u>	(glad) <u>PID</u>	(archive) <u>PID</u>	<u>Description</u>
0-0.5	1015	0.1	0.0 0.0	SILT (ML), brown, saturated no odor
0.5-1.0	1020	0.2	0.0	SILT ^(ML) , dark gray, saturated no odor
1.0-1.5	1020	0.4	0.0	CLAY (CL), gray, soft, low plasticity, no odor

1030 Collect SED-DA-TB-02-0728131115 Collect SED-DA-038

<u>Depth</u>	<u>Time</u>	(glad) <u>PID</u>	(archive) <u>PID</u>	<u>Description</u>
0-0.5	1115	0.3	0.0	SILT (ML), brown, saturated, no odor, trace organics
0.5-1.0	1120 1120 (am)	0.2	0.0	SILT ^(ML) , SAA
1.0-1.5	1125	0.2	0.0	CLAY (CL), gray, soft, no odor trace organics

1400 Collect SED-DA-032

<u>Depth</u>	<u>Time</u>	(GLAD) <u>PID</u>	(Archive) <u>PID</u>	<u>Description</u>
0-0.5	1400	0.2	0.0	SILT (ML), brown, trace organics, mild odor, saturated
0.5-1.0	1405	0.2	0.0	silty CLAY (CL), gray, no odor, saturated
1.0-1.5	1410	0.3	0.0	CLAY (CL), gray, soft, no odor, saturated

1430 Collect SED-DA-031

<u>Depth</u>	<u>Time</u>	(Glad) <u>PID</u>	(Archive) <u>PID</u>	<u>Description</u>
0-0.5	1430	0.4	0.2	SILT(ML), brown, no odor root mass
0.5-1.0	1435	0.4	0.2	SILT(ML), SAA
1.0-1.5	1440	0.4	0.2	silty CLAY(CL), gray, root mass, no odor

1630

- 5 gallons IDW Sediment generated and disposed of
in neighborhood

- 2 plastic PPE Trash bags sent to rolloff in cove

1700

Off-Site

DBM

Location Mayflower, AR Date 7-28-13Project / Client DARSP/XomSED-DA-032 / SED-DA-031

1400

SED-DA-032

Water Depth = 3.2

Probe Depth = 3.2

Penetration Depth = 1.8 / 1.9

Recovery = 1.6 / 1.8

GPS coordinates NAD83

N 34.97046

W 092.41477

Set up on SED-DA-031 located
approx 200' South west of 032.

1430

SED-DA-031

Water Depth = 3.5

Probe Depth =

Penetration Depth = 2.0 / 2.0

Recovery = 1.8' / 1.5'

GPS coordinates NAD83

N 34.97002°

W 092.41502

1500 Off the core for the day. Help process.

Location Mayflower, AR Date 7-29-13Project / Client DARSP/XomSED-DA-029

Monday July 29, 2013

Weather: Clear & Hot 95°F

0645 BWL attended safety meeting. Went over
issues for the day.0700 AR Fish and wildlife needed Airboat
from 8-10. We will start when they
are done

0955 Loaded air boat for the day.

1010 Set up on SED-DA-029. This is
a deep core location (to 4.0).1030 SED-DA-029 - Deep Core

Water Depth = 3.0

Probe Depth = 3.4'

Penetration Depth = 4.2 / 1.5

Recovery = 3.2 / 1.5'

GPS coordinates NAD83

N 34.96943

W 092.41464

Location Mayflower, ARDate 7-29-13Project / Client DARSP/XOMSED-DA-030 / SED-DA-028

1115 Set up on SED-DA-030

1120 SED-DA-030

Water Depth = 3.0'

Probe Depth = 3.2'

Penetration Depth = 2.2'/1.8

Recovery = 2.0'/1.5

GPS Coordinates NAD83

N 34.96979

W 092.41437

1230 Begin set up to SED-DA-028 located
on east side of cove.1300 SED-DA-028

Water Depth = 4.2

Probe Depth = 3.4

Penetration Depth = 2.3'/1.8'/2.2'/1.6'/1.5'/1.3

Recovery = 2.1'/1.7'/2.1'/1.5'/1.1'/1.0

GPS Coordinates NAD83

N 34.96919

W 092.41403

* Extra cores collected for MS/MSD @ 0-0.5

Location Mayflower, ARDate 7-29-13Project / Client DARSP/XOMSED-DA-027

1340 Begin mobilization to SED-DA-027

1400 SED-DA-027 - Deep Core

Water Depth = 2.1'

Probe Depth = 3.4'

Penetration Depth = 4.2'/1.5

Recovery = 3.6'/1.0

GPS Coordinates NAD83

N 34.96883

W 092.41444

XOM-Mayflower

7-29-2013

Daniel Mays

18 25

1 2

3 76

645 Safety Meeting

DARSP Team: Brian Lougren, Dave Prost, Daniel Mays,
Ryan Lewis

920 Ship coolers

930 Calibrate PID MiniRAE 3000

Fresh air = 0.0 ✓
100 ppm Iso = 100.1 ✓1030 Collect SED-DA-029 Using disposable scoop & aluminum tray.

(glad) (archive)

Depth	Time	PID	PID	Description
0-0.5	1030	0.2	0.0	SILT(ML), brown, no odor, saturated, trace organics, root mass
0.5-1.0	1035	0.3	0.0	SILT(ML), SAA, no odor, trace organics, root mass
1.0-1.5	1040	0.4	0.0	SILT(ML), light brown, no odor, saturated, trace organics and root mass
1.5-2.0	1045	0.5	0.0	SAA
2.0-3.0	1050	0.5	0.0	SAA
3.0-3.2	1055	Sample not collected/described		
1110	Collect	<u>SED-DA-EB-02-072913</u>		
1115	Collect	<u>SED-DA-TB-02-072913</u>		

(DBM)
7-29-13

1120

Collect

DBM
~~SD~~ SED-DA-030

(glad)

(archive)

DepthTimePIDPIDDescription

0-0.5

1120

0.5

0.2

SILT (ML), brown, no odor
saturated

0.5-1.0

1125

0.6

0.2

CLAY (CL), gray, no odor, wet,
low plasticity, soft

1.0-1.5

1130

0.4

0.2

CLAY (CL), gray, no odor, wet
low plasticity, soft

1300

Collect

SED-DA-028

(glad)

(archive)

DepthTimePIDPIDDescription

0-0.5

1300

0.1

0.6

SILT (ML), brown, no odor,
root mass, saturated

0.5-1.0

1305

0.1

0.0

SILT (ML), light brown, root mass,
no odor, saturated

1.0-1.5

1310

0.1

0.0

CLAY (CL), gray, trace organics,
saturated

1400

Collect

SED-DA-027

(glad)

(archive)

DepthTimePIDPIDDescription

0-0.5

1400

0.2

0.0

SILT (ML), brown, saturated,
root mass

0.5-1.0

1405

0.1

0.0

SAA

1.0-1.5

1410

0.3

0.0

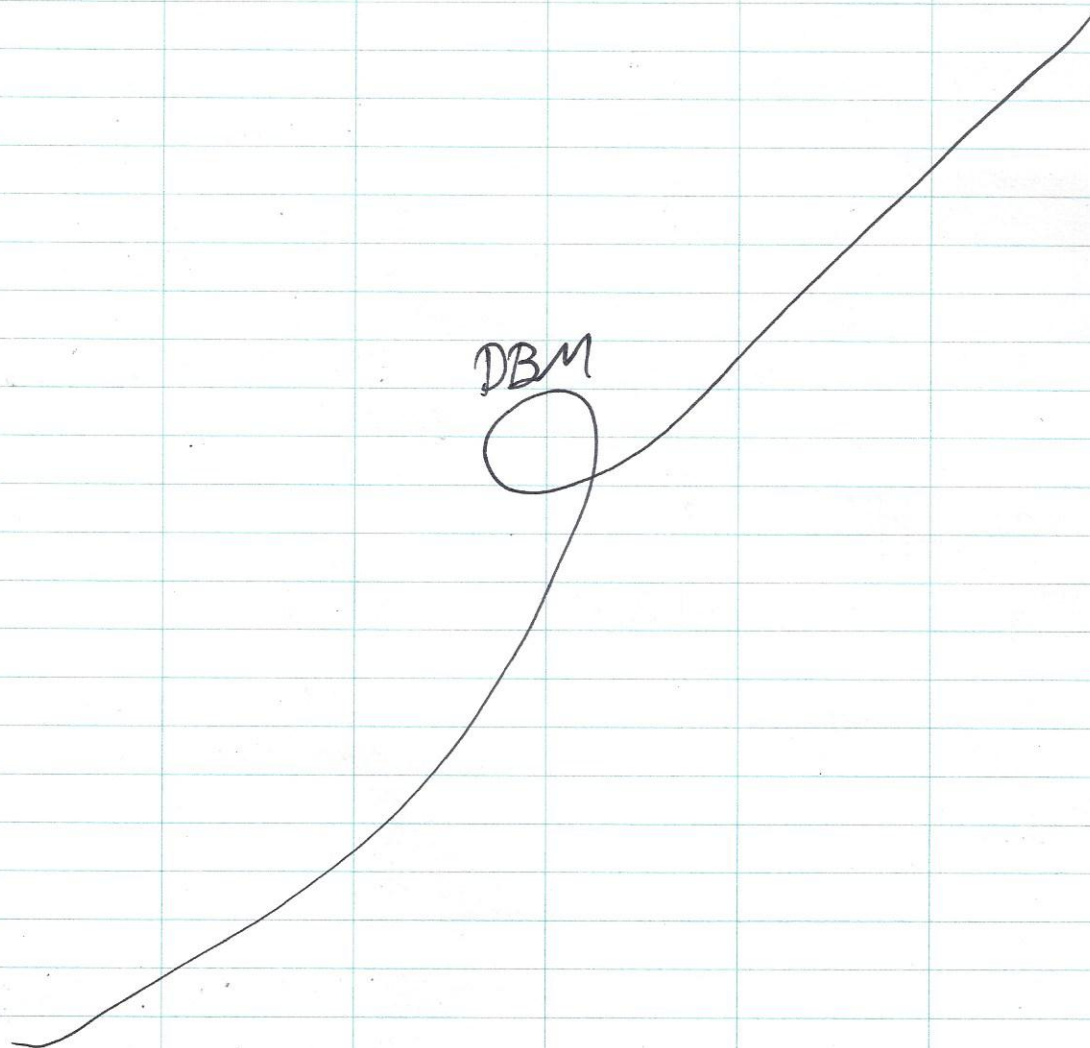
silty CLAY (CL), gray, trace
organics

XOM-Mayflower		7-29-13		Daniel Mays
Depth	Time	(glad) PID	(archive) PID	Description
1.5-2.0	1415	0.4	0.0	Silty CLAY(CCL), gray, saturated
2.0-3.0	1420	0.4	0.0	CLAY(CCL), gray, trace organics, no odor, saturated
3.0-3.6	1425	0.5	0.0	SAA

1700 Ryan Lewis to Fedex w/ 4 Lancaster coolers

1705 Dispose of 6 gallons sediment IDW, 2 full PPE plastic bags, ^{PPE} ~~can~~

1730 offsite



10

Location Mayflower, ARDate 7-29-13Project / Client DARSP/XOMSED-DA-030 / SED-DA-028

1115 Set up on SED-DA-030

1120 SED-DA-030

Water Depth = 3.0'

Probe Depth = 3.2'

Penetration Depth = 2.2 / 1.8

Recovery = 2.0' / 1.5

GPS Coordinates NAD 83

N 34.96979

W 092.41437

1230 Begin set up to SED-DA-028 located
on east side of cove.1300 SED-DA-028

Water Depth = 4.2

Probe Depth = 3.4

Penetration Depth = 2.3 / 1.8 / 2.2 / 1.6 / 1.5 / 1.3

Recovery = 2.1 / 1.7 / 2.1 / 1.5 / 1.1 / 1.0

GPS Coordinates NAD 83

N 34.96919

W 092.41403

* Extra cores collected for MS/MSD @ 0-0.5

11

Location Mayflower, ARDate 7-29-13Project / Client DARSP/XOMSED-DA-027

1340 Begin mobilization to SED-DA-027

1400 SED-DA-027 - Deep core

Water Depth = 2.1'

Probe Depth = 3.4'

Penetration Depth = 4.2' / 1.5

Recovery = 3.6' / 1.0

GPS Coordinates NAD 83

N 34.96883

W 092.41444

1430 Off the cove for the day. Help process.

Tuesday July 30, 2013

Weather: cloudy 85°F

0545 On site at Safety Meeting. Went over
issues for the day.0800 Met with Alex (Airboat operator)
for days activities.

12

Location May Flower, AR Date 7-30-13
 Project / Client DARSP/XOM
SEP-DA-026

0805 Set up on SEP-DA-026, This is a deep core.

0830 SEP-DA-026 - Deep Core

Water Depth = 3.2

Probe Depth = 3.4

Penetration Depth = 4.0/2.0/1.8/1.7/1.5

Recovery = 3.4/1.8/1.5/1.4/1.4

GPS Coordinates NA083

N 34.96850

W 092.41382

Dropped off cores to crew

0930 Set up on SEP-DA-025

0945 SEP-DA-025

Water Depth = 1.9

Probe Depth = 3.1

Penetration Depth = 1.5/2.0

Recovery = 1.4/1.8

GPS Coordinates NA083

N 34.96796

W 092.41434

13

Location May Flower, AR Date 7-30-13
 Project / Client DARSP/XOM
SEP-DA-024 / SEP-DA-020

1000 Set up on SEP-DA-024

1015 SEP-DA-024 - Deep Core

Water Depth = 3.0

Probe Depth = 3.5

Penetration Depth = 2.0/3.4

Recovery = 0.9/3.2

GPS Coordinates NA083

N 34.96807

W 092.41383

Attempted two pushes to 4.0 - Unsuccessful
 * Max penetration 3.4

Set up on SEP-DA-020

1100 SEP-DA-020 - Noticeable sheen

Water Depth = 2.0

observed - Some odor

Probe Depth = 3.0

Penetration Depth = 2.0/1.5

Recovery = 1.8/1.0

GPS Coordinates NA083

N 34.96732

W 092.41354

14

Location Mayflower, AR Date 7-30-13Project / Client DARSP/youSED-DA-BG-007

1300 Begin scoping out background locations for the north end of Lake Conway. Met Jason (Airboat operator) at Lawrence Landing.

1315 Begin boat ride to SED-DA-BG-007

1345 SED-DA-BG-007

Water Depth = 3.8'

Probe Depth = 3.0

Penetration Depth = 1.2 / 1.0

Recovery = 1.1 / 0.8

GPS Coordinates NAD 83

N 34.99088

W 092.40414

1415 Off the lake. Begin scoping locations for boat (ramps) to the north.

1500 Back at IC

15

Location Mayflower, AR Date _____Project / Client DARSP/you

XOM - Mayflower

7-30-13

Daniel Mays

645 Safety Meeting, DARSP Team: Brian Longren, Dave Drost, Daniel Mays, Ryan Lewis

ALS Fedex # 341161932
B+B Fedex # 198592846 ^{RDAM}

Reference Line: J13034

820 Calibrate PID

900 Collect SED-DA-EB-03-073013

2 VOA's - BC/TOC (ALS) 2 Lander (B+B)

830 Collect SED-DA-0263 VOA's - VOCs (LAN) 1 plastic (LAN)
500 mL

Depth	Time	(Glad) PID	(Archive) PID	Description
0-0.5	830	0.7	0.0	^(ML) SILT, brown, no odor, root mass, saturated
<u>Dup-02</u> 0.5-1.0	835	0.6	0.0	SAA, root mass, saturated
1.0-1.5	840	0.2	0.0	SILT (ML), light brown, saturated
1.5-2.0	845	0.1	0.0	sandy CLAY (CL), light brown, wet, no odor Trace organics
2.0-3.0	850	0.4	0.0	SAA
3.0-3.4	855	0.6	0.0	SAA

910 Calibrate ^{Mini} MultiRAE 3000 PID
Fresh air = 0.0 v
100 ppm Isobutylene = 99.5 v

⑨
Rite the Rain

915 Collect SED-DA-TB-03-073013 → 2 VOA's (LAN)945 Collect SED-DA-025(Glad) (Archive)
PID PIDDepth Time Description

0-0.5	945	0.1	0.0	SILT(ML), brown, saturated, root mass, no odor
0.5-1.0	950	0.1	0.0	SILT(ML), some CLAY, light brown, saturated, no odor
1.0-1.5	955	0.1	0.0	silty CLAY(CL), light brown, wet, no odor

1015 Collect SED-DA-024(Glad) (Archive)
PID PIDDepth Time Description

0-0.5	1015	0.1	0.0	SILT(ML), brown, saturated, trace organics, slight odor (organic)
0.5-1.0	1020	0.1	0.0	SILT(ML), brown, saturated, trace organics
1.0-1.5	1025	0.1	0.0	SAA
1.5-2.0	1030	0.2	0.0	SAA
2.0-3.0	1035	0.1	0.0	SAA

→ Conversation w/ Lisa Tomlinson, for chains. Depth beyond 1.5'

- Archive metals Lam
- B+B PAKs, extract and hold

XOM-Mayflower 7-30-13

Daniel Mays

1100 Collect SED-DA-020

Depth	Time	(Glad)	(Archive)
		PID	PID

Description

0-0.5	1100	0.2	0.0
-------	------	-----	-----

SILT(ML), brown, saturated, no odor

0.5-1.0	1105	0.3	0.0
---------	------	-----	-----

SAA, no odor

1.0-1.5	1110	0.1	0.0
---------	------	-----	-----

Silty CLAY(CL), light brown, soft, wet, no odor

1345 Collect SED-DA-BG-007

Depth	Time	PID	PID
-------	------	-----	-----

Description

0-0.5	1345	0.2	0.0
-------	------	-----	-----

SILT(ML), brown, saturated, trace organics, no odor 0-0.25', CLAY(CL), light brown, wet, trace organics 0.25-0.5'

1700 6 gallons Sediment IDW generated and disposed of in neighborhood

1705 Brian Lovgren - 4 coolers (Lancaster) to UPS
Ryan Lewis - 2 coolers (B+B) to Feder

1710 Off Site

DBM

Location Mayflower, ARDate 7-30-13Project / Client DARSP/COMSED-DA-BG-007

1300 Begin scoping out background locations for the north end of Lake Conway. Met Jason (Airboat operator) at Lawrence Landing.

1315 Begin boat ride to SED-DA-BG-007

1345 SED-DA-BG-007

Water Depth = 3.8'

Probe Depth = 3.0

Penetration Depth = 1.2 / 1.0

Recovery = 1.1 / 0.8

GPS Coordinates NAD83

N 34.99088

W 092.40414

1415 Off the Lake. Begin scoping locations for boat (ramps) to the north.

1500 Back at IC

Wednesday July 31, 2013

Weather: Clear 95°F

Location Mayflower, ARDate 7-31-13Project / Client DARSP/COMSED-DA-BG-011

0545 Onsite at IC and went over Health and Safety issues for the day.

0700 Waiting for Thunder storms to clear

0815 Got the OK to go out on Lake Conway for the collection of background Sediment locations.

0930 Set up on SED-DA-BG-011 located on north side of cove in Lake Conway

0945 SED-DA-BG-011

Water Depth = 1.0

Probe Depth = 3.1

Penetration Depth = 1.0 / 1.0

Recovery = 0.5 / 0.6

GPS coordinates NAD83

N 35.04942

W 092.41176

1000 Set up on SED-DA-BG-10 located on south side of cove.

16

Location Mayflower, ARDate 7-31-13Project / Client DARSP/COMSED-DA-BG-010 / SED-DA-BG-0081015 SED-DA-BG-010

Water Depth = 1.3

Probe Depth = 2.5

Penetration Depth = 1.0 / 1.0

Recovery = 0.7 / 0.7

GPS Coordinates: NAD 83

N 35.04678

W 092.41186

1100

Setup on SED-DA-BG-008

Water Depth = 3.8

Probe Depth = 4.2

Penetration Depth = 1.0 / 1.0 / 1.0 / 1.8 / 1.2

Recovery = 1.0 / 0.9 / 1.0 / 1.2 / 0.9 / 1.0

GPS Coordinates: NAD 83

N 35.02178

W 092.40728

collected extra volume for MS/MSD

Set up on SED-DA-BG-009

17

Location Mayflower, ARDate 7-31-13Project / Client DARSP/COMSED-DA-BG-0091145 SED-DA-BG-009

Water Depth = 1.6

Probe Depth = 5.0

Penetration Depth 1.3 / 1.8 / 1.2 / 1.3

Recovery = 1.1 / 1.2 / 1.0 / 1.1

GPS Coordinates: NAD 83

N 35.02400

W 092.41103

1210 Off of Lake Conway.

545 Safety Meeting

826 Calibrate MiniRAE 3000

Fresh air = 0.02 ppm
100 ppm Isobutylene = 99.6 ppm900 Collect SED-DA-EB-04-073113

2-VoAs (BCHC to ALS) 2-IL (B+B)

905 Collect SED-DA-TB-04-0731133-VoAs, Vocs (LAN) 1-500ml (LAN) (metals)
2-VoAs, Vocs (LAN)
in Terracene cooler945 Collect SED-DA-BG-011
(Glad) ~~(Glad)~~ (Archive)

Depth	Time	PID	PID
0-0.5	945	0.1	0.0

Description
Silty CLAY (CL), light brown, wet, slight odor, black mass (organic)

1015 Collect SED-DA-BG-010
(Glad) (Archive) (Archive)

Depth	Time	PID	PID
-------	------	-----	-----

0-0.5	1015	0.1	0.0
-------	------	-----	-----

Description

Silty CLAY (CL), light brown, wet, trace organics, slight odor

1100 Collect SED-DA-BG-008

Depth	Time	(Glad) PID	(Archive) PID
-------	------	------------	---------------

*0-0.5	1100	0.2	0.0
--------	------	-----	-----

Description
CLAY
silty (CL), light brown, trace organics, wet, slight organic odor (LAN)

* For MS/MSD collect extra: - 8-Terracene vials - FULL Archive, comment on chain (B+B) - 2-8oz PAHs TEH - 1-4oz PCRA metals (LAN) (ALS) - 1-8oz BC/TC

1145 Collect SED-DA-BG-009

Depth	Time	(Glad) PID	(Archive) PID
-------	------	------------	---------------

0-0.5	1145		
-------	------	--	--

Description
CLAY (CL), brown, trace organics, no odor, soft, wet

Collect SED-DA-DUP-03-073113 Fill
4-Terracene vials 1-8oz PAH+TEH
1-4oz metals 1-8oz BC/TC

1630

2 coolers to Lancaster (UPS)
1 cooler BrB (Fedex)
1 cooler ALS (Fedex)

1635

6 gallons of sediment IDW
4 trash bags of PPE disposed of in Cove rolloff

1700

offsite

DBM

645 Safety Meeting

800 Storage locker to prep coolers for day's sampling

950 Set up on SO-DA-012 N 34.9647 - 92.4223

Depth	Time	PID	PID	Description
0-0.5	950	0.5 0.5		CL Sandy Clay, reddish brown, no odor, trace organics
0.5-1.0	955	0.2	0.2	CL Sandy Clay, reddish brown, low plasticity, no odor trace organics
1.0-1.5	1000	0.3	0.1	CL Sandy Clay, reddish brown, low plas, no odor Bottom half: Clay, gray, high plasticity Very soft, dry - slightly moist

830 Calibrate PID MiniRAE3000

Fresh air = 0.0 ppm

Cal Isobutylene 100 ppm = 100.3 ppm

N. 34.9644 W-92.4220

1050 Setup on SO-DA-013

Soil Description

Depth	Time	PID	PID	
0-0.5	1100	0.	0.1	CL Silty Clay, trace fine grain sand, reddish brown, gray, no plasticity, no odor, no sheen, trace organics
0.5-1.0	1105	0.3	0.0	CL Silty Clay, some sand, fine grain, reddish gray, low plasticity, soft, no sheen, no odor, organics
1.0-1.5	1110	0.3	0.0	CL Silty Clay, trace fine sand, reddish gray, low-med plasticity, soft no odor, no sheen, trace organics

Setup on SO-DA-014 - GPS -
SO-DA-Dup-01-080113

Depth	Time	PID	PID	Description
0-0.5	1200	0.6	0.6	CL Silty Clay, light brown medium plasticity, very soft no odor, organics

XOM - Mayflower Pipeline Incident

8/1/13

Daniel Mays

SO-DA-Dup-01-080113

SO-DA-014 - GPS -

Depth	Time	PIV	PIV	Description
0.5-1.0	1205	0.3	0.1	(CL) Silty Clay, light brown, fine, soft, med-high plasticity, slightly moist, no odor
1.0-1.5	1210	0.2	0.1	(CL) Silty Clay, trace sand, light reddish brown soft, med-high plasticity, slight moist, no odor

Setup on -

SO-DA-015

Depth	Time	PIV	PIV	Soil Description
0.0-0.5 MS/MSD	1400	29.9 24.1	24.1	(CL/ML) - Silty Clay / Clayey silt, light brown, soft, low plasticity, no odor, organics
0.5-1.0	1405	1.4	4.9	(CL) - Silty Clay, reddish brown, soft soft, dry, no odor,
1.0-1.5	1410	0.8	1.9	CL/ML - Silty Clay / Clayey silt, reddish brown, soft, slightly moist, no odor, low plasticity

Trip Blank @ 15:30 - SO-DA-TB-01-080113
1600 - Back to IC

Location N. A. Flower, ARDate 8.2.13Project / Client DAKSP / XOMSED-DA-009

1400 Completed utility visual inspection of sampling area.

1415 SED-DA-009

No water present

Probe Depth: 3.0'

Penetration Depth: 2.0', 1.3'

Recovery: 1.3', 1.1'

GPS Coords: NAD83

N: 34.96483 W: 092.42290

Collected surficial grain size sample

1500 SED-DA-008

~~0.3' of water~~

~~Probe Depth: 2.5'~~

~~Penetration Depth:~~

~~Recovery:~~

~~GPS Coords: NAD83~~

* Abandoned DA-008 at end of day
could not remove core. Will try
again tomorrow *

Location Mannover, ARDate 8.3.13Project / Client DAKSP / XOMSED-DA-006 / SED-DA-007

0730 Arrived on site removed and removed
core from previous day

0745 SED-DA-008 → MS/MSD

0750 No water present

0755 Probe Depth: 1.0'

Penetration: 1.3

Recovery: 1.1'

N: 34.96472

GPS Coords: NAD83 W: 092.42332

1.5' sample collected with hand auger due
to hardness of material.

* Extra 0.0-0.5 collections made via
hand auger for MS/MSD

0900

0905 SED-DA-007 → SED-DA-DOP-04-

020313

0905 0.3' Water depth

0910 Probe Depth: 1.0'

Penetration Depth: 2.0'

Recovery 1.0'

N: 34.96465

GPS Coords: NAD83 W: 092.42382

* 1.5' sample collected with hand auger
due to material hardness; collected surficial
* DOP-04 collected from this location

XOM - Mayflower Pipeline Incident 8/2/13 Jonathan Flanorfelt

545-640 - H+S Meeting

715-800 - Storage Locker prep

800 - Setup @ SO-DA-011

calibrate Min. Rac 3000

Fresh air = 0.0 ppm

Isobutylene 100 ppm = 99.5 ppm

SO-DA-011

GPS N: 34.96487

W: 092.42292

Depth	time	PID-Glad	PID-Archive	Soil Description
0.0-0.5	810	0.0	2.0	CL Silty Clay 3-40% silt content, light brown soil, low plasticity, dry, no odor, some organics
Composite ms/MSD				
0.5-1.0	815	0.1	0.0	ML - Clayey Silt, fines, no plasticity, dry, soil, brown/reddish brown, no odor, trace organics
1.0-1.5	820	0.0	0.0	CL/ML - Silty Clay / Clayey silt, low plasticity, dry, soil, light brown, no odor, no organics

915 - Setup @ SO-DA-016

GPS:

Dup SO-DA-Dup-02-080213

Depth	time	PID-Glad	PID-Arc	Soil Description
0.0-0.5	920	0.0	1.8	ML - Clayey Silt, no plasticity, dry, soil, light-red brown, no odor, some organics
0.5-1.0	925	0.0	0.0	ML - Silt, some clay, no plasticity, dry, soil, light brown/beige, no odor, no organics
1.0-1.5	930			ML - Silt, little clay, no plasticity, dry soil, beige, no odor, no organics

8

Setup @ SO-DA-09

GPS:

Depth	Time	PID-Glad	PID-Arc	Soil Description
0.0-0.5	1000	0.3	0.0	CL - Clay, some silt, high plasticity, slightly damp, brown, no odor, some organics

Continued next page

SO-DA-09

GPS

Depth

Time

PID-Glad

PID Archive

Soil Description

0.5-1.0

1005

0.1

0.0

CL - Clay, some silt, med plasticity, dry, brown/reddish, no odor, trace organic

1.0-1.5

1010

0.1

0.0

CL - Clay, with silt, med plasticity, silt, ~~gray~~ / reddish brown, no odor,

SO-DA-08

GPS:

Depth

Time

PID Glad

PID Arc

Soil Description

0.5-0.5

1030

1.4

1.4

ML - silt, some clay, low plasticity, whew, dry, beige, no odor, trace organics

0.5-1.0

1035

0.3

0.0

CL - Clay, some silt, low-med plasticity, dry, gray/brownish, no odor

1.0-1.5

1040

0.2

0.0

CL Clay - SAA

SO-DA-07

GPS:

Depth

Time

PID Glad

PID Arc

Soil Description

0-0.5

1100

0.0

0.0

CL - Clay, some silt, med plasticity, dry, very soft, gray/light brown, no odor

0.5-1.0

1105

CL - Clay SAA

1.0-1.5

1110

CL - Clay SAA - w/reddish color

1300 Collect SO-DA-EB-01-0802131330 Collect SO-DA-TB-02-080213~~1335 Collect SO-DA-TB-03-080213~~

Continued

XOM Mayflower Pipeline Incident

8/2/13

Jonathan Flomberg

SED-PA-009

Depth	Time	PID-L	PID-A	Description
0-0.5	1415	0.3	0.0	CL - Clay, silty clay, stiff ^{med} plasticity, soft, moist, no odor
0.5-1	1420	0.1	0.0	CL - Clay SAA
1-1.5	1425	0.0	0.0	ML - silt, silty clay, low plasticity, stiff, dry, no odor

Location MAFLOWER, ARDate 8.2.13Project / Client DAESP / XOMSED-DA-009

1400 Completed utility visual inspection of sampling area.

1415 SED-DA-009

No water present

Probe Depth: 3.0'

Penetration Depth: 2.0', 1.3'

Recovery: 1.3', 1.1'

GPS Coords: NAD83

N: 34.96483 W: 092.42290

Collected surficial grain size sample

1500 SED-DA-008

~~0.3' of water~~

~~Probe Depth: 2.5'~~

~~Penetration Depth:~~

~~Recovery:~~

~~GPS Coords: NAD83~~

* Abandoned DA-008 at end of day
could not remove core. Will try
again tomorrow *

Location MAFLOWER, ARDate 8.3.13Project / Client DAESP / XOMSED-DA-008 / SED-DA-007

0730 Arrived on site removed and removed
core from previous day

0745 SED-DA-008 → MS/MSD

0750 No water present

0755 Probe Depth: 1.0'

Penetration: 1.3

Recovery: 1.1'

N: 34.96472

GPS Coords: NAD83 W: 092.42332

1.5' sample collected with hand auger due
to hardness of material.

* Extra 0.0-0.5 collections made via
hand auger for MS/MSD

0900

0905 SED-DA-007 → SED-DA-DOP-04-
020313

0905 0.3' Water depth

0910 Probe Depth: 1.0'

Penetration Depth: 2.0'

Recovery 1.0'

N: 34.96465

GPS Coords: NAD83 W: 092.42382

* 1.5' sample collected with hand auger
due to material hardness; collected surficial
* DOP-04 collected from this location

Location MAYFLOWER, ARDate 8.3.13Project / Client DARSP / YOMSED-DA-006

1030

SED-DA-006

1035

0.3' Water Depth

1040

Probe Depth: 1.0'

Penetration: N/A

Recovery: ~~N/A~~ +5'

GPS Coords: NAD 83 N: 34.96466

W: 092.42429

Havo Auger to depth of 1.5'

Collected surficial

1130

SED-DA-005

1135

0.5' Water Depth

1140

Probe Depth: 1.2'

Penetration: N/A

Recovery: ~~N/A~~ +5'

GPS Coords: NAD 83 N: 34.96448

W: 092.42480

Havo Auger to depth of 1.5'

Collected surficial

Location MAYFLOWER, ARDate 8.3.13Project / Client YOM / DARSPSED-DA-010SED-DA-011

1410

SED-DA-010

1415

0.3' Water Depth

1420

Probe Depth 0.3'

Penetration: N/A

Recovery: +5' N/A

GPS Coords: NAD 83 N: 34.96482

W: 092.42234

Havo Auger to depth of 1.5'

Collected surficial

1430

SED-DA-011

1435

0.2' Water depth

1440

Probe depth: 0.4'

Penetration: N/A

Recovery: +5' N/A

GPS Coords: NAD 83 N: 34.96491

W: 092.42206

Havo auger to depth of 1.5'

XOM Mayflower Pipeline Incident

8/3/13

Jonathan Flanitsky

545-1145 Meeting

700 prep for Sediment Sampling at Storage

730 - Pull SED-DA-008 - Core collapsed - no sample
PID Calibrated - Fresh air 0.0 Isobutylene = 99.5

Hand Auger SED-DA-008 - ms/msd

Depth	Time	PID-Glad	PID-Archive	Soil Description
0.0-0.5	745	0.0	0.0	CL- Clay, trace silt, medium plasticity, dry, buff, light gray, no odor
0.5-1.0	750	0.0	0.0	CL- Clay - SAA, dry, no odor

1.0-1.5 755 0.0 0.0

GPS: N. 34.96472 W-92.42332

830- Attempt to push lexane @ SED-DA-007

Penetration - 2'

Recovery - Less than 1' - will Hand Auger SED 007 and the rest of the samples

Hand Augered

850- Setup on SED-DA-007

GPS: N: 34.96465 W-92.42382

Dup - SED-DA-Aug-04-080813

- NO PHOTOS

Depth	Time	PID Glad	PID Archive	Soil Description
0-0.5	9:00	0.3	1.1	CL- Clay, trace silt, medium plasticity, medium stiff, moist, light gray, no odor
0.5-1.0	9:05	1.4	3.8	CL- Clay, trace silt + coarse sand, medium plasticity, soft, moist, light gray/brown, no odor
1.0-1.5	9:10	1.2	3.8	ML/CL - Silty Clay - wet from water above the boring - trace sand, soft, light gray/brown, no odor

Setup next location 1020

Hand Auger - SED-DA-006

GPS: N. 34.96460 W-92.42429

Depth	Time	PID Glad	PID-Arch	Soil Description
0-0.5	1030	0.3	0.2	CL- Clay, some silt, no plasticity, dry, soft, gray/brown, no odor
0.5-1.0	1035	0.7	0.0	CL- Clay, trace silt, medium plasticity, dry, soft, no odor
1.0-1.5	1040	0.3	0.0	CL- Clay SAA

Continued →

XOM Mayflower Pipeline Incident 8/3/13 J. Flomerfelt

1115 - Setup on next location - SED-DA-005

GPS: N: 34.96448 W: -92.424804

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1130	0.9	0.3	CL - Clay, trace silt, medium plasticity, dry-moist, soft, no odor, light brown/gray
0.5-1.0	1135	0.3	0.0	CL - Clay, some silt - SAA
1.0-1.5	1140	0.3	0.1	CL - Clay, trace silt - SAA

1350 - Setup on SED-DA-010 - Hand Augered

GPS: N: 34.964822 W: -92.422343

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1410	0.2		CL - Clay, sandy clay, some sand, medium plasticity, soft, no odor, brown, reddish brown, moist-wet
0.5-1.0	1415	0.1		CL - Clay, sandy clay SAA
1.0-1.5	1420	0.2		CL - Clay, sandy clay SAA

SED-DA-010 - Lexane attempt - ~~1.5' penetration~~

0.3' - Water Depth

Probe Depth - 0.3'

Penetration: ~~1.5'~~

Recovery: NA

Collect DA-010 + DA-011 w/ Hand Auger

1450 - Setup @ SED-DA-011

GPS: N: 34.96491 W: -92.42206

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1500	0.3	0.0	CL - Clay, some sand, soft, low plasticity, gray, moist, no odor
	1505			
0.5-1.0	1505	0.3	0.1	SC/CL - Clayey Sand, clayey sand, soft, fine grain sand, low plasticity, wet, no odor
1.0-1.5	1510	0.1	0.0	SC - Clayey Sand - SAA

1600 - Over to Storage to drop off Samples & process

1630 Collect SED-DA-EB-05-0803131640 Collect SED-DA-TB-05-080313

1645 - Head back to IC

4 coolers - Lancaster (Hold)

2 coolers - B+K (Hold)

2 coolers - ALS (Hold)

1730 - offsite

17

645 - I.C. for H+S Meeting - Discuss "Why Tree!" for Loss Inv

800 - Pack up and prep at storage

- per R.P. email - collect last of DA. 30GE and SED-BG

PID calibrated @ 915 - FA-0.0 Iso - 99.8

830 - Setup @ SED-DA-012 Attempt to core unsuccessful - Hand Augered

GPS: 34.96501 W: -92.421802

Depth	Time	PID-Clad	PID-Archive	Soil Description
-------	------	----------	-------------	------------------

0-0.5	930	0.3	0.0	CL - Sandy Clay, fine sand, trace silt, soft, moist, low plasticity, ruddy brown, no odor
-------	-----	-----	-----	---

0.5-1.0	935	0.2	0.3	CL - Sandy Clay - SAA
---------	-----	-----	-----	-----------------------

1.0-1.5	940	0.1	0.0	CL - Sandy Clay - SAA
---------	-----	-----	-----	-----------------------

Setup @ SED-DA-013 Attempt to core unsuccessful - Hand Augered

GPS:

Depth	Time	PID-Clad	PID-Archive	Soil Description
0-0.5	1015	0.3	0.1	CL - Clay, some sand, fine grain sand, moist-wet, med-hi plasticity, red brown no odor, trace organics

0.5-1.0	1020	0.2	0.2	CL - SAA - Clay
---------	------	-----	-----	-----------------

1.0-1.5	1025	0.4	0.0	CL - Clay - SAA
---------	------	-----	-----	-----------------

SED-DA-BG-004 - collected by D. Drost

GPS:

0-0.5	950	0.2	0.0	CL - Clay, some silt, soft, moist, med-high plasticity, dark brown, no odor
-------	-----	-----	-----	---

Continued →

Location MAYFLOW, AR

Date 8.4.13

Project / Client DASP / XOM

SED-DA-BG-006

0930

SED-DA-BG-006

Collected 0.5' sample

GPS Locos: NAD83 N: 34.96209
W: 092.42110

0950

SED-DA-BG-004

Collected 0.5' sample

GPS Locos: NAD83 N: 34.96512
W: 092.42275

0955

SED-DA-BG-003

Collected 0.5' sample

GPS Locos: NAD83 N: 34.96329
W: 092.42292

Location MAYFLOW, AR

Date 8.6.13

Project / Client DASP / XOM

SED-DA-016

1045

SED-DA-016

1050

1055

5 pt. Composite

GPS: NAD83

N: 34.96490

W: 092.41975

1120

SED-DA-017

1125

1130

5 pt. Composite

GPS: NAD83

N: 34.96531

W: 092.419635

1320

SED-DA-018

1335

1340

5 pt. Composite

GPS: NAD83

N: 34.96586

W: 092.419638

Dawson Cove channel sed GPS loc's.

SED-DA-014 N: 34.96484

W: 092.42021

SED-DA-015 N: 34.96497

W: 092.41968

SED-DA-016 N: 34.96524

W: 092.41930

SED-DA-017 N: 34.96533

W: 092.41893

SED-DA-039 N: 34.96554

W: 092.41815

~~SED-DA-005~~930- SED-DA-BG-005 - collected by D. Drost
GPS

Depth	Time	PIV	PIV
0-0.5	930	0.2	0.0

Soil Description
CL-Clay, some silt, soft, med-
h. plasticity, dry-moist, no odor

SED-DA-BG-006 - collected by D. Drost

Depth	Time	PIV	PIV
0-0.5	955	0.2	0.0

CL-Clay, medium stiff,
low plasticity, dry, no odor

Process SED-DA-BG 004-006 at once

1200 - SED-DA-TB-06-080413

1250 - ~~work for~~ lunch - Package coolers for Southwest Shipment

1330 - 7 Coolers - Lancaster (Southwest)
 3 Coolers - BTB (Hold)
 2 Coolers - AHS (Hold)

1430 - Drive to SWA - Property in Little Rock
 IDW - 1 Trash bag - 3 gallons Sediment
 2 PPE Bags 4 gallons - Decon

XOM Mayflower Danny Mays 7-26-13

545 Safety Meeting

700 Set up survey on control point
#102

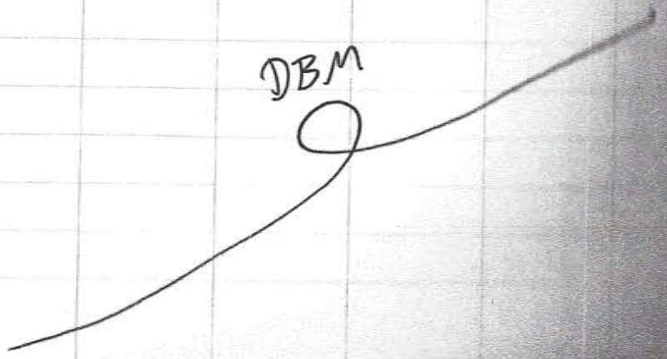
920 Jeffy - boat clearing
573-820-2020

1100 Survey and inspect utilities in
Lake Conway + N Dawson's Cove

1315 Begin purchasing supplies from
Grainger and Home Depot to
get sampling

1600 JSA review w/ Ken Jacobs and
Chuck Webster

DBM



XOM-Mayflower Danny Mays 8-5-13

930 SED-DA-014

Probe 1.5' GPS:
Penetrate 2'
Recover 1.0'

toily when rises to surface after
disturbing mud.

945 SED-DA-015

Probe 2.0' GPS:
Drive 2.0'
Recover 1.5'

1210 SED-DA-016

Probe 1.5' GPS?
Drive 1.5'
Recover 1.0'

1240 SED-DA-017

Probe 2' GPS:
Drive 2'
Recover 1.0'

1300 End of day

XOM Magflower Pipeline Incident
545- Ht S Meeting - review why tree of gas line loss

8/5/13

Jonathan Flamerfelt

645- prep gear @ Storage

- Rec R.P. email start at Parsons Cove

- Danny Mays + Ryan Lewis advance cores while Dave Probst completes Survey of locations

800- PID Calibrated =

830 - Setup and advance : SED-DA-014
GPS

- First attempt very little recovery - little suction in the cores - loose material

945 Collect SED-DA-014 1.0' max recovery

<u>Depth</u>	<u>Time</u>	<u>(Col'd)</u>	<u>(Archive)</u>	<u>Description</u>
		<u>PID</u>	<u>PID</u>	
0-0.5	945	0.2	0.0	clayey SAND, brown, fine grained, no odor
0.5-1.0	950	0.1	0.0	sandy CLAY (CL), reddish brown, low plasticity medium, no odor.

1115 - Setup + Collect SED-DA-015 - collected @ 1130 - 1.5' Recovery
GPS:

<u>Depth</u>	<u>Time</u>	<u>PID (Col'd)</u>	<u>PID (Archive)</u>	<u>Description</u>
0-0.5	1130	18.9	33.1	CL - Sandy clay, soft, wet, no plasticity, HCO,
0.5-1.0	1135	13.9	13.1	CL - Sandy clay, soft, wet, low plasticity, reddish brown, slight HCO
1.0-1.5	1140	0.4	0.8	CL - SAA

1200 - Setup @ SED-DA-016 and -017
minimal recovery on Both samples

~~1215~~ - 1230 - collect SED-DA-016 - recovery - 1' Penetration - 1.5'
1245 - collect SED-DA-017 - Recovery - 1' Penetration - 1.5'

XOM Mayflower Pipeline Incident

8/5/13

Jonathan Flamerfelt

Humidity Index @ 110°

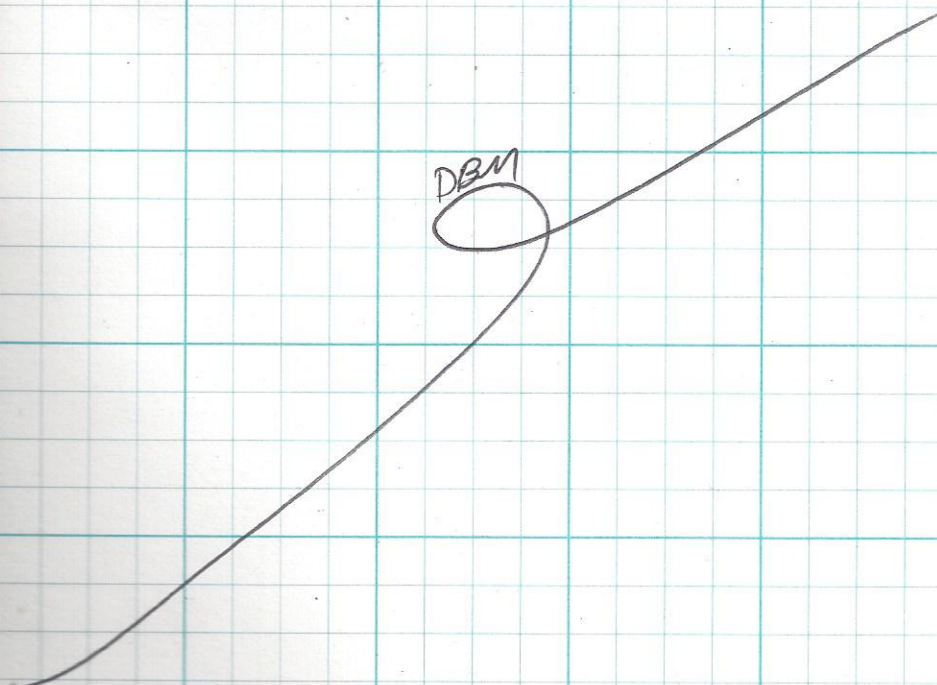
Depth	Time	PID-Glad	PID-Archive	Description
1230 - SED-DA-016			GPS:	
0-0.5	1230	0.1	0.1	CL - Sandy Clay, Very soft, wet, low plasticity, brown, 80% organics
0.5-1.0	1235	0.3	0.0	CL - SAA

Depth	Time	PID-Glad	PID-Archive	Description
1245 - SED-DA-017			GPS	
0-0.5	1245	0.4	0.0	CL - Silty Clay, soft, wet, low plasticity, brown, no odor
0.5-1.0	1250	7.9		CL - Silty Clay - SAA - Strong HCO

1600 SED-DA-TB-07-~~08~~ ~~09~~

1610 3 gallons IDW soil produced
1 trash bag PPE

1730 Off site



Location MAYFLOW, AR
 Project / Client DASP / XOM
 SED-DA-BG-006

Date 8.4.13

0930

SED-DA-BG-006

Collected 0.5' sample
 GPS Locos: NAD83 N: 34.96209
 W: 092.42110

0950

SED-DA-BG-004

Collected 0.5' sample
 GPS Locos: NAD83 N: 34.96512
 W: 092.42275

0955

SED-DA-BG-003

Collected 0.5' sample
 GPS Locos: NAD83 N: 34.96329
 W: 092.42292

Location MAYFLOW, AR
 Project / Client DASP / XOM
 SED-DA-016

Date 8.6.13

1045
1050
1055

SED-DA-016

5 pt. Composite

GPS: NAD83
 N: 34.96490
 W: 092.41975

1120
1125
1130

SED-DA-017

5 pt. Composite

GPS: NAD83
 N: 34.96531
 W: 092.419635

1320
1335
1340

SED-DA-018

5 pt. Composite

GPS: NAD83
 N: 34.96586
 W: 092.419638

Dawson Cove channel sed GPS loc's.

SED-DA-014 N: 34.96484
 W: 092.42021
 SED-DA-015 N: 34.96497
 W: 092.41968
 SED-DA-016 N: 34.96524
 W: 092.41930
 SED-DA-017 N: 34.96533
 W: 092.41893
 SED-DA-039 N: 34.96554
 W: 092.41815

24

Location MAYFLOWER, AC Date 8.6.13Project / Client DAESP / XOMSEA-DA-040 N. 34.96587
W 092.41811

25

Date

Project / Client

XOM-Mayflower

Dammy Maps

800 SED-DA-039

Probe 2'

MS/MSD = 5000

Drive 2'

Recover 1.5'

100

SED-DA-040

Probe 2'

GPS

Drive 2'

Recover 1.5'

Yam Mayflower Pipeline Incident

8/6/13

545 - Onsite H+S

- Jessica Guerte on site

0700 - Setup to collect SED-DA-039
GPS:

SED-DA-039

Depth	Time	PID-Glad	PID-Archive	Description
0.0-0.5 MS/MSD	0800	1.7	1.0	CL - Silty Clay, Satt, wet, some silt, medium plasticity, no odor, brown
0.5-1.0	805	3.1	26.4	CL - Silty Clay - SAA
1.0-1.5	810	3.8	4.9	CL - SAA

SED-DA-TB-08-080613 - 0800

SED-DA-EB-06-080613 - 0800

Setup + Collect SED-DA-040 + Dup - SED-DA-Dup-05-080613 (0-05)
@ 0900 SD-DA-040

Depth	Time	PID-Glad	PID-Archive	Description
0-0.5 Dup-05	0900	0.0	0.1	CL - Clay, trace silt, wet, medium-high plasticity medium stiff
(0.5-1.0)	905	0.2	0.1	CL - Clay SAA - light brown
1.0-1.5	910	0.3	0.0	CL - Clay SAA

1000 Setup + collect SO-DA-016

1045 - collect SO-DA-016 GPS: 34.96490 W: -92.41975

Depth	Time	PID Glad	PID Archive	Description
0-0.5	1045	0.1	0.3	CL - Clay, Silty Clay, moist, low plasticity, medium stiff, some organics, no odor, reddish brown

Xom Mayflower Pipeline Incident 8/6/13 Jonathan Flamerfelt

SO-DA-016		PID-Glob		PID-Archive		Description
Depth	Time					
0.5-1.0	1050	0.1		0.0		CL-Silty clay SAA
1.0-1.5	1055	0.2		0.0		CL-Clay, silt, medium plasticity trace organics, no odor
SO-DA-017 collected @ 1120						
Depth	Time	PID-Glob	PID-Arch	Description		
0.0-0.5 ms/msd	1120	3.6	0.5	CL-Clay, some silty, silt, no plasticity, some organics, dk brown, no odor, dry		
0.5-1.0	1125	0.3	0.0	CL-Clay SAA		
1.0-1.5	1130	0.0	0.0	CL-Clay, silt, medium plasticity, moist, lt brown, no odor		
GPS: N: 34.96531 W: -92.419635						

1300 - Setup + Collect SO-DA-018 + Dup - SO-DA-Dup-03-080613
1330 - collected SO-DA-018 (0-0.5)

Depth	Time	PID-Glob	PID-Arc	Description
0-0.5	1330	0.8	0.0	CL-Clay, soft-medium stiff, med-hi plasticity, moist, red/brown, no odor
0.5-1.0	1335	0.1	0.1	CL-Clay, some silt, soft, dry, low plasticity, brown/gray, no odor
1.0-1.5	1340	0.0	0.0	CL-Clay SAA
GPS: N: 34.96586 W: -92.419638				

545 - on site H+S Meeting - Review Driving, Heat, Heat'

6700 - Setup to collect SO-DA-020
GPS: N 34.96532 W-92.41830

Depth	Time	PID-Clad	PID-Archive	Soil Description
0-0.5	730	0.3	0.6	CL - Clay, trace silt, medium stiff, Med-high plasticity, slightly moist, organics, no odor, dk brown
0.5-1.0	735	0.1	0.0	CL - Clay, trace silt, soft, low plasticity, lt brown/gray, dry, some organic, no odor
1.0-1.5	740	0.1	0.0	CL-SAA - dry

730 - PID Calibrated Fresh air = 0.0
Isobutylene = 100.1

800 Setup and collect SO-DA-22
GPS: N-34.96532 W-92.417633

815 Collected SO-DA-22

Depth	Time	PID-Clad	PID-Archive	Soil Description
0-0.5	815	15.5	19.8	CL - Clay, soft, dry, no plasticity, reddish brown, no odor

Collect SO-DA-Dup-04-080713 (0-0.5) - 815

0.5-1.0	820	3.3	2.1	CL-SAA
1.0-1.5	825	0.3	0.1	CL-SAA - light brown

830 - Setup + Collect SO-DA-025
GPS: N-34.965~~308~~10 W-92.416965

Continued →

SO-DA-025

Depth	Time	PID-Glnd	PID-Archive	Soil Description
0-0.5	840	0.4		CL-Silty Clay, soft, moist, med plasticity, gray/brown, no odor
0.5-1.0	845	0.1		CL-Clay, trace silt, dry-moist, med plasticity, reddish brown, no odor
1.0-1.5	850	0.3		CL-SAA

945 Setup to collect SO-DA-032

GPS: N:34.96540 W:-92.415715

Depth	Time	PID-Glnd	PID-Archive	Soil Description
0-0.5	1000	0.0	0.0	CL-Clay, some silty, soft-medium stiff, dry-moist, med plasticity, brown, no odor
			0.0	
0.5-1.0	1005	0.2		CL-Clay, soft, wet, high plasticity, brown/reddish brown, no odor
1.0-1.5	1010	0.1	0.0	CL-SAA

SO-DA-EB-02-080713 - 1110

SO-DA-TB-04-080713 - 1120

1200- 4 gallons Soil IDW
2 Trash PPE
1 Trash

3 coolers Lancaster (Hold)
1 Cooler B+13 (Hold)
1 Cooler ALS (Hold)

1245 off site

545- HHS Meeting - Review trip hazards, Use of ATV for Site locations

0700- Prep Dart Samples + others in Storage

0730- Setup to collect SO-DA-019

0800- PID Calibrated -

0-0.5 - collect ms/msd

GPS: N:34.96587 W:-92.41897

Fresh Air = 0.0

Tso butylen = 100.3

Depth	Time	PID-Read	PID-Archive	Soil Description
0-0.5	745	7.1	1.0	CL- Clay, trace silt, stiff, no plasticity, dry, some organic, no odor
0.5-1.0	750	0.1	12.3	CL- Clay - SAA
1.0-1.5	755	0.1	1.0	CL- Clay SAA
1.5-2.0	800	0.2	0.0	CL- Clay SAA
2-3.0	805	0.0	0.2	CL- Clay SAA, low plasticity
3.0-4.0	810	0.2	0.0	Slightly moist CL Clay - SAA

~~850~~ - 815 - Setup + Prep Dart Installations

① SO-DA-019, 021, 023

SO-DA-019 DART - 835 - 4.5'

SO-DA-021 DART - 855 - 4.5'

SO-DA-023 DART - 905 - 4.3'

900 Setup on SO-DA-021

Depth	Time	PID-Read	PID-Archive	Soil Description
0-0.5	910	2.5	0.2	CL- Clay, Some silt, stiff, light brown no plasticity, dry, organics, no odor
0.5-1.0	915	3.2	3.8	CL- Clay SAA - reddish brown
1.0-1.5	920	0.3	0.3	CL- Clay - SAA
1.5-2.0	925	0.2	0.1	CL- Clay SAA

Continued →

Yon H-flower Pipeline Incident

8/8/13 J. Flamerfelt

~~So-DA-021~~ So-DA-021 continued

Depth	Time	PID-G	PID-A	Description
2-0-30	930	0.1	0.0	CL-Clay-SAA - moist

30-40	935	0.1	0.0	CL-Clay, soft, wet, high plasticity, light brown, no odor
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So-DA-021 - GPS: N: 34.96587 W: -92.418303

945 - Setup and collect So-DA-023

GPS:

Depth	Time	PID-Glad	PID-Archim	Soil Description
0-0.5	1000	2.1	0.2	CL-Clay, soft-medium stiff, low plasticity, brown, moist, no odor

So-DA-023 - GPS: 080813

0.5-1.0	1005	0.3	0.0	CL-Clay SAA
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1.0-1.5	1010	0.1	0.2	1.0-1.5 - Clay SAA
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LL-Clay, soft, high plasticity, brown, moist-wet, no odor

1.5-2.0	1015	0.3	0.1	CL-Clay
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2.0-3.0	1020	0.1	0.1	CL-Clay, stiff, dry, no plasticity
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grayish brown, no odor

3.0-4.0	1025	0.1	0.0	CL-Clay - SAA
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1035 - Setup + collect So-DA-024

GPS:

Depth	Time	PID-G	PID-Arc	Soil Description
0-0.5	1050	0.1	0.3	CL-Clay, medium stiff, no plasticity, dry, red/rusty, no odor

0.5-1.0	1055	0.0	0.0	CL - SAA
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1.0-1.5	1100	0.1	0.0	CL - SAA
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1120 - Setup + collect So-DA-027

Continued →

Xom mayflower Pipeline Incident

8/8/13

Jonathan Flomerfelt

SO-DA-027

Depth	Time	PID-Glad	PID-Nachre
0.0-0.5	1130	0.3	0.4

Soil Description

CL-Clay, medium stiff, trace silt,
no plasticity, organics, no odor

0.5-1.0	1135	0.0	0.0
---------	------	-----	-----

CL-Clay, soft, medium plasticity,
reddish brown, moist, no odor

1.0-1.5	1140	0.2	0.0
---------	------	-----	-----

CL-Clay - dry

SO-DA-TB-05-080813 1405

SO-DA-TB-06-080813 1410

SO-DA-EB-03-080813 @ 1400

1500 - Pack coolers & ice for Shipping

Lancaster - 8 coolers

B+B - 2 coolers

ALS - 1 cooler

26

Location MMFLOWEE, ARDate 8.8.13Project / Client DARSP / XOMSO-DA-024 / SO-DA-0271100 SO-DA-024

1105 0-0.5, 0.5-1.0, 1.0-1.5

1110

1130 SO-DA-027

1135 0-0.5, 0.5-1.0, 1.0-1.5

1140

27

Location MMFLOWEE, ARDate 8.9.13Project / Client DARSP / XOM0840 Arrived @ site along Dam Rd.
began loading boat.0910 SED-DA-045 → DART Deploy
GPS Coords: NAD 83 N: 34.96570
W: 092.41635

Depth of water: 0.75'

Deploy depth: 4.5'

0920 SED-DA-052 → DART Deploy
GPS Coords: NAD 83 N: 34.96654
W: 092.41505

Depth of water: 0.90'

Deploy depth: 4.75'

0935 SED-DA-018 → DART Deploy
GPS Coords: NAD 83: N 34.96678
W 092.41436

Water Depth: 1.4'

Deploy Depth: 4.5'

0940 SED-DA-019 → DART
GPS Coords: NAD 83 N: 34.96733
Water Depth: 2.1' W: 092.41370
Deploy Depth: 4.5

Location Mayflower, ARDate 8.9.13Project / Client DARSP / XOM

0950

⁰²³
SED-DA-023→ Net DeployGPS Coords: NAD 83 N: 34.96750W: 092.41431Water Depth: 1.5'Deploy depth: 4.5'

1000

⁰²²
SED-DA-022→ Net DeployGPS Coords: NAD 83 N: 34.96793W: 092.41324Water Depth: 3.5'Deploy depth: 3.3'

* Lost the slide hammer @ this location

1035

⁰²⁴
SED-DA-023→ Net DeployGPS Coords: NAD 83 N: 34.96711W: 092.41432Water Depth: 1.4'Deploy depth: 4.0'Location Mayflower, ARDate 8.9.13Project / Client DARSP / XOM

1235

SED-DA-021→ Deep CoreWater Depth: 1.4'Probe Depth: 3.5'Penetration: 4.0, 5.0Recovery: 2.0, 3.3GPS Coords: NAD 83 N: 34.96850W: 092.41432

* Collected 0-2.0' @ 1100

1400

SED-DA-042Water Depth: 1.7'Penetration: 2.0' 3.0' (DBM)Recovery: 2.0'GPS Coords: N 34.96649W 092.41409

0545 - HHS Meeting - Review recent NLS

0700 - prep at storage formulate plan for the day

0800 - D. Probst, J. Geretz, D. Mays - out on airboat -

Deploy all DART Samples that remain

- Collect Deep Cores from SED-DA-052 + 045 after Deployment

950 - PID Calibrated

Fresh air = 0.0 Iso = 99.7

1005 - SED-DA-TB-09-080913

1015 - SED-DA-ER-07-080913

1235 - Collect SED-DA-021 (0-3.3')

Depth	Time	PID	PID	Soil Description
0-0.5	1235	0.5	0.5	ML, Md Silt, some clay, soft, some organic, moist-wet, brown/black, some odor
0.5-1.0	1240	0.5	0.5	CL - Clay, trace silt, soft, wet, low-med. plasticity, gray, no odor
1.0-1.5	1245	0.6	0.4	CL - Clay SAA
1.5-2.0	1250	0.4	0.3	CL - Clay SAA
2.0-3.0	1255	0.3	0.2	CL - Clay, medium stiff, high plasticity, moist, gray/red, no odor
3-3.3	1300	0.4	0.2	CL - Clay, stiff, low plasticity, moist-dry, brown/grayish red, no odor

Penetration - 5.6'

Recovery - 3.3'

1345 - Collect SED-DA-042

Collect ms/msd - 0-0.5

Penetration - 2.5'

Recovery - 2'

Continued

XOM Mayflower Pipeline Incident

8/9/13

Jonathan Flomartfelt

1400-SED-DA-042

Collect ms/msb

Depth

Time

PID-Glad

PID Archive

Soil Description

0-0.5

1400

0.01

0.1

ML - Mud/Silt, soft, trace clay, black, some organic, organic odor,

0.5-1.0

1405

0.5

0.0

CL - Silty clay, soft, trace organics, low plasticity, organic odor, gray/black

1.0-1.5

1410

0.0

0.0

CL - Clay, soft-med stiff, medium plasticity, gray, slight organic odor

1530 - Pack coolers for Shipment

2 Coolers Lancaster

1 cooler B+B (Hold)

1 Cooler ALS (Hold)

IDW

-

8 gallons

Sediment

2 PPE Trash

1 Trash

1730 - off site

[Signature]

Mayflower, AR

Date 8-10-13

DARSP XOM

900

Set up on SED-DA-045

Water depth: 0.8'

probe depth: 2.0'

penetration: 2.5'

Recovery: 2.0'

GPS: on point w/ dart

N: 34.96588

W: 092.41630

930

SED-DA-052

Water depth: 0.9'

probe depth: 4.0'

penetration: 4.5'

Recovery: 2.0'

GPS: on point w/ dart

N: 34.96643

W: 092.41496

1040

SED-DA-018

Water depth: 1.25'

probe depth: 4.0'

penetration: 4.0'

Recovery: 2.0'

GPS: on point w/ dart

N: 34.96677

W: 092.41438

Mayflower, AR

Date 8-10-13

DARSP XOM

1115

SED-DA-019

Water depth: 1.9'

probe depth: 3.0'

penetration: 4.0'

Recovery: 2.5'

GPS: on point w/ dart

N: 34.96719

W: 092.41388

XOM Mayflower Pipeline Incident

8/10/13

Jonathan Flenerfelt

545 - On-site H&S Meeting Review - L/NL from dgt before
- DART Slide Hammer + Cracked driveway

645 - Prep + plan - J. Gwartz/Drost to pull DARTS
- D. Maxs / R. Lewis on the airboats for
deep cores SED-DA-045 + 052

815 - SED-DA-TB-010-081013

825 - SED-DA-EB-08-081013

830 - Satur to collect SED-DA-045

Penetration 2.5' GPS: N:34.96588 W:-92.41630
Recovery 1.0'

900 - SED-DA-045 - minimal Recovery

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	900	1.2	1.6	ML - Mud/silt, trace clay, 40% organic, black, odor sheen, wet
0.5-1.0	905	0.6	3.5	CL/ML, Clay, some silt, wet, silt, organics, HCO

920 - Setup to collect - SED-DA-052

Penetration - 4.5'

Recovery - 2.0'

GPS: N-34.96643

W:-92.41496

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	930	0.3	0.4	ML - Mud/silt, organics, trace clay, wet, silt, black, odor
0.5-1.0	935	0.4	0.2	CL - Silty Clay, silt, low plasticity, wet, gray/black, odor
1.0-1.5	940	0.0	0.1	CL - Clay, silty clay - SAA

Continued →

XOM Mayflower Pipeline Incident

8/10/13

Jonathan Flamerfelt

1020 - Setup + collect SED-DA-018 + SED-DA-Dup-06-081013

Penetration - 4.0'

Recovery - 2.0' - low recovery

GPS N: 34.966779 W: -92.414386

Depth	Time	PID Glad	PID - Archive	Soil Description
0-0.5 Dup - 06	1040	1.4	1.1	ML - Mud/Silt, trace clay, soft, wet, black, no HCO
0.5-1.0	1045	0.6	0.4	ML - SAA
1.0-1.5	1050	0.3	0.2	CL - Clay, some silt, wet, soft low plasticity, gray, no HCO
1.5-2.0	1055	0.4	0.5	CL - SAA

1105 - Setup + Collect SED-DA-019 + ms/msd

Penetration: 4.5'

Recovery: 2.5'

GPS: N: 34.96719, W: -92.41388

Depth	Time	PID - Glad	PID - Archive	Soil Description
0-0.5 ms/msd	1115	0.2	0.0	ML - Mud/silt, trace clay, organics, soft, wet, black, some odor
0.5-1.0	1120	0.3	0.1	ML - SAA
1.0-1.5	1125	0.4	0.0	CL - Clay, some silt, soft, wet, gray, low-med plasticity, no odor
1.5-2.0	1130	0.5	0.2	CL - Clay - SAA
2-2.5	1135	0.6	0.3	CL/ML - Clay/silt, very wet, soft no plasticity, gray, no odor

Continued →

XOM Mayflower Pipeline Incident

081013

Jonathan Flomerfelt

Dart Collection -

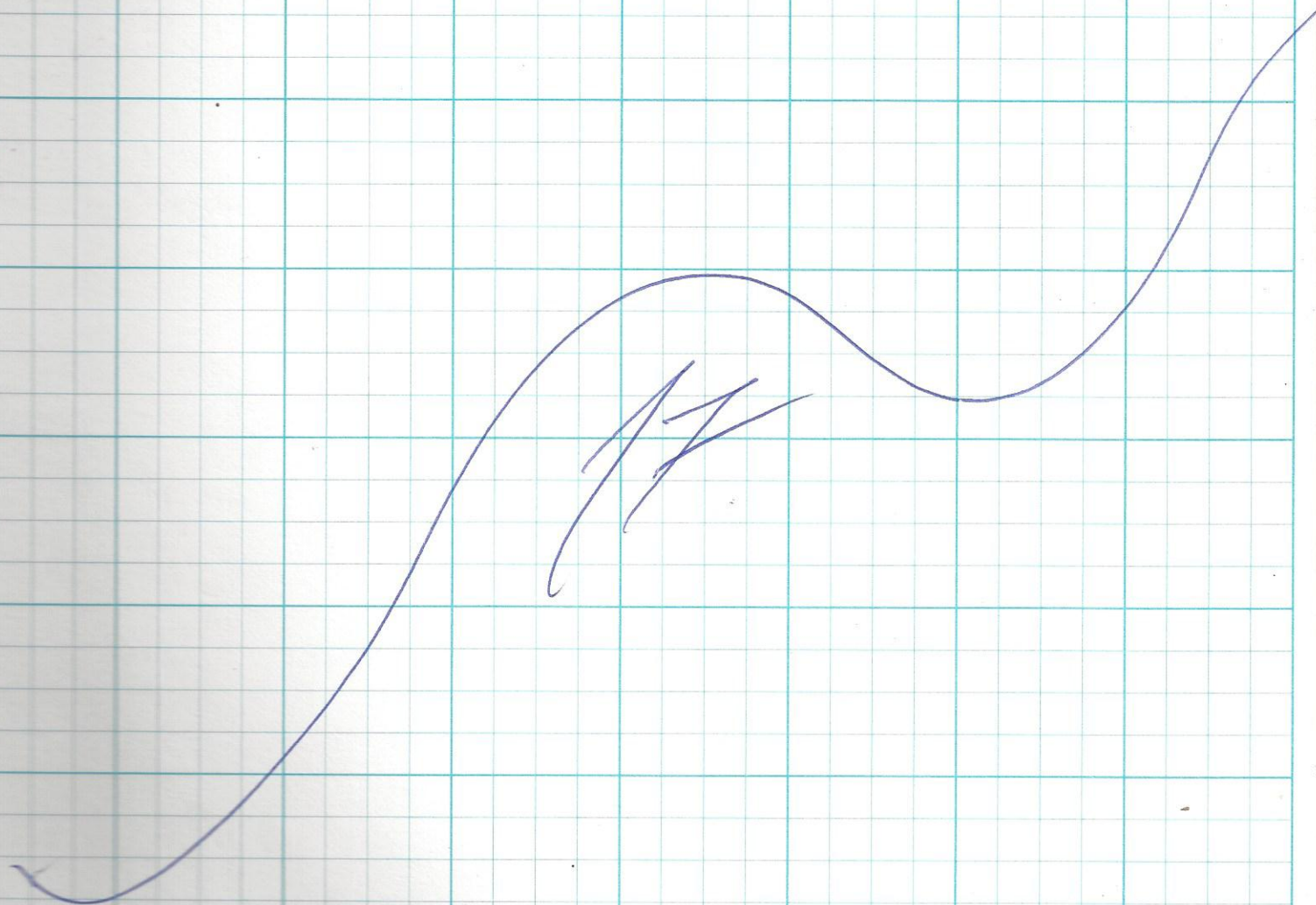
SO-DA-019	-	920
SO-DA-021	-	925
SO-PA-023	-	930

Coolers - 4-Lancaster (Hold)
2 B+B (Hold)
1 ALS (Hold)

IDW - 8 gallons Soil
- 1 PPE Trash
- 1 Trash

1500 - Pack Coolers w/ Ice to hold overnight

1630 - off site



645 - On-site H+S meeting

730 - Prepare to DART retrievals, Soil sampling

800 - Setup and collect SO-DA-026

PID Calibrated: Fresh air = 0.0 Isobutylene = 100.5

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5 MS/MSD	830	0.5	0.2	CL - Clay, silty clay, moist, Soft, red, no odor, some organics
0.5-1.0	835	0.5	0.5	CL-SAA
1.0-1.5	840	0.5	0.3	CL-SAA

GPS:

945 - Setup on SO-DA-28

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1000	0.3	0.1	CL - Clay, soft, dry-moist, high plasticity, red, no odor, organics
0.5-1.0	1005	0.4	0.0	CL - Clay - SAA, dry
1.0-1.5	1010	0.4	0.2	Clay - SAA - dry

GPS:

1020 - Setup + collect SO-DA-029

GPS:

DARTS Retrieved SEP-AA-045: 945

SEP-DA-052: 955

SEP-DA-018: 1005

SEP-DA-019: 1015

SEP-DA-23: 1025

SEP-DA-022: 1035

SEP-DA-021: 1045

XOM Mayflower Pipeline Incident 8/11/13

Jonathan Flomerfelt.

1030 - sample SO-DA-029

Depth	Time	PID	PID	Soil description
0-0.5	1030	0.4	0.0	CL-Clay, some silt, soft, med-high plasticity brown/red, dry no odor, organics
0.5-1.0	1035	0.2	0.0	CL-Clay, soft, high plasticity, moist, red, no odor
1.0-1.5	1040	0.2	0.0	CL-Clay SAA

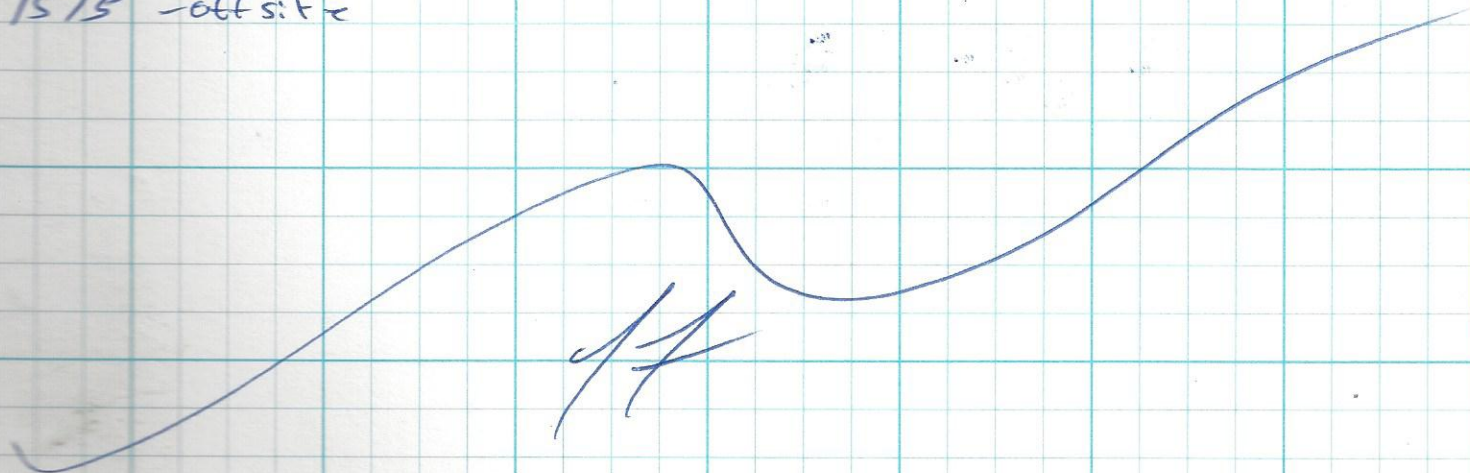
~~SO-DA-~~ SO-DA-EB-04-081113 - 1300
SO-DA-TB-07-081113 - 1305

1330 - Pack coolers w/ Ice

6 Lancaster Coolers for Shipment
1 ALS cooler (Hold)
3 B+B coolers (Hold)

IDW 4 gallons Decon
4 gallons Soil
2 PPE Trash
1 Trash bag

1515 - off site



Location MAYFLOWER, ARDate 8.12.13Project / Client DARSP / XOM

SEA-DA-046 / SEA-DA-049

0835 SEA-DA-046 → DUP.

Water Depth: 0.75'

Probe Depth: 2.5'

Penetration Depth: 3.0 / 3.5 / 3.0 / 3.0

Recovery: 0.7 / 1.5 / 0.7 / 0.8

GPS Coords: NAD83 N: 34.96632

W: 092.41637

Visible sken @ sample location

0905

SEA-DA-049

Water Depth: 0.9'

Probe Depth: 3.0'

Pen. Depth: 3.5 / 3.0

Recovery: 1.9 / 1.1

GPS Coords: NAD83 N: 34.96624

W: 092.41563

* Location moved 25'-30' south due
to heavy veg.

Visible sken

Location MAYFLOWER, ARDate 8.12.13Project / Client DARSP / XOM0950 SEA-DA-043

Water Depth: 0.6'

Probe Depth: 2.5'

Pen. Depth: 2.8 / 1.5

Recovery: 1.5 / 0.5

GPS Coords: NAD83 N: 34.96572

W: 092.41691

1010 SEA-DA-044

Water Depth: 0.5'

Probe Depth: 3.5'

Pen. Depth: 2.8 / 2.5

Recovery: 1.8 / 1.3

GPS Coords: NAD83 N: 34.96533

W: 092.41625

1030 SEA-DA-047

Water Depth: 0.6'

Probe Depth: 3.0'

Pen. Depth: 3.5 / 2.5

Recovery: 2.2 / 1.1

GPS Coords: NAD83 N: 34.96695

W: 092.41633

Location Mayflower, AR
Project / Client ARSP / XOM

Date 8.12.13

1245

SED-DA-048

→ MS/MSB

Water Depth: 1.1'

Probe Depth: 35'

Pen. Depth: 3.5/2.0/2.0/2.0/2.0

Recovery: 2.0/0.9/0.7/0.7/1.0

GPS Coords: NAD83 N: 34.96591
W: 092.41562

XOM Mayflower Pipeline Incident

8/12/13

Jonathan Flamerholt

545 - Onsite H+S - SPSAs

700 - Rep for Shallow Sediment location in Dawsons Cove

730 - Prep DIART Samples for shipment

830 - SED-DA-TB-11-081213

835 - Calibrate PID Fresh air: 0.0
Isobutylene:820 - Setup + collect SED-DA-046
GPS:

- Dup-07-081213

SED-DA-046 - Penetration = 3.5'

Recovery = 1.5'

Depth	Time	PID-blad	PID-Archive
0-0.5	835	13.1	2.3
Dup-07			

Soil Description

CL - Silty Clay, soft, med plasticity, wet, some organics, slight odor, black

0.5-1.0	840	3.9	1.4
---------	-----	-----	-----

CL - Clay, soft, high plasticity, wet, some organics, slight odor, gray

1.0-1.5	845	0.5	0.1
---------	-----	-----	-----

CL - Clay SAA

850 - Setup + collect SED-DA-049
GPS:

Penetration = 3.5'

Recovery = 1.9'

SED-DA-049

Depth	Time	PID-blad	PID-Archive
0-0.5	905	0.1	1.2

Soil Description

OL/PT - Organic Silt, Peat, lots of organics, wet, slight odor, black

0.5-1.0	910	0.6	0.2
---------	-----	-----	-----

OL/PT - SAA - clay last inch

1.0-1.5	915	0.2	0.1
---------	-----	-----	-----

CL - Clay, soft, med plasticity
moist-wet, no odor, brown/gray

PID Malfunctioning

Xom Mayflower Pipeline Incident

8/12/13

J. Flamerfelt

SED-DA-043

Depth	Time	PID-Glad	PID-Archive
0-0.5	950	1.0	1.2

Soil
ML/CL - Silty Clay, soft, wet,
no plasticity, trace organics,
no odor, black

0.5-1.0	955	0.7	0.3
---------	-----	-----	-----

CL - Clay, soft, med plasticity,
wet, no odor, gray/brown

1.0-1.5	1000	0.4	0.1
---------	------	-----	-----

CL - Clay SAA

GPS:

Recovery
Penetration

Setup + Collect

SED-DA-044

GPS

Penetration : 2.8'
Recovery : 1.8'

Depth	Time	PID-Glad	PID-Archive
0-0.5	1010	1.0	0.5

Soil Description

OL/PT - Organic silt, sand, some
clay, no plasticity, slight odor,
black

0.5-1.0	1015	0.4	0.0
---------	------	-----	-----

CL - Clay, soft, high plasticity,
some organics, slight odor, gray

1.0-1.5	1020	0.6	0.2
---------	------	-----	-----

CL - Clay - SAA reddish brown.

Setup + Collect

GPS:

SED-DA-047

Penetration - 3.5'
Recovery - 2.2'

Depth	Time	PID-Glad	PID-Archive
0-0.5	1030	1.0	

Soil Description

ML - Silt, some clay, some organics,
soft, wet, no plasticity, H₂O,
black

~~SED-DA-041~~

Continued →

XOM Mayflower Pipeline Incident
SED-DA-047 continued

0812/3

J. Flanagan

Depth	Time	PID Blad	PID Archim	Soil Description
0-0.5 0.5-1.0	1030 1035	0.6		CL-Clay, trace silt + organic, Silt, wet, low plasticity, gray, no odor
1.0-1.5	1040	0.5		CL-Clay SAA

SED-DA-048
GPS

Penetration = 2.5'
Recovery = 2.0'

Depth	Time	PID-Blad	PID-Archim	Soil Description
0-0.5	1245	4.8	9.2	CL/PT-0. Silt, Pent, trace clay Silt, wet, no plasticity, black, HCO
0.5-1.0	1250	0.9	2.5	CL-Clay, silt, wet, med plasticity, gray, slight odor gray
1.0-1.5	1255	0.6	0.5	CL-Clay SAA

1300 Rain + Lightning delays

1500 - Pack coolers for shipping

4 coolers Lancaster
4 coolers B+B
1 cooler ALS

IDW - 8 gallons Soil 4 gallons decon
2 PPE Trash 1 Trash Bag

1720 - Off site

11

Location Mayflower, AR
 Project / Client DAESP / XOM

Date 8.13.13

1030

SO-DA-001

Collected 5 composite @ 0.5' and center @ 1.5'
 Composites collected with spoon

1100

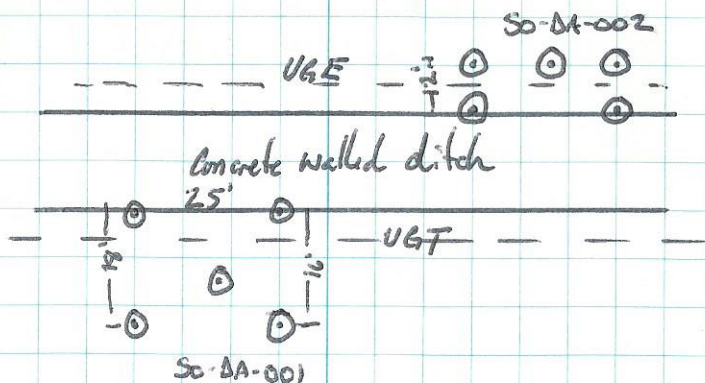
SO-DA-002

→ MS/MSA

Collected 5 composite @ 0.5' and center @ 1.5'
 Composites collected with spoon



SO-DA-001 is approx. 25' x 12' due to vicinity of telephone line and maintaining buffer of critical zone
 SO-DA-002 is approx. 25' x 12' in order to accomplish same principle.



Location Mayflower, AR Date 8.13.13
 Project / Client DAESP / XOM

1215 SO-DA-003 → DUP
 Collected 5 composites @ 0.5' and center @ 1.5'
 Composites collected with spoon

MAINTAINED 2'
 CZ from utility when
 hand spooning
 MAINTAINED 5.0'
 CZ when hand auger

1330 SO-DA-004
 Collected 5 composite @ 0.5 and center @ 1.5'
 Composites collected w/ spoon

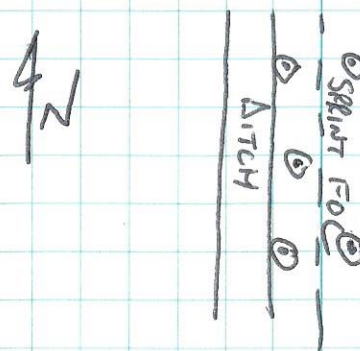
Approx.
 25 x 3'
 due to ditch
 and rail ballast

1400 SO-DA-005
 Collected 5 composite @ 0.5 and center @ 1.5'
 Composites collected with spoon

Layer did not change. Approx. 25 x 5'

Location Mayflower, AR Date 8.13.13
 Project / Client DAESP / XOM

1430 SO-DA-006
 Collected 5 composites @ 0.5 / center @ 1.5'
 Composites collected w/ spoon



* MAINTAINED 4' ± CZ from FOC for
 1.5' centroid location

XOM Mayflower Pipeline Incident

81313

Jonathan Flamerfelt

645 - On-site H&S

- Delayed start due to lightning

1000 - Setup to collect SO-DA-001
GPS:

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1030	6.3		ML - Clayey silt, some clay, no plasticity soft, dry red, no odor
0.5-1.0	1035	5.1		ML - SAA
1.0-1.5	1040	11.9		ML - SAA

Using loaner PID from K. Jacobs

1050 - Setup & collect SO-DA-002
GPS

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5 ms/msd	1100	0.0	0.0	CL - Clay, some silt, soft, med plasticity, moist, trace organics no odor
0.5-1.0	1105	0.0	0.0	CL - Clay SAA
1.0-1.5	1110	0.0	0.0	CL - Clay, soft, ^{med} high plasticity, wet, brown, no odor

1200 - Setup on SO-DA-003
~~0-0.5~~ GPS:

SO-DA-Dup-06-081313

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1215	0.6		CL - Clay, trace silt, soft, ^{trace} gravel med-high plasticity, moist, trace organics, no odor, brown
SO-DA-Dup-06-081313 on (0-0.5)				
0.5-1.0	1220	0.6		CL - Clay - SAA
1.0-1.5	1225	0.0		CL - Clay, stiff, low plasticity dry-moist, no odor, red

Continued →

XOM Mayflower Pipeline Incident

8/31/83 Jonathan Flomertelt

1300 - Setup & collect SO-DA-004
GPS:

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1330	0.0		CL-Clay, trace silt, trace gravel, Soft, high plasticity, moist, reddish/brown, no odor, some organics
0.5-1.0	1335	0.0		CL-Clay, stiff, low plasticity, red clay, no odor, dry, no odor
1.0-1.5	1340	0.0		CL-Clay, soft, high plasticity, no odor, brownish

1350 - Setup & Collect SO-DA-005

GPS:

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1400	0.0	0.0	CL-Clay, stiff, low-med plasticity moist, -red, no odor
0.5-1.0	1405	0.2	0.1	CL-Clay SAA
1.0-1.5	1410	0.0	0.1	CL-Clay SAA

1420 - Setup & Collect SO-DA-006

GPS:

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	1430	0.0	0.0	CL-Clay, stiff, low plasticity dry, red, no odor
0.5-1.0	1435	0.0	0.0	CL-Clay SAA
1.0-	1440	0.0	0.0	CL-Clay SAA

IDW - 8 gallons Soil, 4 gallons Decon, 3 PPE Trash
Coolers - 3 coolers Lancaster, 1 cooler B+B, ALS (1 to 1d)

1745 - offsite

17

Location Mayflower, ARDate 8-14-13Project / Client DARSP/YOMSEP-0A-50 / SEP-0A-51

Wednesday August 14, 2013

Weather: Clear 85°F

0715 Begin loading Airboat for days activities in Dawson Cove

0745 Set up on SEP-0A-50 Duplicate

Water Depth = 0.80'

Probe Depth = 2.6

Penetration Depth = 2.0 / 2.0 / 2.0 / 1.5

Recovery = 1.2 / 1.3 / 1.5 / 0.8

* Noticeable Sheen on surface water.

GPS Coordinates: NAD83

N 34.96696

W 092.41542

0830 Set up on SEP-0A-51 MS/MSD

Water Depth = 1.3

Probe Depth = ~~2.0~~ 3.5

Penetration Depth = 1.8 / 2 / 3.5 / 3.5 / 2.0

Recovery = 1.3 / 0.8 / 2.0 / 1.3 / 1.0

* Noticeable Sheen & oil droplets on surface

GPS coordinates: NAD83

N 34.96616 * Location moved 60' north

W 092.41496 of original location

Location Mayflower, ARDate 8-14-13Project / Client DARSP/YOMSEP-0A-019 / SEP-0A-0181000 Begin mobilization to SEP-0A-019

for penetration to 4.0'

* This is a redo to 4.0'

GPS Coordinates:

N 34.96719

W 92.41388

Water Depth = 2.1'

Probe Depth = 3.5

Penetration Depth = 3.5

Recovery = 3.3

1030 Mobilization to SEP-0A-018

for penetration to 4.0'

* This is a redo to 4.0'

GPS Coordinates:

N 34.96680

W 092.41435

Water depth = 1.8'

Probe Depth 3.5

Penetration Depth = 3.5

Recovery = 3.2

Location Mayflower, AR Date 8-14-13
 Project / Client DARSP/XDM
SED-DA-041 / SED-DA-053

1230 Begin set up on SED-DA-041.

1230 Collected SED-DA-041

Water Depth = 2.5'

Probe Depth = 3.5'

Penetration Depth = 2.5/2.0

Recovery = 2.2/1.4

GPS Coordinates:

N 34.96753

W 092.41454

Moved location approx. 40' east due to heavy vegetation

1300 Collected SED-DA-053

Water Depth = 1.6

Probe Depth = 3.0

Penetration Depth = 2.0/1.5

Recovery = 1.6/1.2

GPS Coordinates: NAD 83

N 34.96680

W 092.41486

* Moved ± 20 south, ± 10 east to avoid heavy vegetation

Location Mayflower, AR Date 8-14-13
 Project / Client DARSP/XDM
SED-DA-045

1340 Setup on SED-DA-045 for penetration to 4.0:

* This is a redo to 4.0'

GPS Coordinates: NAD 83

N 34.96579

W 092.43041630

Water Depth = 0.6

Probe Depth = 2.0

Penetration Depth = 2.8

Recovery = 1.5

* Refusal encountered at 2.5' - Two attempts.

1420 Setup on SED-DA-052

to 4.0:

* This is a redo to 4.0

GPS COORDINATES: NAD 83

N: 34.96643

W: 092.41496

Water Depth = 1.2

Probe Depth = 4.0

Penetration = 4.0

Recovery = 2.6

Two attempts.

Location Mayflower, AR Date 8-14-13Project / Client DARSP/COMGPS Coordinates

1530 GPS Coordinates for Soil Samples
 SO-DA-001 through SO-DA-006.

SO-DA-001

N 34.96308

W 092.42623

SO-DA-002

N 34.96315

W 092.42609

SO-DA-003

N 34.96318

W 092.42570

SO-DA-004

N 34.96352

W 092.42558

SO-DA-005

N 34.96403

W 092.42549

Location Mayflower, AR Date 8-14-13Project / Client DARSP/COMGPS Coordinates

SO-DA-006

N 34.96432

W 092.42535

SO-DA-012

N 34.96490

W 092.42210

SO-DA-015

N 34.96502

W 092.42153

1615 Completed obtaining GPS Coordinates

5-45 - HHS Meeting

630 - Prep for sampling Sediments in Dawsons Cove

730 - PID Calibrated - Fresh air = 0.0 Isobutylene = 100

- Setup + Collect SED-PA-050 - SED-PA-Dup-08
GPS:

Penetration - 30' Recovery - 1.5'

Depth	Time	PID-Glud	PID-Archive	Soil Description
0-0.5 Dup-08	745	2394	31.1	OL/PT - Silt, Organics, wet Swamp soils, some clay, silt, black Slight odor
0.5-1.0	750	368	17.4	CL-Clay, some silt, wet, silt, low plasticity, light brown, no odor
1.0-1.5	755	495	14.1	CL-Clay SAA

New PID - Potential lamp malfunction in humidity

820 - Setup SED-PA-051 w/ ms/msd

Depth	Time	PID-Glud	PID-Archive	Soil Description
0-0.5	830	0.2	0.0	OL/PT - Silt, Organics, peat/swamp soil, wet, silt, black, organic odor
0.5-1.0	835	0.1	0.0	CL-Clay, trace silt, low-med plasticity, silt, wet, gray, slight odor
1.0-1.5	840	0.0	0.0	CL-Clay - SAA

945 - Setup + Retry
GPS

SED-PA-019

Penetration 3.5'

Recovery - 3.3'

Depth	Time	PID-Glud	PID-Archive	Soil Description
2-2.0 Archive	1000	0.0	0.0	CL-Clay, silt, low plasticity wet, gray to 2.5', no odor
3.0-3.2 Archive	1005	0.0	0.0	CL-Clay, stiff, moist, high plasticity reddish gray, no odor

Continued →

Xom Mayflower Pipeline Incident 08/4/13 Jonathan Flamerfelt

1020 - Setup + Collect SED-DA-018 Retg 2-4'

GPS:

Penetration - 3.5'

Recovery - 3.2'

Depth	Time	PID-Glob	PID-Archive	Soil Description
2.0-3.0	1030	0.0	0.0	CL-clay, soft, med-high plasticity, wet, reddish gray, no odor
3.0-3.2	1035	0.0	0.0	CL-Clay -SAA - trace organics
As Archive				

1215 - Setup + collect SED-DA-041

GPS:

Penetration - 2.5'

Recovery 2.2'

Depth	Time	PID-Glob	PID-Archive	Soil Description
0-0.5	1230	0.0	0.0	ML/OL - Silt, soft, wet, black Very wet, slight odor, sheen
0.5-1.0	1235	0.0	0.0	ML/OL-SAA, no odor, no sheen
1.0-1.5	1240	0.0	0.0	ML/OL-SAA

SEP-DA-TB-12-08/4/13

1250 - Setup + Collect SED-DA-053

GPS:

Penetration = 2.3'

Recovery = 1.6'

Depth	Time	PID-Glob	PID-Archive	Soil Description
0-0.5	1300	0.0		OL/PT - organic silts, Peat, Swamp soil, organics, soft, wet, black Some odor
0.5-1.0	1305	0.0		CL-Clay, some silt, soft, wet-moist, low-med plasticity, slight odor,
1.0-1.5	1310	0.0		CL-Clay-SAA

Xom Mayflower Pipeline Incident

03/14/13

Jonathan Flomertfelt

1330 - Setup + Collect SED-DA-015
GPS:Penetration - 2.8'
Recovery - 1.5'

Depth	Time	PID-Glad	PID-Archive
1.0-1.5	1340	0.0	0.0

Soil Description
CL-Clay, trace coarse sand/gravel,
soft, wet, light brown, no odor

1410 - Setup + collect SED-DA-052
GPS:Penetration = 4.0'
Recovery = 2.6'

Depth	Time	PID-Glad	PID-Archive
1.5-2.0	1420	0.0	0.0

Soil Description
CL/ML - Clay/silt, some organics,
soft wet, gray, no odor

2.0-2.6	1425	0.0	0.0
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CL/ML - Silt

Location Mayflower, AR Date 8-15-13Project / Client DARSP/XOMSO-DA-BG-004 / SO-DA-BG-005

0800 Set up on SO-DA-BG-004 located
along edge of Lake Conway.

0815 Begin collection of SO-DA-BG-004 (0.0-0.5)
and MS/MSD here with a 5 point
composite.

10'x15' Grid

GPS Coordinates: NAD83

N 35.04226

W 092.40953

0840 Begin collection of SO-DA-BG-005 (0.0-0.5)

Collected on south side of channel (5pt.)
composite

GPS Coords: NAD83

N: 35.05008

W: 092.41390

10'x10' Grid

Location Mayflower, AR Date 8-15-13Project / Client DARSP/XOMSO-DA-BG-006 / SED-DA-BG-012

0900 Begin SO-DA-BG-006 (0.0-0.5)

Collected on north side of channel (5pt.)

GPS Coords: NAD83

N: 35.05015

W: 092.41393

10'x15' Grid

0910 Begin SED-DA-BG-012 (0.0-0.5)

Water Depth: 1.8

Probe Depth: 3.5

Pen. Depth: 1.5/1.5

Recovery: 0.5/1.0

GPS Coords: NAD83

N: 35.05030

W: 092.41362

Location MAYFLOWER, AR Date 8.15.13Project / Client DARSP / KOMCoords A365E/W, Dawson Cove1030 COORDINATES FOR MISSING A365E/W

- SO-DA-014 N: 34.96497
W: 092.42177
- SO-DA-010 N: 34.96487
W: 092.42331
- SO-DA-009 N: 34.96470
W: 092.42382
- SO-DA-008 N: 34.96456
W: 092.42429
- SO-DA-007 N: 34.96452
W: 092.42483
- SED-DA-013 N: 34.96502
W: 092.42154

Dawson Cove

- SO-DA-023 N: 34.96587
W: 092.41763
- SO-DA-024 N: 34.96642
W: 092.41763
- SO-DA-⁰²⁷~~025~~ N: 34.96642
W: 092.41697
- SO-DA-026 N: 34.96587
W: 092.41696
- SO-DA-028 N: 34.96533
W: 092.41629

Location MAYFLOWER, AR Date 8.15.13Project / Client DARSP / KOMCoords Dawson Cove / SED-DA-BG-001, 002, 003Dawson Cove Coords Cont

- SO-DA-029 N: 34.96588
W: 092.41630

1100 Set up on SED-DA-BG-001 (0-0.5)GPS Coords: NAD 83 N: 34.95941
W: 092.42677

*Used hand trowel on dry ditch bed

1110 Set up on SED-DA-BG-002 (0-0.5)GPS Coords: NAD 83 N: 34.96200
W: 092.42607

*Used hand trowel on dry ditch bed

1120 Set up on SED-DA-BG-003 (0-0.5)GPS Coords: NAD 83 N: 34.96510
W: 092.42509

*Used hand auger in 0.6' deep water in ditch

Location MAYFLOWER, AR Date 8.15.13Project / Client DARSP / KOMSO-DA-BG-001, 003, 0021230 Begin set-up @ SO-DA-BG-001 (0-0.5)

5 pt. composite, collected with hand scoop

GPS Coords: NAD 83

N: 34.97887

W: 092.41901

10x18 Grid

1250 SO-DA-BG-003 (0-0.5)

5 pt. composite, collected w/hand trowel

GPS Coords: NAD 83

N: 35.02490

W: 092.41286

12x12 Grid

1305 SO-DA-BG-002 (0-0.5)

5 pt. Composite, collected w/auger

GPS Coords: NAD 83

N: 35.02193

W: 092.41330

25x25' Grid

* Located on the north finger @ the end of
drive of RV Park. North of boat landingLocation MAYFLOWER, AR Date 8.15.13Project / Client DARSP / KOM1345 SED-DA-001 (0-0.5, 0.5-1.0)

Collected in 0.3' water w/hand trowel

GPS Coords: NAD 83

* MS/MSD collected N: 34.96318

W: 092.42571

1445 SED-DA-002 (0-0.5, 0.5-1.0)

Collected in 0.3' water w/hand trowel

GPS Coords: N: 34.96352

W: 092.42558

TS

1510 SED-DA-003 (0-0.5, 0.5-1.0)

Collected in 0.5' water w/hand trowel

GPS Coords: NAD 83

* DUP collected N: 34.96404

W: 092.42547

1525 SED-DA-004 (0-0.5, 0.5-1.0)

Collected in 0.2' water w/hand trowel

GPS Coords: NAD 83

N: 34.96436

W: 092.42538

545- Onsite H+S Meeting - Discuss SPAs

630- Prep for air boat background locations - B. Longren
PID Calibrated Fresh air = 0.0 D. Deost
Iso butyl = 101

830 SO-DA-EB-06-081513

800 SED-DA-EB-09-081513

815 SO-DA-TB-09-081513

820 SED-DA-TB-13-081513

800- Setup + Collect SO-DA-BG-004
SO-DA-BG-004 GPS N: 35.04226 W: -92.40953

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	815	0.0	0.0	CL-Silty Clay, some silt, soft, high plasticity, brown, organics, dry no odor

ms/mPID

830 Setup + Collect SO-DA-BG-005
SO-DA-BG-005 GPS N: 35.05008 W: -92.41390

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	840	0.0	0.0	ML/CL - Silt/clay, medium stiff low plasticity, some organics, dry dark brown, no odor

850- Setup + Collect - SO-DA-BG-006
SO-DA-BG-006 GPS N: 35.05015 W: -92.41393

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	900	0.0	0.0	ML - Silt, some organics, trace clay, some gravel, 1" subangular, loose/soft, dry dark brown, no odor

905 - Setup + Collect SED-DA-BG-012 + extra for DART Spike
SED-DA-BG-012 GPS N: 35.05030 W: -92.41362

Depth	Time	PID-Glad	PID-Archive	Soil Description
0-0.5	910	0.0	0.0	OL/PT - Organic Silts, PT, some clay, silt, wet, no plasticity black, organic odor, no sheen

XOM Mayflower Pipeline Incident 8/15/13

1050 - Setup + Collect SED-DA-BG-001
 SED-DA-BG-001 GPS N 34.95941 W -92.42677
 Depth Time PID-Blad PID-Archive Soil Description
 0-0.5 1100 0.0 0.0 CL-Clay, some silt,
 coarse gravel, soft, med plasticity,
 moist, dk brown, no odor

Setup + Collect SED-DA-BG-002
 GPS N: 34.96200 W: -92.42607
 Depth Time PID-Blad PID-Archive Soil Description
 0-0.5 1110 4.4 0.5 CL-clay, soft-med stiff,
 low plasticity, red, dry, no odor

1115 - Setup + Collect SED-DA-BG-003
 GPS N: 34.96510 W -92.42509
 Depth Time PID-Blad PID-Archive Soil Description
 0-0.5 1120 0.0 0.0 CL/ML- silty clay/clay, soft,
 low plasticity, wet, light brown,
 no odor, trace organics

1120 - Setup + Collect SO-DA-BG-001
 SO-DA-BG-001 GPS N 34.97887 W -92.41286
 Depth Time PID-Blad PID-Archive Soil Description
~~1230~~ 0-0.5 1230 0.0 CL-clay, silty clay, soft-med stiff
 low plasticity, dry red, no odor
 trace organics

1245 - Setup + Collect SO-DA-BG-003
 SO-DA-BG-003 GPS: N: 35.02490 W -92.41286
 Depth Time PID-Blad PID-Archive Soil Description
 0-0.5 1250 0.0 0.0 ML/cl- Silty, some clay, soft,
 no plasticity, dry, reddish brown, no odor,
 organics

1300 - Setup + Collect SO-DA-~~002~~ BG-002
 GPS: 35.02193 W -92.41330



Continued →

SO-DA-BG-002

Depth Time PID-Glad PID-Archive

0-0.5

1305

0.0

0.0

Soil Description

SP Gravelly Sand, some fine, fine-med grain sand, coarse subangular gravel, brown, moist, no odor

1330 - Setup + Collect SED-DA-001

SED-DA-001 -ms/msD

GPS: N 34.96318 W-92.42571

Depth

Time

PID-Glad

PID-Archive

0-0.5

1345

0.0

ms/msD

Soil Description

CL - Clay, some silt, trace gravel high plasticity, soft-med stiff, red w/ some gray, moist, no odor

0.5-1.0

1350

0.0

CL - Clay SAA

1430 - Setup + Collect SED-DA-002

SED-DA-002

GPS: N: 34.96352 W-92.42558

Depth

Time

PID-G

PID-A

0-0.5

1445

0.0

0.0

Soil Description

CL - Clay, some gravel, high plasticity, moist-wet, red/brown, no odor

0.5-1.0

1450

0.0

0.0

CL - Clay SAA

1500 - Setup + Collect

SED-DA-003

SED-DA-003

SED-DA-Dup - 09081513

GPS: N 34.96404 W 92.42547

Depth

Time

PID-G

PID-A

0-0.5

1510

0.0

0.0

Dup-09

Soil Description

CL - Clay, stiff, low plasticity clay-moist, red, no odor

0.5-1.0

1525

0.0

0.0

CL - Clay SAA

Xbm May Flower

1520 - Setup + Collect SEP-DA-004

GPS: N- 34.96436 W- -92.42538

SEP-DA-004

Depth	Time	PID-Glad	PID+Arthur
0-0.5	1525	296	305
0.5-1.0	1530	31.6	42.4

Soil Description
CL/ML - Silty Clay, some gravel,
Soft, no plasticity, wet,
Strong odor, staining

CL - Clay, stiff, dry, low
plasticity, dark red, slight odor

IDW

8 gallons Soil
4 gallons Decon

3 - Trash
1 PPE

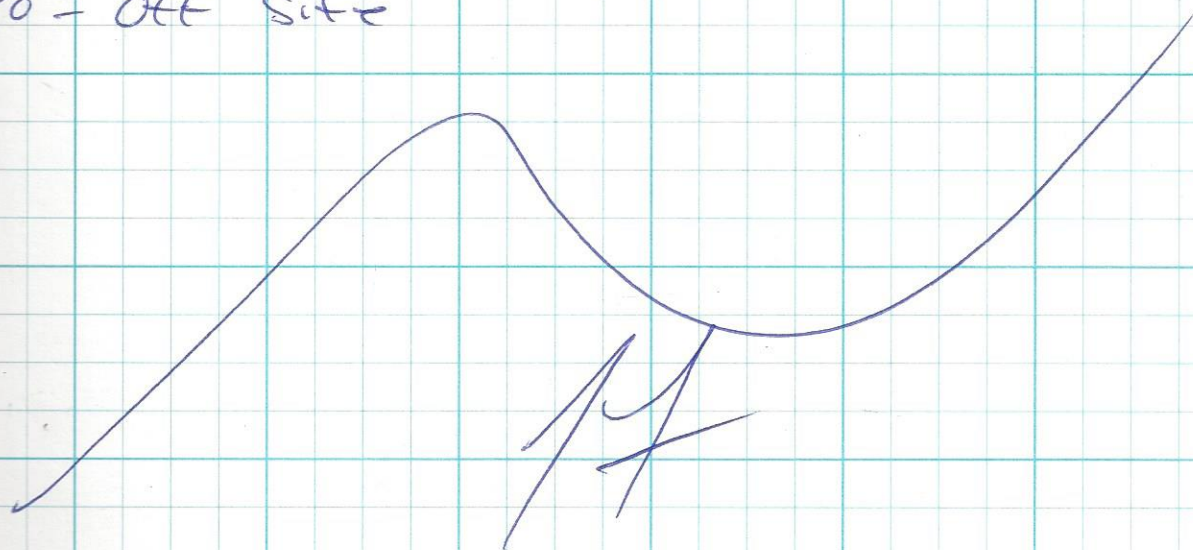
1600 - Pack Coolers

Lancaster - 6

B+B - 2

ALS - 1

1730 - Off site



15- Onsite H&S Meeting

30- Prep for two deep cores SED-DA-022 + 23

Blagden + R. Lewis will attempt Hand auger @ SED-DA-045
if 045 is dry45- SED-DA-~~EB~~-10-081613

350- SED-DA-TB-14-081613

SED-DA-022

Penetration - 35'

Recovery - 30'

ED- DA-022

h	Time	PID-6led	PID-Archive	Soil Description
5	850	0.0	0.0	OL/PT- Organic silt/ swamp soil, soft, organics, black, wet, Organic odor,
1.0	855	0.0	0.0	CL- Clay, soft, low-med plasticity, wet, gray, no odor
1.5	900	0.0	0.0	CL- Clay SAA
2.0	905	0.0	0.0	-CL- Clay SAA
3.0	910	0.0	0.0	CL- Clay, med stiff, med plasticity moist-wet, gray w/ some red, no odor

710 - Setup + collect SED-DA-023

0- DA-023

h	Time	PID-6	PID-A	Soil Description
2.5	930	0.0	0.0	OL- Organic silt, organics, soft wet, black, Same odor
1.0	935	0.0	0.0	OL-CL - SAA - Transition to clay @ 11"

Continued →

Xon Mayflower Pipeline Incident

8/16/13 Jonathan Flamerfelt

SEED-04-023 - Continued				
Depth	Time	PID-Gas	PIR-Archive	Soil Description
1.0-1.5	940	0.0	0.0	CL-Clay, some silt, batt, wet, no plasticity, gray, no odor
1.5-2.0	945	0.0		CL-Clay SAA
2.0-3.0	950	0.0		CL-Clay SAA - @ 2'10"
3.0-3.1	955	0.0		transitions to stiff, dry moist Clay, gray w/ced, no odor

1130 - Cleanup and demob equipment from I.C. to storage

Bottles left - 16oz - 80
8oz - 90
4oz - 68
T.C. - 47
2oz - 144

IDW - 8 gallons Soil
4 gallons decon
1 PPE Trash
2 Trash

1530 - Pack coolers - 3 - Lancaster
1 ALS - Hold
1 B+D - Hold

1715 - off site



Surface Water Sampling Notes

8/13/13
~~8/14/13~~

(8/13)

WS-⁰²²~~023~~DA (SURFACE) 081313

TEMP: 25.58°C

PH: 6.84

COND: 0.124 ms/cm

DO: 5.65

TURB: 57.4 NTU

VISUAL: CALM, LIGHT BRN. NO ODOR/SHEEN

WS-⁰²³~~022~~DA (SURFACE) 081313

TEMP: 24.11°C 26.83°C

PH: ~~6.61~~ 6.59COND: ~~0.060~~ ms/cm 0.154 ms/cmDO: ~~7.15~~ mg/L 8.20 mg/LTURB: ~~48.1~~ NTU 27.1 NTU

VISUAL: STRONG FLOW, LT BRN, NO ODOR/SHEEN

WS-024 (0.5-1.0) 081313

TEMP: 25.01°C

PH: 6.85

COND: 0.082 ms/cm

DO: 6.95 mg/L

TURB: 53.2 NTU

VISUAL: CALM, LT BRN, NO ODOR/SHEEN
STRONG FLOWTIME
1145

13:00 (8/13)

TIME

1315

TIME

1320

MS/MSD

Collected here

8/15/13
8/13/13

WS-025DA (MIDDEPTH SURFACE) 081313

TEMP: 35.95

PH: 6.72

COND: 0.149

DO: 7.63

TURB: 44.2 Depth-6"

VISUAL: Clear, no odor, no sheen

WS-026DA (MIDDEPTH SURFACE) 081313

TEMP: 27.23

PH: 5.54

COND: 0.051

DO: 1.14

TURB: 68.7 NTU nosheen

VISUAL: Brown, no odor, nosheen Depth 1.6

WS-027DA (MIDDEPTH SURFACE) 081313

TEMP: 24.55

PH: 5.90

COND: 0.047

DO: 3.79

TURB: 30.7

VISUAL: Brown, no odor, nosheen
Depth 4.5

DUP - Collected

* WS-EB-32-081313 1500

TIME

13:30

1530

TIME: 13:30

1500

TIME

1340

1430

Site Location:

Mayflower, AR

Date:

8/13/2013

Sampler Name(s):

Hans Van Aller

Project Name:

XOM - Mayflower

Project Number:

B0086003

Location ID	Sample Name	Depth (ft)	Time	Temp (°C)	pH (SU)	Conductivity (mS/cm)	DO (mg/L)	Turbidity (NTU)	Depth to Bottom (ft)	Visual Notes
Expected Measurement Range:				25 - 35	5 - 9	0.005 - 1.0	0 - 10	0 - 800	0-10	
Locations accessed by foot										
WS-022DA	WS-022DA(Surface)081313	Surface	1300	23.56	7.05	0.066	7.86	31.1	--	Low flow, no odor, no sheen
WS-023DA	WS-023DA(Surface)081313	Surface	1315	26.83	6.59	0.154	8.2	27.1	--	Strong flow, lite brown, no odor , no sheen
WS-024DA	WS-024DA(Mid Depth)081313	Mid Depth	1320	23.93	6.97	0.075	5.13	47.9	0.5-1.0	Strong flow, lite brown, no odor , no sheen
WS-024DA	WS-024DA(Mid Depth)081413	Mid Depth	1530	25.02	7.31	0.077	5.71	21.6	6"	Clear, no odor, no sheen
WS-026DA	WS-026DA(Mid Depth)081413	Mid Depth	1500	24.96	7.18	0.077	6.08	47.9	1.6'	Brown, no odor, no sheen
WS-027DA	WS-027DA(Mid Depth)081413	Mid Depth	1430	24.55	5.9	0.047	3.79	30.7	4.5	Brown, no odor, no sheen
DUP	DUP-WS-DA01-081313		--							Collected at WS-027(Surface)
MS	WS-024DA(Mid Depth)081313									
MSD	WS-024DA(Mid Depth)081313									
EB	WS-EB-32-081313		1500							
TB		--								

*If the water depth is deep enough to collect a sample at the second depth interval (determined in the field) and fill in here.

Sample Naming Convention

Task	Sample Comment	Structure	Location ID		Example SampleID on COC
Task: Surface Water Samples					
Routine Sample	Matrix code is WS. Locations have been given location ID and we sample at different depths.	Matrix-Location code(sample depth)date [Do not add depth symbol to sample depth]	WS-007		WS-007(SURFACE)042013 WS-007(0.5-1.0)042113
Field Duplicates		DUP-Dup number-WS-Date	QAQC - Duplicate		DUP-11-WS-042213
QAQC		Matrix-QAQC type-QAQC number- Date If MS/MSD sample use: [Complete sample name]MS/MSD	QAQC - Trip Blank Rinse Blank Equipment Blank		WS-TB-01-042013 WS-RB-01-042013 WS-EB-01-042013 WS-007(0.5-1.0)042113MS/MSD



Lake Conway Depositional Layer
Assessment Notes

8-26-13

0640 SHANNON DUNN (SMD) ARRIVE ON SITE

0645 SITE SAFETY MEETING

0715 SITE ORIENTATION WITH ERIC LUNIN

0808 CALL TOM DOLCE OF AQUA SURVEY INC. FOR BOX CORE DIMENSIONS

~42-44" TALL

~22-24" WIDE ONE SIDE

~12-14" WIDE OTHER SIDE

~50-65 LBS EMPTY

0845 DEPART SITE FOR BOAT MEETING SCOTT OF STANS IN CONWAY. CALL HIM

618-530-5612 & DISCUSS BOX CORE.

0905 SMD & JESSICA GEURTS DEPART FOR STORAGE AREA. OBTAIN EQUIPMENT FOR SAMPLING

0950 SMD & JO RETURN TO IC.

1300 MEET STAN'S AIRBOAT CREW. PERFORM UTILITY CLEARANCE SURVEY FOR LOCATIONS DEP1 THROUGH DEP12.

OBSERVED IRRIGATION PIPES ENTERING WATER ALONG MANY OF THE DOCKS. OBSERVED TWO OUTFALLS ON ONE OF THE RESIDENCES. OBSERVED UTILITY

8-26-13

MARK OUT ON BOTH SIDES OF 89 BRIDGE. TOOK SECOND LOOK AT WHITE CYLINDER ALONG SHORE. DETERMINED IT WAS WHITE PLASTIC 1 GALLON JUG.

TOOK 2 PHOTOS OF WESTERN SIDE OF UTILITY MARK OUT OF 89 BRIDGE. 1420 RETURN TO PARADISE LANDING DRIVE ALONG 89. OBSERVE UTILITY MARK OUT ALONG BRIDGE. OBSERVE UTILITY MARK OUT OF EAST SIDE OF CULVERT.

OBSERVED ATAT BURIED CABLE SIGN AT INTERSECTION OF 89 & CRAFTON ST, INDICATING CABLE RUNS TO NORTH. DROVE TO END OF CRAFTON, WHICH DEAD ENDS AT LAKE. DID NOT SEE SIGNS THAT CABLE GOES INTO LAKE.

1520 DEPART SITE

Shannon Dunn
8-27-13

8-27-13

0030 SHD ARRIVE AT SITE.

DISCUSS SAMPLING WITH HANS VAN ALLER (HVA).

PROVIDE BOX CORE DIMENSIONS & WEIGHT TO SCOTT & STAN'S.

0645 SITE SAFETY MEETING.

0945 BOX CORE ARRIVES

3 PHOTOS OF AS RECEIVED CONDITION
1 PHOTO AFTER PLASTIC WRAP HAS BEEN REMOVED, SHOWING BOX CORE SHIFTED ON BASE DURING SHIPMENT.

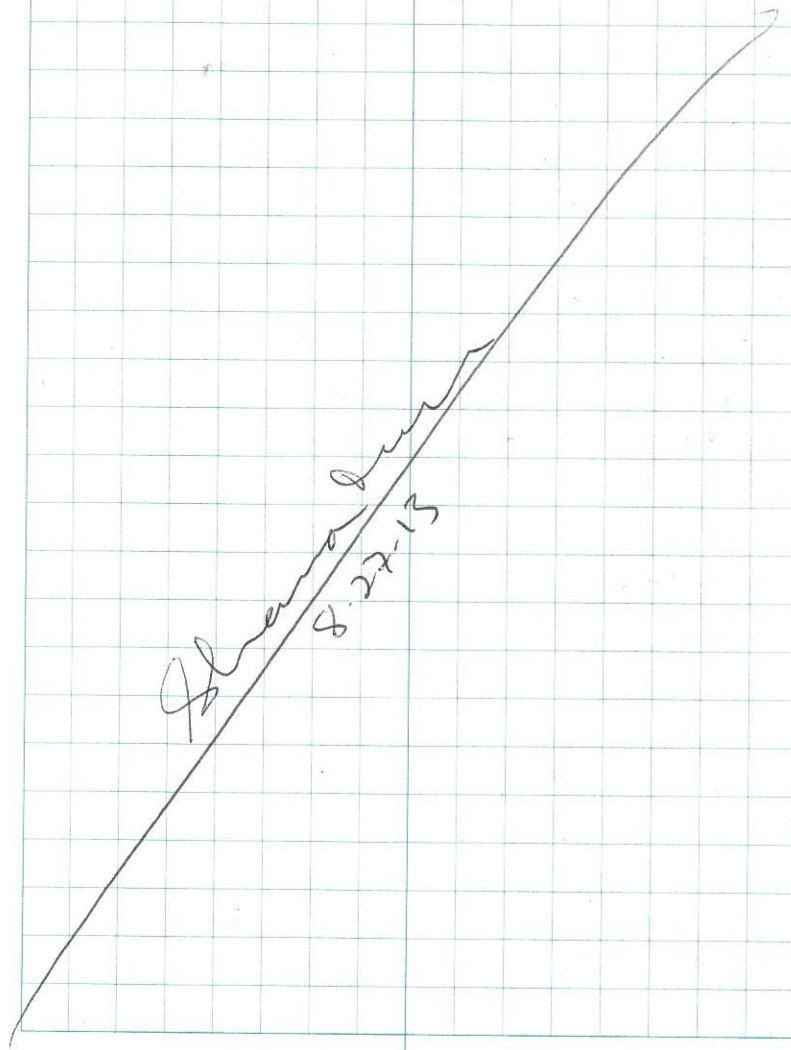
1245 STAN'S SCOTT & ROBERT BACK VESSEL IN GARAGE. BEGIN LOADING BOX CORE ONTO VESSEL.

TOOK PHOTO OF BOAT.

TOOK PHOTO OF FEEDING CABLE INTO CRANE.

1445 ARRIVE PARADISE LANDING WITH HVA & JESSICA GEURTS (JG)
AKADIS & SCOTT & ROBERT & STAN'S.1506 TEST RUN OF BOX CORE
BOX CORE DOES NOT FULLY CLOSE.
RECOVERED SEDIMENT BUT NOT

8-27-13

OVERLYING WATER.
1550 DEPART PARADISE BOAT RAMP.

8-28-13

0710 ARRIVE ON SITE.

ATTEND SAFETY MEETING.

0725 DISCUSS PLAN WITH HVA & JG.

DISCUSS PLAN WITH SCOTT & STAN'S.

DISCUSS PLAN WITH KEN JACOBS &
MIKE ERICKSON OF AREADIS.

0800 DEPART IC FOR PARADISE.

0810 ARRIVE PARADISE BOAT RAMP.

0825 SCOTT & ROBERT OF STAN'S ARRIVE
LAUNCH BOAT.

LOAD EQUIPMENT ON BOAT.

0840 REVIEW ISA WITH HSM, JG,
HVA, SCOTT, & ROBERT.0850 DEPART PARADISE BOAT RAMP
FOR SEDIMENT SAMPLING.

0900 ON LOCATION AT DEP-01.

PREPARE FOR SAMPLING.

LOAD WEIGHT INTO BOX CORE.

WATER DEPTH 4.2 FT.

DEPLOYED BOX CORE. RECOVERED
WITH OVERLYING WATER. WATER
WAS COMING OUT OF CLAM SHELL
AT BOTTOM. PRESSURE OF OVERLYING
WATER CAUSING WATER TO COME
OUT OF TOP OF CLAM SHELL SEAM. LOST

8-28-13

ALL OVERLYING WATER.

BROUGHT BOX CORE ON BOARD.

THERE WAS NO OVERLYING WATER.

PUSHED LEXAN TUBE IN SEDIMENT.

POURED WATER INTO TOP TO
FORM SUCTION. REMOVE TUBE &
PROCESS. TAKE PHOTO.SILT, TRACE CLAY, WET, VERY SOFT,
GREY (ML), RED WORMS, TRACE
ORGANICS.TOOK PHOTOS OF BOX CORE DEPLOY-
MENT & RETRIEVAL.WITH WEIGHT, BOX CORE GENER-
TES 1-5 gal BUCKET OF WASTE
SEDIMENT.0940 COMPLETE DECON ON BOX
CORE. COLLECT PUSH CORE SAMPLE.

TOOK PHOTOS OF CORE.

LESS THAN 1 mm THICK OF SILT,
WET, VERY LOOSE, BROWNBELOW 1 mm SILT, WET, VERY
LOOSE, GREY, TRACE CLAY (ML)TO 1" BELOW SEDIMENT SURFACE(S)
1-6" BSS SILT, LITTLE CLAY, WET,
VERY LOOSE, GREY (ML).

8-28-13

COORDINATES FOR DEP-01

N232440.23'

E1187800.02'

ARKANSAS STATE PLANE NORTH

U.S. SURVEY FT, NAD83.

PINE TRIMBLE GPS UNIT 800-301-9663, 014988.

0957 COMPLETE DEP-01. PREPARE FOR TRANSIT.

1003 ON LOCATION AT DEP-02.

N232459.89'

E1187982.66'

TOOK PHOTOS OF CORE PUSH

0 TO LESS THAN 1mm SILT, WET, VERY LOOSE, BROWN

1mm TO 2 INCH BSS SILT, TRACE

FINE SAND, WET, VERY LOOSE,

GREY (ML), TRACE WOOD DEBRIS

2 TO 4 INCH BSS, CLAY, SOME SILT,

WET, SOFT, LIGHT BROWN, TRACE

WOOD DEBRIS (CL).

WATER DEPTH 5.9'

1026 ON LOCATION AT DEP-03

N232451.04'

E11878157.74'

8-28-13

COLLECT PUSH CORE.

0-2mm SILT, WET, VERY LOOSE, BROWN

2mm TO 3" BSS CLAY, LITTLE

SILT, WET, LOOSE, GREY, TRACE WOOD

3" TO 10" BSS CLAY, MOIST, MEDIUM STIFF, LIGHT BROWN TO LIGHT GREY (CL)

WATER DEPTH 3.8'

1050 AT LOCATION DEP-04.

N232737.30'

E1188567.09'

COLLECT PUSH CORE.

0 TO LESS THAN 1mm SILT, WET, VERY LOOSE, BROWN

1mm TO 1.5" SILT, WET, VERY LOOSE, GREY, (ML)

1.5" TO 6.0" CLAY, SOME SILT, WET, SOFT, BROWN DARK (CL)

WATER DEPTH 4.8 FT.

1105 DEPART FOR PARADISE BOAT RAMP.

1130 ARRIVE PARADISE BOAT CAMP. DEMOB

8-28-13

1125 DEPART PARADISE BOAT RAMP FOR IC.

1255 SCOTT & ROBERT ARRIVE AT IC TO UNLOAD BOX CORE CRANE.

1321 DEPART IC FOR PARADISE BOAT RAMP.

1330 ARRIVE PARADISE BOAT RAMP,

SHD, HVA, & JG A RCADIS

ROBERT & JASON TO STAN'S

TAILGATE WAS MEETING.

1347 DEPART PARADISE LANDING.

1403 ARRIVE AT LOCATION DEP-05.

COLLECT PUSH CORE.

0-1 mm SILT, WET, VERY SOFT, BROWN
WATER DEPTH 4.5 FT.

1 mm TO 0.5 INCH SILT, TRACE CLAY,
WET, VERY SOFT, ~~BROWN~~ (ML)
N232972.86' GREY SHD 8-28-13

E1189054.22'

0.5" TO 1.5" SILT, LITTLE CLAY, WET,
VERY SOFT, GREY, RED WORM (ML)

1.5" TO 6.5" CLAY, WET, SOFT, BROWN,
RED WORM, TRACE WOOD DEBRIS (CL)

1422 ARRIVE AT LOCATION DEP-06
COLLECT PUSH CORE

8-28-13

0-1 mm, LESS THAN 1 mm, SILT,
WET, VERY SOFT, BROWN
WATER DEPTH 6.4'

1 mm TO 1" BSS, SILT, WET, VERY
SOFT, GREY (ML)

1" TO 6" SILT, TRACE CLAY, WET,
VERY SOFT, GREY (ML)

6-8" SILT, LITTLE CLAY, WET,
SOFT, GREY (ML),

TOOK PHOTO OF RED WORM

N233377.97'

E1189519.63'

1436 ARRIVE AT LOCATION DEP-07
COLLECT PUSH CORE.

LESS THAN 1 mm of SILT, WET,
VERY SOFT, BROWN

1 mm TO 1 INCH BSS SILT, WET,
VERY SOFT, GREY (ML)

1" TO 3" BSS SILT, TRACE CLAY, WET,
VERY SOFT, GREY (ML)

3" TO 9" SILT, LITTLE CLAY, WET,
VERY SOFT, BROWN (ML)

9" TO 10" CLAY, MOIST, MEDIUM
STIFF, LIGHT BROWN (CL)
WATER DEPTH 5.9'

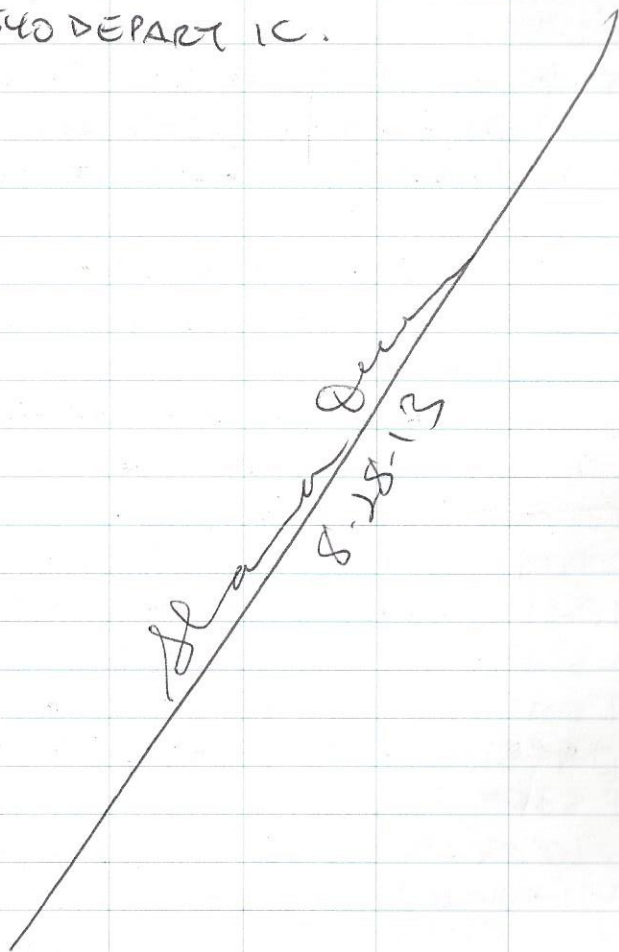
8-28-13

N 233656.96'
E 1189960.16'

1455 RETURN TO PARADISE LANDING
DEMOS.

1517 ARRIVE IC.

1540 DEPART IC.



8-29-13

0630 ARRIVE IC

0645 SITE SAFETY MEETING.

0715 SHD, HVA, & JG DISCUSS PLAN FOR
DAY WITH ROBERT of STAN'S.

0753 DEPART IC FOR PARADISE
BOAT RAMP.

0802 ARRIVE PARADISE BOAT RAMP.
SHD, HVA, & JG of ARCADIS & ROBERT
of STAN'S HOLD TAILGATE SAFETY
MEETING.

0819 ARRIVE AT DEP-08.

COLLECT PUSH CORE.

WATER DEPTH 6.7'

NO DISCERNABLE SURFACE LAYER.

0-2" BSS SILT, WET, VERY SOFT,

TRACE FINE SAND, GREY (ML)

2-8" BSS SILT, TRACE FINE SAND,

TRACE CLAY, WET, VERY SOFT, BROWN

TRACE WOOD DEBRIS (ML)

8-9" BSS SILT, LITTLE CLAY, WET,

SOFT, BROWN, LITTLE WOOD DEBRIS,

(ML)

N 233880.63'

E 1190344.49'

8-29-13

0839 ARRIVE DEP-09

COLLECT PUSH CORE.

NO DISCERNABLE SURFACE LAYER.

WATER DEPTH 6.8'

0-3" BSS SILT, TRACE FINE SAND,
WET, VERY SOFT, GREY (ML)3-8" BSS SILT, TRACE FINE SAND,
TRACE CLAY, WET, VERY SOFT, GREY,
(ML), TRACE WOOD DEBRIS

N233544.86'

E1190856.80'

0900 ARRIVE DEP-10

COLLECT PUSH CORE.

WATER DEPTH 7.2'

NO DISCERNABLE SURFACE LAYER

0-1" BSS SILT, LITTLE ~~TRACE~~ ^{SHD 8-29-15}
FINE SAND, WET, VERY SOFT, GREY,
TRACE WOOD DEBRIS (ML)

N233079.15'

E1191176.48'

1-6" BSS SILT, LITTLE FINE SAND,
WET, VERY SOFT, BROWN (ML),
LITTLE WOOD DEBRIS6-7" BSS SILT, TRACE FINE SAND,
LITTLE CLAY, WET, SOFT, BROWN ML
LITTLE WOOD DEBRISPROPOSED
SHD 8-29-13

8-29-13

MOVED LOCATION CLOSER TO
SHORE TO HAVE SHALLOWER
WATER DEPTH.

0931 ARRIVE AT DEP-11

COLLECT PUSH CORE

MOVED PROPOSED LOCATION CLOSER
TO SHORE TO HAVE SHALLOWER
WATER DEPTHNO DISCERNABLE SURFACE LAYER
WATER DEPTH 6.6'0-3" BSS FINE SAND, SOME SILT,
WET, VERY LOOSE, GREY3-6" BSS, SILT, TRACE SAND,
TRACE CLAY, WET, VERY SOFT,
BROWN (ML), TRACE WOOD DEBRIS6-7" BSS CLAY, WET, SOFT,
BROWN, (CL), LITTLE WOOD
DEBRIS

N232547.04'

E1191587.27'

1007 ARRIVE DEP-12

MOVED LOCATION TO EAST. BASED
ON OBSERVATIONS DURING RAIN
EVENTS, JUST NORTH OF BRIDGE
HAS HIGH FLOWS & LIKELY IS NOT

8-29-13

DEPOSITIONAL. MOVED TO EAST
IN ATTEMPT TO CAPTURE DEPOSITIONAL AREA.

COLLECTED PUSH CORE.

NO DISCERNABLE SURFACE LAYER.
WORM BURROW TUBES VISIBLE
EXTENDING OUT OF SEDIMENT
SURFACE ~3mm

0-3" BSS SAND FINE, SOME SILT,
WET, VERY LOOSE, GREY

3-7" BSS FINE SAND, SOME SILT, TRACE
CLAY, WET, VERY LOOSE, BROWN,
TRACE WOOD DEBRIS

7-9" BSS CLAY, WET, SOFT, BROWN,
TRACE WOOD DEBRIS (CL)

OBSERVED RED WORMS IN 0-3"
SEDIMENT LAYER.

WATER DEPTH 5.8'

N231580.35'

E1192035.26'

1030 ARRIVE PARADISE LANDING.

1040 DEPART PARADISE

1117 ARRIVE AMITY BOAT RAMP.

HOLD TAILGATE SAFETY MEETING.

8-29-13

1132 DEPART AMITY BOAT RAMP.

1152 ARRIVE AT BG-012

SURVEY FOR UTILITIES. WOOD
STAKE WITH PINK FLAGGING
~100 FT TO WEST NEAR HIGHWAY
BRIDGE.

COLLECT PUSH CORE.

WATER DEPTH 5.7'

NO DISCERNIBLE SURFACE LAYER.
SMALL (< LESS THAN 2mm)

RED ORGANISMS VISIBLE MOVING
ACROSS SURFACE OF SEDIMENT.
~2" OF BROWN SEDIMENT UNDER-
LAIN BY GREY SEDIMENT.

0-1" BSS SILT, SOME SAND, WET,
VERY SOFT, BROWN (ML), TRACE
ORGANIC DEBRIS, RED ORGANISMS
(< LESS THAN 2mm) MOVING
IN THIS LAYER.

1-8" BSS, CLAY, MOIST, SOFT, GREY
(CL), TRACE ORGANIC DEBRIS

N261206.74'

E1188559.77'

1218 ARRIVE AT BG-011

8-29-13

SURVEY FOR UTILITIES. PETROLEUM
PIPELINE MARKERS ~150 FT
TO WEST.

COLLECT PUSH CORE.

~2 mm BROWN LAYER UNDERLAIN
BY GREY LAYER.

SMALL (~ LESS THAN 2 mm) ORGANISMS
MOVING ACROSS SURFACE OF SEDIMENT.
WORM BURROW TUBES EXTENDING OUT
OF SEDIMENT SURFACE ~2 mm
WATER DEPTH 0.7 FT.

0-0.5" BSS SAND & SILT, WET, VERY
LOOSE GREY

0.5 TO 13" BSS CLAY, MOIST, MEDIUM
STIFF, BROWN WITH RED MOTTLING
ALONG VEGETATION DEBRIS, LITTLE
VEGETATION DEBRIS (CL)

N260938.90'

E1189094.77'

1241 ARRIVE AT BG-010

MOVE LOCATION ~75 FT EAST TO
BE AT LEAST 150 FT AWAY FROM
PIPELINE MARKING.

SURVEY FOR UTILITIES. PETROLEUM
PIPELINE MARKERS ~150 FT TO WEST

8-29-13

COLLECT PUSH CORE

WATER DEPTH 1.2 FT

LESS THAN 1 mm OF BROWN LAYER
UNDERLAIN BY GREY LAYER.

0-0.5" BSS SILT & SAND, WET, VERY
SOFT, GREY (ML)

0.5 TO 6" BSS CLAY, WET, MEDIUM
STIFF, BROWN, TRACE ORGANIC
DEBRIS (CL)

N259893.11'

E1189097.99'

1317 INSPECT INTERSTATE HIGHWAY
40 BRIDGE, WHICH HAS TO BE
TRAVELED UNDER TO ACCESS.

BG-009. BRIDGE IS UNDER CONSTRUCTION. CHANNEL UNDER BRIDGE
APPEARS TO BE CLOSED. BUOYS
ARE STRUNG ACROSS CHANNEL
INDICATING CLOSURE. APPEARS
UNSAFE TO PROCEED ALSO BECAUSE
THERE IS A CRANE ON THE NORTH
SIDE OF CHANNEL & ON SOUTH
SIDE OF CHANNEL, ON WEST SIDE
OF BRIDGE. TRAVELING TO BG-009
WOULD PUT VESSEL IN SWING
RADIUS OF CRANES.

8-29-13

USED STOP WORK AUTHORITY &
DECIDED NOT TO SAMPLE B6-009.

1323 ARRIVE AT B6-008

SURVEY FOR UTILITIES NO UTILITIES
OBSERVED. N 250825.77', S 1190383.95', SHD 8.2813

COLLECTED PUSH CORE.

WATER DEPTH 3.5'

NO DISCERNIBLE SURFACE LAYER,

ONE WORM BURROW TUBE EXTENDING
OUT OF SEDIMENT SURFACE ~ 2 mm

0-0.5" BSS SAND & SILT, WET, VERY
LOOSE, GREY

0.5" TO 10" BSS CLAY, WET, SOFT TO
MEDIUM STIFF, BROWN, TRACE WOOD
DEBRIS (CL)

1356 RETURN TO CARNEY BOAT RAMP,
DEMOB

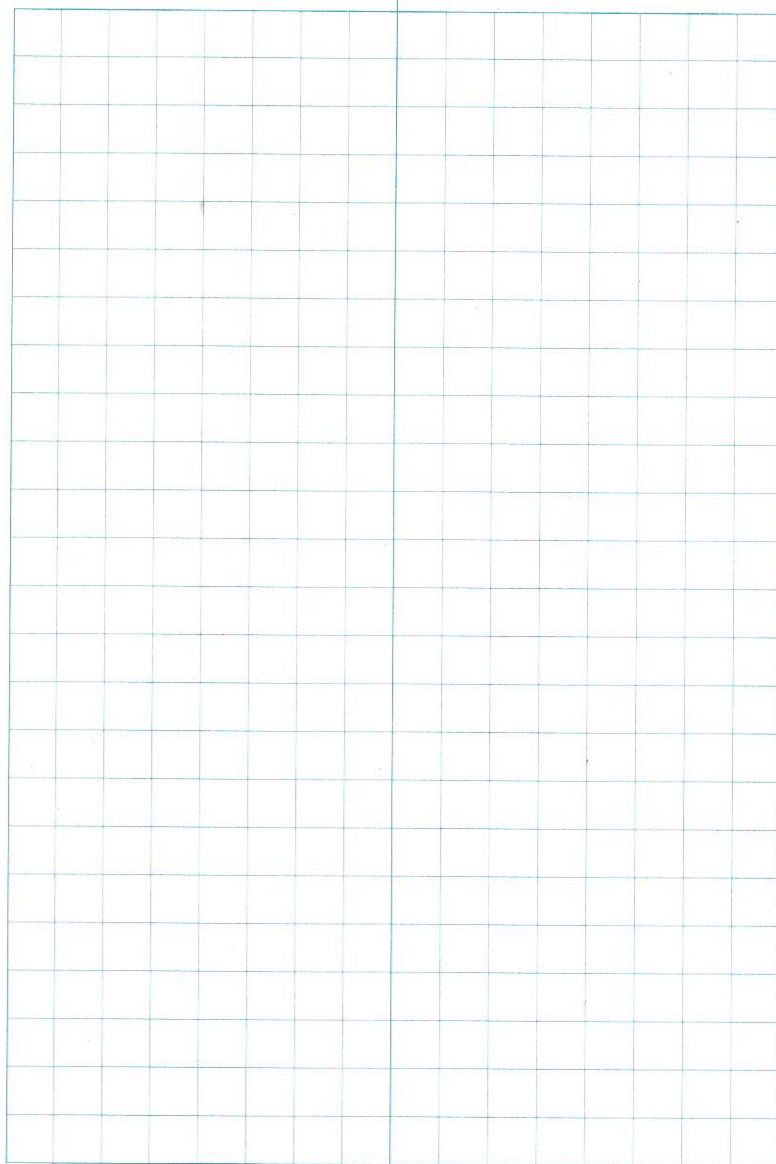
1404 DEPART CARNEY BOAT RAMP

1421 ARRIVE STORAGE UNIT
DEMOB

1430 DEPART STORAGE UNIT

1439 ARRIVE IC.

~~Shannon~~
8.29.13





Lake Conway Re-Sampled
Sediment Core Collection and
Processing Notes

0645 onsite for H+S KO meeting

0715 Prep for sediment sampling + processing
J. Geurts, Brian Lovgren, Daniel Mays on site.Sediment samples to be collected from Lake
Conway via airboat using Lexan tubing
Target: 6 locations to 1.5 ft depth, 1 duplicate,
1 ms/msd, 1 Rinse BlankSediment samples to be sectioned by 0.5 ft intervals,
homogenized in aluminum pans and put into laboratory
sample containers.

Containers per Sample set:

- 1 x 40z - Metals (Lancaster)
- 1 x 80z - PAH / TEH (B+B)
- [1 x 80z - TOC / BC (ALS) *surface only]
- 1 x TerraCore - VOC (Lancaster)
- [2 x 160z - Grain Size (Lancaster) *surface only]
- 1 x 160z (1/2 full) - Archive (Lancaster)

Setup + Collect SEDA036RGPS N 34.97229
W 092.41432Penetration 2.0'
Recovery 1.85'
Water Depth 4.85'

Depth	Time	PID (Zplac)	PID (Archive)	Soil Description
0-0.5	1015	0.4	0	SILT (ML), brown, saturated, no odor, trace organics
0.5-1.0	1020	0.3	0	Silty CLAY (CL), brown grading to gray, Trace organics, no odor, saturated, soft
1.0-1.5	1025	0.3	0	CLAY (CL), gray, trace organics, wet, soft, no odor

continue →

Setup & Collect SED-DA-037R & MS/MSD

Depth	Time	PID ^{Eploc}	PID ^{Archive}	Soil Description
0-0.5	1100	0.9	0	SILT (ML), brown, saturated, no odor, trace organics
0.5-1.0	1105	0.1	0	Wood (tree branch from 0.3 to 0.8 ft) SILT (ML), brown, saturated, no odor, trace organics
1.0-1.5	1110	0.3	0	Clay (CL), gray, no odor, soft, low plasticity
GPS N 34.97312 W 092.41505				Penetration 2.0' Recovery 2.0' water 5.0'

Setup & Collect SED-DA-038R

GPS N 34.97326 W 092.41391		Penetration 2.0' water 5.5' Recovery 1.8'		
Depth	Time	PID ^{Eploc}	PID ^{Archive}	Soil Description
0-0.5	1350	0	0	SILT (ML), brown, no odor, saturated
0.5-1.0	1355	0	0	[SILT (ML), dark gray, no odor, saturated]
1.0-1.5	1400	0	0	CLAY (CL), gray, soft, no odor, low plasticity

1600 Pack coolers + store on site for shipment on 11/20/13

1630 offsite.

0645 On site for H&S KO meeting

0745 D. Mays & B. Lovgren mobilize to Lake Conway to collect 3 sediment cores via boat using Lexan tubes. J. Geurts prep processing area. Same sampling / container scheme as 11-19-13

Setup & Collect SED-DA-033R & Duplicate

SED-DA-DUP-10-112013

GPS N 34.97119
W 092.41512

Pen - 2.0'

Rec - 1.7'

Water - 4.20'

Depth	Time	PID Σ loc	PID Archive	Soil Description
0-0.5'	0845	0.0	0.0	SILT (ML), brown, trace organics, no odor, saturated

0.5-1.0'	850	0.0	0.0	Silty Clay (CL), gray, saturated, trace organics
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1.0-1.5'	835	0.0	0.0	Clay (CL), gray, wet, soft
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Setup & collect SED-DA-034R

water 4.10'

GPS N 34.97142

Pen 2.2'

W 092.41457

Rec. 2.0'

Depth	Time	PID Σ loc	PID Archive	Soil Description
0-0.5'	910	0.0	0.0	Clayey SILT (ML), brown, trace organics, saturated, no odor

0.5-1.0'	915	0.0	0.0	Silty Clay (CL), gray, trace organics, wet, no odor
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1.0-1.5'	920	0.0	0.0	Clay (CL), gray, trace organics, low plasticity, soft, no odor
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continued →

Setup & collect SED-DA-035R

GPS N 34.97211

W 092.41558

Pen 2.2'

water 4.6'

Rec. 1.9'

Depth	Time	PID Ziploc	PID Archive	Soil Description
0-0.5	945	0.0	0.0	SILT (mL), brown, saturated, trace organics, no odor
0.5-1.0	950	0.0	0.0	silty CLAY (CL), brown to gray, saturated, red worm present, no odor
1.0-1.5	955	0.0	0.0	CLAY (CL), gray, wet, low plasticity, no odor

Soil Description

SILT (mL), brown, saturated, trace organics, no odor

silty CLAY (CL), brown to gray, saturated, red worm present, no odor

CLAY (CL), gray, wet, low plasticity, no odor

1130 Label Trip Blanks SED-DA-TB-15-112013
SED-DA-TB-16-112013

1145 collect Equipment Blank from disposable plastic scoop - SED-DA-EB-11-112013

IDW - 2 Bags PPE / Trash
2 Gal. Sediment

1200 Pack Coolers

1 - ALS

1 - B+B

4 - Lancaster

300 Pack Gear - Drop at storage unit +
430 De mob from site.