ATTACHMENT 2
IN-WATER FIELD DATA FORMS

ATTACHMENT 2-1
SURFACE SEDIMENT GRAB FORMS

Gasco Data Gaps

FAMM (Tina) 503 572-9355
Gasco Gate 503-519-7715

Back Gate 5321

Gasco 10/4/10

0800-1230 at launch to mob.
1245 Arrive Gasco to take training
Jennifer Jones arrived

1400 all on board to take first core attempt.

D. Gillingham	AnchorQEA
D. Peterson	"
M. Crystal	"
B. Jaworski	MSS
D. Dickinson	MSS
J. Jones	CDM

weather at time 1400 - calm overcast.

1450 Mob to DGS-30
1510 Collect DGS-30
1530 Mob back to dock to process
1630 Core rejected & dumped as IDW.
Cannot go back out without AED.

PID Readings: Gasco Data Gaps

10/4/10

1420 Background = 0.0 ppm

1450 0.3 ppm

1520 0.1 ppm

1550 0.3 ppm

1630 0.3 ppm

10.4.10 DO

Gasco Data Gaps

Health and Safety Meeting 0730 10/5/10

N. Soccorsy
D. Gillingham
S. Coffey
J. Jones
R. Hitchko
J. Dunny
D. Peterson
M. Crystal
D. Dickinson
B. Jaworski
D. Lafoon

AED now on site. One for upland work, will be stored in trailer. One on boat. Reviewed AED usage. Reviewed emergency procedures and hospital locations. Reviewed boat exclusion zones and oil cleanup procedures and IDW. Proper PPE are hard hat, raingear, safety glasses, gloves. Will take PID readings every 1/2 hour.

Gasco Data Gaps 10/5/10

0815 On board:

D. Gillingham
M. J. Crystal
D. Peterson
J. Jones
B. Janorski
D. Dickerson

Weather is partly cloudy.

0830
Dumping rejected core (DGS-30) into buckets.

0900 Mob to DGS-13
DGS-13 collected 0910.
Core recovery = 88%.
Core length = 16.9' (process length)
Material in nose was dark grey, medium to fine grain SAND (SP)
No odor, no sheen. Few blebs of sheen in headspace water.

1015 Core cut into 3 sections and transported to processing station.

Gasco - Data Gaps 10/5/10

1030 Mob to DGS-30.
Core collected at 1040. ~10' off station
Core recovery = 42%.
Sandy slurry observed spewing from bottom of core when pulled up. Material seems to be falling out bottom of core. Not cohesive enough for core catcher. Core rejected and material collected in 5 gal. buckets. Material is medium to fine grained sand with decomposed wood fragments ~ 1/2"-1" long.

1130 Mob back to DGS-30 for 3rd ~~try~~ attempt. About 14' off station.
1136 Core collected. Mob back to barge to process.
Core recovery = 72%.
Core length = 13.5' (process length)
Material in nose is dark grey medium to fine grain sand. No odor, no sheen.
1230 Break for lunch.
Core sections stored in insulated box w/ice.

Gasco Data Gaps 10/5/10

1250 Mob to DGS-03

1311 Core collected, Recovery = 77%.
Core cut into 3×5' segments and stored in insulated core box w/ice.
Material in nose is dark grey, medium to fine grain sand. Medium-~~stiff~~ dense. ~~Tho~~ Occasional chunks of grey clay (~5%). Few subrounded gravel. No odor, no sheen.

1407 Mob to DGS-11.

1413 Core collected ~~1413~~.
Material in nose is wet, loose, medium to fine grain sand. No odor, no sheen.
Substantial oil in overlying water. Cleaned off deck w/absorbent pads. Smells like naphthalene.
Substantial product observed at surface, at 6' of cut. None @ 12' cut. ~~Trace to~~ Some blebs of metallic sheen. Moderate petroleum odor.
Core cut into 3' segments.
Recovery = 89%.

Gasco Data Gaps 10/5/10

1530 Mobing to DGS-19

1545 Core collected
Smelled petroleum odor when core was pulled onto boat.
Core collected ~13' off station to move off slope.
Hit refusal at 17' penetration.
Recovery = 59%. Core rejected.
Material put in 5 gal buckets as IDW.

1830 All left boat for the night.

10.5.10 Dp

Gasco Data Gaps 10/6/10

0730 All at launch to Mob
D. Gillingham
M. J. Crystal
D. Peterson
P. Opem
B. Jaworski
D. Dickinson

Cleaning core tube from rejected core from yesterday. Health and safety meet

0830 Mob to DGS-19 for 2nd attempt.

0840 Core collected
Recovery = 78% - accepted
Material in nose was dark grey, ~~medium dense~~ loose, wet, Medium to fine grain sand. Moderate petroleum odor, no sheen.

1017 Mob to DGS-25

PID was reading between 1.5-2.0 ppm. Put into wind and still getting same reading. Recalibrated and readings went back down to 0.0 ppm. Brought respirators on board for deck crew.

Gasco Data Gaps 10/6/10

1030 Core DGS-25 collected.
Material in nose is dark grey, Medium to fine grain sand. Moist. No odor, no sheen.
Recovery = 77% - accepted.
Core cut into 3 segments.

1120 Stopping to deliver core to processing team.

1200 Mob to DGS-28

1205 Core collected.
Recovery = 59% - Rejected

1250 Mob back to DGS-28 for 2nd attempt.
Drove about 10' then hit refusal. Core rejected.

1320 Mob back to DGS-28 for 3rd attempt. Moved ~20' toward shore.
Core collected 1323.
Recovery = 47% - accepted
Cut into 2 segments

Gasco Data Gaps 10/6/10

1420 Mob to DGS-08

1424 Core collected. Recovery = 58%.
Headwater has substantial product.
Core rejected.
Material in nose is wet, medium dense, dark grey medium sand. Multicolored sand grains.
Moderate petroleum odor, moderate sheen.
Core material collected in 5gal. buckets as IDW.

1532 Mob back to DGS-08 for 2nd attempt.

1537 Core collected.
Recovery = 46% - rejected
In nose: medium-dense, dark grey, medium grain sand w/ 2" lens of brown silt. Substantial rainbow colored sheen, very strong petroleum odor.

1632 Mob back to DGS-08 for 3rd attempt.

Gasco Data Gaps 10/6/10

1638 Core collected.
16' of penetration due to disconnected hydraulic line that caused vibration to stop.
Recovery = 59% - accepted
Substantial product @ 5'
Only slight HC odor at bottom of core.

1715 Mob to Cathedral Park to offload cores and IDW.

1830 Back at barge. for the night.

10.6.10 DP

Gasco Data Gaps 10/7/10

0730 All on board, ready to mob.
M. J. Crystal
D. Gillingham Weather is
D. Dickinson overcast with
B. Janorski sun breaks.
D. Peterson
0800 Health and safety meeting.
Eye wash station location
Buddy system
Vessel safety
Avoiding exposure ~~routes~~ of chemical hazards.
Keeping an eye on coworkers for signs of stress and fatigue.
0820 Mob for DGS-06
0828 Core collected.
Recovery = 61% - rejected. Nose empty
0915 Mob to DGS-06 for 2nd attempt
0919 Core collected.
Nose empty. Headwater clean.
Recovery = 85% (20' drive)
Accepted.

Gasco Data Gaps 10/7/10

1010 Mob to DGS-10
~~1015~~ 1020 Core collected.
Recovery = 48% - rejected.
Material in nose was wet, medium to fine grain, dark grey sand. No odor, no sheen.
About 3' of wood debris observed in top of core.
1105 Mob to DGS-10 for 2nd attempt.
1111 Core collected.
Product present in headwater.
In nose: Wet, medium-dense, dark grey, medium to fine grain sand. Multicolored grains. No odor, no sheen.
Recovery = 50% - rejected.
1205 Mob to DGS-10 for 3rd attempt.
1210 Core collected.
Recovery = 71% - Accepted
Headwater clean.
In nose: wet, medium-dense, dark grey, medium to fine grain sand. No odor, no sheen.

Gasco Data Gaps 10/7/10

1300 Stopped to bring cores collected today to processors. Retrieved containers to collect site water.

1400 Mobing to nearshore stations to check depths for possibility of collecting 20' cores.

DGS-07: 4.8' - no 20' core

*DGS-22: Dry land. 105 feet offshore - 5.5' water depth. Collected point where ~~where~~ possible to collect 14' core (XDGS-22)

*DGS-24: ~78' offshore station, collected point where we could take 20' core (XXDGS-24)

4534.7634N 12245.3700W

XDGS-22: 4534.7780N 12245.4177W

*Boom in the way

DGS-32: Have to go ~15' offshore to get off slope but can get 20'. ~26' depth.

Gasco Data Gaps 10/7/10

DGS-37: Right at margin of collecting 20'. Have to move ~10'-15' offshore. Can't get on station because of some buoyed object in the way.
Move further upriver

DGS-36: Can't get to because of boom. ~70' offshore water depth ~6'. Can get closer to get 14' core

1428 Mob to DGS-20

1429 Core Collected

In nose: Wet, loose, dark grey, Medium to fine grain Sand. Grains are multicolored. No odor, no sheen.

Recovery = 59% - Rejected

1525 Mob to DGS-20 for 2nd attempt.

1528 Core collected

Recovery = 74% - Accepted

In nose: Wet, loose, dark grey Sand with multicolored grains. No odor, no sheen.

Gasco Data Gaps 10/7/10

1615 Mob to DGS-23

1625 Core collected.
Recovery = 55% - Rejected
In nose: Wet, loose, medium-grain, dark grey with multicolored grains sand. No odor, no sheen.

1700 Moving back to barge to drop off David and Bill then to Cathedral park to offload the core, IDW, and site water.
8x 20L cubitainers of site water collected.

1800 Back at barge for night

10.7.10 DP

Gasco Data Gaps 10/8/10

0730 All at boat, preparing to mob.
M.J. Crystal
D. Gillingham
B. Jaworski
D. Dickinson
D. Peterson
Weather is overcast.

0800 Health and Safety Meeting
Emergency Procedures and hospital directions.
HASP review and location
Fire extinguisher locations
Decon procedures and biohazards.

0810 Mob. to DGS-23 for 2nd attempt.

0824 Core collected.
Nose was empty.
Recovery = 76% - Accepted

0900 Mob to DGS-18

0910 Core collected.
Recovery = 42% - Rejected
Strong HC odor and heavy sheen in IDW.

Gasco Data Gaps 10/8/10

1035 Mob to DGS-18 for 2nd attempt.

1043 Core collected.
Recovery = 53% - Rejected.
Product observed in headwater and sludge at top.

1141 Mob to DGS-18 for 3rd attempt

1152 Core collected.
Recovery = 53% - Accepted.
In nose: Wet, loose, dark grey, medium to fine grain sand. Grains are multicolored. No odor, no sheen.

Some sheen on surface of water after first attempt. ~~Bo~~ Absorbant boom tied to bow and slow motor to collect sheen.

~~1215~~ 1245 Break for lunch and to unload core. Jennifer Jones with CDM aboard.

1330 Mob to DGS-44

1335 Core collected
Recovery = 54% - Rejected

Gasco Data Gaps 10/8/10

1424 Mob to DGS-44 for 2nd attempt.

1431 Core collected. Hit refusal at 10'. 58% recovery, ~5' of material. - Rejected.

1515 Mob to DGS-44 for 3rd attempt.

1521 Core collected. ~~15~~
Recovery = 49% - Accepted.
In nose: Wet, loose, medium to fine grain, dark grey sand. Multicolored grains. Slight He odor, no sheen.

1600 Mob to DGS-26

1609 Core collected.
Recovery = 58% - Rejected.
Black and brown product in headwater.
In nose: wet, loose, dark grey, medium to fine grain sand. Slight He odor, no sheen.

1640 Mob to Cathedral Park to drop off core and IDW.

1730 Back at barge for the night

Gasco Data Gaps 10/9/10

0730 All at boat, preparing to mob.
M.J. Crystal
D. Dickinson
D. Gillingham
B. Jaworski
D. Peterson
Rainy weather conditions

0800 Health and Safety Meeting
Work safe, all are fatigued.
Stay dry.
Lift with legs
Keep raingear on, wear hardhat when on deck.
Take breaks, drink water

0826 Mob to DGS-26 for 2nd attempt.

0839 Core collected.
Recovery = 47% - Rejected.
In nose: Wet, loose, medium to fine grain sand with multi-colored grains. Slight HC odor, no sheen.

0919 Mob to DGS-26 for 3rd attempt.
Core rigging fell over twice when deployed, hit debris.

Gasco Data Gaps 10/9/10

0944 Core collected.
Recovery = 59% - Accepted.
Tar balls in headwater.
Nose had clean dark grey sand.
No odor, no sheen.

1028 Mob to DGS-31

1046 Core collected.
Recovery = 79% - Accepted.
Nose had clean dark grey sand. Tar balls in head-water.

1130 Mob to DGS-32
on slope, adjusted core rigging to accomodate.

1145 Core collected.
Hit refusal at 17'.
Recovery = 84% - Accepted
Clean sand in nose.

1245 Break for lunch.

1304 Mob to DGS-37

1323 Core collected.
Significant bubbling observed when extracting core from sediments.

Gasco Data Gaps 10/9/10

~~1300~~ Recovery = 98%.

1323 (continued): DGS-37: In nose:
~~Wet, soft Very wet, very soft~~ DO
Damp, soft, grey silty clay. Slight HC odor, no sheen.

1410 David and Bill left boat to drive trucks to Cathedral Park.

1415 Mob to Cathedral Park to offload cores and IDW.

1530 Back at barge, all offloaded.

10/9/10 DO

Gasco Data Gaps 10/11/10

0730 All at boat. Mob to Cathedral Park to change out coring equipment.

M. J. Crystal
D Dickerson
D. Gillingham
B. Jaworski
D. Peterson

0830 Health and Safety Meeting.
Watch where we're walking, lots of lines and steps on deck to trip over.
Colder today, stay warm.
Wear gloves, safety glasses, PFD, and hard hat when on deck.
Water is a biohazard, keep off skin.
No eating or drinking on deck. We will stop and clean up before lunch.
AED is on back shelf in plain site.

Gasco Data Gaps 10/11/10

1139 Mob to DGS-36
Disconnect boom to get into area. Recovery = 82%.
70' offshore of target, water depth = 4'2" (Target station on shore).

1152 Core collected. Recovery = 99% Accepted

1245 Break for lunch

1256 Mob to DGS-0722
Core collected ~60' offshore of station (station on dry land)
In nose: Damp, soft, silty clay, w/trace fine-grain sand. No odor, no sheen. Grey.

1330 Mob to DGS-24.
Opened boom to get into area

1349 Core collected.
Hit refusal at 7.1'. Core rejected.

1355 Mob back to DGS-24 for 2nd attempt.

1404 Core collected.
Recovery = 87% - Accepted
Material in nose was the same

Gasco Data Gaps 10/11/10

as in the first attempt.

1443 Mob to DGS-07

1453 Core collected.
Recovery = 100% - Accepted.

1515 Mob to DGS-45

1535 Core collected
Recovery = 84% - Accepted.

1600 Mob to Cathedral Park to offload. 40L site water collected along the way.
Switch out core rigging for grab sample rigging.

1800 All back on shore for the night.

10.11.10 DO

Gasco Data Gaps 10/12/10

0730 Gathering supplies for grab sampling.

0830 At boat, preparing to depart
D. Dickerson
D. Gillingham.
M. Hewitt
D. Peterson

0900 Mob to Cathedral Park to pick up supplies.
M.J. Crystal on board.

0910 Safety Meeting.
Hospital location/dial 911.
Fire Extinguisher locations
Eye Wash locations
Coworker Monitoring
Vessel Safety, grab sampling safety
Wear safety glasses, raingear, gloves and hard hat.
May need to decon with ethyl acetate, will designate bucket for waste.
AED location and use
Watch out for steps, hoses,

Gasco Data Gaps 10/12/10

and cable.
Water is biohazard
No cell phone use on deck.

0943 Mob to DGS-30 - 41% fines.

1002 Grab collected and processed.
No substantial product observed

1059 Mob to DGS-33

1110 Grab collected and processed.
No substantial product.
42% fines

1215 Break for lunch

1228 Mob to DGS-34

1243 Grab collected and processed.
No ~~significant~~ substantial product

1332 Mob to DGS-35

1335 Grab collected and processed.
No substantial product
Jaw bent a little due to debris in grab. Stop to fix.
Fines = ~~47.27~~% 78%.

1445 Mob to DGS-31

1451 Grab collected, processed.

1453 Duplicate collected: DGS-81Sg-101012
Fines = 77%.

Gasco Data Gaps 10/12/10

1542 Mob to DGS-25

1551 Grab collected. Jaws of grab stuck open on piece of wood debris, grab rejected. Jaw teeth bent, stop to fix them.

1611 2nd attempt collected

1650 Mob to Cathedral Park to offload samples and IDW

1740 Back at barge for the night. All off boat.

10.12.10 Go

Gasco Data Gaps 10/13/10

0730 All at boat, preparing to depart.

0800 Mob to Cathedral Park to load supplies.
M.J. Crystal
D. Dickinson
D. Gillingham
D. Peterson

0830 Safety Meeting
Slips ~~an~~ trips and falls
Water biohazard
Pinchpoints
Low visibility
Lift with legs. Sore backs

~~08~~ Rinse and field blanks collected.

0845 Mob to DGS-26

0856 Grab collected
79% fines

0926 Mob to DGS-20

0937 Grab collected
Fines = 42%

1009 Mob to DGS-21

1019 Grab Collected
68% fines

Gasco Data Gaps 10/13/10

1053 Mob to DGS-16
1058 Grab collected - rejected, dunked 2x so surface material was washed off.
1105 2nd attempt collected Rejected - not deep enough
1112 3rd attempt collected Fines = 23%.
1147 ~~Mob to DGS 17~~ Break for lunch.
1227 Mob to DGS-17
1230 Grab collected 65% fines
1307 Mob to DGS-12
1316 Grab Collected 65% fines
1356 DGS-08 collected 23% fines.
Talked with Barth, need to add EPH/VPH. Waiting for approval from EPA to do Subset. Subset = 01, 04, 06, 08, 12, 13, 20, 21, 25, 26, 30, 31, 34 Stations.

Gasco Data Gaps 10/13/10

1440 Mob to DGS-13, collected 1443 Fines
1510 Mob to DGS-09
1518 Grab Collected Fines = 27%.
1602 Mob to DGS-04 ~~Grab collected~~ Rocky bottom. Backing offshore a ways
1605 Grab collected. Branch stuck in jaws, grab mostly empty.
1616 Grab collected fines = 70%.
1700 Mob to Cathedral Park to offload samples and IDW. AQ crew offloaded, return to Gasco to store samples and dispose of IDW.

10.13.10 DP

Gasco Data Gaps 10/14/10

0745 All at boat, moving to Cathedral Park to pick up supplies.
D. Dickinson
D. Gillingham
M. Hewitt
D. Peterson

0810 Health and Safety Meeting
Foggy today, everybody keep eyes and ears open while we're on the water.
Very sore backs, careful lifting
Fatigued - pay attention to what you're doing and keep an eye on coworkers
Water is biohazard, keep off skin.
Lots to trip on, watch out for cables and stairs.
Be aware of pinchpoints.
Don't try to control grab, get out of the way if it starts swinging.
Fire extinguisher, eye wash, first

Gasco Data Gaps 10/14/10

~~0820~~ aid kit locations.
Decon procedures
Emergency procedures.

0820 Mob to DGS-02
→ Picked up Mj. Crystal at Cathedral Park

0829 Grab collected
70% fines

0909 Mob to DGS-01

0914 Grab collected. Overpenetrated - rejected.
Lowering legs of grab to bring grab up.

0943 Mob back to DGS-01 for 2nd attempt.

0946 Grab collected
Some bubbling observed upon grab extraction.
Grab is almost all wood.
Rejected. Moving ~50' upstream.

1018 Grab collected
Mostly wood debris. Grainsize taken from top 2" of silt.
67% fines, coarser material likely

Gasco Data Gaps 10/14/10

due to wood debris.

1045 Raise legs of grab.

1056 Mob to DGS-05

1102 Grab collected.
Moderate sheen an HC odor in grab.
Fines = 43%.

1142 Mob to DGS-06

1146 Grab collected
fines = 73%.

1230 Mob back to barge and drop off M. Hewitt. Mob upriver to collect reference samples.

1346 Arrive U2C2

1350 Grab collected, fines = 28%.

1448 Arrive U4Q-2, can't get there, water is too low. Too low ~~Mob~~ for U4Q-3 as well.
Taking U4Q-2 ~~and~~ ~~away~~ 9' off target.
35% fines.

1519 Arrive at U4Q-1

1524 Grab collected

1553 Mob back toward Gasco site.

Gasco Data Gaps 10/14/10

1736 Arrive at Cathedral Park to offload samples, gear, supplies, and staff.

10.14.10 DO

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-01

Sampling Crew: DG, MC, DP
Sample Date: 10/14/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Foggy, Sunny
Station Coordinates: N / (Lat.) ~~45° 34.9199' N~~ 45° 34.9163' N
E (Long.) ~~122° 45.6613' W~~ 122° 45.6520' W
Datum: NAD 83 / (WGS 84) zone:

Sample ID: DGS-01SG-101014
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 57.6 ft. Grab Recovery: ____ cm Time: 0914
Tide Level: ____ ft. Sample Interval: ____ cm 45° 34.9195' N
Bioassay / Chemistry River Elevation: ____ ft. 122° 45.6619' W

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Overpenetrated - rejected

Grab Number: 2 Water Depth: 56.8 ft. Grab Recovery: ____ cm Time: 0946
Tide Level: ____ ft. Sample Interval: ____ cm 45° 34.9199' N
Bioassay / Chemistry River Elevation: ____ ft. 122° 45.6613' W

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Almost all wood - rejected.

Grab Number: 3 Water Depth: 54.8 ft. Grab Recovery: 30 cm Time: 1018
Tide Level: ____ ft. Sample Interval: 30 cm 48' UPRIVER OF TARGET
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Mostly wood debris
Fines = 67%

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-01
Job No. 000029-02.23	Date/Time: 10/14/10
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 3
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☐ Good ☑ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	[Not possible to take core from grab due to substantial wood debris.] Homogenized grab - Very wet, very soft, very woody, brown silt. No odor, no sheen. Grab appears to be homogenous throughout. Wood is decomposed.		DGS-01SG-101014			
4							
6							
8							
10							
12		End of grab @ 12"					

Page 1 of 1

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-02

Sampling Crew: DG, MC, DP
Sample Date: 10/14/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Foggy
Station Coordinates: N / (Lat.) 45° 34.9036' N
E / (Long.) 122° 45.6736' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-02SG-101014
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 44.6 ft. Grab Recovery: 30 cm Time: 0829
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 70%

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-02
Job No. 000029-02.23	Date/Time: 10/14/10
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6, 8, 10, 12	N	Very soft, very wet, brown silt. No odor, trace sheen on top of grab.		DGS-02SG-101014			
		6" - Same as above except wet and soft. Trace wood fi debris and organic fibers.					
		End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-04

Sampling Crew: MC, DG, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N / Lat. 45° 34.8747'N
E / Long. 122° 45.~~6695'W~~ 6734'W DD
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-04SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 7.0 ft. Grab Recovery: ____ cm Time: 1605
Tide Level: ____ ft. Sample Interval: ____ cm 45° 34.8737'N
Bioassay / Chemistry River Elevation: ____ ft. 122° 45.6695'W

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Grab mostly empty, rejected

Grab Number: 2 Water Depth: 7.3 ft. Grab Recovery: 25 cm Time: 1616
Tide Level: ____ ft. Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 70% fines

Grab Number: ____ Water Depth: ____ ft. Grab Recovery: ____ cm Time: ____
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-04
Job No. 000029-02.23	Date/Time: 10/13/10 1616
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6, 8	N	Moist, medium-stiff, gray ~~clay~~ silty clay ~~Moderate~~. Moderate ~~unknown odor~~ unknown odor. Occasional organic fibers. Trace metallic and rainbow sheen florets. Bottom of core @ 9"		DGS-04SG-101013			
10, 12		Slight compaction when extracting core. Bottom of sample interval @ 10"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-05

Sampling Crew: DG, MC, DP
Sample Date: 10/14/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N / Lat. 45° 34.8959' W
E / Long. 122° 45.6061' N
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-05SG-101014
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 47.4 ft. Grab Recovery: 27 cm Time: 0914 1102
Tide Level: ft. Sample Interval: 27 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 43%

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by:

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-05
Job No. 000029-02.23	Date/Time: 10/14/10 1102
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very wet, very soft, brown silt. Trace HC odor, moderate sheen. Golf ball found in silt layer.		DGS-05SG-101014			
4		2.5" Wet soft, dark grey silty sand, Medium to fine grain. Moderate HC odor, no sheen					
6		4" Wet, loose, medium to fine grain dark grey sand. Multicolored grains. Moderate odor, moderate metallic and rainbow sheen flocks. Trace wood debris.					
8	N						
10		End of core @ 10.75"					
12							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-06

Sampling Crew: DG, MC, DP
Sample Date: 10/14/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N / (Lat.) 45°34.8797'N
E / (Long.) 122°45.6128'W
Datum: NAD 83 / (WGS 84) zone:

Sample ID:
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / TPH / Grain Size / TOC / Ammonia / Sulfides
TVS (Ref only)
Other: Total cyanide
Other:

Grab Number: 1 Water Depth: 48.3 ft. Grab Recovery: 29 cm Time: 1146
Tide Level: ft. Sample Interval: 29 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 73% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps
Job No. 000029-02.23
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: DGS-06
Date/Time: 10/14/10 1146
Core Logged By: DP
Attempt #: 1
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
Diameter of Core (inches) 4
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft) in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2		Very wet, very soft, slightly ~~silty~~ sandy silt. No odor, no sheen. Brown		DGS-06SG-101014			
4		3"- Same as above except wet and soft.					
		9": Density changes to medium-stiff.					
		End of core @ 11.5"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DG S-08

Sampling Crew: DG, MC, DP
Sample Date: 10/13/2010 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: SUNNY
Station Coordinates: N/Lat 45° 34.8785' N
E/Long 122° 45.5513' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DG-S-08SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 46.7 ft. Grab Recovery: 30 cm Time: 1356
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 23% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-08
Job No. 000029-02.23	Date/Time: 10/13/10 1356
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2		Very wet, very soft, slightly sandy brown silt. No odor, no sheen		DGS-0854-101013			
4		3"- Wet, very loose silty sand, trace ltc odor, no sheen. Brown.					
6		4"- Wet, loose, dark grey sand. Medium to fine grain. Slight ltc odor, no sheen					
8		6½"- Moist, ~~damp~~ ~~loose~~ soft, brown silt with trace sand. Slight ltc odor, no sheen.					
10		8"- Same as 4"-6.5" layer					
12		End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-09

Sampling Crew: DG, MC, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: SUNNY WIND 5-10KTS @ E
Station Coordinates: N / Lat 45°34.8613'N
E / Long 122°45.5662'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-09SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 47.8 ft. Grab Recovery: 30 cm Time: 1578
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 49% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-09
Job No. 000029-02.23	Date/Time: 10/13/10 1518
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2–4	N	Very soft, very wet, brown, slightly sandy silt. No odor, no sheen.		DGS-0994-101013			
6–8	N	5.5"- Wet, loose, medium-to fine grain sand. Dark grey. Multiple colored grains. Occasional wood debris. No odor, no sheen.					
10	N	9.5"- Moist, soft, slightly sandy grey silt. No odor, no sheen.					
12	N	11" Same as 5.5"-9.5"					
		End of core @ 12"					

Page 1 of 1

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-12

Sampling Crew: DG, MC, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N (Lat) 45°34.8519'N
E (Long) 122°45.4889'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-12SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 47.5 ft. Grab Recovery: 27 cm Time: 1316
Tide Level: ft. Sample Interval: 27 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 65%

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-12
Job No. 000029-02.23	Date/Time: 10/13/10 1316
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)/in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very wet, very soft, slightly sandy brown silt. No odor, no sheen 2" - Same as above except soft and wet. Increasing sand to 4".		DGS-12SG-101013			
4	N	4": Wet, loose, dark grey, medium to fine grain sand. Slight HC odor, no sheen.					
6							
8	N	7.5": Intermixed pockets of sand and silt (same materials as above).					
10	N	9": Soft, wet, slightly sandy brown silt. Slight HC odor, no sheen.					
12		End of core @ 10.5"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-13

Sampling Crew: DG, MC, DP
Sample Date: 10/13/2010 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: SUNNY WIND 5-10KTS @ 5
Station Coordinates: N / Lat 45° 34.8345' N
E / Long 122° 45.5005' W
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 45.4 ft. Grab Recovery: 30 cm Time: 1443
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt/clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 27%

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps
Job No. 000029-02.23
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: DGS-13
Date/Time: 10/13/10 1443
Core Logged By: DP
Attempt #: 1
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
Diameter of Core (inches) 4
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very soft, very wet, slightly ~~silt~~ sandy silt. Brown, no odor, no sheen		DGS-13SG-101013			
4, 6	N	3" - Soft, wet, dark brown, very sandy silt. ~~No odor~~ Trace HC odor, no sheen.					
8, 10	N	7.5" - Wet, loose, medium to fine grain, dark grey sand. Multicolored grains. Slight HC odor, no sheen.					
12		11.5" - Moist soft, dark grey, sandy silt Slight HC odor, no sheen. End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-16

Sampling Crew: DG, MC, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N/(Lat) 45° 34.8312'N
E/(Long) 122° 45.4270'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-16SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / TPH / Grain Size / TOC / Ammonia / Sulfides
TVS (Ref only)
Other: Total cyanide
Other:

Grab Number: 1 Water Depth: 49.5 ft. Grab Recovery: ____ cm Time: 1058
Tide Level: ____ ft. Sample Interval: ____ cm 45° 34.8313'N
Bioassay / Chemistry River Elevation: ____ ft. 122° 45.4248'W

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: ~~Fines:~~ Rejected - grab dunked, surface material washed away

Grab Number: 2 Water Depth: 49.5 ft. Grab Recovery: ____ cm Time: 1105
Tide Level: ____ ft. Sample Interval: ____ cm 45° 34.8322'N
Bioassay / Chemistry River Elevation: ____ ft. 122° 45.4253'W

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Reject - not deep enough.

Grab Number: 3 Water Depth: 48.6 ft. Grab Recovery: 26 cm Time: 1112
Tide Level: ____ ft. Sample Interval: 26 cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 23% fines

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-16
Job No. 000029-02.23	Date/Time: 10/13/10 1112
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 3
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length ~~(ft)~~ in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very wet, very soft, brown, slightly sandy silt. No odor, no sheen.					
2	N	2"- Wet, loose dark grey sand. No odor, no sheen. Medium to fine grain. Grains are multicolored.		DGS-16SG-101013			
4							
6							
8							
10		End of core at 10.25"					
12							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-17

Sampling Crew: DG, MC, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N (Lat.) 45°34.8117'N
E (Long) 122°45.4425'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-DG17SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 43.4 ft. Grab Recovery: 30 cm Time: 1230
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other: TCE	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 65% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-17
Job No. 000029-02.23	Date/Time: 10/13/10 1230
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6	N	Very wet, very soft, slightly sandy, brown silt. No odor, no sheen. 4" - same as above except wet and soft		DGS-17SG-101013			
8, 10	N	Wet, loose, medium to fine grain, dark grey sand. Grains are multicolored. 6" 9" - Trace TCE odor to bottom					
12	N	10.5" - Occasional angular gravel Bottom of core at 12"					
		- Trace metallic sheen flocks observed in homogenized sample.					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-20

Sampling Crew: DG, MC, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: SUNNY
Station Coordinates: N (Lat.) 45° 34.8175' N
E / (Long.) 122° 45.3850' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-20SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 48.2 ft. Grab Recovery: 30 cm Time: 0937
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 42% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-20
Job No. 000029-02.23	Date/Time: 10/13/10 0937
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft) in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very wet, very soft, slightly sandy, brown silt. No odor, no sheen.		DGS-20SG-101013			
4 6	N	3"- Wet, loose, dark grey, medium to fine grain sand. Grains are multi-colored. No odor, no sheen.					
	N	6.5"-7.5"- Band of moist, grey, sandy silt. Soft.					
8 10	N	7.5"- Same as 3"-6.5".					
12		End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-21

Sampling Crew: DG, MC, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N (Lat) 45°34.7957'N
E (Long) 122°45.3997'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-2054-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 43.3 ft. Grab Recovery: 30 cm Time: 1019
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 68%

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-21
Job No. 000029-02.23	Date/Time: 10/13/10 1019
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft), in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very wet, very soft, slightly sandy silt. Brown. No odor, no sheen.		DGS-21SG-101013			
4		4"- Same as above except wet and soft.					
6		Occasional pockets of dark grey, medium to fine grain sand.					
8	N	Trace HC odor ~ 8"-12"					
10							
12		End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-25

Sampling Crew: DG, MC, DP
Sample Date: 10/12/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny, high clouds
Station Coordinates: N/(Lat) 45° 34.7885'N
E/(Long) 122° 45.3109'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-25SG-101012
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 48.6 ft. Grab Recovery: 12 cm Time: 1551
Tide Level: ft. Sample Interval: X cm 45°34.7878'N
Bioassay / Chemistry River Elevation: ft. 122°45.3105'W

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C (M) (F)	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Rejected. Jaws stuck open on wood debris, sample washed out.

Grab Number: 2 Water Depth: 48.4 ft. Grab Recovery: 26 cm Time: 1611
Tide Level: ft. Sample Interval: 26 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C (M) (F)	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 40%

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-25
Job No. 000029-02.23	Date/Time: 10/12/10 1611
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft) in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very wet, very soft, brown slightly sandy silt. No odor, no sheen.		DGS-2534-101012			
2 4	N	2"- Wet, loose, dark grey, medium to fine grain, slightly silty sand. Multi-colored sand grains. No odor, no sheen.					
6 8	N	5"- Gradual transition (increasing silt) to soft, wet, brown, sandy silt. No odor, no sheen.					
	N	9"- Same as 2"-5" layer.					
10 12		End of core @ 10"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-26

Sampling Crew: DG, MC, DP
Sample Date: 10/13/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N (Lat.) 45° 34.7712' N
E (Long.) 122° 45.3241' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-26SG-101013
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 44.6 ft. Grab Recovery: 30 cm Time: 0856
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 79% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-26
Job No. 000029-02.23	Date/Time: 10/13/10 0856
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2		Very wet, very soft, slightly sandy brown silt. No odor, no sheen.		DGS-26SG-101013			
4		3" - Same as above except changes to wet and soft.					
6							
8		-9" - Slight HC odor.					
10		10" - Wet, loose, dark grey, medium to fine grain sand. Multicolored grains. Slight HC odor, no sheen.					
12		End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-30

Sampling Crew: DG, MG, DP
Sample Date: 10/12/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Clear + Sunny
Station Coordinates: N (Lat.) 45°34.7624'N
E / (Long.) 122°45.2423'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-30SG-10012
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 49.8 ft. Grab Recovery: 29 cm Time: 1002
Tide Level: ft. Sample Interval: 29 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter - wood	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 41% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment ~~Core~~ Grab Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-30
Job No. 000029-02.23	Date/Time: 10/12/10 1002
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft/in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very soft, very wet, brown, sandy silt. No odor, no sheen. Trace wood debris on surface.					
2	N	2"- Wet, loose, dark grey sand. Medium to fine grain. No odor, no sheen. Grains are multicolored		DGS-30SG-101012			
4							
6	N	5"- Wet, soft, sandy silt. Brown. No odor, no sheen					
8	N	7"- Same as 2"-5" layer.					
	N	8"- Wet, loose, woody debris. Black. Slight HC odor, no sheen.					
10							
12		Bottom of grab @ 11.5"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-31

Sampling Crew: DG, MC, DP
Sample Date: 10/12/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny, some high clouds.
Station Coordinates: N / Lat. 45° 34.7428' N
E / Long. 122° 45.2669' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-31SG-101012, DGS-81SG-101012
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 43.5 ft. Grab Recovery: 36 cm Time: 1451
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 77%.
- Duplicate collected (DGS-81SG-101012)

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by:

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps
Job No. 000029-02.23
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: DGS-31
Date/Time: 10/12/10 1451
Core Logged By: DP
Attempt #: 1
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
Diameter of Core (inches) 4
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very wet, very soft, brown, ~~silt with~~ slightly sandy silt. Trace sheen florets, no odor.		DGS-31SG-101012, DGS-81SG-101012			
4, 6, 8, 10	N	3" - Wet, soft, brown, sandy silt with interbedded pockets of dark grey sand. (medium to ~~co~~ fine grain). No odor, no sheen.					
12		End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-33

Sampling Crew: DG, MC, DP
Sample Date: ~~13/10~~ 10/12/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny and clear
Station Coordinates: N (Lat.) 45° 34.7442'N
E / (Long.) 122° 45.2042'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-33SG-101012
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 47.5 ft. LL. Grab Recovery: 29 cm Time: 1110
Tide Level: ft. Sample Interval: 29 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 42% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-33
Job No. 000029-02.23	Date/Time: 10/12/10 1110
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☐ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
		Very wet, very soft, slightly sandy silt. No odor, no sheen.					
2		2" - Wet, loose, medium to fine grain sand with few interbedded pockets of brown silt. No odor, no sheen. Sand is dark grey with multicolored grains.		DGS-30Sq-101012			
4							
6							
8							
10		Bottom of grab @ 11:5"					
12							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-34

Sampling Crew: DG, MC, DP
Sample Date: 10/12/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny and clear
Station Coordinates: N / Lat 45° 34.7116'N
E / Long 122° 45.1912'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-34SG-101012
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
~~TVS (Ref only)~~

Grab Number: 1 Water Depth: 45.9 ft. Grab Recovery: 30 cm Time: 1243
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 73% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-34
Job No. 000029-02.23	Date/Time: 10/12/10 1243
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft) in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very soft, very wet, slightly sand silt. Brown. No odor, no sheen.					
4, 6, 8, 10, 12	N	3"-Soft, wet, silty sand. Fine to medium grain. Loose, brown. Interbedded layers of soft brown silt. No odor, no sheen. Bottom of core @ 12"		DGS34SG-101012			

Page 1 of 1

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-35

Sampling Crew: DG, MC, DP
Sample Date: 10/12/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny, clear
Station Coordinates: N (Lat) 45° 34.6915 'N
E (Long) 122° 45.1877 'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-35SG-101012
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 17.8 ft. Grab Recovery: 27 cm Time: 1335
Tide Level: ft. Sample Interval: 27 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 47% fines 27% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-35
Job No. 000029-02.23	Date/Time: 10/12/10 1335
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very wet, very soft, brown, silty sand. Slight HC odor, ~~no sheen~~ Trace sheen on surface. Moderate wood debris.		DGS-35SG-101012			
4, 6, 8	N	3"- Damp, soft, silty clay. Grey. Slight HC odor, no sheen. Occasional clam shells. (Core segment compressed ~2") End of core @ 9"					
10	N	Sample interval to 11"					
12							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** U2C-2

Sampling Crew: DG, MC, DP
Sample Date: 10/14/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N / (Lat) 45° 28.2546'N
E / (Long) 122° 40.1196'W
Datum: NAD 83 / (WGS 84) zone:

Sample ID: U2C-2-101014
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / TPH / Grain Size / TOC / Ammonia / Sulfides
TVS (Ref only)
Other: Total cyanide
Other:

Grab Number: 1 Water Depth: 6.5 ft. Grab Recovery: 25 cm Time: 1350
Tide Level: ft. Sample Interval: 25 cm
(Bioassay / Chemistry) River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Fines = 28%

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: U2C-2
Job No. 000029-02.23	Date/Time: 10/14/10 1350
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core Grab
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft) in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very wet, very soft, sandy silt. No odor, no sheen. Brown		U2C-2-101014			
2	N	2"- wet, loose, brown, ~~very fi~~ silty, fine grain sand. No odor, no sheen.					
4							
6		6.5"- wet loose, grey, slightly silty fine grain sand. No odor, no sheen.					
8							
10		End of core @ 10"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** U4Q-1

Sampling Crew: DG, MC, DP
Sample Date: 10/14/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N (Lat.) 45° 26.2333' N
E / (Long) 122° 38.7657' W
Datum: NAD 83 / WGS 84 zone:

Sample ID:
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 7.4 ft. Grab Recovery: 30 cm Time: 1524
Tide Level: ft. Sample Interval: 30 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 52% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by:

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: W4Q-1
Job No. 000029-02.23	Date/Time: ~~10/10~~ 10/14/10 1524
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
% Recovery:	Diameter of Core (inches) 4
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft) in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very wet, very soft, Sandy Silt. Brown. No odor, no sheen. Sand grains are fine.		W4Q-1-101014			
4		4": ~~density~~ changes to soft and wet.					
6		Trace organic fibers					
8							
10							
12		End of core @ 12"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** U4Q-2

Sampling Crew: DG, MC, DP
Sample Date: 10/14/10 Sampling Method: Van Veen HYDRAULIC GRAB
Sampling Vessel: MV Nancy Ann
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N (Lat) 45° 26.2434' W
E (Long) 122° 38.7490' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: U4Q-2-101014
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / TPH / Grain Size / TOC / Ammonia / Sulfides
TVS (Ref only)
Other: Total cyanide
Other:

Grab Number: 1 Water Depth: 2.1 ft. Grab Recovery: 25 cm Time: 1446
Tide Level: ft. Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 35% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps
Job No. 000029-02.23
No. of Sections:
Drive Length:
Recovery:
% Recovery:
Notes:

Station ID: U4Q-2
Date/Time: 10/14/10 1446
Core Logged By: DP
Attempt #: 1
Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core (Grab)
Diameter of Core (inches) 4
Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2		Wet, soft, brown, silty sand. No odor, no sheen. Fine grain.					
4	N	Density changes to medium-~~stiff~~ dense. Moisture to moist		U4Q-2-101014			
6		1/2" piece of wood @ 6.5'					
8							
10		End of core @ 10"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-01

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: overcast, calm
Station Coordinates: N / Lat. 45°34.9198'N
E / Long. 122°45.6622'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-01SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 67.2 ft. Actual Grab Recovery: 23.0 cm Time: 1110
Tide Level: 9.42 ft. " Sample Interval: ~~23.0~~ cm
Bioassay / Chemistry River Elevation: 57.78 ft. 56.2

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	~~gray~~	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Lots of decomposed wood and fibers.
50% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-01
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6, 8	N	Very soft, very wet, brown vf-sandy silt w/ substantial wood debris and fibers Trace HC odor starting at 5"					
10, 12, 14		9" - Bottom of core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-02

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Partly sunny, calm
Station Coordinates: N / Lat. 45° 34.9042'N
E / Long. 122° 45.6736'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-02SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 53.5 ft. Grab Recovery: 29 cm Time: 1031
Tide Level: 9.50 ft. 11.10 Sample Interval: 29 cm
Bioassay / Chemistry River Elevation: 44.0 ft. 42.4

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 69% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-02
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2		Very soft, very wet, brown slightly vf-sandy silt. No odor, no sheen					
4	N	3"- Increasing competency to soft and wet color changes to grey Trace organic fibers. Trace HC odor.					
6							
8							
10							
12		10"- Bottom of core					
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-04

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: overcast, cool, calm
Station Coordinates: N / Lat. 45° 34.8743'N
E / Long. 122° 45.6726'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-04SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 15.4 ft. Grab Recovery: 29 cm Time: 0953
Tide Level: 9.55 ft. 11.13 Sample Interval: 29 cm
Bioassay / Chemistry River Elevation: 5.85 ft. 4.27

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 67% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-04
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very soft, very wet, brown SILT. No odor, no sheen.					
2		1"- Soft, wet, gray and brown slightly clayey SILT with trace vf-sand. Slight HC odor, no sheen.					
4							
6	N	5"- Increasing clay to clayey SILT					
8	N	8"- Soft, wet, grey, slightly vf-sandy SILT. Trace HC-odor, no sheen					
10		Bottom of core @ 9"					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-05

Sampling Crew: DG, GN, DP
Sample Date: 4/18/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Partly cloudy
Station Coordinates: N / Lat. 45° 34.8957' W
E / Long. 122° 45.6003' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-05SG-110418
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 56.0 ft. Grab Recovery: 25 cm Time: 1128
Tide Level: ~~0.82~~ ft. 9.08 10.71 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: ~~55.7~~ ft. 46.92 46.29

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet (very)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 20% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-05
Job No. 000029-02.28	Date/Time: 4/18/11
No. of Sections: 1	Core Logged By: DP
Drive Length: 25cm	Attempt #: 1
Recovery: 25cm	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Wet, soft, brown, slightly sandy SILT					
2, 4, 6, 8, 10	N	1"- Loose, moist, medium to fine grain SAND, dark grey - occasional decomposed wood debris and fibers throughout - Moderate metallic and rainbow sheen throughout - Moderate HC odor throughout					
12, 14		Bottom of core @ 11"					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-06

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: partly sunny, cool
Station Coordinates: N / Lat. 45° 34.8790'N
E / Long. 122° 45.6124'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-06SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 57.4 ft. Grab Recovery: 26 cm Time: 0917
Tide Level: 9.59 ft. 11.22 Sample Interval: 26 cm
Bioassay / Chemistry River Elevation: 47.81 ft. 46.18

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 55% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-06
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4	N	Very soft, very wet, brown vf-sandy SILT. Trace wood fibers - Increasing competency to soft and wet - Slight HC odor from 3" to bottom					
6, 8	N	5.5" Loose, wet, grey, f-SAND - 6.5" - 2" x 1" angular piece of black plastic.					
	N	8" Soft, wet, brown, m-sandy SILT					
10, 12, 14		9.5" Bottom of core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.23 **Station ID:** DGS-08

Sampling Crew: DG, GN, DP
Sample Date: 4/18/11 Sampling Method: ~~Van Veen~~ HYDRAULIC CLAM
Sampling Vessel: ~~MV Nancy Ann~~ R/V PATRICK
Subcontractor(s): MSS Weather: Sunny, cool
Station Coordinates: N / Lat. 45°34.8773'N
E / Long. 122°45.5534'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-08SG-110418
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 56.6 ft. Actual Grab Recovery: 25 cm Time: 0947
Tide Level: ~~1.48~~ ft. 9.28 1093 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: ~~55.1~~ ft. 47.32 45.67

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 40% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-08
Job No. 000029-02.28	Date/Time: 4/18/11 1005
No. of Sections: 1	Core Logged By: DP
Drive Length: 25 cm	Attempt #: 1
Recovery: 25 cm	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery: 100%	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Wet, soft, slightly sandy, brown SILT. No odor, no sheen					
4		Grades to wet, loose, gray and brown silty SAND. No odor, no sheen					
6	N	6-7" ~~sharp diagonal contact~~ by Pocket of wet, soft, brown sandy SILT					
8							
10							
12		Bottom of core @11.5"					
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-09

Sampling Crew: DG, GN, DP
Sample Date: 4/18/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Partly cloudy
Station Coordinates: N / Lat. 45° 34.8615'N
E / Long. 122° 45.5657'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-09SG-110418
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 56.0 ft. Actual Grab Recovery: 27 cm Time: 1042
Tide Level: ~~1.08~~ ft. 9.18 10.81 Sample Interval: 27 cm
Bioassay / Chemistry River Elevation: ~~54.9~~ ft. 46.82 45.19

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 59% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-09
Job No. 000029-02.28	Date/Time: 4/18/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Soft, wet, brown, sandy SILT					
2	N	1"-2" Band of loose, wet, grey SAND. Dime size floret of rainbow sheen on outside of core					
4	N	Soft, wet, brown slightly sandy SILT interspersed pockets of med. sand to bottom. Slight HC odor throughout. Occasional wood debris throughout.					
6							
8							
10		Bottom of core @ 11"					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-12

Sampling Crew: DG, GN, DP
Sample Date: 04/18/2011 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Showers / sunbreaks
Station Coordinates: N / Lat. 45° 34.8516' N
E / Long. 122° 45.4878' W
Datum: (NAD 83) / WGS 84 zone:

Sample ID: DGS-12SG-110418
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 55.3 ft. Grab Recovery: 25 cm Time: 1312
Tide Level: -0.05 ft. Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Jaws did not close completely - rejected

Grab Number: 2 Water Depth: 55.3 ft. Actual 10.55 Grab Recovery: 25 cm Time: 1317
Tide Level: ~~-0.11~~ ft. 8.93 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: ~~55.4~~ ft. 46.37 44.75

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Duplicate collected for chemistry DGS-62SG-110418
25% fines. Moderate wood debris. VOC jars preserved with ZnOAc
Will not submit for analysis

Grab Number: ____ Water Depth: ____ ft. Grab Recovery: ____ cm Time: ____
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-12
Job No. 000029-02.23	Date/Time: 4/18/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☐ Diver Core ☒ Grab
% Recovery:	Diameter of Core (inches)
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (ft) in	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very soft, very wet, brown, slightly sandy SILT					
2	N	1"- Loose, wet, grey, m-f grain SAND 3"-½" layer of decomposed wood debris and fibers					
4							
6							
8	N	7"- Soft, moist, brown, slightly sandy, slightly clayey SILT					
10		9"- Bottom of core Slight HC odor throughout core					
12							

Page 1 of 1

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-13

Sampling Crew: DG, GM, DP
Sample Date: 04/18/2011 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Showers | sun
Station Coordinates: N / Lat. 45° 34.8357'N
E / Long. 122° 45.5018'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-13SG-110418
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 57.1 ft. Grab Recovery: ____ cm Time: 1401
Tide Level: 8.87 ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: 48.23 ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Rejected. Grab probably set down on something impenetrable
Hardly any material in grab.

Grab Number: 2 Water Depth: 57.1 ft. Actual Grab Recovery: 26 cm Time: 1406
Tide Level: 8.85 ft. 10.46 Sample Interval: 26 cm
Bioassay / Chemistry River Elevation: 48.25 ft. 46.64

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 43% fines

Grab Number: ____ Water Depth: ____ ft. Grab Recovery: ____ cm Time: ____
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DG5-13
Job No. 000029-02.28	Date/Time: 4/18/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Soft, wet, brown, Sandy SILT					
4	N	3.5" - Loose, moist, grey m-SAND					
6	N	5" - Alternating packets of sand and sandy SILT as described above					
8	N	7" - Same as above @ 3.5"					
10		Slight HC odor throughout core.					
12		Bottom of core @ 11"					
14							

43% Fines

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-16

Sampling Crew: DG, DL, DP
Sample Date: 4/18/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Showers
Station Coordinates: N / Lat. 45° 34.8318'N
E / Long. 122° 45.4260'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-16SG-110418
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 56.0 ft. Actual Grab Recovery: 25 cm Time: 1455
Tide Level: 8.80 ft. 10.41 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: 47.2 ft. 45.59

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 30% fines. Duplicate VOC sample collected: DGS-66SG-110418

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-16
Job No. 000029-02.28	Date/Time: 9/18/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4	N	Very thin layer of brown silt on surface ~~[illegible]~~ Loose, moist, brown to dark grey M-f SAND					
6	N	4.5" - Soft, moist, brown, slightly sandy SILT					
8	N	7-8" ~1/2" diagonal layer of SAND					
	N	8"-9" - 1" diagonal layer of SILT 8½-9" - central pocket of SAND					
10, 12, 14		Bottom of core @ 9" No odor, no sheen throughout core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-17

Sampling Crew: DG, DL, DP
Sample Date: 4/18/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, partly cloudy
Station Coordinates: N / Lat. 45° 34.8122'N
E / Long. 122° 45.4421'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-17SG-110418
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 51.3 ft. Actual 10.35 Grab Recovery: 28.5 cm Time: 1532
Tide Level: 8.75 ft. Sample Interval: 28.5 cm
Bioassay / Chemistry River Elevation: 42.55 ft. 40.95

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 17% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-17
Job No. 000029-02.28	Date/Time: 4/18/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Soft, wet, brown, sandy SILT 0.5"					
2		Grades to loose, moist, grey SAND. Grains are multicolored.					
4	N	No odor or sheen throughout core.					
6							
8		1" long piece of wood					
10		Bottom of core @ 9"					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-20

Sampling Crew: DG, DL, DP
Sample Date: 4/19/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, cool
Station Coordinates: N / Lat. 45° 34.8171'N
E / Long. 122° 45.3842'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-20SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 57.6 ft. Actual Grab Recovery: 27 cm Time: 0849
Tide Level: 9.71 ft. 11.33 Sample Interval: 27 cm
Bioassay / Chemistry River Elevation: 47.89 ft. 46.3

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 27% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-20
Job No. 000029-02.28	Date/Time: 4/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Soft, wet, brown, f-sandy SILT					
2	N	1"- Loose, wet, grey, m-f SAND					
4 6	N	3"- Interbedded layers of SAND and m-f Sandy SILT as described above					
8	N	6.5"- Loose, moist, grey, m-f SAND. Sand grains are multicolored.					
10 12 14		9"- End of core. No odor or sheen throughout core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-21

Sampling Crew: DG, DL, DP
Sample Date: 04/19/2011 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, partly cloudy, calm
Station Coordinates: N / Lat. 45° 34.7952'N
E / Long. 122° 45.3998'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-21SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 52.5 ft. Actual Grab Recovery: 27.5 cm Time: 1420
Tide Level: 9.18 ft. 10.81 Sample Interval: 27.5 cm
Bioassay / Chemistry River Elevation: 43.32 ft. 41.69

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 62% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DG8-21
Job No. 000029-02.28	Date/Time: 4/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very soft, very wet, vf-sandy SILT. Brown					
4	N	2" - Interspersed pockets of sandy SILT and loose, wet, vf-f, grey SAND. Subrounded piece of gravel ~1" @ 2"					
6	N	4" - Soft, wet, brown, SILT w/trace vf sand. Trace HC odor 6-7"					
8							
10		End of core @ 9.5"					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-25

Sampling Crew: DG, DL, DP
Sample Date: 4/19/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny
Station Coordinates: N / Lat. 45° 34.7884'N
E / Long. 122° 45.3098'W
Datum: (NAD 83) WGS 84 zone:

Sample ID: DGS-25SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 58.3 ft. Grab Recovery: 18 cm Time: 0926
Tide Level: ft. Sample Interval: 25 cm
(Bioassay / Chemistry) River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	(none)	H2S	(none)	Dry
gravel	(gray)	soft/loose	slight	Petroleum	trace	Damp
(sand) C (M F)	black	med dense/stiff	moderate	other:	slight	Moist
(silt) clay	brown	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Rejected. 18cm recovery. Sides washed out

Grab Number: 2 Water Depth: 59.2 ft. Actual Grab Recovery: 25 cm Time: 0941
Tide Level: 9.62 ft. 11.28 Sample Interval: 25 cm
(Bioassay / Chemistry) River Elevation: 49.58 ft. 47.92

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	(Very soft/Loose)	(none)	H2S	(none)	Dry
gravel	(gray)	soft/loose	slight	Petroleum	trace	Damp
(sand) C (M F)	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 19% fines

Grab Number: Water Depth: ft. Grab Recovery: cm Time:
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DLS-25
Job No. 000029-02.28	Date/Time: 4/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Loose, wet, grey, m-f SAND					
2	N	1"- soft, wet, grey, slightly f-sandy SILT					
4	N	3"- loose, wet, grey m-f SAND. Sand grains are multicolored.					
6		No odor, no sheen throughout core.					
8							
10							
12		11"- Bottom of core					
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-26

Sampling Crew: DG, DL, DP
Sample Date: 4/19/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, partly cloudy light breeze
Station Coordinates: N / Lat. 45° 34.7687' N
E / Long. 122° 45.3326' W
Datum: (NAD 83) / WGS 84 zone:

Sample ID: DGS-26SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 51.8 ft. Actual Grab Recovery: 26.5 cm Time: 1501
Tide Level: 9.11 ft. 10.77 Sample Interval: 26.5 cm
Bioassay / Chemistry River Elevation: 42.69 ft. 41.03

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other: TCE	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 35% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-26
Job No. 000029-02.28	Date/Time: 4/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very soft, very wet, brown, vf-sandy SILT					
2	N	0.5" - Loose, wet, grey vf-f SAND.					
4		Slight ~~HC~~ TCE odor ~~increasing~~ starting @ 3"					
6							
8	N	7" - Soft, wet, brown, slightly vf-sandy SILT Slight ~~HC(?)~~ TCE odor, no sheen					
10		9.5" Bottom of core					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-30

Sampling Crew: DG, DL, DP
Sample Date: 4/19/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, calm
Station Coordinates: N / Lat. 45° 34.7622'N
E / Long. 122° 45.2415'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-30SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 59.0 ft. Actual Grab Recovery: 25 cm Time: 1023
Tide Level: 9.55 ft. 11.2 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: 49.45 ft. 47.8

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 12% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-30
Job No. 000029-02.28	Date/Time: 4/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very thin (<1cm) brown silt layer on top Loose, wet, grey, M-f SAND w/ occasional small wood debris and fibers.					
4	N	3" - Loose, wet, light grey, slightly silty, slightly clayey f-SAND					
6	N	4" - Loose, wet, black, woodand wood fibers Wood is decomposed.					
8	N	6" - Loose, wet, grey, SAND (M-f). 7" - ~2" ⊖ pocket of soft, wet, light grey sandy SILT					
10		No odor, no sheen throughout core					
12		11" - End of core					
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-31

Sampling Crew: DG, DC, DP
Sample Date: 4/15/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, calm
Station Coordinates: N / Lat. 45° 34.7424' N
E / Long. 122° 45.2680' W
Datum: ~~NAD 83~~ / WGS 84 zone:

Sample ID: DGS-31SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 51.8 ft. Actual Grab Recovery: 27 cm Time: 1534
Tide Level: 9.05 ft. 10.71 Sample Interval: 27 cm
Bioassay / Chemistry River Elevation: 42.75 ft. 41.09

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other: TCE	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 75% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-31
Job No. 000029-02.28	Date/Time: 4/18/17
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6, 8	N	Very soft, very wet, brown v-f sandy SILT -1"- changes to soft and wet, slightly vf-sandy Trace TCE odor throughout core. No sheen					
10, 12, 14		9"- end of core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-33

Sampling Crew: DG, DL, DP
Sample Date: 4/19/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Partly cloudy
Station Coordinates: N / Lat. 45° 34.7453'N
E / Long. 122° 45.2035'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-33SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 56.5 ft. Actual Grab Recovery: 25 cm Time: 1131
Tide Level: 9.44 ft. 11.1 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: 47.06 ft. 45.4

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 20% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-33
Job No. 000029-02.28	Date/Time: 4/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	~~Soft~~ Loose, wet, brown, silty, vf-f SAND					
		0.5" - Loose, wet, grey, m-c SAND trace wood debris and fibers ~~tute~~					
4	N	Interspersed pockets of soft, wet, brown SILT. No odor, no sheen throughout core.					
6							
8							
10		9" - Bottom of core.					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-34

Sampling Crew: DG, DL, DP
Sample Date: 4/19/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, partly cloudy calm
Station Coordinates: N / Lat. 45° 34.7130'N
E / Long. 122° 45.1906'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-34SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 53.2 ft. Actual Grab Recovery: 26 cm Time: 1238
Tide Level: ~~8.99~~ ft. 9.34 10.96 Sample Interval: 26 cm
Bioassay / Chemistry River Elevation: ~~44.21~~ ft. 43.86 42.24

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 64% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-34
Job No. 000029-02.28	Date/Time: 4/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Soft, wet, brown, vf-f sandy SILT. Increasing competency					
4	N	3"- Loose, wet, grey, vf-f SAND. Slight HC odor, slight sheen.					
6		4"- Soft, moist, brown SILT. Trace HC odor					
8	N	7.5"- 1/4" seam of vf-f grey SAND					
10							
12		11"- Bottom of core					
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-35

Sampling Crew: DG, DL, DP
Sample Date: 4/19/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, partly cloudy calm
Station Coordinates: N / Lat. 45° 34.6919' N
E / Long. 122° 45.1973' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-35SG-110419
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / TPH / Grain Size / TOC / Ammonia / Sulfides
TVS (Ref only)
Other: Total cyanide
Other:

Grab Number: 1 Water Depth: ~~31.4~~ ft. 20.0 Grab Recovery: ____ cm Time: 1515
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Rejected - rock caught in jaws.

Grab Number: 2 Water Depth: 25.0 ft. Grab Recovery: ____ cm Time: 1323
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Rejected. Jaws did not close, bent

Grab Number: 3 Water Depth: 26.0 ft. Actual Grab Recovery: 26.5 cm Time: 13:39
Tide Level: 9.25 ft. 10.86 Sample Interval: 26.5 cm
Bioassay / Chemistry River Elevation: 16.75 ft. 15.14

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 72% fines

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-35
Job No. 000029-02.28	Date/Time: 2/19/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 3
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Loose, very wet, brown to grey, silty vf-f SAND, 2" x 1" subrounded rock. Trace organic fibers					
4	N	2"- Soft, wet, grey, slightly sandy, slightly clayey SILT. Trace HC odor, no sheen. Sand decreases and clay increases.					
6	N	3" Soft, moist, grey, clayey SILT. Trace HC odor					
8		6" piece of fishing line sticking out bottom of core					
10		9.5"- Bottom of core.					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-46

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: overcast, calm
Station Coordinates: N / Lat. 45° 34.9382'N
E / Long. 122° 45.6724'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-46SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 69.6 ft. Actual Grab Recovery: 23.8 cm Time: 1426
Tide Level: 9.11 ft. 10.72 Sample Interval: 23.8 cm
Bioassay / Chemistry River Elevation: 60.49 ft. 58.88

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 62% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-46
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Very, soft, very wet, brown, SILT. No odor, no sheen					
2	N	0.5". Soft, wet, brown, slightly vf-sandy SILT w/substantial wood debris and fibers. No odor, ~~no~~ trace sheen.					
4							
		4". Bottom of core. Core compressed when pushed into grab. Felt through grab, consistent w/description @ 0.5" to bottom.					
6							
8							
10							
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-47

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: overcast, calm
Station Coordinates: N / Lat. 45°34.9125'N
E / Long. 122°45.6950'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-47SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 58.4 ft. Grab Recovery: ~~24.5~~ cm Time: 1330
Tide Level: 9.20 ft. Sample Interval: ~~24.5~~ cm
Bioassay / Chemistry River Elevation: 49.2 ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Overpenetrated. Rejected. Lower grab legs to elevate grab

Grab Number: 2 Water Depth: 51.1 ft. Actual 10.76 Grab Recovery: 24.5 cm Time: 1344
Tide Level: 9.18 ft. Sample Interval: 24.5 cm
Bioassay / Chemistry River Elevation: 41.92 ft. 40.34

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 66% fines
Duplicate collected DGS-97SG-110420 @ 1347

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-47
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2		Very soft, very wet, brown SILT w/ trace vf-Sand. No odor, no sheen					
4		3"- Changes to soft, wet, slightly Sandy. Trace HC odor, no sheen					
6		4.5"- Interspersed pockets of soft, black, vf sandy SILT. moderate HC odor, slight metallic sheen florets.					
8		6"- Same as 3" interval w/ slight HC odor, no sheen, trace organic fibers. Clamshell @ 7"-8"					
10		9.5"- End of core					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-48

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Overcast, calm
Station Coordinates: N / Lat. 45°34.9455'N
E / Long. 122°45.5873'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-48SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 60.9 ft. Actual 10.86 Grab Recovery: 25 cm Time: 1233
Tide Level: 9.28 ft. Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: 51.62 ft. 50.04

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 15% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-48
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: TDP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Soft, wet, brown, very m-f sandy SILT					
	N	0.5" - Loose, wet, grey, m-f SAND w/ trace gravel. Sand grains are multi colored.					
	N	- 1.5" - 1/2" layer of soft, wet, grey, very m-f sandy SILT.					
	N	Slight HC odor, no sheen.					
		9" - Bottom of core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-49

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Overcast, calm
Station Coordinates: N / Lat. 45°34.8878'N
E / Long. 122° 45.5004'W
Datum: (NAD 83) / WGS 84 zone:

Sample ID: DGS-49SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 55.3 ft. Actual Grab Recovery: 24 cm Time: 1303
Tide Level: 9.24 ft. 10.81 Sample Interval: 24 cm
Bioassay / Chemistry River Elevation: 46.06 ft. 44.49

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 9% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: D4S-49
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Loose, wet, grey m-f SAND. Sand grains are multicolored					
4	N	2.5" - 1/4" - 1/2" ~~loam~~ layer of soft, wet, grey, very sandy SILT					
6	N	Slight HC odor below 3". Trace gravel.					
8							
10		9" - Bottom of core					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-50

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: overcast, calm
Station Coordinates: N / Lat. 45° 34.7889' N
E / Long. 122° 45.2636' W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-50SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 60.2 ft. Actual Grab Recovery: 24.5 cm Time: 1524
Tide Level: 9.06 ft. 10.65 Sample Interval: 24.5 cm
Bioassay / Chemistry River Elevation: 51.14 ft. 49.55

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 9% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-50
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3"
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6, 8, 10	N	Loose, wet brown, m-f SAND w/ trace silt. No odor, no sheen. Trace gravel. Sand grains are multicolored. 1" changes to no silt 3" color changes sharply to grey.					
12, 14		10" Bottom of core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-51

Sampling Crew: DG, DL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: overcast, calm
Station Coordinates: N / Lat.
E / Long.
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-51SG-110420 – no sample collected
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 51.8 ft. Grab Recovery: ____ cm Time: 1533
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Wood stuck in jaws, did not close. Rejected.

Grab Number: 2 Water Depth: 51.8 ft. Grab Recovery: ____ cm Time: 1539
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Boulder caught in jaws, did not close. No sample.

Grab Number: 3 Water Depth: 52.9 ft. Grab Recovery: ____ cm Time: 1602
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Rocks stuck in jaws, no sample collected.

Date/Time Lab Drop Off:

Recorded by: DP

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-51

Sampling Crew: DG, DL, DP
Sample Date: 4/21/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Sunny, partly cloudy
Station Coordinates: N / Lat. 45° 34.7690'N
E / Long. 122° 45.2206'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-51SG-110421
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 4 Water Depth: 53.9 ft. Grab Recovery: 15 cm Time: 0834
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Not deep enough - rejected. Large angular rocks and rounded gravel in grab.

Grab Number: 5 Water Depth: 53.7 ft. Grab Recovery: cm Time: 0842
Tide Level: ft. Sample Interval: cm
Bioassay / Chemistry River Elevation: ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Large angular boulders caught in jaws. Grab empty.

Grab Number: 6 Water Depth: 56.3 ft. Actual Grab Recovery: 25 cm Time: 0851
Tide Level: 9.24 ft. 10.89 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: 47.06 ft. 45.41

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 4% fines

Date/Time Lab Drop Off:

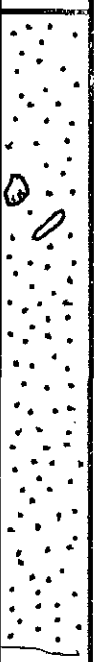
Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-51
Job No. 000028-02.28	Date/Time: ~~4/20/11~~ 4/21/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #:
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6, 8	N	Loose, wet, brown, f-SAND. No odor, no sheen. Sand grains are multi-colored. 2.5" - 3/4" corpicula clam shell 3" - 2" x 1/2" piece of wood 4" - Color changes to grey					
10, 12, 14		9" - Bottom of core					



ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-52

Sampling Crew: DG, DL, DP
Sample Date: 4/21/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Partly cloudy, cold
Station Coordinates: N / Lat. 45° 34.7338'N
E / Long. 122° 45.1706'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-52Sg-110421
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / TPH / Grain Size / TOC / Ammonia / Sulfides
TVS (Ref only)
Other: Total cyanide
Other:

Grab Number: 1 Water Depth: 58.1 ft. Actual Grab Recovery: 25 cm Time: 0800
Tide Level: 9.19 ft. 10.84 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: 48.91 ft. 47.26

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 30% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

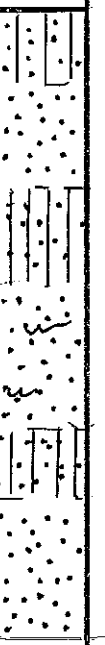
Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-52
Job No. 000029-02.28	Date/Time: 4/21/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
	N	Wet, ~~soft~~ loose, brown, very silty vf-f SAND. No odor, no sheen.					
2	N	1" - Wet, loose, grey, f-SAND. No odor, no sheen.					
4	N	2.5" - wet, soft, brown, f-sandy SILT					
6	N	4" - Same as @ 1" w/ occasional wood debris					
	N	6" - Same as @ 2.5"					
8		7" - Same as @ 1"					
10		9" - Bottom of core.					
12							
14							



ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** DGS-53

Sampling Crew: DG, BL, DP
Sample Date: 4/20/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather:
Station Coordinates: N / Lat. 45° 34.7004'N
E / Long. 122° 45.1555'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: DGS-53SG-110420
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 50.4 ft. Actual Grab Recovery: 24 cm Time: 1618
Tide Level: 8.94 ft. 10.57 Sample Interval: 24 cm
Bioassay / Chemistry River Elevation: 41.46 ft. 39.83

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: DGS-53
Job No. 000029-02.28	Date/Time: 4/20/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	Y	Very soft, very wet, brown, very M-Sandy SILT. No odor, substantial metallic and rainbow sheen in headwater.					
4		1" Changes to soft, wet, and gray.					
6		Decreasing sand content to no sand @ 8"					
8		Slight HC odor from 7" to bottom. Trace metallic sheen florets throughout					
10		9" - Bottom of core					
12							
14							

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** U3C2

Sampling Crew: DG, DL, DP
Sample Date: 4/21/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Partly Sunny, cool
Station Coordinates: N / Lat. 45° 27.3736' N
E / Long. 122° 39.6558' W
Datum: (NAD 83) / WGS 84 zone:

Sample ID: U3C2SG-110421
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 93.0 ft. Actual Grab Recovery: 25 cm Time: 1200
Tide Level: 8.91 ft. 10.53 Sample Interval: 25 cm
Bioassay / Chemistry River Elevation: 84.09 ft. 82.47

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	(none)	H2S	(none)	Dry
gravel	(gray)	(soft/loose)	slight	Petroleum	trace	Damp
(sand) C M (F)	black	med dense/stiff	moderate	other:	slight	Moist
(silt) clay	(brown)	dense/stiff	strong		moderate	(Wet)
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 38% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: U3C2
Job No. 000029-02.28	Date/Time: 4/21/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Loose, wet, brown, f-SAND. No odor, no sheen.					
4, 6, 8	N	2"- Soft, wet, gray, slightly vf-sandy SILT 3.5"- Changes to vf-sandy SILT with trace organic fibers. No odor, no sheen					
10, 12, 14		9"- Bottom of core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** U4Q1

Sampling Crew: DG, DL, DP
Sample Date: 4/21/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Rain, cold, Sun
Station Coordinates: N / Lat. 45° 26.2339" N
E / Long. 122° 38.7662" W
Datum: (NAD 83) / WGS 84 zone:

Sample ID: U4Q1SG-110421
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other: Total cyanide
TS / TPH / Grain Size / TOC / Ammonia / Sulfides Other:
TVS (Ref only)

Grab Number: 1 Water Depth: 12.9 ft. Grab Recovery: ____ cm Time: 1325
Tide Level: 8.72 ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: 4.18 ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: Overpenetrated - rejected

Grab Number: 2 Water Depth: 13.8 ft. Actual Grab Recovery: 24 cm Time: 1337
Tide Level: 8.71 ft. 10.27 Sample Interval: 24 cm
Bioassay / Chemistry River Elevation: 5.09 ft. 3.53

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 49% fines

Grab Number: ____ Water Depth: ____ ft. Grab Recovery: ____ cm Time: ____
Tide Level: ____ ft. Sample Interval: ____ cm
Bioassay / Chemistry River Elevation: ____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: W4Q1
Job No. 000029-02.28	Date/Time: 4/21/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 2
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2, 4, 6, 8		Very wet, very soft, brown ~~silt~~ slightly vf-sandy SILT. -2" Increasing competency to soft and wet. Trace organic fibers. Gray No odor, no sheen.					
10, 12, 14		8" - Bottom of core					

ANCHOR QEA

Surface Sediment Field Sample Record

Project Name: Gasco Data Gaps **Project No:** 000029-02.28 **Station ID:** U4Q2

Sampling Crew: DG, DL, DP
Sample Date: 4/21/11 Sampling Method: hydraulic Van Veen
Sampling Vessel: MV Peter R
Subcontractor(s): MSS Weather: Rain / hail
Station Coordinates: N / Lat. 45°26.2429'N
E / Long. 122°38.7473'W
Datum: NAD 83 / WGS 84 zone:

Sample ID: U4Q2SG-110421
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / TPH / Grain Size / TOC / Ammonia / Sulfides
TVS (Ref only)
Other: Total cyanide
Other:

Grab Number: 1 Water Depth: 10.1 ft. Actual 10.4 Grab Recovery: 28.8 cm Time: 1255
Tide Level: 8.78 ft. Sample Interval: 28.8 cm
Bioassay / Chemistry River Elevation: 1.32 ft. -0.3

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments: 43% fines

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Grab Number: _____ Water Depth: _____ ft. Grab Recovery: _____ cm Time: _____
Tide Level: _____ ft. Sample Interval: _____ cm
Bioassay / Chemistry River Elevation: _____ ft.

Sediment Type:	Sediment Color:	Density:	Sediment Odor:		Sheen:	Moisture:
cobble	D.O.	Very soft/Loose	none	H2S	none	Dry
gravel	gray	soft/loose	slight	Petroleum	trace	Damp
sand C M F	black	med dense/stiff	moderate	other:	slight	Moist
silt clay	brown	dense/stiff	strong		moderate	Wet
organic matter	brown surface	very dense/stiff	overwhelming		heavy	

Comments:

Date/Time Lab Drop Off:

Recorded by: DP

Sediment Grab Core Processing Log

ANCHOR QEA

Job: Gasco Data Gaps	Station ID: 44Q2
Job No. 000029-02.28	Date/Time: 4/21/11
No. of Sections:	Core Logged By: DP
Drive Length:	Attempt #: 1
Recovery:	Type of Core ☐ Mudmole ☐ Vibracore ☑ Grab
% Recovery:	Diameter of Core (inches) 3
Notes:	Core Quality ☑ Good ☐ Fair ☐ Poor ☐ Disturbed

Recovered Length (in)	Substantial Product Present (Y/N)	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (in)	Sample (bulk chemistry)	Sample (TCLP, DRET)	Sample (SBLT, Other)	Summary Sketch
2	N	Very soft, very wet, brown slightly vf-sandy SILT 2" - changes to soft and wet					
4							
6	N	4" - Loose, wet, grey, silty vf-SAND w/trace organic fibers,					
8							
10		10" - Bottom of core					
12							
14							

4/18/11 Gasco Data Gaps

0800 Arrive Cathedral Park, Mob for Grab sampling

David Gillingham
Gabe Nagler } AQ
Delaney Peterson
Jennifer Jones - CDM
Dale Dickinson - MSS

0830 Safety Meeting
Slips, trips, falls
Overhead hazard
AED in cab
Water is biohazard, avoid contact.
Life jackets at all times
Cramped conditions
Fire extinguisher
Life ring and line

0938 Mob to DGS-08
0947 Sample collected
Acceptable. Undisturbed 25cm depth
40% fines
1038 Mob to DGS-09
1042 Grab collected

4/18/11 Gasco Data Gaps

Acceptable, undisturbed, 27cm depth
59% fines
1123 Mob to DGS-05
1128 Grab collected
Acceptable, undisturbed. 25cm depth
20% fines
Mob to Cathedral Park for More supplies ~~and personnel change~~
1200 Break for lunch
1230 Clean up from last grab
Jennifer Jones departed
1307 Mob to DGS-12
1312 Grab collected, Jaws did not close completely. Try again
1317 Grab collected
Acceptable. Undisturbed. 25cm
Duplicate collected. DGS-62SG-110418 (1319)
25% fines
1350 Mob to DGS-13
1401 Grab collected
Rejected - very little material
1406 Grab collected
43% fines
Accepted. 26cm undisturbed

4/18/11 Grasco Data Gaps

1430 Gabe Nagler left and Doug Laffoon on board. Safety briefing
Discovered DGS-12 & duplicate VOCs were preserved w/ ZnOAc. sub-sampled DGS-12 from other sample jars.

1445 Mob to DGS-16

1455 Grab collected
Duplicate VOC collected 1458
DGS-66SG-110418 30% fines

1530 Mob to DGS-17

1532 Grab collected
Acceptable. 28.5cm. Undisturbed
17% fines

1610 Mob to Cathedral Park to offload samples and IDW. Boat back to site.

1645 Dump IDW in drums.

1730 Depart site.

4/19/11 Grasco Data Gaps

0800 Arrive Cathedral Park
David Gillingham
Doug Laffoon } AQ
Delaney Peterson
Jennifer Jones - CDM
Dale Dickinson - MSS

0820 Safety Meeting (see safety meeting log)

0880 Mob to DGS-20

0849 Grab collected
Acceptable, 27cm. Undisturbed
27% fines.

0920 Mob to DGS-25

0926 Grab collected
Unacceptable. Sides washed out
18cm recovery. Rejected

0941 Grab collected
Acceptable. 25cm. Some washout on one side.

1020 Mob to DGS-30

1023 Grab collected
Acceptable - 25cm, Undisturbed.
12% fines

1055 - Mob to Cathedral Park for bathroom break, unload IDW
Jennifer Jones departed

4/19/11 Gasco Data Gaps

1120 Mob to DGS-33

1131 Grab collected
Acceptable. 25cm. Undisturbed.
20% fines

1205 Break for lunch

1230 Mob to DGS-34

1238 Grab collected
Acceptable. 26cm. Undisturbed
Pocket of petroleum collected with grab sample not apparent in core segment.
64% fines.

1311 Mob to DGS-35

1315 Grab collected
Rejected. Jaws did not close. Hit riprap. Move off shore

1323 Grab collected. Bottom sloped.
Rejected. Jaws did not close. Jaws bent, bend back

1339 Grab collected
Acceptable. 26.5cm. Undisturbed
72% fines

1411 Mob to DGS-~~31~~ 21

1420 Grab collected 62% fines

4/19/11 Gasco Data Gaps

Acceptable. Undisturbed. 27.5cm
Extra 16oz jar collected for MS/MSD

1454 Mob to DGS-26

1501 Grab collected fines = 35%

~~1501~~ Acceptable, undisturbed 26.5cm

1530 Mob to DGS-31

1534 Grab collected Fines = 75%
Acceptable. Undisturbed. 27cm
Mob back to Cathedral Park
Offload samples & IDW

1620 Head back to site to pack samples and dump IDW into drums

1745 Depart site

4/20/11 Gasco Data Gaps

0730 Couriers picked up samples to go to ARI and NW Aquatic.

0800 Mob to Cathedral Park to load gear. Problem with the boat battery. Need to swap out.

0905 Mob to DGS-06 after safety meeting (see safety meeting log)

0917 Grab collected
Acceptable. Undisturbed 26cm
55% fines

On board:
D. Gillingham
D. Lafoon
D. Dickinson
D. Peterson

0950 Mob to DGS-04

0953 Grab collected
Acceptable. 29cm
slight overpenetration on one side. Will avoid while sampling

1025 Mob to DGS-02

1031 Grab collected
Acceptable. Undisturbed 29cm
69% fines

1105 Mob to DGS-01

1110 Grab collected
Acceptable, undisturbed 23cm
50% fines

Mob back to Cathedral Park

4/20/11 Gasco Data Gaps

to offload IDW and pick up coolers.

1200 Break for lunch

1225 Mob to DGS-48

1233 Grab collected
Acceptable. 25cm, undisturbed
15% fines

1300 Mob to DGS-49

1303 Grab collected
Acceptable, undisturbed. 24cm

1325 Mob to DGS-47

1330 Grab collected
Overpenetrated - Rejected. Lower grab legs to elevate grab 3".

1344 Grab collected
Acceptable, undisturbed. 24.5cm

1347 Duplicate collected DGS-G75G-110420

1423 Mob to DGS-46

1426 Grab collected
Acceptable, undisturbed, 23.8 cm
62% fines

1457 Mob to DGS-50

1504 Grab collected
Acceptable, undisturbed, 24.5cm
9% fines

4/20/11 Gasco Data Gaps

1530 Mob to DGS-51

1533 Grab collected

~~Jaws~~ Wood stuck in jaws, did not close all the way. Rejected.

1539 Grab collected

Boulder caught in jaws, did not close, grab empty.

Jaws bent, have to bend back

1602 Grab collected ~15' toward shore of station. More rocks stuck in jaw, no sample collected.

1613 Mob to DGS-53

1618 Grab collected.

Acceptable. Undisturbed. 24 cm

Mob back to Cathedral Park to offload.

1640 Back to site to dump IDW

1750 Leave site

4/21/11 Gasco Data Gaps

0730 Meet at Cathedral Park

On Board:

D. Gillingham

D. Laffoon

D. Peterson

D. Dickinson

Safety meeting: fatigued, sore backs, take time and lift with caution

Biohazard water

AED, Eyewash, fire extinguisher in cabin

0750 Mob to DGS-52

0800 Grab collected

Acceptable, undisturbed, 25cm

30% fines

0825 Mob to DGS-51, 4th try. Moving 50 feet downstream to get away from riprap.

15cm recovery. Not deep enough - rejected. Large angular rock and gravel in grab

0842 Grab collected

Large, angular boulders caught

4/21/11 Gasco Data Gaps

in jaws. Grab empty. Move 50 feet more downstream

0857 Grab collected
Acceptable, undisturbed. 25cm
4% fines

0915 Mob back to Cathedral Park to trailer boat and drive upstream to reference stations

1120 Launch boat at Johnson Creek boat launch. Same crew on board.

1137 Mob to u3C2

1200 Grab collected - Acceptable, undisturbed 25cm, 38% fines.

1225 Break for lunch

1250 Mob to u4Q2

1255 Grab collected
Acceptable, undisturbed, 28.8cm
43% fines

1323 Mob to u4Q1

1325 Grab collected
Overpenetrated. Lower legs to elevate grab.

1337 Grab collected
Acceptable, undisturbed. 24cm.
49% fines

4/21/11 Gasco Data Gaps

1402 Mob back to boat launch to offload and trailer boat.

1420 Offload at boat ramp

1440 Collect field blank
DGS-FBSG-110421

1450 Collect rinse blank
DGS-RBSG-110421

1520 Mob back to site to offload IDW and samples

1645 Depart site

4/21/11 Do

ATTACHMENT 2-2
SUBSURFACE CORE LOGS

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CONTENTS

PAGE	REFERENCE	DATE

2

NW Natural Gas Co 1/5/10 7:50 am

Processing H&S Meeting

Attendees:

CDM: Scott & Jenny Jones
Coffey

RSS: Bill J & Dale D.

AQ: Nathan S., David G., Delaney P.
Joy D., Doug, Kara H.
Mike Crystal

→ AED operations
→ River Water bishazard
→ Boat operations
  → EZ
  → IWW
  → Eating only allowed in cab

MN Natural GASCO 10/5/10

12:00pm Safety Briefing

exclusion Zone discussion

Safety discussion

Processing kick off

Core DGS 13 processed beginning 12:15

Core DGS-03 processed @ approx ~ 14:30

IDW in barrel

Work w/ no incident

leave site @ 19:00

NW Natural Gasco 10/6/10

HES tailgate meeting 8:00 am

- → the Exposure Route
- → chemical hazards
- → Physical hazards
- → Biohazards
- → Mitigation Procedures
- → Safety Comms
- → Line of Auth
- → AED in the field trailer

Attendees: Nathan Soccorsi, Joy D, Kara H

8:15 Set up begin

9:35 DGS-30 processing underway
11:20 DGS-30 processing complete
11:30 DGS-11 processing underway
14:45 DGS-11 Complete
15:30 DGS-19 Processing underway
18:00 DGS-19 Complete
18:00 breakdown underway

NW Natural Gasco 10/7/10

H&S tailgate Meeting 8:00am

→ Haz exposure routes
→ Chemical hazards
→ Physical hazards
→ Biohazards
→ Mitigation Procedures
→ Safety Comms
→ line of Auth
→ HED in the field trailer

Attendees: Amy Olson, Kara, Joy, Nathan

~~[illegible]~~
~~DGS 26~~

8:40 DGS - 8 processing underway
10:00 DGS - 8 complete

10:30 Delaney called
tube count
10 21 footer gone
14 left 21'
1 - 20'
7 15'

New Natural Gasco 10/7/10

10:15	DGS-~~[illegible]~~ 28	DGS 28 underway
11:00	DGS 28	complete
11:15	DGS 25	underway
12:30	DGS 25	complete

13:30
IDW drum closed (all previously noted are in drum)
New IDW drum started

14:00 →	DGS-10	underway
15:00 →	DGS-10	complete
15:20 →	DGS-06	underway
16:30 →	DGS-06	Complete
16:35 →	breakdown	underway
17:35 →	breakdown	complete

NW Natural Gasco 10/8/10

H&S tailgate meeting 8am

→ Haz exposure routes
→ chem hazards
→ Physical hazards
→ Biohazards
→ Mitigation procedures
→ Safety Comms
→ Line of authority
→ AED in the field trailer

Attendees: Kim Stinski, Jay D., Amy O, Kara Nathan

9:30 - DGS - 20 underway
10:45 - DGS - 20 complete
11:40 - DGS - 23 underway
13:00 - DGS - 23 Complete
14:00 - DGS - 18 underway
15:30 - DGS - 18 Complete
15:45 - breakdown underway

H&S tailgate meeting
→ haz exposure routes
→ chem hazards
→ Physical hazards
→ Bio hazards
→ Mitigation procedures
→ Safety Comms
→ AED location

Attendees: Amy, Kara, Jax, Nathan

8:00 Underway

~~DG~~ HS
8:30 → DGS-44 underway
9:30 → DGS-44 complete
10:00 → DGS-37 underway
* 1:45 → DGS-37 complete
12:15 → DGS-26 underway
2:00 → DGS-26 complete
2:30 → DGS-31 underway
3:53 - DGS-31 complete

* IDW Barrel #2 closed at 12:15 contains: 10, 06, 20, 23, 18, 44 and 37

4:00 → DGS - 32 underway
6:35 → DGS - 32 complete

leaving site

Healthand Safety Meeting 10/12/10

8:00 am
→ Haz exposure routes
→ chem hazards
→ Physical hazards
→ Bio hazards
→ Mitigation procedures
→ Safety Comms
→ Aed location

Attendees: Amy, Kara, Joy, Nathan
→ 8:30 DGS - 45 - begins
↳ 9:15 DGS - 45 - complete
9:30 DGS - 24 - begins
11:24 DGS - 24 complete
11:30 DGS - 36 underway
1:00 DGS - 36 complete

NW Natural Gasco 10/12/10

13:30 DGS - 22 under way
16:30 DGS - 22 complete
16:30 DGS - 07 under way
19:30 DGS - 07 Complete

breakdown underway

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-03
Attempt No. 1 of 1
Date: 10/5/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8918N
Long/Easting: 12245.6826W

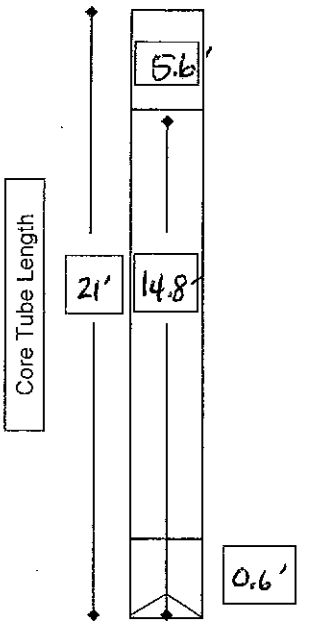
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 30.5'

B. Water Level Measurements
Time: 1311
Stage: 0.71'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 5.6'
Recovery Measurement: 15.4'
Recovery Percentage: 77%
Total Length of Core To Process: 14.8'

Recovery Measurements (prior to cuts)



Drive Notes: 6' freefall. Easy penetration to 10[redacted]. Moderately harder to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, wet, medium to fine grain sand (SP). Small chunks of grey clay, and a few rounded gravel. No odor, no sheen.
@ top: Very wet, slightly fine-grain sandy SILT (ML). Very soft, brown. Strong petroleum odor, streaks and blebs of metallic sheen on ~35% of surface. Moderate bits of wood.
@ 5': Wet, soft, sandy SILT. Brown (ML). Moderate petroleum odor, blebs of sheen on surface ~10%.
@ 10': Dark grey, medium to fine grain SAND (SP). Medium-dense. No odor, no sheen.

Notes:
Core cut into 3 segments:
0'-5' A
5'-10' B
10'-14.8' C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-06
Attempt No. 2 of 2
Date: 10/7/10
Logged By: DP
Horizontal Datum: WGS84

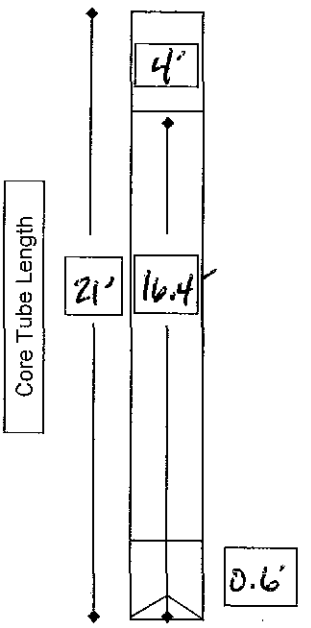
Field Collection Coordinates:
Lat/Northing: 4534.8798N
Long/Easting: 12245.6126W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 48.7'

B. Water Level Measurements
Time: 0919
Stage: 3.45
Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 4'
Recovery Measurement: 17'
Recovery Percentage: 85%
Total Length of Core To Process: 16.4'

Drive Notes: 2' of freefall: Easy penetration to 10'. Moderately harder to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose empty. Flap did not close.
At top: Very soft, very wet, brown, slightly sandy silt. Few sheen streaks (metallic). Very slight HC odor.
@6': Wet, medium-dense, dark grey sand. Medium to fine grain. Grains are multicolored. No odor, no sheen.
@12': Same as above.
@16.4': Damp, firm, gray clay. No odor, no sheen.

Notes:
Core cut into 3 sections:
0'-6': A
6'-12': B
12'-16.4': C
- PVC ring somewhere in core.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-07
Attempt No. 1 of 1
Date: 10/11/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4584.8437 N
Long/Easting: 12245.6074 W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 7' 11"

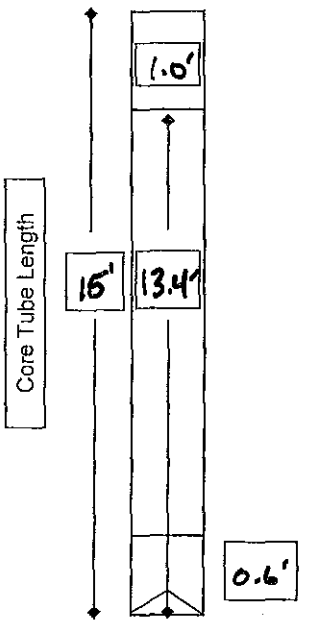
B. Water Level Measurements
Time: 1453
Stage: 2.32'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 1'
Recovery Measurement: 14'
Recovery Percentage: 100%
Total Length of Core To Process: 13.4'

Drive Notes: 3' freefall. Easy penetration to 14'.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, soft, dark grey, silty clay w/trace fine grain sand and moderate organic fibers. Moderate HC odor, moderate sheen.
At top: Very wet, very soft brown silt with trace fine grain sand. Moderate HC odor, slight metallic sheen.
@ 5': Damp, soft, black, slightly clayey silt. Moderate HC odor, slight sheen.
@ 10': Same as above.
@ 13.4': Damp, medium-stiff, grey, silty clay. Moderate HC odor, slight sheen.

Notes:
Cut into 3 pieces:
0'-5': A
5'-10': B
10-13.4': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-08
Job No: 000029-02.23	Attempt No. 3 of 3
Field Staff: DG, MC, DP	Date: 10/6/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8290N
Long/Easting: 12245.5511W

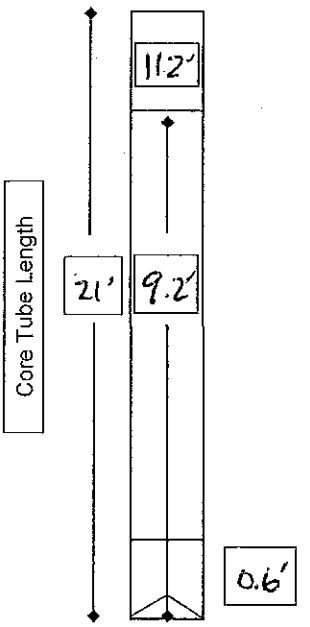
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 49.2'

B. Water Level Measurements
Time: 1638
Stage: 3.69'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: ~~16'~~ 16.5'
Headspace Measurement: 11.2'
Recovery Measurement: 9.8'
Recovery Percentage: 59%
Total Length of Core To Process: 9.2'

Recovery Measurements (prior to cuts)



Drive Notes: 1' freefall. Easy penetration to 16' when vibration stopped - see notes.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, medium-dense, Medium to fine grain sand. Multi-colored sand.
At top: Brown and gray silty sand. Very wet, very loose. Substantial rainbow sheen, strong petroleum odor.
@5': Gray, slightly sandy silt. Moist, soft. Substantial brown and black petroleum product. Very strong HC odor.
@9.2': Dark-grey, medium-dense, wet sand, Grains are multicolored. Slight petroleum odor, no sheen.

Notes:
Hydraulic line became disconnected which caused vibration to stop and core ceased to advance.
Core cut in 2 sections: 0-5': A
5-9.2': B

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-10
Attempt No. 3 of 3
Date: 10/7/10
Logged By: DP
Horizontal Datum: WGS84

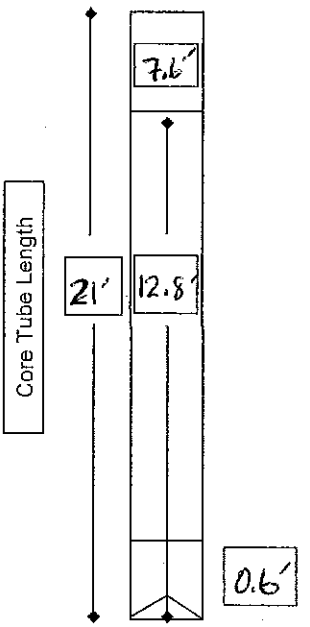
Field Collection Coordinates:
Lat/Northing: 4534.861ON
Long/Easting: 12245.515OW

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.8'

B. Water Level Measurements
Time: 1210
Stage: 2.14'
Source: NREC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection-Recovery Details:
Core Accepted: (Yes) No
Core Tube Length: 21'
Drive Penetration: 19'
Headspace Measurement: 7.6'
Recovery Measurement: 13.4'
Recovery Percentage: 71%
Total Length of Core To Process:

Drive Notes: 1.5' freefall. Easy penetration to 17' then very hard to 19' then refusal.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, medium-dense, dark grey, medium to fine grain sand. No odor, no sheen.
Headwater is clean.
At top: Very wet (soupy), very soft, brown, sandy silt. Slight sheen (metallic), moderate He odor.
@5': Very wet, loose, dark grey medium to fine-grain sand. No odor, no sheen. Small amount of material dropped out on deck.
@10': Same as above (none lost).
@12.8': Same as above.

Notes:
Core cut into 3 sections:
0'-5': A
5'-10': B
10'-12.8': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-11
Job No: 000029-02.23	Attempt No. 1 of 1
Field Staff: DG, MC, DP	Date: 10/5/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8450N
Long/Easting: 12245.5262W

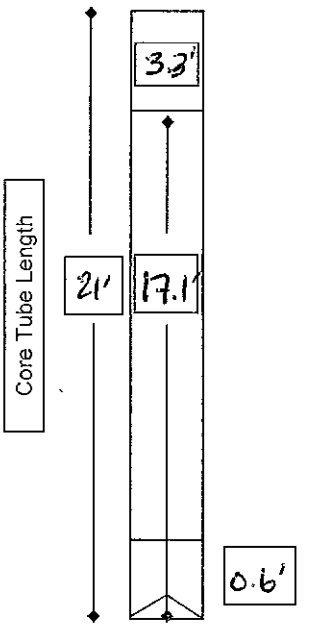
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.3

B. Water Level Measurements
Time: 1413
Stage: 1.20'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 3.3'
Recovery Measurement: ~~[illegible]~~ 17.7'
Recovery Percentage: 89%
Total Length of Core To Process: 17.1'

Recovery Measurements (prior to cuts)



Drive Notes: 2' freefall. Easy penetration to 7', slightly harder to 20'. Felt "lumps" during drive. Possible debris?

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, wet, medium to fine-grain ~~sand~~ SAND. Loose. No odor, no sheen.
@ Top: Wet, brown, silty medium to fine grain SAND (SM). Substantial petroleum product. Very loose. Very strong petroleum odor.
@ 6': Dark grey, medium to fine-grain SAND. Strong petroleum odor, substantial metallic sheen (>90% of surface area). Substantial product.
@ 12': Same material as above except no odor and no sheen.
@ 17.1': Same material as above w/some blebs of metallic sheen. Moderate petroleum odor.

Notes:
Cut into 3 segments:
0'-6': A
6'-12': B
12'-17.1': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-13
Job No: 000029-02.23	Attempt No. 1 of 1
Field Staff: DG, MC, DP	Date: 10/5/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8342 N
Long/Easting: 12245.5014 W

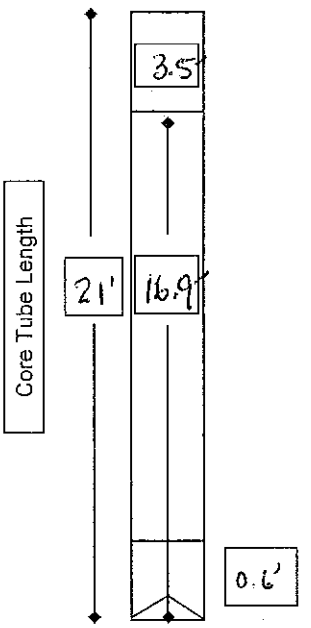
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 45.0'

B. Water Level Measurements
Time: 0910
Stage: 1.69'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 3.6"
Recovery Measurement: 17.5'
Recovery Percentage: 88%
Total Length of Core To Process: 16.9'

Recovery Measurements (prior to cuts)



Drive Notes: Easy penetration to 10', then ~~moderately~~ slightly more difficult to 20'.

Core Field Observations and Description:
In nose:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Very dark grey medium-fine grain SAND. Loose (SP). No odor, no sheen. Wet
A few blebs of sheen in headspace water.
@ 6' - Wet, dark-grey, fine to medium grain SAND. No odor, no sheen.
@ 12' - Same as above.
@ 17' - Same as above, except damp.

Notes:
Core cut into 2x6' sections & 1x5' section:
0'-6' A
6'-12' B
12-17' C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-18
Job No: 000029-02.23	Attempt No. 3 of 3
Field Staff: DG, MC, DP	Date: 10/8/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:

Lat/Northing: 4534.8150N

Long/Easting: 12245.4102W

A. Water Depth

DTM Depth Sounder:

DTM Lead Line: 46.7'

B. Water Level Measurements

Time: ~~1152~~ 1152

Stage: 2.57'

Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: (Yes) No

Core Tube Length: 21'

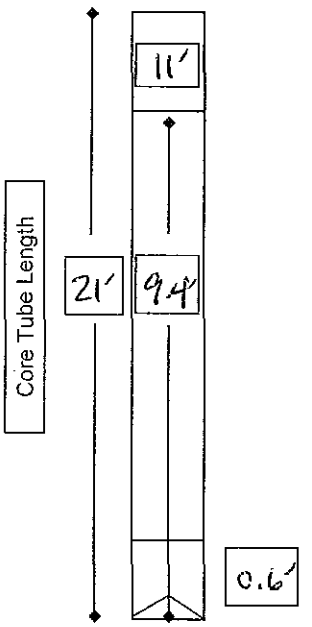
Drive Penetration: 18.8'

Headspace Measurement: 11' KH

Recovery Measurement: ~~7.8'~~ 10'

Recovery Percentage: 53%

Total Length of Core To Process: 9.4'



Drive Notes: 0.5' freefall. Easy penetration to 13' then moderately harder to 17'. Hard penetration from 17' to 18.8' then refusal.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, dark grey, medium to fine grain sand. Grains are multicolored. No odor, no sheen.

As top: Very wet, very soft, brown ~~silt with~~ woody silt with strong HC odor and Moderate to heavy sheen.

@5': Damp, medium-dense, medium to fine grain sand. Multicolored sand grains. Strong HC odor, Moderate to heavy rainbow and metallic sheen.

@9.4': Wet, loose, dark grey, medium to fine grain sand. No odor, no sheen.

Shoe below fingers was empty.

Notes:

Core cut into two sections:

0'-5': A

5'-9.4': B

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-19
Attempt No. 2 of 2
Date: 10/6/10
Logged By: DP
Horizontal Datum: WGS84

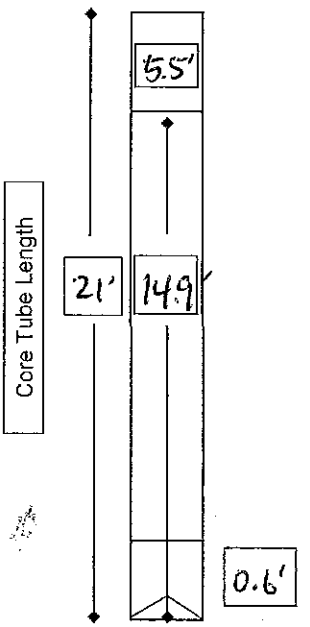
Field Collection Coordinates:
Lat/Northing: 4534.7997N
Long/Easting: 12245.4235W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 42.4

B. Water Level Measurements
Time: 0840
Stage: 2.55
Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 5.5'
Recovery Measurement: 15.5'
Recovery Percentage: 78%
Total Length of Core To Process: 14.9'

Drive Notes: 5' of freefall. Easy penetration to 13.5' then increasing difficult penetration to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey medium to fine grain sand. Wet, loose. Moderate petroleum odor, no sheen.
@ Top: Substantial brown and black oozing product.
@ 5': Brown, soft, wet, sandy SILT. Sand is medium to fine grain. Strong petroleum odor. Saturated w/ black and brown product (substantial product).
@ 10': Dark grey fine to med. grain SAND with multi-colored grains. Medium dense, moist. Slight petroleum odor, moderate sheen.
@ 14.9': Same as above with moderate odor and no sheen.

Notes:
Core cut into 3 segments:
0'-5': A
5'-10': B
10-14.9': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-20
Attempt No. 2 of 2
Date: 10/7/10
Logged By: DP
Horizontal Datum: WGS84

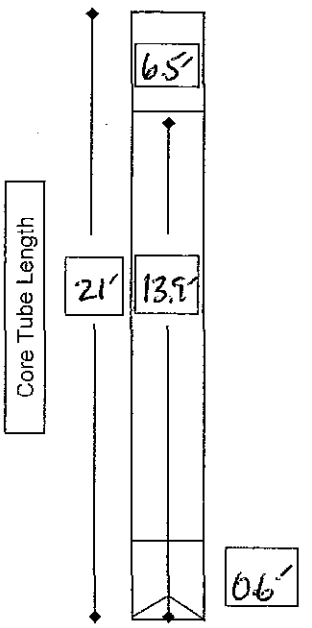
Field Collection Coordinates:
Lat/Northing: 4534.8173N
Long/Easting: 12245.3854W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 49.2'

B. Water Level Measurements
Time: 1528
Stage: 2.19'
Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 19.5'
Headspace Measurement: 6.5'
Recovery Measurement: 14.5'
Recovery Percentage: 74%
Total Length of Core To Process: 13.9'

Drive Notes: 0.5' freefall. Easy penetration to 12' then moderately hard to ~~20'~~ 19.5'

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain sand. Dark grey with multicolored grains. No odor, no sheen.
At top: Very wet, very soft brown silt w/ trace fine grain sand. ~~Tra~~ Some wood debris. No odor, no sheen.
@5': Wet, medium-dense, medium to fine grain, dark grey sand with multicolored grains. No odor, no sheen.
@10': Same as above.
@13.9': Same as above.

Notes:
Cut into 3 sections:
0-5': A
5-10': B
10-13.9': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-22
Job No: 000029-02.23	Attempt No. 1 of 1
Field Staff: DG, MC, DP	Date: 10/11/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:

Lat/Northing: 4534.3764N

Long/Easting: 12245.4269W

A. Water Depth

DTM Depth Sounder:

DTM Lead Line: 6.6'

B. Water Level Measurements

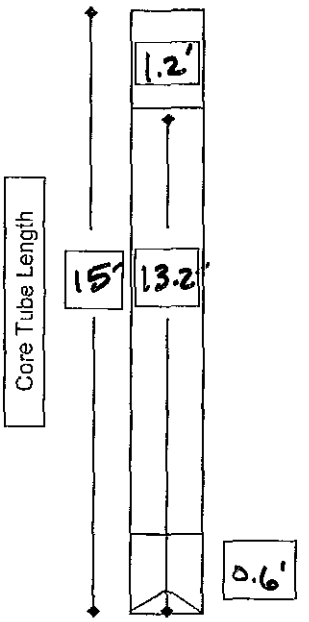
Time: ~~1308~~ 1364

Stage: 2.81'

Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:

Core Accepted: (Yes) / No

Core Tube Length: 15'

Drive Penetration: ~~15'~~ 14'

Headspace Measurement: 1.2'

Recovery Measurement: 13.8'

Recovery Percentage: 99%

Total Length of Core To Process: 13.2'

Drive Notes: 3' freefall. Easy penetration to ~~15'~~ 14'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Damp, soft, silty grey clay w/trace fine grain sand. Slight HC odor, no sheen.

At top: Very wet, very soft brown silt w/trace wood debris. No odor, no sheen.

@5': Damp, medium-stiff, grey, silty clay. Slight to Moderate HC odor, no sheen.

@10': Same as above.

@13.2': Same as in nose.

Notes:

Core cut into 3 pieces:

0-5': A

5'-10': B

10-13.2': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-23
Attempt No. 2 of 2
Date: 10/8/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8004N
Long/Easting: 12245.3485W

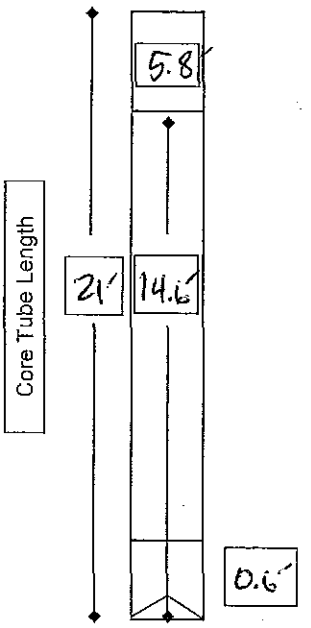
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 61.2'

B. Water Level Measurements
Time: 0824
Stage: 4.32'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 5.8'
Recovery Measurement: 15.2'
Recovery Percentage: 76%
Total Length of Core To Process: 14.6'

Recovery Measurements (prior to cuts)



Drive Notes: 1' freefall. Easy penetration to 10' with exception of hard at 6'. Moderately hard from 10' to 18' then hard to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose was empty.
At top: Very wet, medium-stiff wood w/some silt. Brown. No odor, trace sheen.
@ 5': Damp, medium-dense, dark grey sand. Medium to fine grain w/ multicolored grains. No odor, no sheen.
@ 10': Same as above.
@ 14.6': Same as above.
Shoe below top of fingers was empty.

Notes:
Core cut into 3 sections
0'-5': A
5'-10': B
10'-14.6': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-24
Attempt No. 2 of 2
Date: 10/11/10
Logged By: DP
Horizontal Datum: WGS84

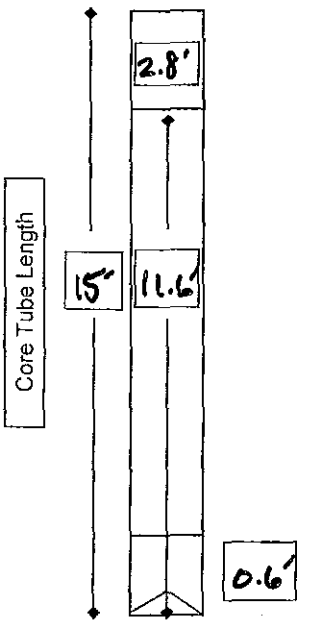
Field Collection Coordinates:
Lat/Northing: 4584.7534 N
Long/Easting: 12245.3680 W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 7.5'

B. Water Level Measurements
Time: 1404
Stage: 2.52'
Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 2.8'
Recovery Measurement: 12.2'
Recovery Percentage: 87%
Total Length of Core To Process: 11.6'

Drive Notes: 3' freefall. Easy penetration to 14'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Damp, soft, grey, silty clay with trace fine grain sand. Moderate HC odor, moderate sheen.
At top: Very wet, very soft brown silt with trace fine grain sand. Moderate HC odor, moderate sheen.
@6': Interbedded pockets of damp, soft, grey, silty clayey silt and dark grey, wet, loose medium-grain sand. Moderate odor, no sheen.
@11.6': Same as nose material.

Notes:
Core cut into 2 pieces:
0'-6': A
6-11.6': B

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-25
Job No: 000029-02.23	Attempt No. 1 of 1
Field Staff: DG, MG, DP	Date: 10/6/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 45°34.7884' N
Long/Easting: 122°45.3102' W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 48.8'

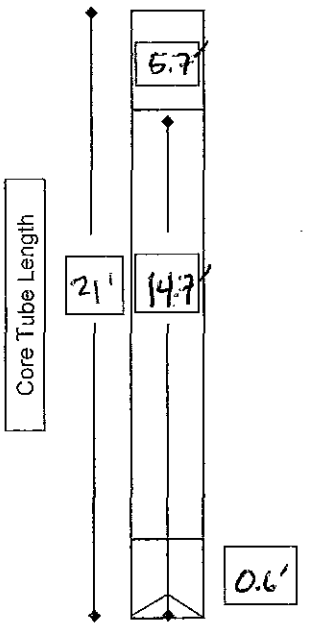
B. Water Level Measurements
Time: 1030
Stage: 1.87'
Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 5.7'
Recovery Measurement: ~~77%~~ 15.3'
Recovery Percentage: 77%
Total Length of Core To Process:

Drive Notes: 1' freefall. Easy penetration to 12'. Moderately hard penetration to 20'.



Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Moist, loose, dark grey, medium to fine grain sand w/ Multicolored grains. No odor, no sheen.
@ Top: Wet, soft, sandy silt. Sand is Medium to fine grain. No odor, no sheen.
@ 5': Wet, medium-dense, dark-grey, medium to fine grain sand. Multicolored grains. No odor, no sheen.
@ 10': Same as above.
@ 14.7': Very wet, medium to fine grain, dark grey sand. No odor, no sheen. Standing water in shoe.

Notes:
Core cut in 3 sections:
0'-5': A
5'-10': B
10'-14.7': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-26
Attempt No. 3 of 3
Date: 10/9/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7709N
Long/Easting: 12245.3244W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.1'

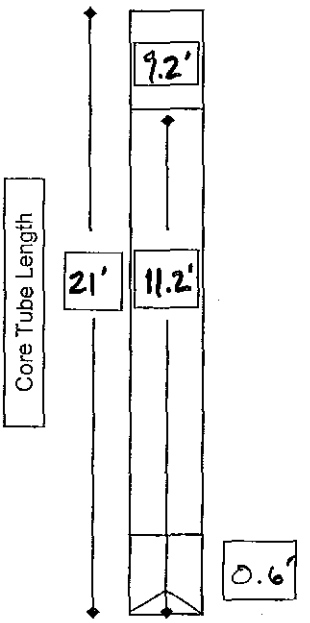
B. Water Level Measurements
Time: 0944
Stage: 3.89'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 9.2'
Recovery Measurement: 11.8'
Recovery Percentage: 59%
Total Length of Core To Process: 11.2'

Drive Notes: 3.5' freefall. Easy penetration to 12' then moderately harder to 20'.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain, dark grey sand. Multicolored grains. No odor, no sheen.
Tar balls in headwater
At top: Very wet, very soft brown silt with very strong HC odor and heavy rainbow sheen.
@ 5.5': Damp, medium-stiff, dark grey, medium grain sand. Grains are multicolored. No odor, slight sheen
@ 11.2': Wet, loose, medium to fine grain sand. Dark grey, multicolored grains. No odor, no sheen.

Notes:
Core cut into ~~3~~ 2 sections:
~~0-4' A~~ 0'-5.5' : A
~~4-8' B~~ 5.5'-~~11.8'~~ 11.2' : B
~~8-11.8' C~~

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-28
Attempt No. 3 of 3
Date: 10/6/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7732N
Long/Easting: 12245.2788W

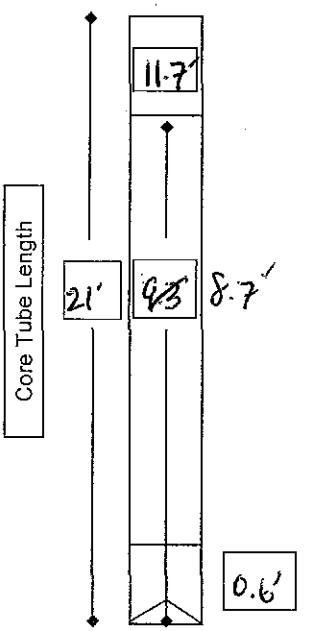
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.6'

B. Water Level Measurements
Time: 1323
Stage: ~~2.09~~ 1.18'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 11.7'
Recovery Measurement: 9.3'
Recovery Percentage: 47%
Total Length of Core To Process: 8.7'

Recovery Measurements (prior to cuts)



Drive Notes: 1' freefall. Easy penetration to 11' then hard to 13'. Moderately easier to 15'. Hard again to 20'

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Top of core:
~~Core nose~~: Brown, wet silty wood. No odor, no sheen. Wood pieces are ~ 1"-2" in length, ~ 1/2" wide.
@ 5': Medium dense, damp, dark grey medium ~~grey~~ grain sand. No odor, no sheen
@ 8.7': Same as above.
In nose: Same as above

Notes:
Core cut in 2 pieces:
0'-5': A
5'-8.7': B

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-30
Job No: 000029-02.23	Attempt No. 3 of 3
Field Staff: DG, MC, DP	Date: 10/5/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:

Lat/Northing: 4534.7624 N

Long/Easting: 22245.2418

A. Water Depth

DTM Depth Sounder:

DTM Lead Line: 47.8'

B. Water Level Measurements

Time: 1136

Stage: 0.86'

Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:

Core Accepted: (Yes) / No

Core Tube Length: 21'

Drive Penetration: 19.5'

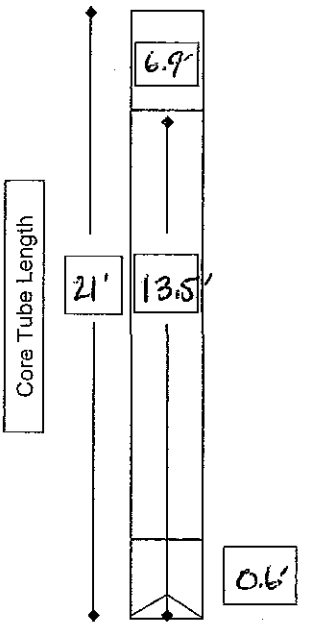
Headspace Measurement: ~~7'~~ 6.9'

Recovery Measurement: ~~12.6'~~ 14.1'

Recovery Percentage: ~~65%~~ 72%

Total Length of Core To Process: 13.5'

Recovery Measurements (prior to cuts)



Drive Notes: 1' free fall. Easy penetration to 12' than moderate hard to 20'

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey medium to fine grain SAND (SP). Loose, wet. No odor, no sheen.

At top: Wood debris w/ soft, wet, brown silt (25%)

@ 5': Dark grey, wet medium to fine SAND (SP). No odor, no sheen, ~~loose~~. Medium dense.

@ 10': Same as above.

@ 13.5': Same as above except sand is fine to medium grain.

Notes:

Core section into 3 segments:

0'-5' A

5'-10' B

10'-13.5' C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-31
Attempt No. 1 of 1
Date: 10/9/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7421 N
Long/Easting: 12245.2661 W

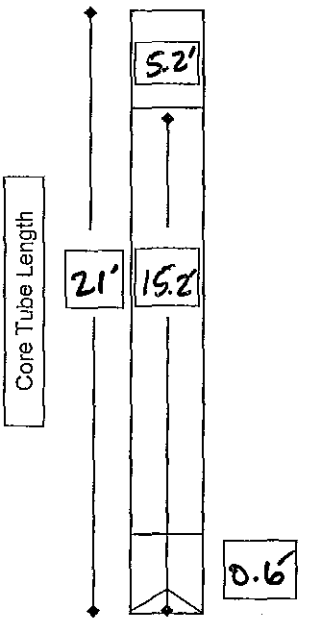
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.3'

B. Water Level Measurements
Time: 1046
Stage: 3.25'
Source: NIRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 5.2'
Recovery Measurement: 15.8'
Recovery Percentage: 79%
Total Length of Core To Process: 15.2'

Recovery Measurements (prior to cuts)



Drive Notes: 4' freefall. Easy penetration to 14' then ~~hard~~ Moderately hard to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain, dark grey sand. Multi-colored grains. No odor, no sheen.
At top: Very wet, very soft, brown silt with trace sand. Moderate to heavy rainbow sheen with black and brown product. Strong HC odor.
@5': Damp, medium stiff, dark grey, medium sand. No odor, no sheen. Multicolored grains.
@10': Same as above
@15.2': Same as above except sand is medium to fine grain.

Notes:
Core cut into 3 sections:
0'-5': A
5'-10': B
10'-15.2': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-36
Job No: 000029-02.23	Attempt No. 1 of 1
Field Staff: DG, MC, DP	Date: 10/11/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:

Lat/Northing: 4584.8730N

Long/Easting: 12245.6967W

A. Water Depth

DTM Depth Sounder:

DTM Lead Line: 3.9'

B. Water Level Measurements

Time: 1152

Stage: 3.30'

Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: Yes / No

Core Tube Length: 15'

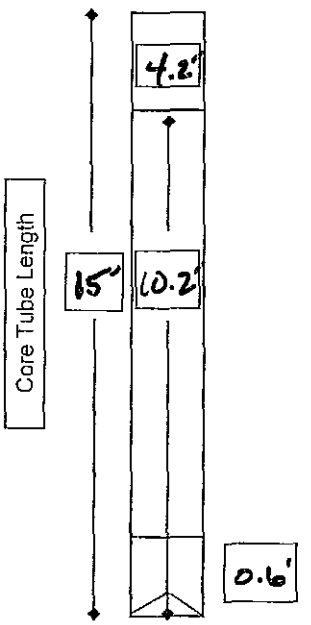
Drive Penetration: 13'.2"

Headspace Measurement: 4.2'

Recovery Measurement: 10.8'

Recovery Percentage: 82%

Total Length of Core To Process: 10.2'



Drive Notes: 3' freefall. Increasing hard penetration to 13.2' then refusal.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: wet, soft, grey, slightly sandy, clayey silt. Moderate HC odor, no sheen.

Attop: ~~@5'~~: Very wet, very soft, dark grey, slightly sandy silt. Moderate HC odor, no sheen.

@~~10.2'~~: 5': Damp, soft, dark grey, slightly clayey silt w/ trace medium grain sand. Slight to moderate odor, no sheen.

@ 10.2': Same as in nose. HC odor in this layer smells more like diesel.

Notes:

Core cut in two sections:

0'-5': A

5'-10.2': B

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-32
Job No: 000029-02.23	Attempt No. 1 of 1
Field Staff: DG, MC, DP	Date: 10/9/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:

Lat/Northing: 4534.7265N

Long/Easting: 12245.2729W

A. Water Depth

DTM Depth Sounder:

DTM Lead Line: ~~22.9'~~ 29.5'

B. Water Level Measurements

Time: 1145

Stage: 2.84'

Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:

Core Accepted: (Yes) / No

Core Tube Length: 21'

Drive Penetration: 17'

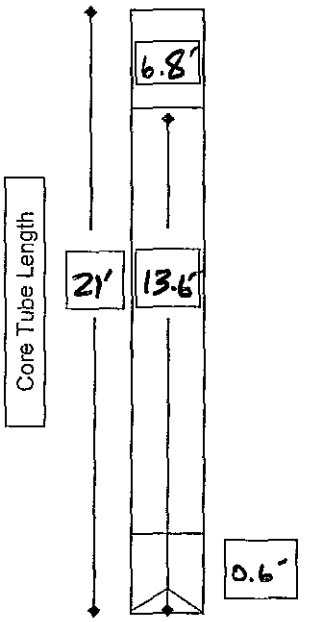
Headspace Measurement: 6.8'

Recovery Measurement: ~~10.2'~~ 14.2'

Recovery Percentage: 84%

Total Length of Core To Process: 13.6'

Recovery Measurements (prior to cuts)



Drive Notes: Unknown freefall. Easy penetration to 15' ~~then refusal~~ Unknown drive from 15'-17'. Refusal at 17'. (lost record)

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain, dark grey sand. Multi-colored grains. No odor, no sheen.

At top: Very wet, very soft, brown silt with trace sand. Moderate HC odor, moderate to heavy sheen (rainbow).

@5': Damp, soft, brown silt with trace sand. Strong HC odor, Moderate metallic sheen.

@10': Damp, medium dense, grey, silty sand. Slight to Moderate HC odor, slight metallic sheen.

@13.6': Moist, dense, medium to fine grain, dark grey sand. Multi-colored grains. No odor, no sheen.

Notes:

Core cut into 3 sections:

0'-5': A

5'-10': B

10'-13.6': C

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-37
Attempt No. 1 of 1
Date: 10/9/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.6827N
Long/Easting: 12245.1654W

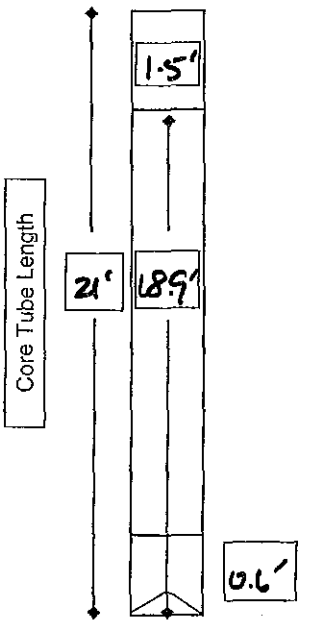
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 14.6'

B. Water Level Measurements
Time: 1323
Stage: 2.37'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: (Yes) / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 1.5'
Recovery Measurement: 19.5'
Recovery Percentage: 98%
Total Length of Core To Process: 18.9'

Recovery Measurements (prior to cuts)



Drive Notes: Drive started immediately to prevent coring frame from tipping over (steep slope). Easy penetration to 15'. Unknown penetration to 20' (record blank).

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Tremendous amounts of bubbling observed when core was extracted from sediments.
In nose: Damp, soft, gray, silty clay. Slight HC odor. No sheen.
At top: Very wet, very soft, brown silt. Slight unknown odor, slight sheen.
@5': Moist, soft, silty, brown clay with trace fine-grain sand. No odor, no sheen.
@10': Damp, medium-stiff, brown silty clay. Slight HC odor, no sheen.
@15': Same as 10'.
@18.9': Damp, stiff, brown silty clay. Slight HC odor. No sheen.

Notes: Trace decomposed organic material (leaves).

Core cut into 4 pieces:
0'-5': A 10'-15': C
5'-10': B 15-18.9': D.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-44
Attempt No. 3 of 3
Date: 10/8/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8853 N
Long/Easting: 12245.5420 W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.1'

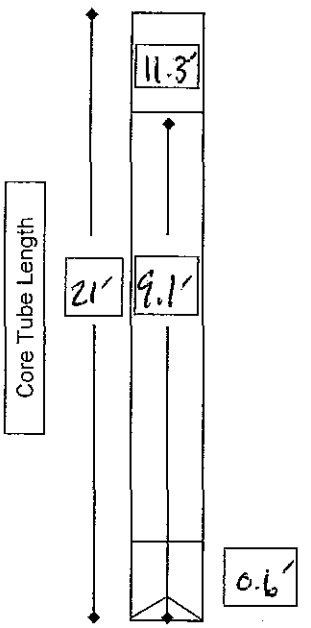
B. Water Level Measurements
Time: 1521
Stage: 2.10'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 11.3'
Recovery Measurement: 9.7'
Recovery Percentage: 49%
Total Length of Core To Process: 9.1'

Drive Notes: freefall. Easy penetration to 13' then moderately hard to 20'.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain, dark grey sand, multi-colored grains. Slight HC odor, no sheen. Slight metallic sheen
At top: Wet, brown, slightly silty wood debris. Slight odor, no sheen.
@5': Damp, medium-stiff, dark grey, medium grain sand. Moderate HC odor, slight metallic sheen.
@9.1':

Notes:
Core cut in 2 sections:
0'-5': A
5'-9.1': B

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-45
Attempt No. 1 of 1
Date: 10/11/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7520N
Long/Easting: 12245.2574W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.3'

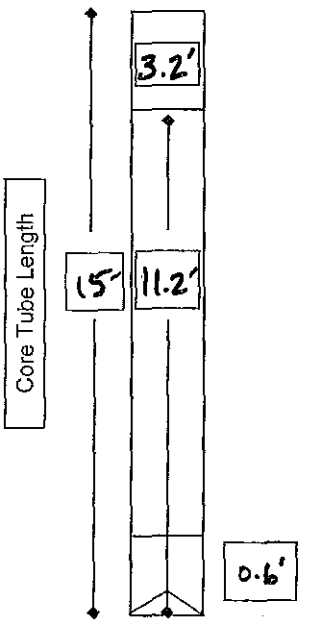
B. Water Level Measurements
Time: 1535
Stage: 2.17'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15'
Drive Penetration: 14'
Headspace Measurement: 3.2'
Recovery Measurement: 11.8'
Recovery Percentage: 84%
Total Length of Core To Process: 11.2'

Drive Notes: 1' freefall. Easy penetration to 10' then moderately harder to ~~15'~~ 14'.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain, dark grey sand. Multicolored grains. No odor, no sheen.
At top: Very wet, very soft, brown silt with trace fine grain sand and occasional wood debris. No odor, no sheen.
@ 6': Very wet, loose, medium grain, dark grey sand. Multicolored grains. No odor, no sheen.
@ 11.2': Same as above except sand is medium to fine grain.

Notes:
Core cut into 2 pieces:
0'-6': A
6'-11.2': B

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-06
Attempt No. 1 of 2
Date: 10/7/10
Logged By: DP
Horizontal Datum: WGS84

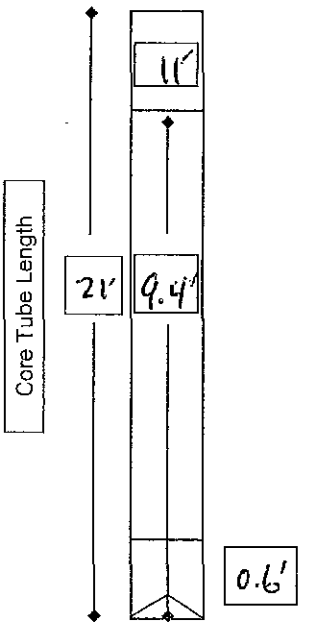
Field Collection Coordinates:
Lat/Northing: 4534.8800N
Long/Easting: 12245.6102W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 49.6'

B. Water Level Measurements
Time: 0828
Stage: 3.67'
Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 18'
Headspace Measurement: 11'
Recovery Measurement: ~~11~~ 10'
Recovery Percentage: ~~39%~~ 61%
Total Length of Core To Process: 9.4'

Drive Notes: No freefall. Easy penetration to Six feet very hard penetration to 18' with the exception of 12'-14' which was moderate penetration. Refusal at 18'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Nose was empty.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-08
Attempt No. 1 of 3
Date: 10/6/10
Logged By: DP
Horizontal Datum: WGS84

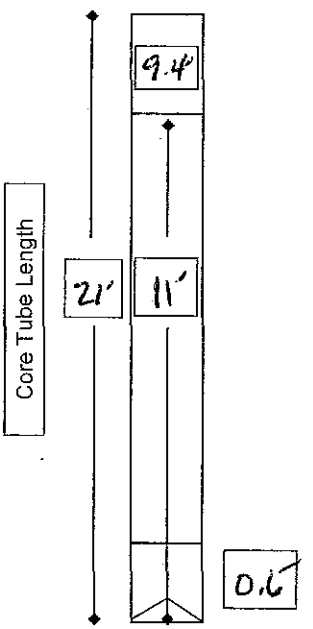
Field Collection Coordinates:
Lat/Northing: 4534.8759N
Long/Easting: 12245.5527W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.2'

B. Water Level Measurements
Time: 1424
Stage: 1.42
Source: NIRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 9.4'
Recovery Measurement: 11.6'
Recovery Percentage: 58%
Total Length of Core To Process: 11.0'

Drive Notes: 1' freefall. Easy penetration to 13' with lens of moderate penetration at 6'. Then easy penetration to 12'. Moderately harder to 18'. Hard penetration from 18'-20'.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, medium-dense dark grey, medium sand, Grains are multi-colored. Moderate petroleum odor and moderate metallic sheen.

Notes: Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-08
Job No: 000029-02.23	Attempt No. 2 of 3
Field Staff: DG, MC, DP	Date: 10/6/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8746N
Long/Easting: 12245.5564W

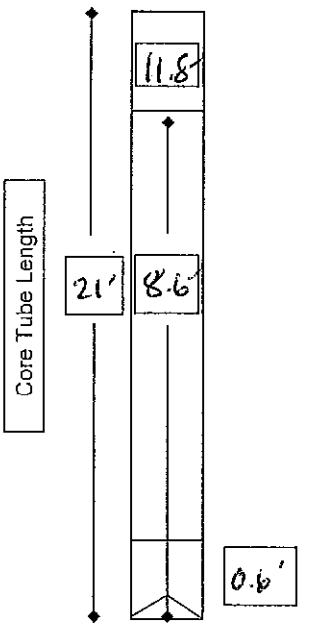
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 49.5'

B. Water Level Measurements
Time: 1537
Stage: 2.48'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 11.8'
Recovery Measurement: 9.2'
Recovery Percentage: 46%
Total Length of Core To Process: 8.6'

Recovery Measurements (prior to cuts)



Drive Notes: 2' freefall. Easy penetration to 20' with a lens of hard penetration at 7'.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Medium-dense, dark-grey medium grain sand w/ 2" lens of brown silt. Substantial rainbow colored sheen (>80%). Very strong petroleum odor. 3" stick of wood in material

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-10
Attempt No. 1 of 3
Date: 10/7/10
Logged By: DP
Horizontal Datum: WGS84

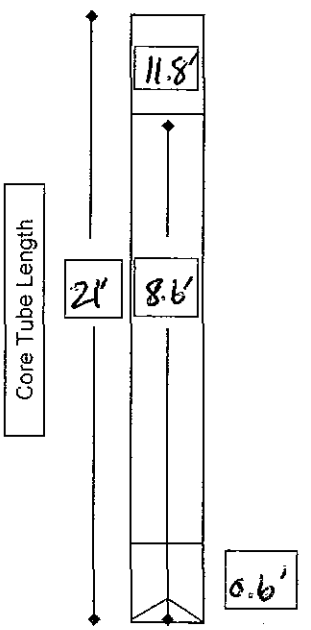
Field Collection Coordinates:
Lat/Northing: 4534.8629N
Long/Easting: 12245.5178W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.7'

B. Water Level Measurements
Time: ~~1015~~ 1020
Stage: ~~2.76'~~ 2.73'
Source: NOAA

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 19'
Headspace Measurement: 11.8'
Recovery Measurement: 9.2'
Recovery Percentage: 48%
Total Length of Core To Process: 8.6'

Drive Notes: 1.5' freefall. Easy penetration to 12' with exception of hard at 4.5' (debris). Moderately harder to 16'. Very hard to 19' then refusal.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, medium-dense, dark grey, medium to fine grain sand. Multicolored grains. No odor, no sheen. Trace wood debris. About 3' of wood debris observed in top of core.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-10
Attempt No. 2 of 3
Date: 10/7/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8642N
Long/Easting: 12245.5139W

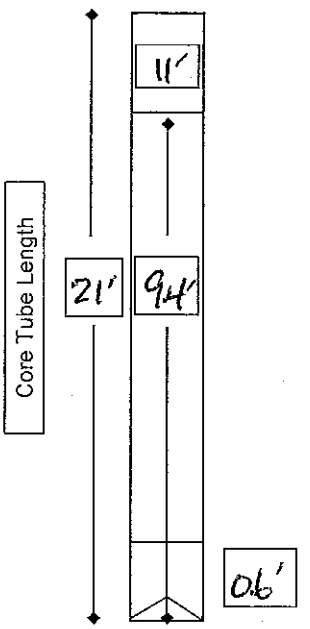
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.1'

B. Water Level Measurements
Time: 1111
Stage: 2.78
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 11'
Recovery Measurement: 10'
Recovery Percentage: 50%
Total Length of Core To Process: 9.4'

Recovery Measurements (prior to cuts)



Drive Notes: freefall. Easy penetration to 9' then slightly harder to 13'. Moderately hard to 17' then ~~hard~~ very hard to 20'.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Product observed in headwater.
In nose: Wet, medium-dense, dark grey, medium to fine grain sand. Multicolored grains. No odor, no sheen.
About 3' long wood layer observed toward top of core.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-18
Attempt No. 1 of 3
Date: 10/8/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8130N
Long/Easting: 12245.4070W

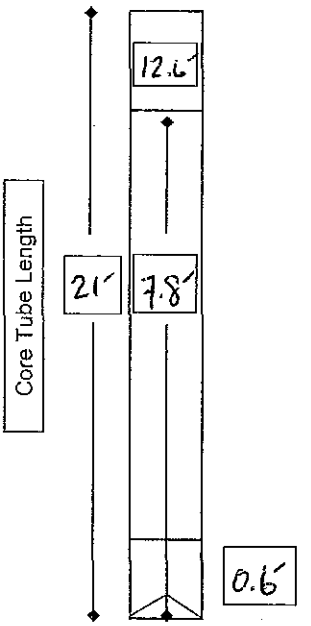
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.6'

B. Water Level Measurements
Time: 0910
Stage: 3.84'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 12.6'
Recovery Measurement: 8.4'
Recovery Percentage: 42%
Total Length of Core To Process: 7.8'

Recovery Measurements (prior to cuts)



Drive Notes: 2.5' freefall. Easy penetration to 10' then slightly harder to 18' then very hard to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Headwater contained black and brown petroleum product. Very strong HC odor, Heavy sheen in IDW.

In nose: Very wet, fine to medium grain sand with very strong HC odor and heavy rainbow and metallic sheen.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-18
Job No: 000029-02.23	Attempt No. 2 of 3
Field Staff: DG, MC, DP	Date: 10/8/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:

Lat/Northing: 4534.8147 N

Long/Easting: 12245.4063 W

A. Water Depth

DTM Depth Sounder:

DTM Lead Line: 47.7'

B. Water Level Measurements

Time: 1043

Stage: 2.94'

Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:

Core Accepted: Yes (No)

Core Tube Length: 21'

Drive Penetration: 20'

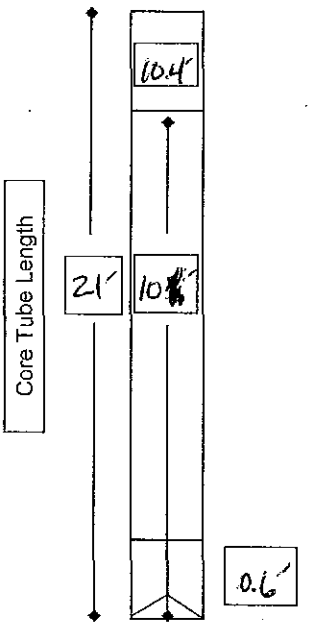
Headspace Measurement: 10.4'

Recovery Measurement: 10.6'

Recovery Percentage: 53%

Total Length of Core To Process: 10'

Recovery Measurements (prior to cuts)



Drive Notes: 1' freefall. Easy penetration to ~~13~~ 20' with the exception of 13' - very hard penetration (debris).

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, medium grain sand. Slight to moderate HC odor → Headwater had black and brown product, strong HC odor. → no sheen. Very wet, loose.

Notes:

Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-19
Attempt No. 1 of 2
Date: 10/5/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7988N
Long/Easting: 12245.4257W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 42.5'

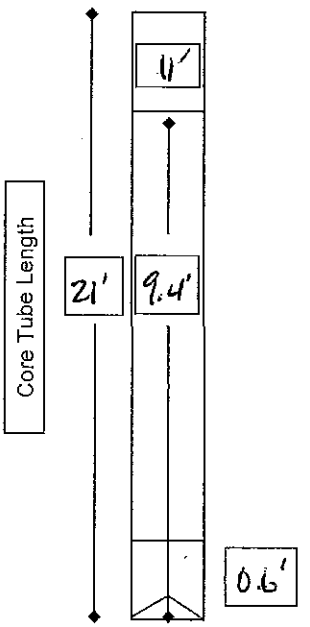
B. Water Level Measurements
Time: 1545
Stage: 2.81'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 17'
Headspace Measurement: 11'
Recovery Measurement: ~~7~~ 10'
Recovery Percentage: ~~35%~~ 59%
Total Length of Core To Process:

Drive Notes: 5' freefall. Easy penetration to 17' then refusal.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Brown, silty, medium to fine grain SAND w/some wood debris. Substantial sheen, strong petroleum odor.

Core rejected.

Notes:
Material contained as IDW in 5 gal. buckets.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-20
Attempt No. 1 of 2
Date: 10/7/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8162N
Long/Easting: 12245.3842W

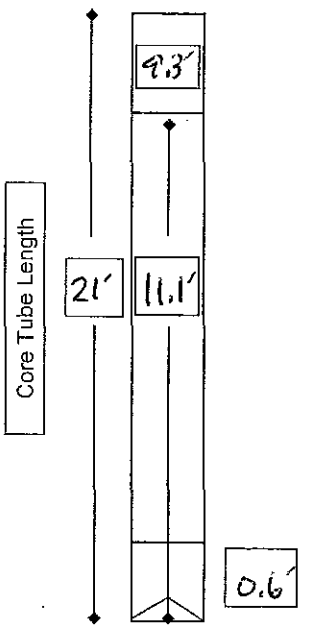
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.5'

B. Water Level Measurements
Time: 1429
Stage: 1.75'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 9.3'
Recovery Measurement: 11.7'
Recovery Percentage: 59%
Total Length of Core To Process: 11.1'

Recovery Measurements (prior to cuts)



Drive Notes: 1' freefall. Easy penetration to 11' then increasing hardness to very hard at 17'. Hardness decreased to hard penetration to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain sand. Dark grey. Grains are multicolored. No odor, no sheen.
Headwater clean.

Notes: Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-23
Job No: 000029-02.23	Attempt No. 1 of 2
Field Staff: DG, MC, DP	Date: 10/7/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8023N
Long/Easting: 12245.3481W

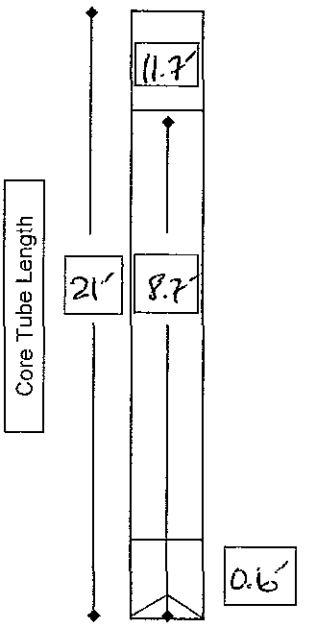
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 52.2

B. Water Level Measurements
Time: 1625
Stage: 3.15
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21
Drive Penetration: 17'
Headspace Measurement: 11.7'
Recovery Measurement: 9.3'
Recovery Percentage: 55%
Total Length of Core To Process: 8.7'

Recovery Measurements (prior to cuts)



Drive Notes: 1' freefall. Easy penetration to 11' then slightly harder to 12'. Easy penetration to 16'; sharply increasing hard penetration until refusal at 17'.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium grain, dark grey sand with multi-colored grains. No odor, no sheen.

Notes: Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-24
Attempt No. 1 of 2
Date: 10/11/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7535N
Long/Easting: 12245.3672W

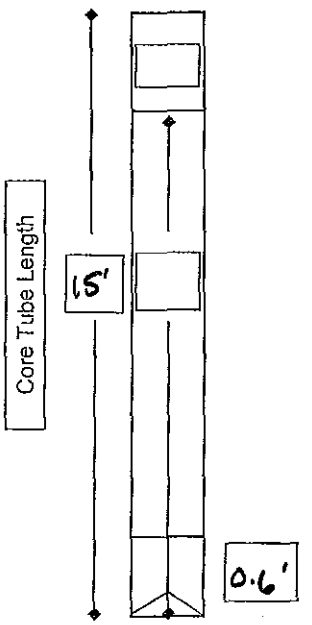
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 7.2'

B. Water Level Measurements
Time: 1349
Stage: 2.59'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 15'
Drive Penetration: 7.1'
Headspace Measurement:
Recovery Measurement: not measured 10.11.10 DP
Recovery Percentage:
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes: 3' freefall. Easy penetration to 7.1' then refusal.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-26
Attempt No. 1 of 3
Date: 10/8/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7681N
Long/Easting: 12245.3223W

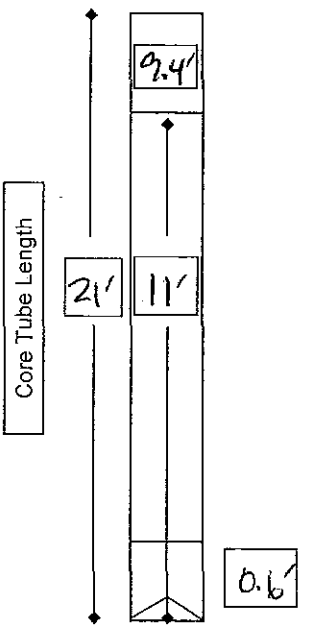
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.6'

B. Water Level Measurements
Time: 1609
Stage: 2.41'
Source: NIRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 9.4'
Recovery Measurement: 11.6'
Recovery Percentage: 58%
Total Length of Core To Process: 11'

Recovery Measurements (prior to cuts)



Drive Notes: 3' freefall. Easy penetration to 10' then moderately hard to 12'. Slightly easier to 20'.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, medium to fine grain, dark grey sand.
Slight HC odor, no sheen.
Black and brown blebs of product in headwater.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, DP, MC
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-26
Attempt No. 2 of 3
Date: 10/9/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7682 N
Long/Easting: 12245.3212 W

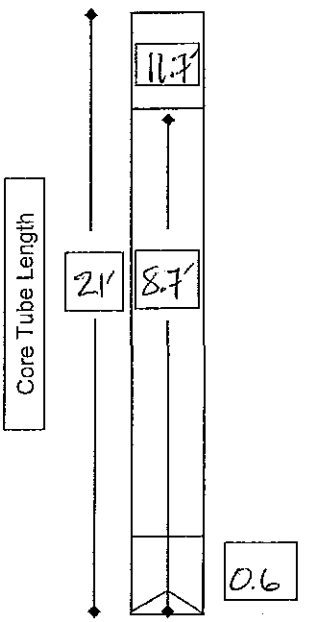
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.3'

B. Water Level Measurements
Time: 0839
Stage: 4.37'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 11.7'
Recovery Measurement: 9.3
Recovery Percentage: 47%
Total Length of Core To Process: 8.7'

Recovery Measurements (prior to cuts)



Drive Notes: 2.5' freefall. Easy penetration to 10' then moderately hard to 17'. Slightly harder to 20'.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, dark grey, medium to fine-grain sand with multicolored grains. Slight H_2S odor, no sheen.
Tar balls in headwater.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-28
Attempt No. 1 of 3
Date: 10/6/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7748N
Long/Easting: 12245.2746W

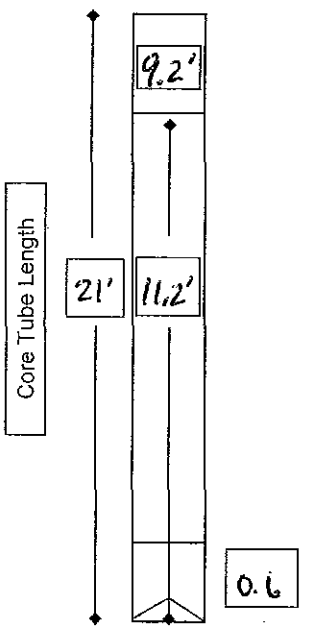
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 48.0'

B. Water Level Measurements
Time: 1205
Stage: 1.38'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: ~~10.7~~ 9.2'
Recovery Measurement: 11.8'
Recovery Percentage: 54%
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes: 6" freefall. Easy penetration to 13' then more difficult to 20'.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Dark grey, wet, loose, medium to fine grain sand. Multi-colored grains. No odor, no sheen.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-28
Attempt No. 2 of 3
Date: 10/6/10
Logged By: DP
Horizontal Datum: WGS84

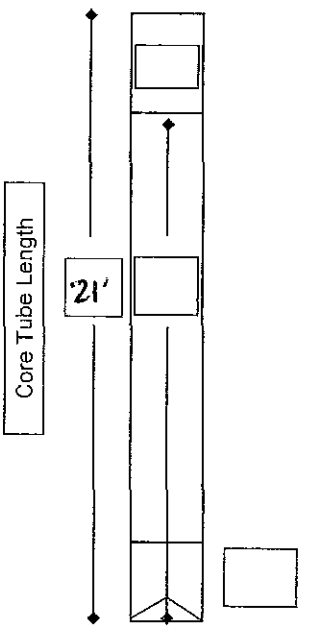
Field Collection Coordinates:
Lat/Northing: 4534.7757N
Long/Easting: 12245.2723W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 47.9

B. Water Level Measurements
Time: 1300
Stage: ~~2.19'~~ 1.17
Source: NRFC

C. Mudline Elevation

Recovery Measurements (prior to cuts)



Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21
Drive Penetration: ~~10'~~ 9.9'
Headspace Measurement: Not Measured
Recovery Measurement:
Recovery Percentage:
Total Length of Core To Process:

Drive Notes: 0.5' freefall. Easy penetration to ~10' then refusal.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DH, DP, MC
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-30
Attempt No. 1 of 3
Date: 10/4/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7611 N
Long/Easting: 122045.2412 E

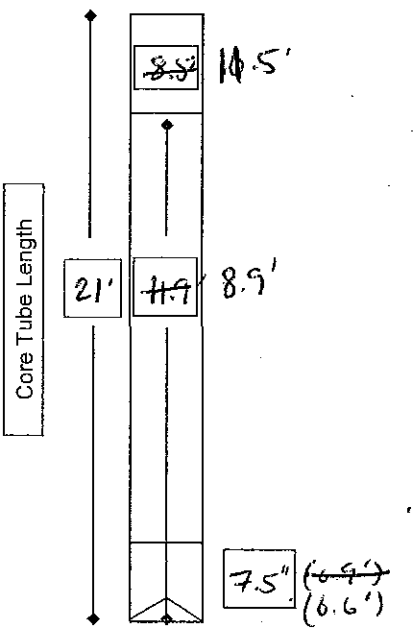
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 49.3'

B. Water Level Measurements
Time: 1510
Stage: ~~2.06~~ 2.54
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: ~~8.5'~~ 11.5' ~~8.5~~
Recovery Measurement: ~~11.5~~ ~~12.5'~~ 8.5'
Recovery Percentage: ~~58%~~ 42.5%
Total Length of Core To Process: 11.9'

Recovery Measurements (prior to cuts)



Drive Notes: ~~Steady to 11.9' increasing~~ ~~Moderate easy~~
~~About 1' freefall~~
~~Medium hard 10'-13.5'~~ DP 10/4/10
Freefall ~ 1'. Moderately easy to 10'. Medium hard 10'-~~13.5'~~ 15'. Slightly easier 15'-16.5'. Medium-hard 16.5'-20'

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Angular sandy slurry may have fell out the bottom of the core.
Core rejected.

Notes:
Core nose empty on deck. emptied core into bucket. homogeneous Black Angular Sand.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps	Station ID: DGS-30
Job No: 000029-02.23	Attempt No. 2 of 3
Field Staff: DG, MC, DP	Date: 10/5/10
Contractor: MSS	Logged By: DP
Vertical Datum: feet CRD	Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.7595N
Long/Easting: 12245.2429 W

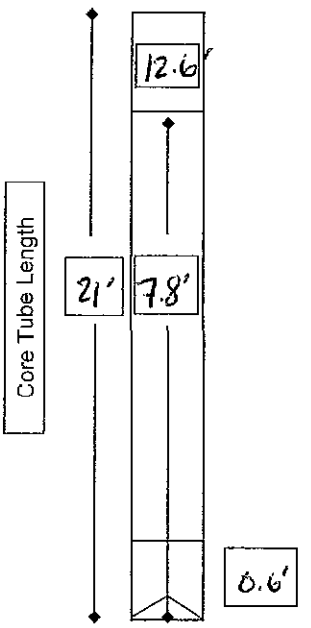
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.7'

B. Water Level Measurements
Time: 1040
Stage: 1.17'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 12.6'
Recovery Measurement: 8.4'
Recovery Percentage: 42%
Total Length of Core To Process: 7.8'

Recovery Measurements (prior to cuts)



Drive Notes: ~~0.5'~~ 1' freefall. Easy penetration to 17'. Slightly more difficult to 20'.

Core Field Observations and Description:
Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Loose, wet, medium to fine grain, dark grey SAND (SP). No odor, no sheen.
Material sloughing out bottom of core. Not cohesive enough to be stopped by core catcher. Material is medium to fine grain sand with decomposed wood fragments ~1/2" to 1" long.

Notes:
Core rejected and material collected in 5 gal. buckets as IDW.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-44
Attempt No. 1 of 3
Date: 10/8/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4531.8845
Long/Easting: 12245.5432

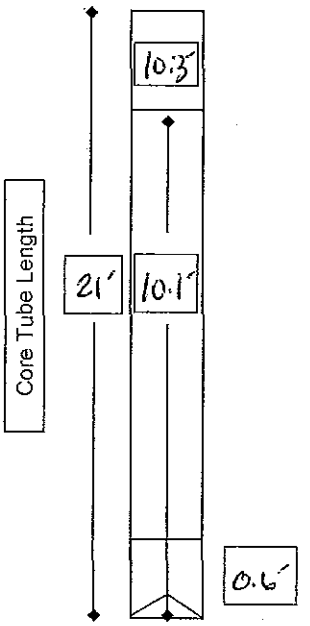
A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.7'

B. Water Level Measurements
Time: 1335
Stage: 2.36'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / (No)
Core Tube Length: 21'
Drive Penetration: 20'
Headspace Measurement: 10.3'
Recovery Measurement: 10.7'
Recovery Percentage: 54%
Total Length of Core To Process:

Recovery Measurements (prior to cuts)



Drive Notes: 1.5' freefall. Easy penetration to 6' then moderately harder to 13'. Hard penetration to 16' then moderate again to 20'.

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Wet, loose, dark grey, medium to fine grain sand. Multi-colored grains. ~~Mo~~ Moderate to slight HC odor. No sheen. Moderate sheen in headwater.
IDW had moderate HC odor and moderate sheen.

Notes:
Core rejected.

ANCHOR QEA

Sediment Core Collection Log

Job: Gasco Data Gaps
Job No: 000029-02.23
Field Staff: DG, MC, DP
Contractor: MSS
Vertical Datum: feet CRD

Station ID: DGS-44
Attempt No. 2 of 3
Date: 10/8/10
Logged By: DP
Horizontal Datum: WGS84

Field Collection Coordinates:
Lat/Northing: 4534.8864 N
Long/Easting: 12245.5429 W

A. Water Depth
DTM Depth Sounder:
DTM Lead Line: 46.5'

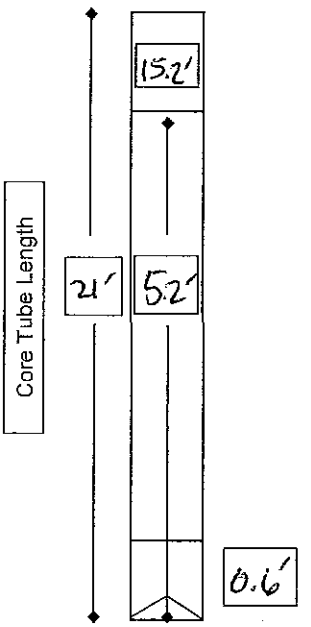
B. Water Level Measurements
Time: 1431
Stage: 1.91'
Source: NRFC

C. Mudline Elevation

Core Collection Recovery Details:
Core Accepted: Yes / No
Core Tube Length: 21'
Drive Penetration: 10'
Headspace Measurement: 15.2'
Recovery Measurement: 5.8'
Recovery Percentage: 58%
Total Length of Core To Process:

Drive Notes: 1' freefall. Easy penetration to 8' then very hard to refusal at 10'.

Recovery Measurements (prior to cuts)



Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

In nose: Soft, brown, ~~silt~~ slightly sandy silt. Damp. Slight to Moderate HC odor, slight metallic sheen. Moderate wood debris. Headwater had slight sheen.
IDW had Moderate HC odor and slight sheen.

Notes:
Core rejected.

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-03**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 16:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.4**	CORED BY	**MSS**
PERCENT RECOVERY	**77%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623175.82**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706212.73**	MUDLINE ELEVATION (ft)	**-24.6**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 5.4 feet: wet, soft, silty fine SAND. No odor or sheen, density increases with depth to 5.4 feet.	1 2 3 4 5	N	DGS-03-0001 DGS-03-0104 DGS-03-0408 DGS-53-0408 (FD)		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-03**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 16:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.4**	CORED BY	**MSS**
PERCENT RECOVERY	**77%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623175.82**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706212.73**	MUDLINE ELEVATION (ft)	**-24.6**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.					
	5.4 to 10.5 feet: damp, medium, stiff, fine SAND with trace silt, slight hydrocarbon-like odor, no sheen.		N			
		6				
		7		DGS-03-0408 (cont.) and DGS-53-0408 (FD)		
		8				
		9		DGS-03-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-03**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 16:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.4**	CORED BY	**MSS**
PERCENT RECOVERY	**77%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623175.82**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706212.73**	MUDLINE ELEVATION (ft)	**-24.6**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.					
	10.5 to 10.9 feet: damp, medium, stiff SILT, no odor or sheen.					
	Same as 5.4 feet.	11	N	DGS-03-0812 (cont.)		
	Same as 10.5 feet.	12				
	Same as 5.4 feet but no odor.	13		DGS-03-1215.3 MS/MSD Requested		
		14				
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-03**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 16:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.4**	CORED BY	**MSS**
PERCENT RECOVERY	**77%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623175.82**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706212.73**	MUDLINE ELEVATION (ft)	**-24.6**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.		N	DGS-03-1215.3 (cont.)		
	End of core at 15.3 feet.					
		16				
		17				
		18				
		19				
		20				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-06**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 15:16**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.0**	CORED BY	**MSS**
PERCENT RECOVERY	**85%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**16.6**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623472.28**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706131.42**	MUDLINE ELEVATION (ft)	**-40.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (DRET)	SAMPLE (SBLT, Other)
	0 to 1.7 feet: moist, soft, olive SILT with trace fine sand, slight hydrocarbon-like odor, no sheen, trace decomposed wood fibers.	1	N	DGS-06-0001		
	1.7 to 7.1 feet: damp, medium dense, dark gray, medium SAND, slight hydrocarbon-like odor, no sheen.	2				
		3		DGS-06-0104	DGS-06-0104	
		4				
		5		DGS-06-0408		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-06**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 15:16**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.0**	CORED BY	**MSS**
PERCENT RECOVERY	**85%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**16.6**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623472.28**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706131.42**	MUDLINE ELEVATION (ft)	**-40.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (DRET)	SAMPLE (SBLT, Other)
	Same as above.	6	N	DGS-06-0408 (cont.)		
	7.1 to 7.8 feet: damp, medium dense, dark gray, medium dense SAND, no odor or sheen.	7				
	7.8 to 12.4 feet: same as 1.7 feet except no odor.	8				
		9		DGS-06-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-06**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 15:16**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.0**	CORED BY	**MSS**
PERCENT RECOVERY	**85%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**16.6**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623472.28**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706131.42**	MUDLINE ELEVATION (ft)	**-40.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (DRET)	SAMPLE (SBLT, Other)
	Same as above.	11	N	DGS-06-0812 (cont.)		
		12				
	12.4 to 13.4 feet: damp, medium stiff, olive, silty CLAY, no odor, no sheen.	13				
	13.4 to 16.0 feet: same as 1.7 feet except no odor. @ 13.4 to 16.0 feet: sand becomes finer.	14		DGS-06-1216		
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-06**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 15:16**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.0**	CORED BY	**MSS**
PERCENT RECOVERY	**85%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**16.6**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623472.28**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706131.42**	MUDLINE ELEVATION (ft)	**-40.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-06-1216 (cont.)		
	16.0 to 16.6 feet: same as 12.4 feet with decomposed wood fibers.	16	N	DGS-06-1616.6		
	End of core at 16.6 feet.	17				
		18				
		19				
		20				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-07**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 15:42**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14**	CORED BY	**MSS**
PERCENT RECOVERY	**100%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623488.46**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705911.50**	MUDLINE ELEVATION (ft)	**-0.8**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (OTHER)	SAMPLE (SBLT)
	0 to 12.0 feet: damp, soft, olive, SILT with few sand, moderate odor.					
	@ 0.2 feet: 1 cm black band with decomposed wood.		N			
	@ 0.7 to 1.3 feet: black band/layer stained SILT and metallic sheen that penetrates full depth of interval, moderate odor (odor is asphalt-like).	1		DGS-07-0001		
			Y		DGS-07-011.3	
	@ 1.5 feet: 3 cm black band. Same as 0.7 to 1.3 feet.					
	@ 1.7 feet: 1 mm black band. Same as 0.7 to 1.3 feet.		N			
		2				
	@ 2.2 to 2.7 feet: same as 0.7 to 1.3 feet.					
			Y		DGS-07-2.22.7	
			N			
	@ 3.0 to 4.2 feet: same as 0.7 to 1.3 feet.	3				
			Y			
		4		DGS-07-0104	DGS-07-034.2	
			N			
	@ 4.6 feet: 1 cm band. Same as 0.7 to 1.3 feet.			DGS-07-0408		DGS-07-0113.4
	@ 4.7 to 5.2 feet: same as 0.7 to 1.3 feet.		Y		DGS-07-4.75.2	
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-07**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 15:42**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14**	CORED BY	**MSS**
PERCENT RECOVERY	**100%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623488.46**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705911.50**	MUDLINE ELEVATION (ft)	**-0.8**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (OTHER)	SAMPLE (SBLT)
	Same as above.		Y			DGS-07-0113.4 (cont.)
	@ 5.4 feet: two 1 cm bands. Same as 0.7 to 1.3 feet.		N			
	@ 5.6 to 6.7 feet: several (2 mm) bands close together. Bands are same as 0.7 to 1.3 feet.	6	Y		DGS-07-5.66.7	
			N			
	@ 7.0 to 7.3 feet: large band. Same as 0.7 to 1.3 feet.	7	Y		DGS-07-077.3	
	@ 7.45 to 7.55 feet: several small (2 cm) bands. Same as 0.7 to 1.3 feet.		N	DGS-07-0408 (cont.)		
	@ 7.7 to 7.9 feet: several small bands. Same as 0.7 to 1.3 feet.					
	@ 7.9 to 8.4 feet: large band. Same as 0.7 to 1.3 feet.	8	Y		DGS-07-7.98.4	
			N			
	@ 8.7 to 9.05 feet: large band. Same as 0.7 to 1.3 feet.	9	Y		DSG-07-8.79.1	
	@ 9.1 feet: several small bands. Same as 0.7 to 1.3 feet.		N	DGS-07-0812		
	@ 9.7 to 10.0 feet: large band. Same as 0.7 to 1.3 feet.	10	Y		DGS-07-9.710	

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-07**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 15:42**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14**	CORED BY	**MSS**
PERCENT RECOVERY	**100%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623488.46**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705911.50**	MUDLINE ELEVATION (ft)	**-0.8**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (OTHER)	SAMPLE (SBLT)
	Same as above. @ 10.0 to 10.6 feet: several small bands. Same as 0.7 to 1.3 feet.		N			
	@ 10.6 to 10.9 feet: large band. Same as 0.7 to 1.3 feet.		Y		DGS-07-10.610.9	DGS-07-0113.4 (cont.)
	@ 11.1 feet: several small bands. Same as 0.7 to 1.3 feet. @ 11.2 feet: 2 cm band. Same as 0.7 to 1.3 feet. @ 11.5 feet: 1 cm band. Same as 0.7 to 1.3 feet.	11	N	DGS-07-0812 (cont.)		
	@ 11.6 to 11.8 feet: large band. Same as 0.7 to 1.3 feet.		Y		DGS-07-11.611.8	
	12.0 to 12.2 feet: VOID.	12				
	12.2 to 13.4 feet: same as 0 feet. @ 12.5 feet: 1 cm band. Same as 0.7 to 1.3 feet.		N			
	@ 12.7 to 12.9 feet: large band. Same as 0.7 to 1.3 feet.		Y		DGS-07-12.713.2	
	@ 13.0 tl 13.2 feet: large band. Same as 0.7 to 1.3 feet.	13	N Y N	DGS-07-1213.4		
	End of core at 13.4 feet.	14				
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:7.2/2/11.GASCO7-2...000029-02.28

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-08**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 08:45**
DRIVE LENGTH (ft)	**16.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**9.8**	CORED BY	**MSS**
PERCENT RECOVERY	**59%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623734.27**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706119.28**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.1 feet: lens of wet, loose SILT with wood waste on top.		N			
	0.1 to 4.6 feet: damp, medium dense, dark gray SAND with trace silt and scattered decomposed wood fibers.	1		DGS-08-0001		
		2				
		3				
		4		DGS-08-0104		
	@ 4.4 to 4.6 feet: saturated product NAPL.		Y	DGS-08-0408		DGS-08-4.44.6
	4.6 to 5.0 feet: damp, soft SILT, (olive/brown with 1 cm black bands).	5	N			

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-08**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 08:45**
DRIVE LENGTH (ft)	**16.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**9.8**	CORED BY	**MSS**
PERCENT RECOVERY	**59%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623734.27**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706119.28**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	5.0 to 5.3 feet: same as 0.1 feet.					
	5.3 to 5.5 feet: same as 4.6 feet (SILT). @ 5.3 feet: blebs of rainbow sheen in SILT layer.					
	5.5 to 6.5 feet: same as 0.1 feet.	6	N	DGS-08-0408 (cont.)		
	6.5 to 6.9 feet: same as 4.6 feet but grades to sand.					
	6.9 to 9.3 feet: same as 0.1 feet.	7 8 9		DGS-08-089.3		
	End of core at 9.3 feet.	10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-10**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 13:30**
DRIVE LENGTH (ft)	**19**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**13.4**	CORED BY	**MSS**
PERCENT RECOVERY	**71%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**12.5**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7623885.57**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706005.20**	MUDLINE ELEVATION (ft)	**-39.4**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.1 feet: lens of wood, SILT, olive, soft, wet, metallic sheen on surface.					
	0.1 to 1.8 feet: damp, dark gray, medium dense, medium grain SAND with trace silt, slight hydrocarbon-like odor, no sheen, scattered wood debris.	1	N	DGS-10-0001		
	1.8 to 2.8 feet: slightly sandy, decomposed WOOD, brown, medium stiff, pieces up to 0.2-feet long, 0.2-feet deep, slight hydrocarbon-like odor, blebs of metallic sheen in woodwaste.	2				
	2.8 to 3.6 feet: same as 0.1 feet.	3				
	3.6 to 4.1 feet: same as 1.8 feet.	4		DGS-10-0104		
	4.1 to 4.5 feet: same as 0.1 feet.					
	4.5 to 4.8 feet: VOID.			DGS-10-0408		
	4.8 to 5.5 feet: same as 0.1 feet except no odor.	5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-10**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 13:30**
DRIVE LENGTH (ft)	**19**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**13.4**	CORED BY	**MSS**
PERCENT RECOVERY	**71%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**12.5**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7623885.57**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706005.20**	MUDLINE ELEVATION (ft)	**-39.4**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-10-0408 (cont.)		
	5.5 to 5.8 feet: same as 1.8 feet except no odor or sheen.					
	5.8 to 12.5 feet: same as 0.1 feet except no odor.	6	N			
		7				
		8				
		9		DGS-10-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-10**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 13:30**
DRIVE LENGTH (ft)	**19**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**13.4**	CORED BY	**MSS**
PERCENT RECOVERY	**71%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**12.5**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7623885.57**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706005.20**	MUDLINE ELEVATION (ft)	**-39.4**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	11	N	DGS-10-0812 (cont.)		
		12		DGS-10-1212.5		
	End of core at 12.5 feet.	13				
		14				
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-11**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 11:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.7**	CORED BY	**MSS**
PERCENT RECOVERY	**89%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17.5**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623834.78**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705909.29**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.5 feet: damp, medium dense, SAND with trace silt, sheen on top, moderate hydrocarbon-like odor.					
	0.5 to 1.5 feet: moist, soft, sandy SILT, moderate hydrocarbon-like odor.	1	N	DGS-11-0001		
	1.5 to 2.2 feet: damp, medium dense SAND with trace silt, saturated, sheen present, strong hydrocarbon-like odor.	2	Y			
	2.2 to 2.5 feet: same as 0.5 feet.		N			
	2.5 to 3.3 feet: same as 1.5 feet but with staining.	3				
	3.3 to 3.6 feet: same as 0.5 but with staining.		Y			
	3.6 to 5.0 feet: same as 2.5 feet.	4		DGS-11-0104		
	@ 4.6 feet: decomposed organic fibers present.	5		DGS-11-0408	DGS-1.58.2	

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-11**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 11:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.7**	CORED BY	**MSS**
PERCENT RECOVERY	**89%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17.5**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623834.78**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705909.29**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	5.0 to 8.3 feet: Same as 2.5 feet.	6 7 8	Y	DGS-11-0408 (cont.)	DGS-11-1.58.2 (cont.)	
	8.3 to 8.7 feet: damp, medium stiff, silty CLAY, slight hydrocarbon odor.					
	8.7 to 17.5 feet: damp, medium dense SAND with trace silt, no odor or sheen.	9 10	N	DGS-11-0812		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-11**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 11:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.7**	CORED BY	**MSS**
PERCENT RECOVERY	**89%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17.5**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623834.78**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705909.29**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-11-0812 (cont.)		
		11	N			
	@ 11.4 feet: few wood debris.					
		12				
		13				
		14		DGS-11-1216		
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-11**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 11:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.7**	CORED BY	**MSS**
PERCENT RECOVERY	**89%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17.5**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623834.78**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705909.29**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	16	N	DGS-11-1216 (cont.)		
		17		DGS-11-1617.5		
	End of core at 17.5 feet.	18				
		19				
		20				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-13**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 12:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.5**	CORED BY	**MSS**
PERCENT RECOVERY	**88%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623938.91**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705841.15**	MUDLINE ELEVATION (ft)	**-38.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 1.0 feet: damp, medium dense silty SAND, no odor or sheen, one shell. @ 0.4 to 1.0 feet: slight hydrocarbon-like odor.		N	DGS-13-0001		
	1.0 to 2.2 feet: damp, medium dense sandy SILT, no odor or sheen.	1 2				
	2.2 to 2.6 feet: same as 0 to 1.0 feet interval.					
	2.6 to 2.8 feet: VOID.					
	2.8 to 6.0 feet: damp, medium stiff, fine SAND (slightly silty).	3 4 5		DGS-13-0104 DGS-13-0408	DGS-13-0006	DGS-13-0006

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-13**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 12:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.5**	CORED BY	**MSS**
PERCENT RECOVERY	**88%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623938.91**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705841.15**	MUDLINE ELEVATION (ft)	**-38.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.		N	DGS-13-0408 (cont.)	DGS-0006 (cont.)	DGS-0006 (cont.)
	6.0 to 6.4 feet: VOID	6				
	6.4 to 7.5 feet: same as 2.8 feet.	7				
	@ 7.5 feet: sand grains become finer.					
	7.8 to 7.9 feet: interbed of SILT.					
	7.9 to 12.4 feet: same as 2.8 feet.	8				
		9		DGS-13-812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-13**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 12:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.5**	CORED BY	**MSS**
PERCENT RECOVERY	**88%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623938.91**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705841.15**	MUDLINE ELEVATION (ft)	**-38.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	11	N	DGS-13-0812 (cont.)		
	12.4 to 13.2 feet: decreased moisture, damp, stiff (medium), fine SAND, transitions to fine sandy silt.	12				
	13.2 to 17.0 feet: same as 2.8 feet.	13				
		14		DGS-13-1216		
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-13**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/5/10 / 12:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**17.5**	CORED BY	**MSS**
PERCENT RECOVERY	**88%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**17**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623938.91**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705841.15**	MUDLINE ELEVATION (ft)	**-38.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	16	N	DGS-13-1216 (cont.) DGS-13-1617		
	End of core at 17.0 feet.	17 18 19 20				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-18**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 13:30**
DRIVE LENGTH (ft)	**18.8**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**10**	CORED BY	**MSS**
PERCENT RECOVERY	**53%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9.6**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624324.50**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705713.29**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.4 feet: wet, soft, olive SILT with strong hydrocarbon-like odor and rainbow sheen. NAPL present.			DGS-18-0001		
	0.4 to 1.0 feet: damp, medium dense, dark brown SAND with silt pockets, sand is saturated, strong, hydrocarbon-like odor and rainbow sheen.					
	1.0 to 9.6 feet: damp, medium dense, dark brown SAND, sand is saturated, strong hydrocarbon-like odor and rainbow sheen.	1	Y			
	@ 2.0 feet: saturation lessens with depth. Substantial blebs of sheen throughout this interval.	2				
		3				
				DGS-18-0104		
		4		DGS-18-0408	DGS-18-004.5	
	@ 4.5 feet: sand is not saturated.		N			DGS-18-015.5
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-18**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 13:30**
DRIVE LENGTH (ft)	**18.8**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**10**	CORED BY	**MSS**
PERCENT RECOVERY	**53%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9.6**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624324.50**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705713.29**	MUDLINE ELEVATION (ft)	**-39.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above. @ 5.3 feet: 1 cm layer of brown/black, tar-like sand, strong hydrocarbon-like odor.	6 7 8 9	N	DGS-18-0408 (cont.) DGS-18-089.6		DGS-18-015.5 (cont.)
	End of core at 9.6 feet.	10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-19**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 15:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.5**	CORED BY	**MSS**
PERCENT RECOVERY	**78%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**14.7**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624265.35**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705622.35**	MUDLINE ELEVATION (ft)	**-34.6**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.2 feet: moist, loose, saturated SAND with trace silt, moderate hydrocarbon-like odor, sheen present with product NAPL. Top of core tube stained with black product.		Y	DGS-19-0001		
	@ 0.2 feet: damp, soft, slightly sandy SILT.					
	@ 0.9 feet: bleb of saturated SILT with metallic sheen.	1				
			N			
		2				
	@ 2.5 feet: blebs of saturated SILT with metallic sheen, hydrocarbon-like odor.					
	@ 3.0 feet: same as 0.9 feet.	3				
	3.3 to 4.1 feet: moist, medium stiff, fine SAND, strong hydrocarbon-like odor, product pools in impression, metallic sheen.		Y	DGS-19-0104		DGS-19-3.34.1
		4				
	4.1 to 4.4 feet: soft, damp SILT with substantial organic fibers.		N	DGS-19-0408		
	4.4 to 5.1 feet: same as 0.9 feet except layer rather than bleb.		Y			DGS-19-4.48.2
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-19**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 15:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.5**	CORED BY	**MSS**
PERCENT RECOVERY	**78%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**14.7**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624265.35**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705622.35**	MUDLINE ELEVATION (ft)	**-34.6**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.					
	5.1 to 5.3 feet: layer of wood waste.					
	5.3 to 14.7 feet: medium stiff, damp, fine SAND with trace silt, saturated with rainbow sheen, strong hydrocarbon-like odor, blebs of saturation throughout interval (greater than 2 inches).		Y	DGS-19-0408 (cont.)		DGS-19-4.48.2 (cont.)
		6				
		7				
		8				
	@ 8.2 to 10.7 feet: no sheen, slight hydrocarbon-like odor.		N	DGS-19-0812		
		9				
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-19**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 15:00**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.5**	CORED BY	**MSS**
PERCENT RECOVERY	**78%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**14.7**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624265.35**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705622.35**	MUDLINE ELEVATION (ft)	**-34.6**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.		N	DGS-19-8-12 (cont.)		
	@ 10.7 to 10.9 feet: same as 5.3 feet.		Y			DGS-19-10.210.9
	@ 10.9 to 14.7 feet: same as 8.2 feet.	11	N			
		12				
		13				
		14		DGS-19-1214.7		
	End of core at 14.7 feet.	15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-20**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 9:17**
DRIVE LENGTH (ft)	**19.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.5**	CORED BY	**MSS**
PERCENT RECOVERY	**74%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**13.7**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624430.85**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705724.54**	MUDLINE ELEVATION (ft)	**-40.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.1 feet: overlying SILT with decomposed wood (wet, soft).			DGS-20-0001		
	0.1 to 1.8 feet: damp, dark gray, medium stiff, medium SAND with trace silt, no odor or sheen, scattered wood fragments up to 0.2-feet long.	1				
	1.8 to 2.0 feet: damp, olive, soft SILT with trace sand, slight hydrocarbon-like odor.					
	2.0 to 10.3 feet: same as 0.1 feet (SAND). @ 2.0 feet: piece of clear soft plastic 0.5-feet long.	2	N			
		3		DGS-20-0104		
		4		DGS-20-0408		
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-20**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 9:17**
DRIVE LENGTH (ft)	**19.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.5**	CORED BY	**MSS**
PERCENT RECOVERY	**74%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**13.7**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624430.85**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705724.54**	MUDLINE ELEVATION (ft)	**-40.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-20-0408 (cont.)		
		6				
		7	N			
	@ 7.3 feet: plastic ring used by core collection team.					
		8				
		9		DGS-20-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-20**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 9:17**
DRIVE LENGTH (ft)	**19.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.5**	CORED BY	**MSS**
PERCENT RECOVERY	**74%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**13.7**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624430.85**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705724.54**	MUDLINE ELEVATION (ft)	**-40.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.					
	10.3 to 11.2 feet: VOID.	11	N	DGS-20-0812 (cont.)		
	11.2 to 13.7 feet: same as 0.1 feet (SAND).	12				
		13		DGS-20-1213.7		
	End of core at 13.7 feet.	14				
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-22**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 13:30**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**13.8**	CORED BY	**MSS**
PERCENT RECOVERY	**99%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624246.63**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705481.05**	MUDLINE ELEVATION (ft)	**1.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.4 feet: moist, soft, brown sandy SILT, no odor or sheen.			DGS-22-0001		
	0.4 to 1.0 feet: damp, loose, dark gray, medium to coarse grain SAND with trace silt, no odor or sheen.		N			
	1.0 to 7.2 feet: damp, soft, olive, SILT with trace clay, no odor or sheen.	1				
	@ 1.2 feet: 1 cm band of black SILT with metallic sheen, slight hydrocarbon-like odor.					
	@ 1.9 to 2.3 feet: band of black silt, slight metallic sheen present, slight hydrocarbon-like odor, light colored dry clay-like material in center of black band >2 inches (substantial).	2	Y		DGS-22-1.92.9	
	@ 2.65 to 2.8 feet: band of black SILT, slight metallic sheen, slight hydrocarbon-like odor, light colored dry clay-like material in center.		N			
		3		DGS-22-0104		
	@ 4.2 feet: slight sheen present (not substantial).	4		DGS-22-0408 and DGS-72-0408		
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-22**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 13:30**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**13.8**	CORED BY	**MSS**
PERCENT RECOVERY	**99%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624246.63**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705481.05**	MUDLINE ELEVATION (ft)	**1.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above. @ 5.1 to 5.3 feet: black band of SILT with slight metallic sheen, hydrocarbon-like odor (moderate), trace decomposed wood fibers present. @ 5.6 feet: 1 cm black band.	6 7		DGS-22-0408 (cont.) and DGS-72-0408 (cont.)		
	7.2 to 7.4 feet: fine grained SAND, slight hydrocarbon-like odor, no sheen.		N			
	7.4 to 7.8 feet: same as 1.0 feet. @ 7.6 feet: 1 cm layer of light clay-like material.					
	7.8 to 8.1 feet: fine grained sand and SILT.	8				
	8.1 to 10.3 feet: same as 1.0 feet. @ 8.2 to 8.3 feet: band of black SILT with light colored material, metallic sheen, trace wood fibers. @ 9.3 to 9.4 feet: band of black SILT, no sheen.	9 10		DGS-22-0812		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-22**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 13:30**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**13.8**	CORED BY	**MSS**
PERCENT RECOVERY	**99%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624246.63**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705481.05**	MUDLINE ELEVATION (ft)	**1.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above. @ 10.0 feet: band of black SILT with slight metallic sheen and slight odor (sweet smell).			DGS-22-0812 (cont.)		
	10.3 to 11.1 feet: VOID.	11				
	11.1 to 11.8 feet: damp, medium dense, fine grain SAND with trace silt, slight odor (sweet smell).		N			
	11.8 to 12.6 feet: same as 1.0 feet. @ 12.05 to 12.25 feet: <1 cm non-connected black bands of SILT, slight metallic sheen.	12		DGS-22-1213.3		
	12.6 to 13.3 feet: same as 11.1 except silty SAND. @ 12.6 to 12.8 feet: slight metallic sheen, slight odor.	13				
	End of core at 13.3 feet.	14 15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-23**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 11:30**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.2**	CORED BY	**MSS**
PERCENT RECOVERY	**76%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**14.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624585.17**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705617.19**	MUDLINE ELEVATION (ft)	**-42.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (DRET)	SAMPLE (SBLT, Other)
	0 to 0.2 feet: layer of decomposed WOOD up to 0.3-feet long with wet, loose silt.			DGS-23-0001		
	0.2 to 11.2 feet: damp, dark gray, medium dense, medium grain SAND with trace silt. No sheen, slight hydrocarbon-like odor, trace wood fibers in 0.2 to 2.0-feet interval.	1	N			
		2				
		3		DGS-23-0104	DGS-23-0104	
	@ 4.0 feet: no odor rest of core.	4		DGS-23-0408		
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-23**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 11:30**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.2**	CORED BY	**MSS**
PERCENT RECOVERY	**76%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**14.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624585.17**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705617.19**	MUDLINE ELEVATION (ft)	**-42.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-23-0408 (cont.)		
			N			
	@ 5.4 feet: plastic ring used by core collection team.					
		6				
		7				
		8				
		9		DGS-23-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-23**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/8/10 / 11:30**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.2**	CORED BY	**MSS**
PERCENT RECOVERY	**76%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**14.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624585.17**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705617.19**	MUDLINE ELEVATION (ft)	**-42.1**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (DRET)	SAMPLE (SBLT, Other)
	Same as above.	11	N	DGS-23-0812 (cont.)		
	11.2 to 11.5 feet: VOID.					
	11.5 to 14.4 feet: same as 0.2 feet except SAND grades to fine with depth.	12 13 14	N	DGS-23-1214.4		
	End of core at 14.4 feet.	15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-24**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 9:50**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**12.2**	CORED BY	**MSS**
PERCENT RECOVERY	**87%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**11.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624494.15**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705334.43**	MUDLINE ELEVATION (ft)	**0**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 2.9 feet: soft, moist, brown, sandy SILT, slight unknown odor, no sheen except on surface layer, sheen is metallic, trace wood fragments.	1 2	N	DGS-24-0001 DGS-24-0104		
	2.9 to 5.6 feet: damp, dark gray, medium dense, medium to coarse grain SAND with trace silt and trace gravel, slight hydrocarbon-like odor, no sheen. @ 4.0 feet: trace cobbles. @ 4.7 feet: 0.2 feet x 0.1 feet x 0.1 feet cobble.	3 4 5		DGS-24-0408		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-24**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 9:50**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**12.2**	CORED BY	**MSS**
PERCENT RECOVERY	**87%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**11.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624494.15**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705334.43**	MUDLINE ELEVATION (ft)	**0**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above. @ 5.0 feet: slight metallic sheen.			DGS-24-0408 (cont.)		
	5.6 to 6.7 feet: damp, medium stiff, olive, slightly clayey SILT, slight hydrocarbon-like odor, no sheen.	6	N			
	6.7 to 7.6 feet: damp, medium stiff, dark gray, woody SAND layer with silt pockets, sand is saturated, strong hydrocarbon-like odor, metallic sheen.	7	Y		DGS-24-6.710.7	
	7.6 to 7.8 feet: same as 5.6 feet.		N			
	7.8 to 9.4 feet: damp, medium stiff, dark gray, medium grain SAND with trace silt, sand is saturated metallic sheen strong odor.	8 9	Y	DGS-24-0811.3	DGS-24-6.710.7 (cont.)	
	9.4 to 10.0 feet: same as 5.6 feet.	10	N			

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-24**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 9:50**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**12.2**	CORED BY	**MSS**
PERCENT RECOVERY	**87%**	ATTEMPT NO.	**2**
RECOVERY TO PROCESS (ft)	**11.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624494.15**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705334.43**	MUDLINE ELEVATION (ft)	**0**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	10.0 to 10.7 feet: same as 5.6 feet. Same as 6.7 feet.		Y	DGS-24-0811.3 (cont.)	DGS-24-6.710.7 (cont.)	
	10.7 to 10.9 feet: fine SAND, not saturated.		N			
	10.9 to 11.3 feet: same as 5.6 feet.	11				
	End of core at 11.3 feet.	12 13 14 15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-25**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 11:20**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.3**	CORED BY	**MSS**
PERCENT RECOVERY	**77%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**14.5**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624746.56**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705540.03**	MUDLINE ELEVATION (ft)	**-41.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.3 feet: damp, dark gray, medium stiff, medium grain, silty SAND.			DGS-25-0001		
	0.3 to 0.5 feet: damp, olive, soft SILT with trace sand, no odor or sheen.					
	0.5 to 0.8 feet: decomposed wood debris up to 0.3- by 0.2- by 0.2-feet (large piece).					
	0.8 to 9.8 feet: damp, dark gray, medium dense, medium SAND with trace silt, no odor or sheen.	1	N			
		2				
		3		DGS-25-0104		
		4		DGS-25-0408 and MS/MSD		
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-25**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 11:20**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.3**	CORED BY	**MSS**
PERCENT RECOVERY	**77%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**14.5**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624746.56**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705540.03**	MUDLINE ELEVATION (ft)	**-41.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.		N	DGS-25-0408 (cont.) and MS/MSD		
		6				
		7				
		8		DGS-25-0812 and DGS-75-0812 (FD)		
		9				
	9.8 to 10.0 feet: VOID.	10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-25**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 11:20**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.3**	CORED BY	**MSS**
PERCENT RECOVERY	**77%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**14.5**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624746.56**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705540.03**	MUDLINE ELEVATION (ft)	**-41.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above (0.8 feet).		N	DGS-25-0812 and DGS-75-0812 (FD) (cont.)		
		11				
	@ 12.0 feet: two pieces of gravel.	12				
		13				
		14		DGS-25-1214.5		
	End of core at 14.5 feet.					
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-26**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 12:16**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**11.8**	CORED BY	**MSS**
PERCENT RECOVERY	**59%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**11.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624683.10**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705435.54**	MUDLINE ELEVATION (ft)	**-37.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.4 feet: damp, olive, soft, SILT with trace sand, strong hydrocarbon-like odor, no sheen.		N	DGS-26-0001		
	0.4 to 0.5 feet: WOOD fragment up to 0.3-feet long.					
	0.5 to 7.4 feet: damp, dark gray, medium dense, medium grain SAND with trace silt, strong hydrocarbon-like odor, no sheen, sand is "stained."		Y			
		1				
		2				
		3		DGS-26-0104		
		4		DGS-26-0408	DGS-26-015.4	DGS-26-015.4
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-26**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 12:16**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**11.8**	CORED BY	**MSS**
PERCENT RECOVERY	**59%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**11.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624683.10**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705435.54**	MUDLINE ELEVATION (ft)	**-37.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.		Y		DGS-26-015.4 (cont.)	DGS-26-015.4 (cont.)
	@ 5.4 feet: sand is no longer stained.	6				
		7				
	7.4 to 8.0 feet: decomposed WOOD with blebs of metallic sheen, wood up to 0.3-feet long, 0.2-feet across, 0.5-feet thick, sand is present (50%).		N	DGS-26-0408 (cont.)		
	8.0 to 11.3 feet: same as 5.4 feet.	8				
		9		DGS-26-0811.3		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-26**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 12:16**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**11.8**	CORED BY	**MSS**
PERCENT RECOVERY	**59%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**11.3**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624683.10**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705435.54**	MUDLINE ELEVATION (ft)	**-37.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	11	N	DGS-26-0811.3 (cont.)		
	End of core at 11.3 feet.	12 13 14 15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-28**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 10:27**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**9.3**	CORED BY	**MSS**
PERCENT RECOVERY	**47%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624877.92**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705443.96**	MUDLINE ELEVATION (ft)	**-41.2**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.1 feet: 0.1 feet layer of decomposed wood pieces up to 0.3 feet.			DGS-28-0001		
	0.1 to 0.4 feet: damp, soft, olive, slightly sandy SILT.					
	0.4 to 9.0 feet: damp, dark gray, medium dense, medium SAND with trace silt, no odor or sheen.	1	N			
		2				
		3				
		4		DGS-28-0104		
		5		DGS-28-0408		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-28**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/7/10 / 10:27**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**9.3**	CORED BY	**MSS**
PERCENT RECOVERY	**47%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624877.92**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705443.96**	MUDLINE ELEVATION (ft)	**-41.2**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.		N	DGS-28-0408 (cont.)		
		6				
		7				
		8		DGS-28-0809		
	End of core at 9.0 feet.	9				
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-30**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 9:19**
DRIVE LENGTH (ft)	**19.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.1**	CORED BY	**MSS**
PERCENT RECOVERY	**72%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**13.9**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7625034.22**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705373.82**	MUDLINE ELEVATION (ft)	**-41.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.4 feet: damp, loose, WOOD with occasional silt.			DGS-30-0001		
	0.4 to 13.9 feet: damp, medium dense, medium SAND with trace silt, no odor or sheen, density gradually increases with depth.	1 2 3 4 5	N	DGS-30-0104 DGS-30-0408		DGS-30-0113.9

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-30**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 9:19**
DRIVE LENGTH (ft)	**19.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.1**	CORED BY	**MSS**
PERCENT RECOVERY	**72%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**13.9**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7625034.22**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705373.82**	MUDLINE ELEVATION (ft)	**-41.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	6		DGS-30-0408 (cont.)		DGS-30-0113.9 (cont.)
		7				
		8				
		9		DGS-30-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-30**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/6/10 / 9:19**
DRIVE LENGTH (ft)	**19.5**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.1**	CORED BY	**MSS**
PERCENT RECOVERY	**72%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**13.9**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7625034.22**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705373.82**	MUDLINE ELEVATION (ft)	**-41.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	11		DGS-30-0812 (cont.)		DGS-30-0113.9 (cont.)
		12				
		13		DGS-30-1213.9 (cont.)		
	End of core at 13.9 feet.	14				
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-31**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 14:13**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.8**	CORED BY	**MSS**
PERCENT RECOVERY	**79%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.1**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624926.83**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705253.65**	MUDLINE ELEVATION (ft)	**-37.2**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 1.3 feet: moist, olive gray, soft, sandy SILT with trace blebs of brown product on surface, slight hydrocarbon-like odor, trace rainbow sheen.	1	N	DGS-31-0001		
	1.3 to 1.9 feet: damp, dark gray, medium dense, medium grain SAND with trace silt, SAND is saturated, NAPL present upon impressing sand, slight hydrocarbon-like odor, rainbow sheen present. @ 1.3 feet: layer of wood debris up to 0.2- by 0.2-feet long.		Y		DGS-31-011.9	
	1.9 to 2.1 feet: SAND with decomposed wood (30%) and silt pockets (30%).	2				
	2.1 to 15.1 feet: damp, dark gray, medium dense, medium grain SAND with trace silt, no odor or sheen.	3	N	DGS-31-0104		
	@ 4.0 feet: 0.3-feet silt pocket.	4		DGS-31-0408		
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-31**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 14:13**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.8**	CORED BY	**MSS**
PERCENT RECOVERY	**79%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.1**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624926.83**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705253.65**	MUDLINE ELEVATION (ft)	**-37.2**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	6		DGS-31-0408 (cont.)		
		7				
		8				
		9		DGS-31-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-31**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 14:13**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.8**	CORED BY	**MSS**
PERCENT RECOVERY	**79%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.1**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624926.83**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705253.65**	MUDLINE ELEVATION (ft)	**-37.2**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-31-0812 (cont.)		
		11				
		12				
		13				
		14		DGS-31-1215.1		
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-31**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 14:13**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**15.8**	CORED BY	**MSS**
PERCENT RECOVERY	**79%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**15.1**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624926.83**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705253.65**	MUDLINE ELEVATION (ft)	**-37.2**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.					
	End of core at 15.1 feet.					
		16				
		17				
		18				
		19				
		20				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-32**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 16:00**
DRIVE LENGTH (ft)	**17**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.2**	CORED BY	**MSS**
PERCENT RECOVERY	**84%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.6**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624895.13**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705159.76**	MUDLINE ELEVATION (ft)	**-20.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 3.2 feet: moist, olive, soft, slightly sandy SILT, slight hydrocarbon-like odor and slight metallic sheen (blebs of rainbow sheen also present).	1, 2, 3	N	DGS-32-0001	DGS-32-2.83.8	
	3.2 to 3.8 feet: damp, dark gray, loose, silty SAND, occasional decomposed wood fibers, saturated sand, metallic sheen.		Y	DGS-32-0104		
	3.8 to 9.7 feet: damp, olive, soft, slightly clayey SILT with trace sand, slight odor, no sheen.	4, 5	N	DGS-32-0408		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-32**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 16:00**
DRIVE LENGTH (ft)	**17**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.2**	CORED BY	**MSS**
PERCENT RECOVERY	**84%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.6**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624895.13**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705159.76**	MUDLINE ELEVATION (ft)	**-20.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.					
	@ 5.5 feet: SAND pockets present (saturated sand, same as 3.2 but <2 inches).			DGS-32-0408 (cont.)		
		6				
	@ 6.3 feet: same as 5.5 feet. @ 6.4 feet: decomposed wood piece 0.4-feet long, 0.2-feet wide, 0.5-feet thick.		N			
		7				
		8				
	@ 8.9 feet: non-saturated sand pocket.	9				
	9.7 to 11.3 feet: damp, dark gray, medium stiff, fine SAND with trace silt, no odor or sheen.			DGS-32-0812		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-32**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 16:00**
DRIVE LENGTH (ft)	**17**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**14.2**	CORED BY	**MSS**
PERCENT RECOVERY	**84%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**13.6**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7624895.13**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705159.76**	MUDLINE ELEVATION (ft)	**-20.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above. @ 10.6 to 11.8 feet: scattered pockets of clayey SILT.	11	N	DGS-32-0812 (cont.)		
	11.3 to 13.6 feet: grades to medium SAND. @ 13.2 to 13.4 feet: small pockets of silt.	12 13		DGS-32-1213.6		
	End of core at 13.6 feet.	14 15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-36**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 11:30**
DRIVE LENGTH (ft)	**13.2**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**10.8**	CORED BY	**MSS**
PERCENT RECOVERY	**82%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**10**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7623112.48**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706100.03**	MUDLINE ELEVATION (ft)	**-4.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 4.1 feet: moist, brown/black, soft, sandy SILT, moderate hydrocarbon-like odor.			DGS-36-0001		
	@ 0.7 feet: 2 cm black band.	1				
	@ 1.2 feet: floret of metallic sheen.		N			
		2				
	@ 2.3 feet: metallic sheen bleb (<2 inches).					
		3				
				DGS-36-0104		
		4				
	4.1 to 4.5 feet: damp, dark gray, medium dense, fine SAND with trace silt, hydrocarbon-like odor.			DGS-36-0408		
	4.5 to 10.0 feet: same as 0.0 with substantial fine sand.					
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-36**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 11:30**
DRIVE LENGTH (ft)	**13.2**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**10.8**	CORED BY	**MSS**
PERCENT RECOVERY	**82%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**10**	REFUSAL ENCOUNTERED	**Yes**
X COORDINATE	**7623112.48**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706100.03**	MUDLINE ELEVATION (ft)	**-4.7**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-36-0408 (cont.)		
	@ 6.0 to 6.7 feet: slight metallic sheen that doesn't penetrate through depth of core.	6	N			DGS-36-066.7
	@ 6.7 to 6.8 feet: decomposed layer of wood.	7				
		8				
		9		DGS-36-0810		
	End of core at 10.0 feet.	10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-37**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 9:41**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**19.5**	CORED BY	**MSS**
PERCENT RECOVERY	**98%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**19**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7625346.31**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**704880.48**	MUDLINE ELEVATION (ft)	**-6.5**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 2.7 feet: damp, olive gray, medium stiff, clayey SILT with trace fine sand, slight hydrocarbon-like odor, no sheen.		N	DGS-37-0001		
		1				
		2		DGS-37-0104 and DGS-87-0104 (FD)		
	2.7 to 2.8 feet: silty fine SAND, slight hydrocarbon-like odor, no sheen.					
	2.8 to 12.6 feet: same as 0.0 feet.	3				
		4		DGS-37-0408 (MS/MSD)		
	@ 4.2 feet: decomposed wood pieces up to 0.4-feet long.					
		5				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-37**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 9:41**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**19.5**	CORED BY	**MSS**
PERCENT RECOVERY	**98%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**19**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7625346.31**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**704880.48**	MUDLINE ELEVATION (ft)	**-6.5**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.		N	DGS-37-0408 (cont.)		
		6				
		7				
		8				
		9		DGS-37-0812		
	@ 9.8 feet: 1 cm band of black SILT with slight hydrocarbon-like odor.	10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-37**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 9:41**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**19.5**	CORED BY	**MSS**
PERCENT RECOVERY	**98%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**19**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7625346.31**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**704880.48**	MUDLINE ELEVATION (ft)	**-6.5**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.					
	@ 10.2 feet: 1 cm band of black SILT, slight hydrocarbon-like odor.			DGS-37-0812 (cont.)		
	@ 10.7 feet: 1 cm band of black SILT with decomposed wood.					
	@ 11.0 feet: same as 10.2 feet.	11				
	@ 11.3 feet: same as 10.2 feet.					
	@ 11.5 feet: same as 10.2 feet.					
		12				
	@ 12.2 feet: same as 10.2 feet.					
	12.6 to 12.7 feet: decomposed wood layer up to 0.2-feet long.		N			
	12.7 to 15.0 feet: same as 0.0 feet.					
		13				
	@ 13.3 feet: 2 cm band of black SILT, slight hydrocarbon-like odor.					
	@ 13.6 feet: 3 cm band of black SILT, slight hydrocarbon-like odor.					
		14				
	@ 14.1 to 14.2 feet: layer of solid oxidized concretion with shellfish fragments.					
	@ 14.8 feet: same as 13.3 feet.			DGS-37-12-16		
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-37**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 9:41**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**19.5**	CORED BY	**MSS**
PERCENT RECOVERY	**98%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**19**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7625346.31**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**704880.48**	MUDLINE ELEVATION (ft)	**-6.5**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	15.0 to 15.1 feet: VOID.			DGS-37-1216 (cont.)		
	15.1 to 19.0 feet: same as 0.0 feet.					
	@ 15.3 feet: same as at 13.3 feet.					
		16	N			
		17				
	@ 17.7 feet: same as 10.2 feet.					
		18				
				DGS-37-1619		
	End of core at 19.0 feet.	19				
		20				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-44**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 8:30**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**9.7**	CORED BY	**MSS**
PERCENT RECOVERY	**49%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9.0**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623774.32**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706156.28**	MUDLINE ELEVATION (ft)	**-39.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.4 feet: damp, brown, decomposed WOOD with trace sand, slight hydrocarbon-like odor, no sheen.		N	DGS-44-0001		
	0.4 to 2.7 feet: damp, dark gray, medium grain SAND with trace silt, slight hydrocarbon-like odor, no sheen.	1 2				
	2.7 to 3.0 feet: same as 0.0 feet, pieces up to 0.3-feet long.					
	3.0 to 4.9 feet: same as 0.4 feet.	3 4 5		DGS-44-0104 DGS-44-0408		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-44**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/11/10 / 8:30**
DRIVE LENGTH (ft)	**20**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**9.7**	CORED BY	**MSS**
PERCENT RECOVERY	**49%**	ATTEMPT NO.	**3**
RECOVERY TO PROCESS (ft)	**9.0**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7623774.32**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**706156.28**	MUDLINE ELEVATION (ft)	**-39.9**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	4.9 to 6.0 feet: damp, dark gray/brown SAND with substantial wood, slight hydrocarbon-like odor, no sheen.			DGS-44-0408 (cont.)		
	@ 5.9 feet: pocket of clayey SILT.	6				
	6.0 to 6.4 feet: SAND (same as 0.4 feet).					
	6.4 to 6.8 feet: damp, olive gray, clayey SILT, slight hydrocarbon-like odor, no sheen.		N			
	6.8 to 7.1 feet: same as 0.4 feet.	7				
	7.1 to 8.0 feet: same as 6.4 feet.					
	8.0 to 9.0 feet: same as 0.4 feet except trace decomposed wood.	8		DGS-44-0809		
	@ 8.0 feet: isolated bleb of sheen, slight hydrocarbon-like odor.					
	End of core at 9.0 feet.	9				
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-45**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 8:40**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**11.8**	CORED BY	**MSS**
PERCENT RECOVERY	**84%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**10.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624965.62**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705312.75**	MUDLINE ELEVATION (ft)	**-40.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	0 to 0.3 feet: moist, olive gray, soft, sandy SILT, no odor or sheen.			DGS-45-0001		
	0.3 to 10.4 feet: damp, dark gray, medium stiff, medium grain SAND with trace silt, no odor or sheen. @ 0.3 feet: decomposed wood layer, pieces up to 0.3 feet.	1 2 3 4 5	N	DGS-44-0104 DGS-45-0408		

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-45**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 8:40**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**11.8**	CORED BY	**MSS**
PERCENT RECOVERY	**84%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**10.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624965.62**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705312.75**	MUDLINE ELEVATION (ft)	**-40.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.	6		DGS-45-0408 (cont.)		
		7				
		8				
		9		DGS-45-0810.4		
		10				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

SUBSURFACE SEDIMENT CORE PROCESSING LOG

PROJECT NAME	**Gasco AIR Data Gaps Sampling**	STATION ID	**DGS-45**
JOB NUMBER	**000029-02.28**	DATE/TIME	**10/12/10 / 8:40**
DRIVE LENGTH (ft)	**14**	CORE LOGGED BY	**JMD, NS**
RECOVERY (ft)	**11.8**	CORED BY	**MSS**
PERCENT RECOVERY	**84%**	ATTEMPT NO.	**1**
RECOVERY TO PROCESS (ft)	**10.4**	REFUSAL ENCOUNTERED	**No**
X COORDINATE	**7624965.62**	DIAMETER/TYPE OF CORE	**4" / Vibracore**
Y COORDINATE	**705312.75**	MUDLINE ELEVATION (ft)	**-40.3**
HORIZONTAL DATUM	**Oregon State Plane, NAD83, Int. ft.**	VERTICAL DATUM	**NAVD88**

LITHO-LOGIC COLUMN	CLASSIFICATION AND REMARKS (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	DEPTH IN FEET	SUBSTANTIAL PRODUCT PRESENT (Y/N)	SAMPLE (Bulk Chemistry)	SAMPLE (TCLP, DRET)	SAMPLE (SBLT, Other)
	Same as above.			DGS-45-0810.4 (cont.)		
	End of core at 10.4 feet.					
		11				
		12				
		13				
		14				
		15				

REMARKS

Logging and sample depth were not corrected for percent recovery.

ANCHOR QEA

GASCO7.gds:6.1/19/11...GASCO7

ATTACHMENT 2-3
HEALTH AND SAFETY FORMS

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/5/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
1215	0		JMD		X	
1245	0					
1315	0					
1345	0					
1415	0					
1445	0					
1515	0					
1545	0					
1615	0					
1645	0					
1715	0					
1745	0					

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
NA	VOCs	100 ppm isobutylene	NA	JMD	Calibration verified by supplier
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/6/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored: Boat	Area Monitored: Sample Processing Area	Comments
0830	0		JMD		X	
900	0					
930	0					
1000	0					
1030	0					
1100	0					
1130	0.2					
1200	0.2					
1230	0.3					
1300	0.0					
1330	0.4					cutting core DGS19 open
1400	0.4					
1430	0.0					
1500	0.0					
1530	0					
1600	0					
1630	0					
1700	0					
1730	0					
1800	0					

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
0815	VOCs	100 ppm isobutylene	100	JMD	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/7/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0830	0		JMD		✓	
0900	0.0					
0930	0					
1000	0					
1030	0					
1100	0					
1130	0.2					background, no core present
1200	0.2					
1210	0.3					
1230	0.3					background, no core present
1300	0.3					
1330	0.3					
1400	0.3					
1430	0.3					
1500	0.3					
1530	0.3					
1600	0.3					
1630	0.3					
1700	NA					Shutdown

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
0800	VOCs	100 ppm isobutylene	99.9	JMD	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/8/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0900	0.0		JMD		∞	
0930	0.0					
10:00	0.1		NS			
10:30	0.1		JMD			
11:00	0.2					
11:30	0.1					
12:00	0.1					
13:00	0.1					
1330	0.1					
1400	0.1					
14:30	0.2					
15:00	0.2					
15:30	0.1					
16:00	0.2					

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
0845	VOCs	100 ppm isobutylene	102	JMD	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/11/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0830	0.0		JMD		X	
0900	0.3					
0930	0.0					
1000	0.0					
1030	0.0					
1100	0.2					
1130	0.2					
1200	0.2					
1230	0.3					
1300	0.3					
1330	0.7					
1400	0.3					
1430	0.3					
1500	0.3					
1530	0.3					
1600	0.3					
1630	0.3					
1700	0.3					
1730	0.3					
1800	0.3					

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
810	VOCs	100 ppm isobutylene	101	JMD	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/12/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
855	0.4		JMD		X	
915	0.3					
945	0.3					
1103	0.2					
1130	0.1					
12:00	0.1					
12:30	0.1					
13:00	0.0					
1330	0.0					
1400	0.0					
1430	0.0					
1500	0.0					
1530	0.0					
1600	0.0					
1630	0.0					
1700	0.0					
1730	0.0					
1600	0.0					

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
0830	VOCs	100 ppm isobutylene	101	JMD	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/4/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
1420	0.0		DG/DP	X		Background
1450	0.3			X		
1520	0.1			X		
1550	0.3			X		
1630	0.3			X		
			10/4/10 DP			

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/5/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0845	0.1		DP	x		Background
0915	0.8			x		
0945	0.8			x		PID likely out of calibration? 10/6/10 DP.
1015	0.9			x		
1045	0.6			x		
1115	0.7			x		
1145	0.6			x		
1215	0.6			x		
1245	0.3			x		
1315	0.3			x		
1345	0.4			x		
1415	0.3			x		
1445	0.5			x		
1515	0.4			x		
1545	0.4			x		
1615	0.1			x		
1645	0.5			x		
			10.5.10 DP			

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/6/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored: Boat	Area Monitored: Sample Processing Area	Comments
0830	0.0		DP	x		Background
0900	1.9		↓			Used benzene and
~~700~~						Vinyl Cl2 detection tubes
						- both not detected.
			DP 10.6.10			Needed to recalibrate
						P.I.D. See field notebook for
						details.
1000	0.0		DP	x		
1030	0.0			x		
1100	0.0			x		
1130	0.0			x		
1200	0.0			x		
1230	0.0			x		
1300	0.0			x		
1330	0.0			x		
1400	0.0			x		
1430	0.0			x		
1500	0.0			x		
1530	0.0			x		
1600	0.0			x		
1630	0.0			x		
1700	0.0		↓	x		
				DP/10.6.10		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
0945	VOCs	100 ppm isobutylene	100	DP	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/7/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0800	0.0		DP	x		Background
0830	0.0			x		
0900	0.0			x		
0930	0.0			x		
1000	0.0			x		
1030	0.0			x		
1100	0.0			x		
1130	0.0			x		
1200	0.0			x		
1230	0.0			x		
1300	0.0			x		
1330	0.0			x		
1400	0.0			x		
1430	0.0			x		
1500	0.0			x		
1530	0.0			x		
1600	0.0			x		
1630	0.0			x		
				10.7.10 DP		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/8/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0800	0.0		DP	X		Background
0830	0.0			X		
0900	0.0			X		
0930	0.0			X		
1000	0.0			X		
1030	0.0			X		
1100	0.0			X		
1130	0.0			X		
1200	0.0			X		
1230	0.0			X		
1300	0.0			X		
1330	0.0			X		
1400	0.0			X		
1430	0.0			X		
1500	0.0			X		
1530	0.0			X		
1600	0.0			X		
1630	0.0			X		
				10.8.10 DP		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/9/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0800	0.0		DP	X		
0830	0.0			X		
0900	0.0			X		
0930	0.0			X		
1000	0.0			X		
1030	0.0			X		
1100	0.0			X		
1130	0.0			X		
1200	0.0			X		
1230	0.0			X		
1300	0.0			X		
1330	0.0			X		
1400	0.0			X		
				10/9/10 DP		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/11/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
1100	0.0		DP	X		Background
1130	0.0			X		
1200	0.0			X		
1230	0.0			X		
1300	0.0			X		
1330	0.0			X		
1400	0.0			X		
1430	0.0			X		
1500	0.0			X		
1530	0.0			X		
1600	0.0			X		
1630	0.0			X		
				10.11.10	DP	

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
0715	VOCs	100 ppm isobutylene	100	DP	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/12/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0930	0.2		DP	X		
1000	0.1			X		
1030	0.1			X		
1100	0.3			X		
1130	0.2			X		
1200	0.2			X		
1230	0.2			X		
1300	0.3			X		
1330	0.1			X		
1400	0.1			X		
1430	0.2			X		
1500	0.4			X		
1530	0.3			X		
1600	0.5			X		
1630	0.2			X		
			10/12/10	DP		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
0915	VOCs	100 ppm isobutylene	101	DP	
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/13/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0830	0.2		DP	X		Background
0900	0.1			X		
0930	0.3			X		
1000	0.5			X		
1030	0.0			X		
1100	0.2			X		
1130	0.2			X		
1200	0.3			X		
1230	0.2			X		
1300	0.1			X		
1330	0.1			X		
1400	0.1			X		
1430	0.2			X		
1500	0.4			X		
1530	0.3			X		
1600	0.1			X		
1630	0.1			X		

10/13/10 DP

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 10/14/10

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0830	0.0		DP	x		Background
0900	0.1			x		
0930	0.2			x		
1000	0.2			x		
1030	0.2			x		
1100	0.4			x		
1130	0.1			x		
1200	0.1			x		
1230	0.2			x		
1300	0.1			x		
1330	0.3			x		
1400	0.0			x		
1430	0.0			x		
1500	0.1			x		
1530	0.0			x		
1600	0.0			x		
			10/14/10 DP			

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 4/18/11

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0930	0.0	0.0	DP	Peter R		Background
1000	0.0	0.0	DP	X		
1030	0.0	0.0		X		
1100	0.0	0.0		X		
1130	0.0	0.0		X		
1200	0.0	0.0		X		
1230	0.0	0.0		X		
1300	0.0	0.0		X		
1330	0.0	0.0		X		
1400	0.0	0.0		X		
1430	0.0	0.0		X		
1500	0.0	0.0		X		
1530	0.0	0.0		X		
1600	0.0	0.0		X		
			4/18/11	DP		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 4/19/11

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0830	0.0	0.0	DP	X		Background
0900	0.0	0.0		X		
0930	0.0	0.0		X		
1000	0.0	0.0		X		
1030	0.0	0.0		X		
1100	0.2	0.0		X		
1130	0.0	0.0		X		
1200	0.0	0.0		X		
1230	0.0	0.0		X		
1300	0.0	0.0		X		
1330	0.0	0.0		X		
1400	0.0	0.0		X		
1430	0.0	0.0		X		
1500	0.0	0.0		X		
1530	0.0	0.0		X		
1600	0.0	0.0		X		

4/19/11 DP

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 4/20/11

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0900	0.0	0.0	DP	X		Background
0930	0.0	0.0		X		
1000	0.0	0.0		X		
1030	0.0	0.0		X		
1100	0.0	0.0		X		
1130	0.0	0.0		X		
1200	0.0	0.0		X		
1230	0.0	0.0		X		
1300	0.0	0.0		X		
1330	0.0	0.0		X		
1400	0.0	0.0		X		
1430	0.0	0.0		X		
1500	0.0	0.0		X		
1530	0.0	0.0		X		
1600	0.0	0.0		X		
				4/20/11 DP		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

Air Monitoring Results
Gasco Data Gaps Field Test
NW Natural Gasco Site

Date: 4/21/11

Time	VOCs (ppm)	HCN (ppm)	Operator Initials	Area Monitored		Comments
				Boat	Sample Processing Area	
0730	0.0	0.0	DP	X		Background
0800	0.0	0.0		X		
0830	0.0	0.0		X		
0900	0.0	0.0		X		
0930	0.0	0.0		X		
~~1000~~ 1130	0.0	0.0		X		
1200	0.0	0.0		X		
1230	0.0	0.0		X		
1300	0.0	0.0		X		
1330	0.0	0.0		X		
				4/21/11 DP		

Calibration Data

Time		Calibration Gas Standard	Reading (ppm)	Operator Initials	Comments
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			
	VOCs	100 ppm isobutylene			
	HCN	10 ppm HCN			

ANCHOR QEA

DATE: 10/6/10

PROJECT NAME: Gasco Data Gaps

PROJECT NO: 000029-02.36

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: Nathan S.

HEALTH & SAFETY OFFICER: Nathan S.

PROJECT MANAGER: Ryan Barth

TOPICS COVERED:

- [x] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [x] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [x] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [x] Site Security
- [ ] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [x] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: cloudy

DAILY WORK SCOPE: Core processing

SITE-SPECIFIC HAZARDS: Biohazards in Sediments

SAFETY COMMENTS: AED location

ATTENDEES

PRINTED NAME	SIGNATURE
Joy Dunay	Joy Dunay
Kara Hitchko	Kara Hitchko
Nathan Soccorsy	[illegible]

ANCHOR QEA

DATE: 10/7/10

PROJECT NAME: NW Natural GASCO

PROJECT NO:

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: Nathan S.

HEALTH & SAFETY OFFICER: Nathan S.

PROJECT MANAGER: Ryan Barth

TOPICS COVERED:

- [x] Emergency Procedures and Evacuation Route
- [x] Directions to Hospital
- [ ] HASP Review and Location
- [x] Safety Equipment Location
- [x] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [x] Lines of Authority
- [x] Communication
- [ ] Site Security
- [ ] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [x] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [x] Decontamination Procedures
- [ ] Other:
- [x] Lifting Techniques
- [x] Slips, Trips, and Falls
- [x] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [x] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [x] Eating/Drinking/Smoking

WEATHER CONDITIONS: low 60s

DAILY WORK SCOPE: Core processing

SITE-SPECIFIC HAZARDS: COC's in cores. Potential respirator use.

SAFETY COMMENTS:

ATTENDEES

PRINTED NAME	SIGNATURE
Nathan Soccorsi	[illegible]
Amy Corp	[illegible]
Kara Hitchko	[illegible]
Joy Dunz	[illegible]

ANCHOR QEA

DATE: 10/8/10

PROJECT NAME: Gasco Data Gaps

PROJECT NO:

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: Nathan S.

HEALTH & SAFETY OFFICER: Nathan S.

PROJECT MANAGER: Ryan Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [x] HASP Review and Location
- [x] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [ ] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [x] Proper Use of PPE
- [x] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [x] Eating/Drinking/Smoking

WEATHER CONDITIONS: Cloudy, Cool

DAILY WORK SCOPE:

SITE-SPECIFIC HAZARDS: Bio Hazards in the river

SAFETY COMMENTS: AED located in Anchor trailer.

ATTENDEES

PRINTED NAME	SIGNATURE
Joy Duncan	[signature]
Nathan Soccorsy	[signature]
Amy Corp	[signature]
Kara Hitchcock	[signature]
Kim Slinski	[signature]
Nathan Soccorsy	[signature]

ANCHOR QEA

DATE: 10/11/10

PROJECT NAME: GASCO Data Gaps

PROJECT NO:

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: Nathan

HEALTH & SAFETY OFFICER: Nathan

PROJECT MANAGER: Beth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [x] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [ ] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [ ] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [x] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Slightly Cloudy

DAILY WORK SCOPE:

SITE-SPECIFIC HAZARDS: Biohazard

SAFETY COMMENTS:

ATTENDEES

PRINTED NAME	SIGNATURE
Jay [illegible]	[illegible]
Nathan Soccoro	[illegible]
Amy Lorp	[illegible]
Kara Hitchko	[illegible]

ANCHOR QEA

DATE: 10/12/18

PROJECT NAME: Gasco Data Gaps

PROJECT NO:

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: Nathan S.

HEALTH & SAFETY OFFICER: Nathan S.

PROJECT MANAGER: Ryan Beck

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [x] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [ ] Vessel Safety Protocols
- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [ ] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Sunny

DAILY WORK SCOPE:

SITE-SPECIFIC HAZARDS: Biohazards, product

SAFETY COMMENTS: AED location

ATTENDEES

PRINTED NAME	SIGNATURE
Joy Dunay	[signature]
Amy Corp	[signature]
Kara Hitchko	[signature]
Nathan Soccers	[signature]

ANCHOR QEA

DATE: 10/4/10
PROJECT NAME: Gasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Gillingham
HEALTH & SAFETY OFFICER:
PROJECT MANAGER: Ryan Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [ ] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [ ] Vessel Safety Protocols
- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [ ] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [ ] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: light Drizzle

DAILY WORK SCOPE: sediment cores

SITE-SPECIFIC HAZARDS: vibrocore equipment - chemical hazards in sediment.

SAFETY COMMENTS: Boat Safety

ATTENDEES

PRINTED NAME	SIGNATURE
Delaney Peterson	[illegible]
Jennifer Jones	[illegible]
Michael Crystal	[illegible]
David Gillingham	[illegible]

ANCHOR QEA

DATE: 10/5/10
PROJECT NAME: Grasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Gillingham
HEALTH & SAFETY OFFICER: N. Soccorsy
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [x] Emergency Procedures and Evacuation Route
- [x] Directions to Hospital
- [ ] HASP Review and Location
- [x] Safety Equipment Location
- [x] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [x] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [x] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [ ] Work Zones
- [x] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [x] Proper Use of PPE
- [x] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [x] Eating/Drinking/Smoking

WEATHER CONDITIONS: Partly cloudy

DAILY WORK SCOPE: Core collection, processing setup, possible core processing

SITE-SPECIFIC HAZARDS: Biohazard river, sediments contain petroleum products

SAFETY COMMENTS: AED on site

ATTENDEES

PRINTED NAME	SIGNATURE
Jay Dunay	
Kara Hitchko	
Michael J Crystal	
Delaney Peterson	
David Gillingham	
Nate Soccorsy	
[illegible]	
David Dickinson	
Jennifer Jones	

ANCHOR QEA

DATE: 10/6/10

PROJECT NAME: Gasco Data Gaps

PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Gillingham

HEALTH & SAFETY OFFICER: N. Soccorsy

PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [x] Emergency Procedures and Evacuation Route
- [x] Directions to Hospital
- [x] HASP Review and Location
- [x] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [x] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [x] Proper Use of PPE
- [x] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [x] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [x] Eating/Drinking/Smoking

WEATHER CONDITIONS: Sunny, clear

DAILY WORK SCOPE: Core collection

SITE-SPECIFIC HAZARDS: Slips and trips on board, river biohazards

SAFETY COMMENTS:

ATTENDEES

PRINTED NAME	SIGNATURE
MICHAEL J CRYSTAL	[signature]
BILL JAWORSKI	[signature]
Delaney Peterson	[signature]
Paul Sparon	[signature]
David Gillingham	[signature]
Dave Dickinson	[signature]

ANCHOR QEA

DATE: 10/7/10
PROJECT NAME: Gasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER: N. Soccorsy
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [ ] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [x] Eye Wash Station Location
- [x] Buddy System
- [x] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [ ] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [x] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Overcast with sun breaks.

DAILY WORK SCOPE: Core collection

SITE-SPECIFIC HAZARDS: Biohazard site water. NAPL. Flowing product and fumes.

SAFETY COMMENTS: Take breaks, drink water, step away from strong petroleum odors

ATTENDEES

PRINTED NAME	SIGNATURE
Michael Crystal	[signature]
Dale Dickinson	[signature]
David Gillingham	[signature]
Delaney Peterson	[signature]
Bill Jaworski	[signature]

ANCHOR QEA

DATE: 10/8/10
PROJECT NAME: Gasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER: N. Soccorsy
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [x] Emergency Procedures and Evacuation Route
- [x] Directions to Hospital
- [x] HASP Review and Location
- [ ] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [x] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [x] Decontamination Procedures
- [ ] Other:
- [x] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Overcast

DAILY WORK SCOPE: Core Collection

SITE-SPECIFIC HAZARDS: Biohazard site water. DNAPL, heavy lifting and product fumes.

SAFETY COMMENTS: Getting fatigued so be aware of surroundings. Lift with legs.

ATTENDEES

PRINTED NAME	SIGNATURE
[illegible]	[illegible]
[illegible]	[illegible]
MICHAEL CRYSTAL	[illegible]
Delaney Peterson	[illegible]
DAVE DICKINSON	[illegible]

ANCHOR QEA

DATE: 10/9/10
PROJECT NAME: Grasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER: N. Soccorsy
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [ ] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [x] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [x] Equipment Safety and Operation
- [x] Proper Use of PPE
- [ ] Decontamination Procedures
- [x] Other: Adverse weather conditions (rain)
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [x] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [ ] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Rain

DAILY WORK SCOPE: Core collection

SITE-SPECIFIC HAZARDS: NAPL, biohazard water

SAFETY COMMENTS: Rainy conditions, stay dry. Work careful, all are fatigued.

ATTENDEES

PRINTED NAME	SIGNATURE
Brian Thomassen	[illegible]
MICHAEL CRYSTAL	[illegible]
Delaney Peterson	[illegible]
David Billingham	[illegible]
DALE PICKINSON	[illegible]

ANCHOR QEA

DATE: 10/11/10
PROJECT NAME: Gasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER: N. Soccorsy
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [ ] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [x] Proper Use of PPE
- [ ] Decontamination Procedures
- [x] Other: AED
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [x] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [x] Eating/Drinking/Smoking

WEATHER CONDITIONS: Overcast, low clouds.

DAILY WORK SCOPE: Change out coring equipment to accomodate 15' core tubes, collect remaining 4 cores.

SITE-SPECIFIC HAZARDS: Site water is biohazard. Sediments contain DNAPL. Avoid contact with both.

SAFETY COMMENTS: Cooler out today, stay warm.

ATTENDEES

PRINTED NAME	SIGNATURE
David G. Illingson	[signature]
Bill Jaworski	[signature]
Michael Scrystal	[signature]
Delaney Peterson	[signature]
Dale Dickinson	[signature]

ANCHOR QEA

DATE: 10/12/10
PROJECT NAME: Gasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER: N. Soccorsy
PROJECT MANAGER: R. Barton

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [x] Directions to Hospital
- [ ] HASP Review and Location
- [ ] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
- [x] Eye Wash Station Location
- [x] Buddy System
- [x] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [x] Proper Use of PPE
- [x] Decontamination Procedures
- [x] Other: AED location and use
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [x] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [x] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Sunny & clear

DAILY WORK SCOPE: Grab sampling

SITE-SPECIFIC HAZARDS: Water is bio-hazard, Seds ~~are~~ have DNAPL.

SAFETY COMMENTS: Keep areas clean.

ATTENDEES

PRINTED NAME	SIGNATURE
D Gillingham	
Dave Dickinson	
Delaney Peterson	
Michael Crystal	
Matt Hewitt	

ANCHOR QEA

DATE: 10/13/10

PROJECT ~~NAME~~ No.: 000029-02.23

PROJECT ~~NO~~ Name: Gasco Data Gaps

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson

HEALTH & SAFETY OFFICER: N. Soccorsy

PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [x] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [ ] Fire Extinguisher Location
- [ ] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [x] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [ ] Decontamination Procedures
- [x] Other: Pinchpoints
- [x] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Foggy/sunny

DAILY WORK SCOPE: Grab sampling

SITE-SPECIFIC HAZARDS: Biohazard water, DNAPL sediments

SAFETY COMMENTS: Lift with legs, many sore backs.

ATTENDEES

PRINTED NAME	SIGNATURE
David Gillingham	[signature]
Dale Dickinson	[signature]
Delaney Peterson	[signature]
Michael Jerystal	[signature]

ANCHOR QEA

DATE: 10/14/10
PROJECT NAME: Gasco Data Gaps
PROJECT NO: 000029-02.23

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER: N. Soccorsy
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [ ] HASP Review and Location
- [ ] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
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- [x] Self and Coworker Monitoring
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- [x] Vessel Safety Protocols
- [x] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [x] Equipment Safety and Operation
- [ ] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [x] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [ ] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Thick fog.

DAILY WORK SCOPE: Grab sampling

SITE-SPECIFIC HAZARDS: Biohazard water, DNAPL sediments

SAFETY COMMENTS: Keep eyes and ears open on deck while on water.

ATTENDEES

PRINTED NAME	SIGNATURE
David Gilmore	[signature]
MICHAEL JENSTAL	[signature]
Matt Hewitt	[signature]
DALE DICKINSON	[signature]
Delaney Peterson	[signature]

ANCHOR QEA

DATE: 4/18/11
PROJECT NAME: Grasco Data Gaps
PROJECT NO: 000029-02

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER:
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [x] HASP Review and Location
- [x] Safety Equipment Location
- [ ] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
- [x] Eye Wash Station Location
- [ ] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
- [ ] Communication
- [ ] Site Security
- [x] Vessel Safety Protocols
- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [ ] Equipment Safety and Operation
- [x] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [ ] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [x] Overhead and Underfoot Hazards
- [x] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Sunny, cool

DAILY WORK SCOPE: Grab sampling

SITE-SPECIFIC HAZARDS: Biohazard water
cramped conditions

SAFETY COMMENTS: AED in cab

ATTENDEES

PRINTED NAME	SIGNATURE
David Gillingham	
Gabe Nagler	
Delaney Peterson	
Jennifer Jones	
Dale Dickinson	
Doug Laffoon	

ANCHOR QEA

DATE: 4/19/11
PROJECT NAME: Gusco Data Gaps
PROJECT NO: 000029-02

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER:
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [x] HASP Review and Location
- [x] Safety Equipment Location
- [x] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
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- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [x] Equipment Safety and Operation
- [x] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [x] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [x] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Sunny, cool

DAILY WORK SCOPE: Grab sampling

SITE-SPECIFIC HAZARDS: water is bio-hazard, avoid contact. Tight conditions on boat. Underfoot hazards.

SAFETY COMMENTS: AED in cab. Wear sunscreen

ATTENDEES

PRINTED NAME	SIGNATURE
David Gillingham	
Doug Lafoon	
Delaney Peterson	
Jennifer Jones	
Dale Dickinson	

ANCHOR QEA

DATE: 4/20/11
PROJECT NAME: Gasco Data Gaps
PROJECT NO: 000029-02

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson
HEALTH & SAFETY OFFICER:
PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [x] HASP Review and Location
- [x] Safety Equipment Location
- [x] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
- [x] Fire Extinguisher Location
- [x] Eye Wash Station Location
- [x] Buddy System
- [ ] Self and Coworker Monitoring
- [ ] Lines of Authority
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- [ ] Work Zones
- [ ] Vehicle Safety and Driving/Road Conditions
- [x] Equipment Safety and Operation
- [x] Proper Use of PPE
- [ ] Decontamination Procedures
- [ ] Other:
- [x] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [x] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: overcast, cool

DAILY WORK SCOPE: Grab Sampling

SITE-SPECIFIC HAZARDS: Biohazard water, slips & trips. Don't sit on boat railings.

SAFETY COMMENTS: Everyone very safe last 2 days. Keep it up!

ATTENDEES

PRINTED NAME	SIGNATURE
David Gillingham	[signature]
Doug Lafoon	[signature]
Delaney Peterson	[signature]
Dale Dickinson	[signature]

ANCHOR QEA

DATE: 4/21/11

PROJECT ~~NAME~~ #: 000029-02

PROJECT ~~NO~~ Name: Gasco Data Gaps

DAILY SAFETY BRIEFING

PERSON CONDUCTING MEETING: D. Peterson

HEALTH & SAFETY OFFICER:

PROJECT MANAGER: R. Barth

TOPICS COVERED:

- [ ] Emergency Procedures and Evacuation Route
- [ ] Directions to Hospital
- [x] HASP Review and Location
- [x] Safety Equipment Location
- [x] Proper Safety Equipment Use
- [ ] Employee Right-to-Know/MSDS Location
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- [ ] Decontamination Procedures
- [ ] Other:
- [x] Lifting Techniques
- [x] Slips, Trips, and Falls
- [ ] Hazard Exposure Routes
- [ ] Heat and Cold Stress
- [x] Overhead and Underfoot Hazards
- [ ] Chemical Hazards
- [ ] Flammable Hazards
- [x] Biological Hazards
- [ ] Eating/Drinking/Smoking

WEATHER CONDITIONS: Overcast

DAILY WORK SCOPE: Grab Sampling

SITE-SPECIFIC HAZARDS: Biohazard water

SAFETY COMMENTS: Fatigue, sore backs. Take time to get things done. Don't overdo it.

ATTENDEES

PRINTED NAME	SIGNATURE
David Gillingham	[signature]
Doug Laffoon	[signature]
Delaney Peterson	[signature]
Dale Dickinson	[signature]

ATTACHMENT 2-4
SURFACE GRAB PHOTOGRAPHS

Gasco Data Gaps
DGS-01
10-14-10

Gasco Data Gaps
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Gasco Data Gaps
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Gasco Data Gaps
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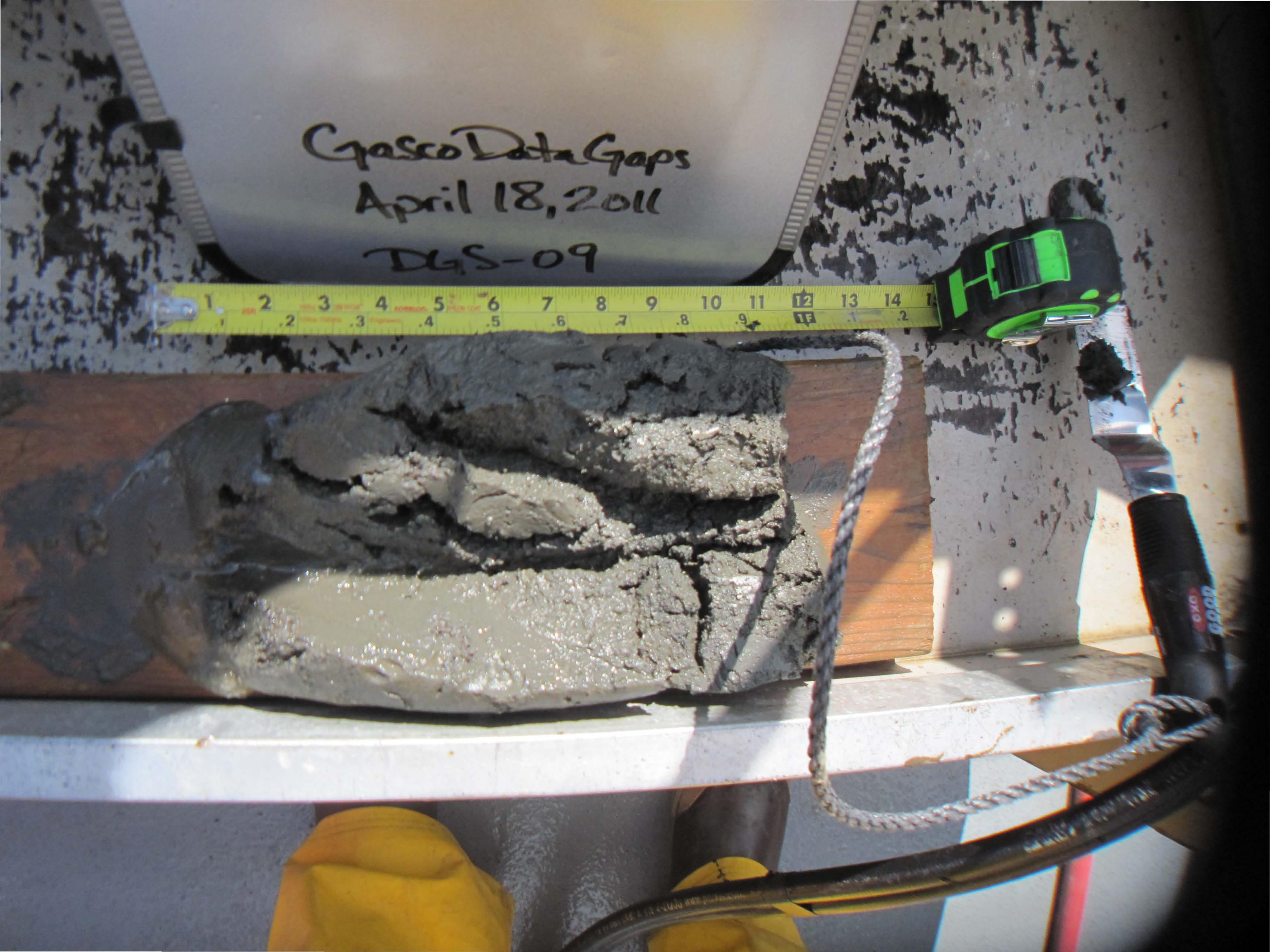
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3" (75MM) GRIPPER®
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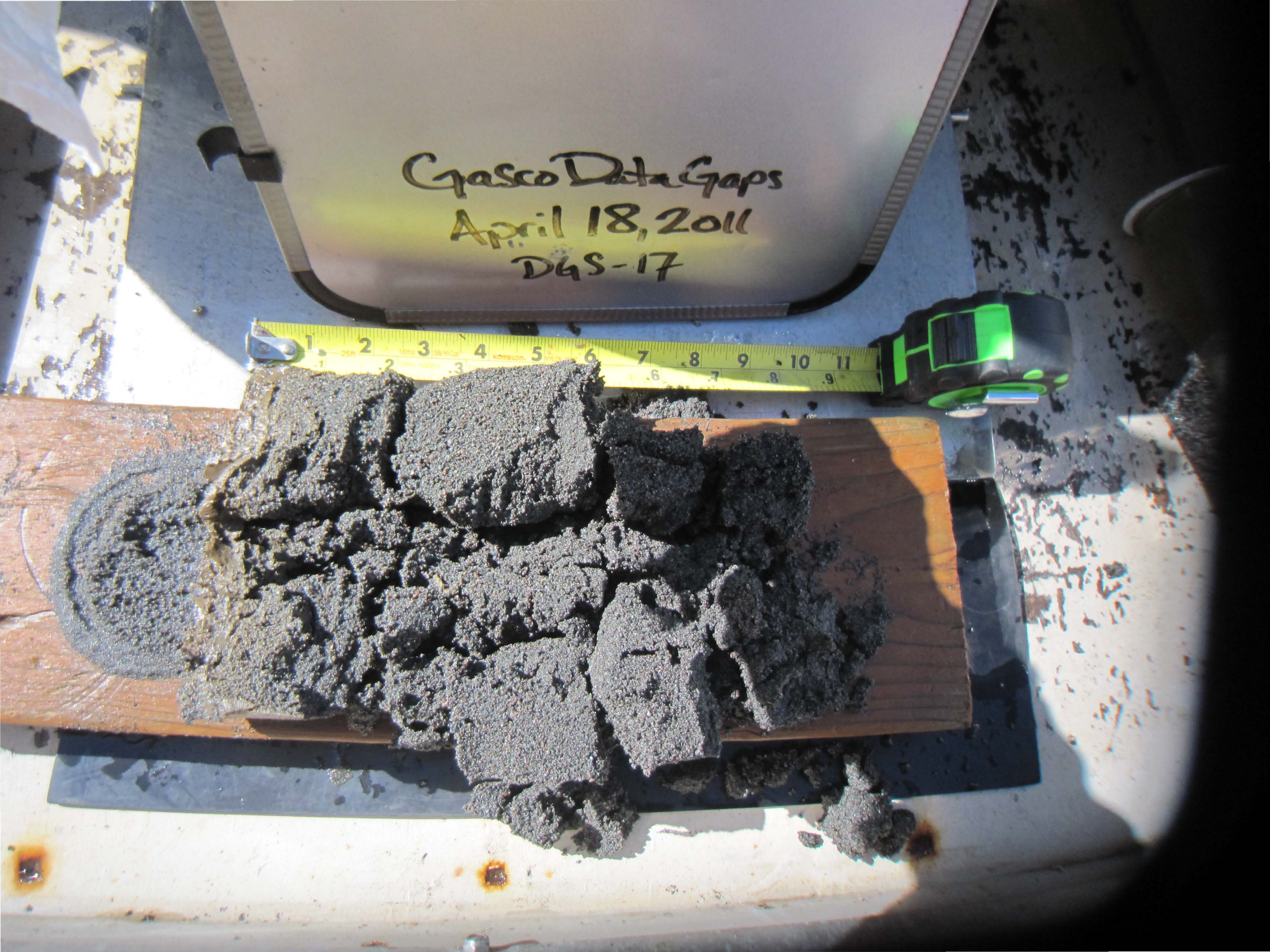
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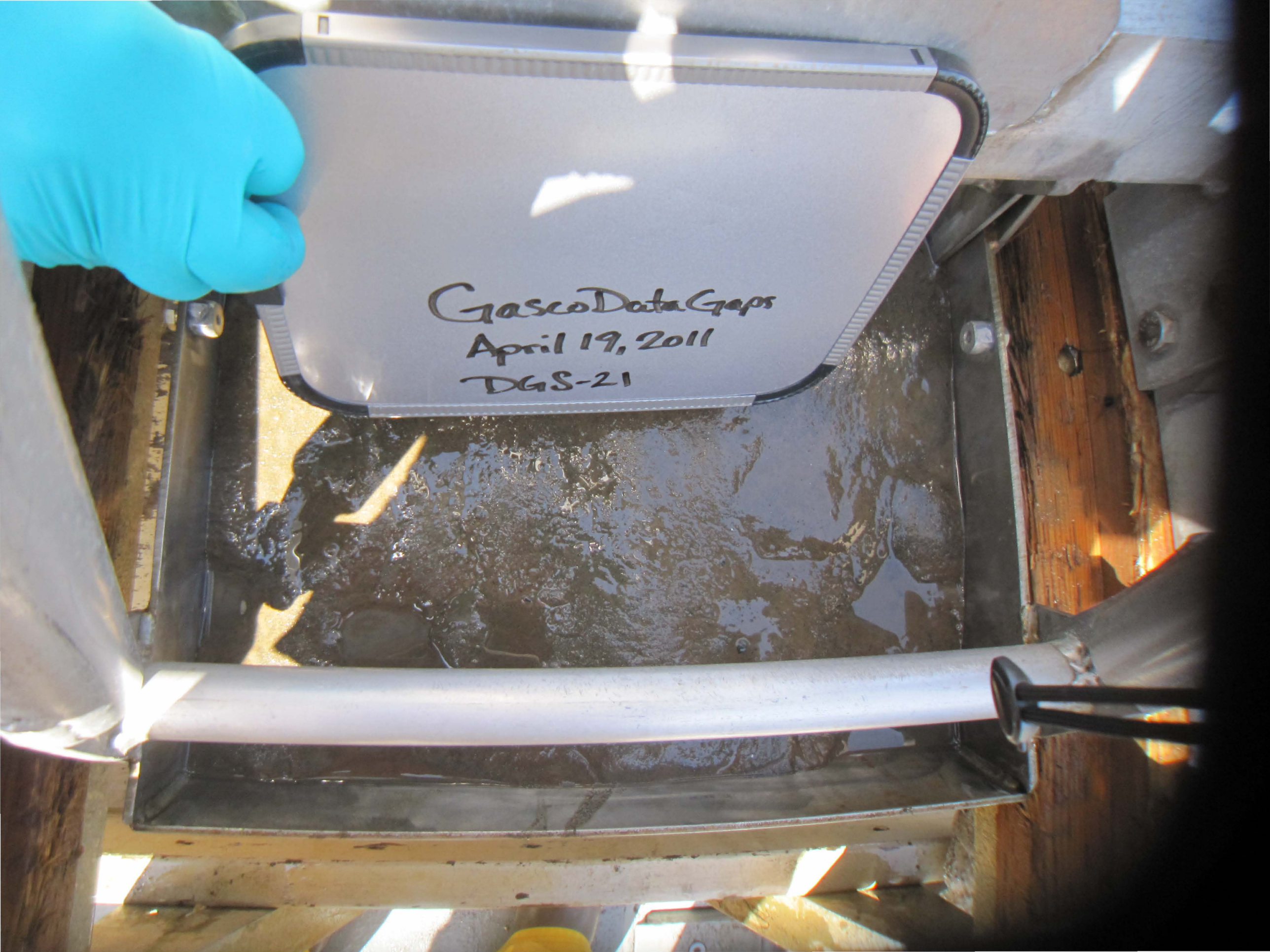
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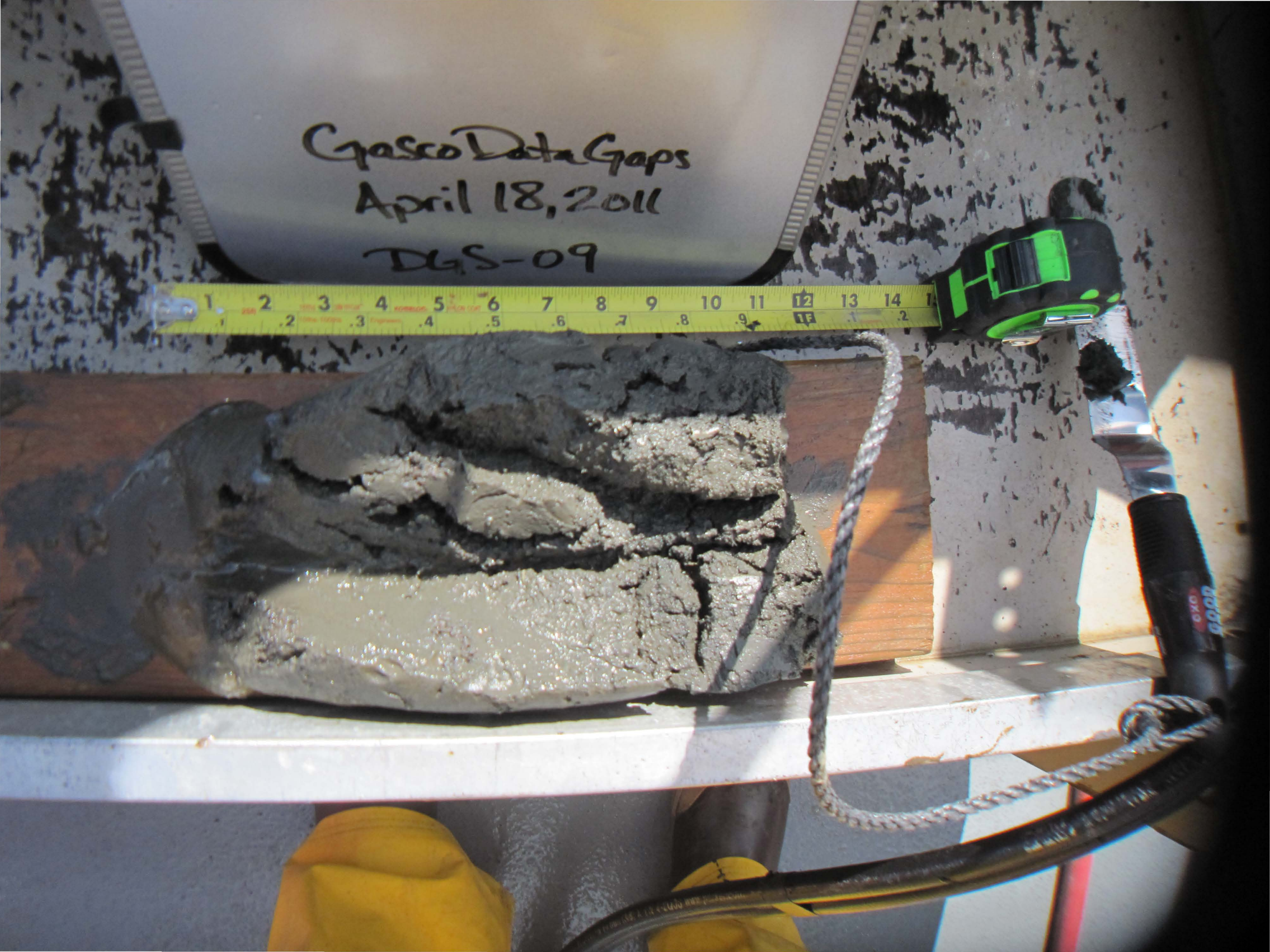
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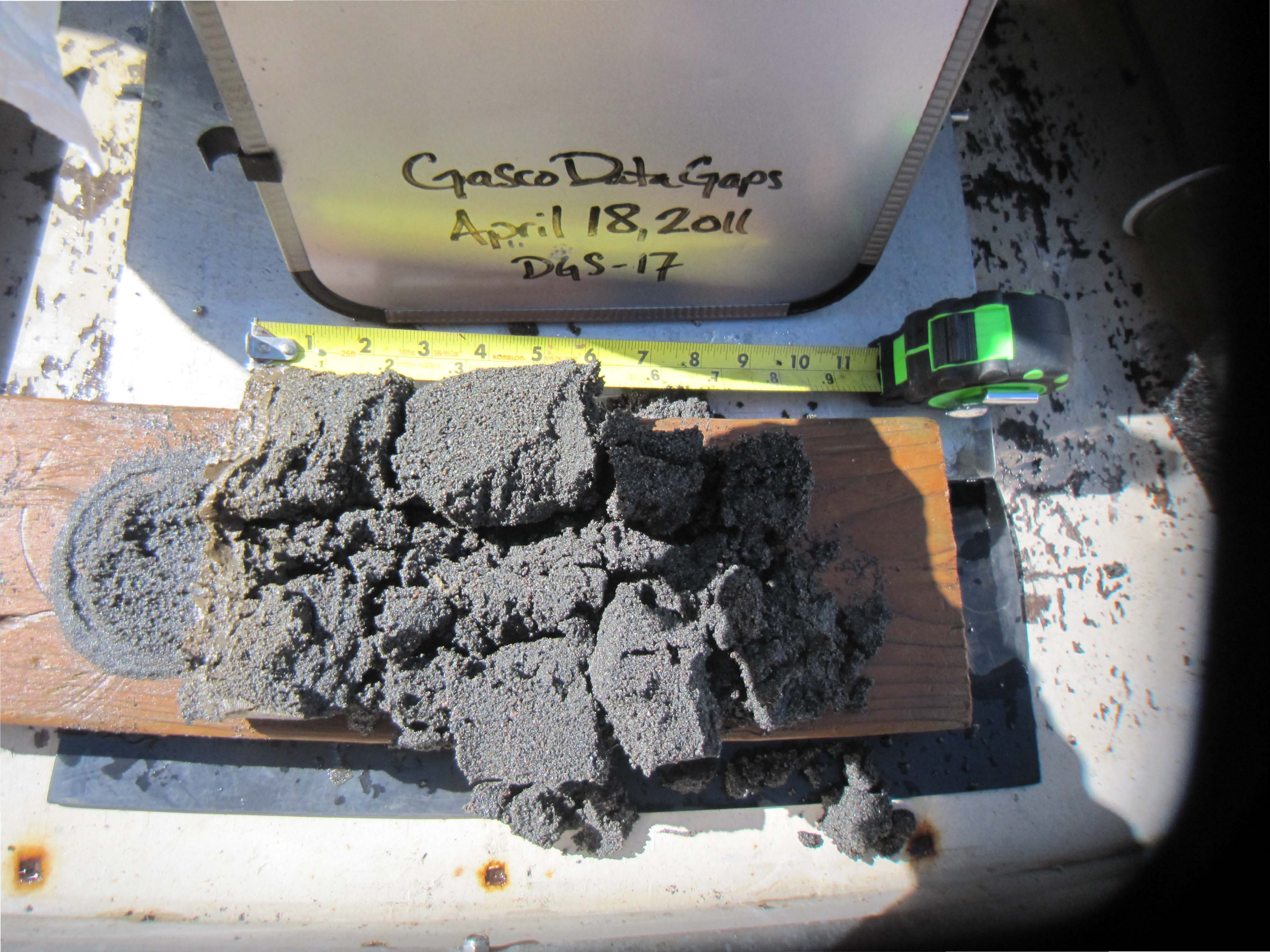
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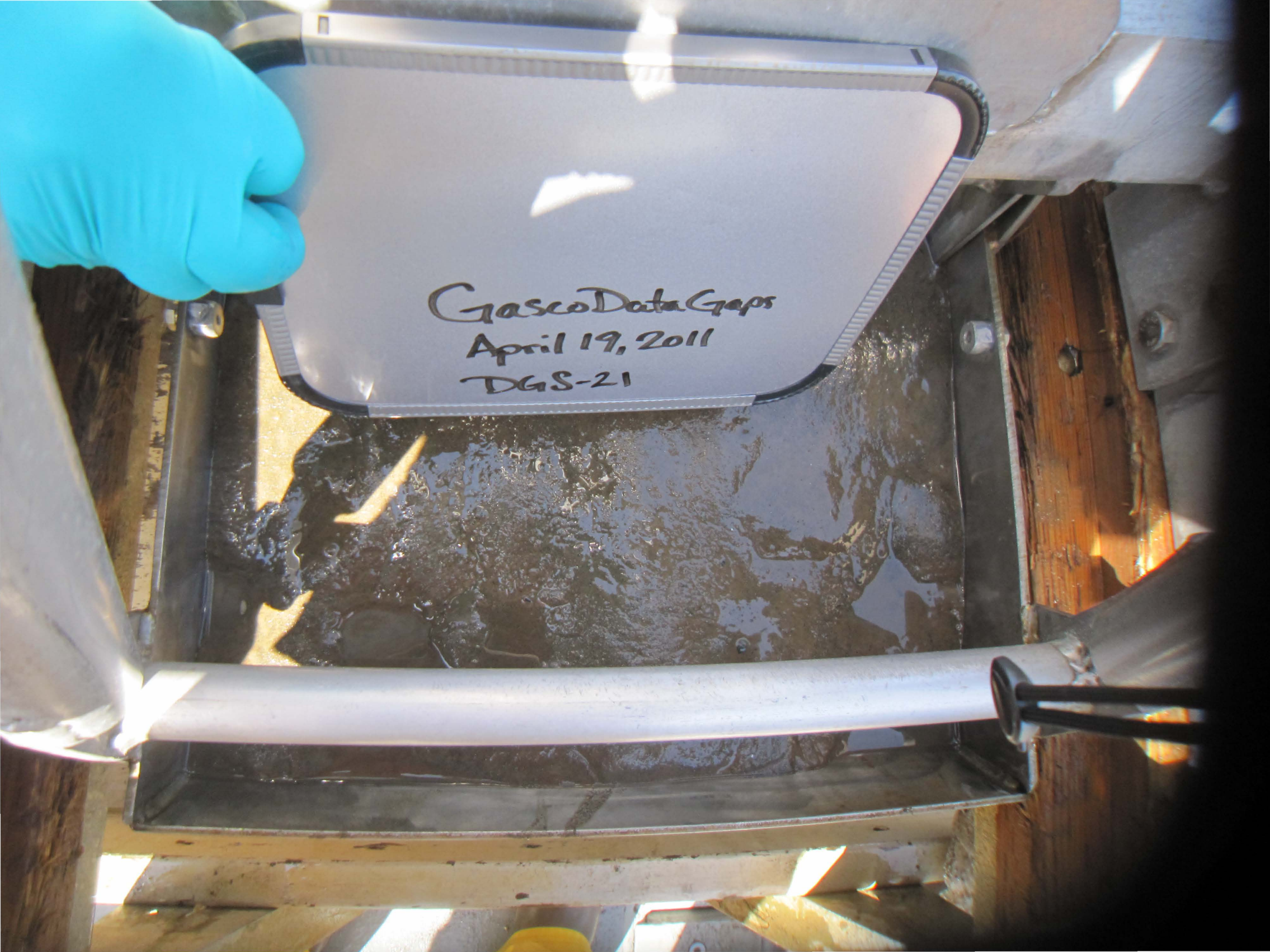
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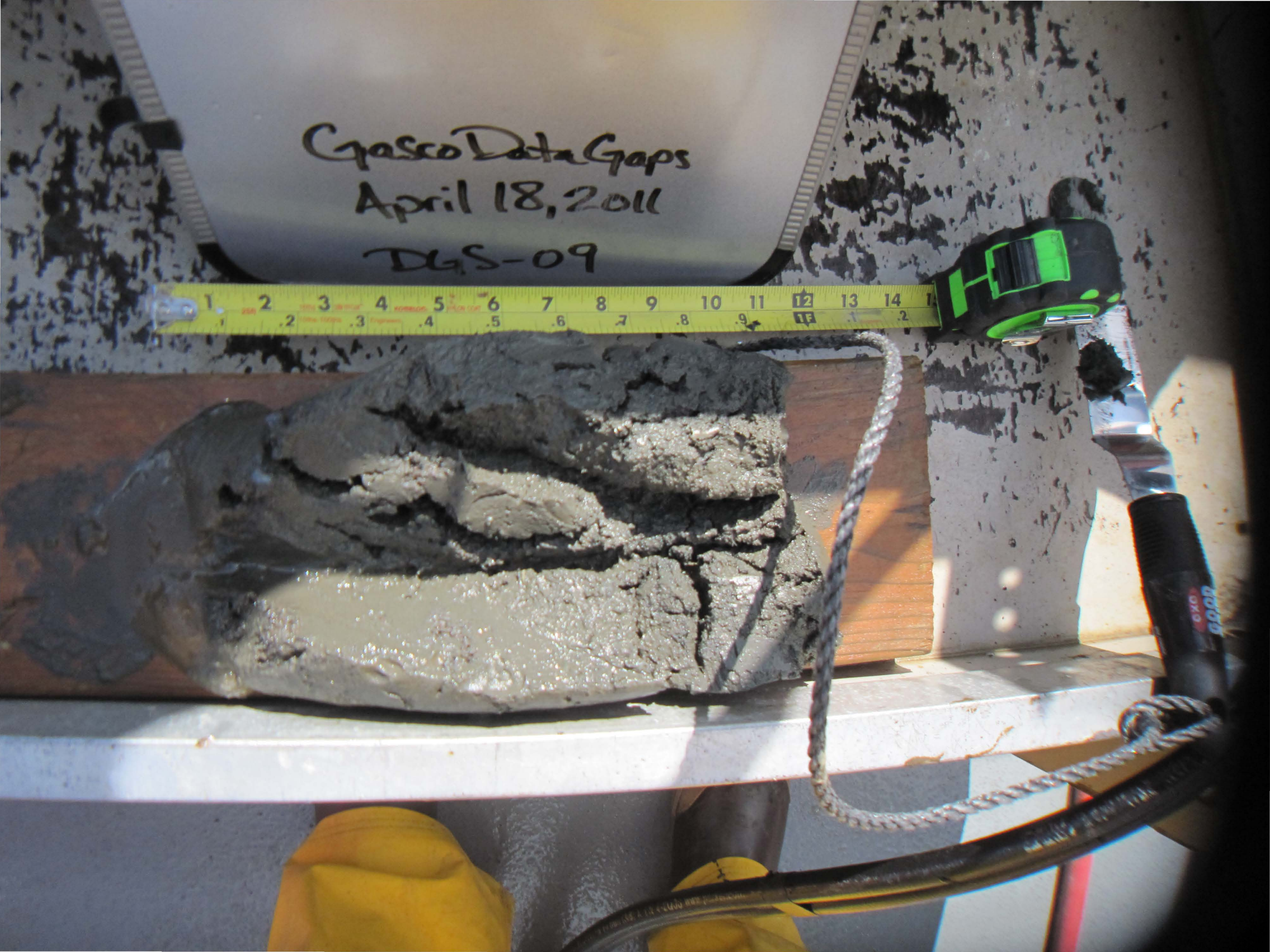
Gasco Data Gaps
April 18, 2011
DGS-09

Gasco Dita Gaps
April 18, 2011
DGS-12

Gasco Data Gaps
April 18, 2011
DGS-12

Gasco Data Gaps
April 18, 2011
DGS-13
3" (75MM) GRIPPER®
Batey
33402

Gasco Data Gaps
April 18, 2011
DGS-13

Gasco Data Gaps
April 18, 2011
DGS-16
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STAND CLEAR WHILE IN USE

Gasco Dita Gaps
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Gasco Data Gaps
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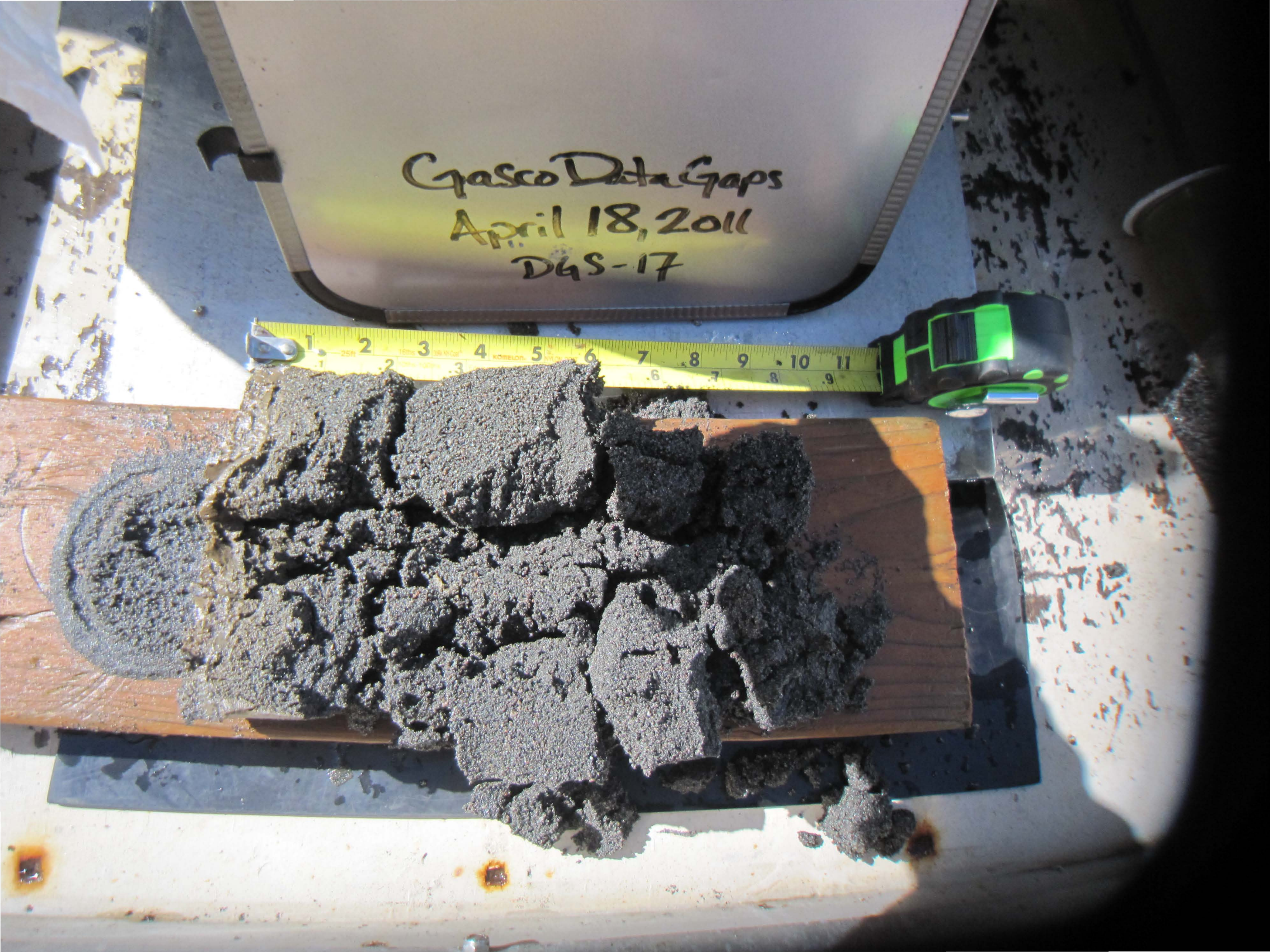
Gasco Data Gaps
April 18, 2011
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GascoDataGaps
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GascoDataGaps
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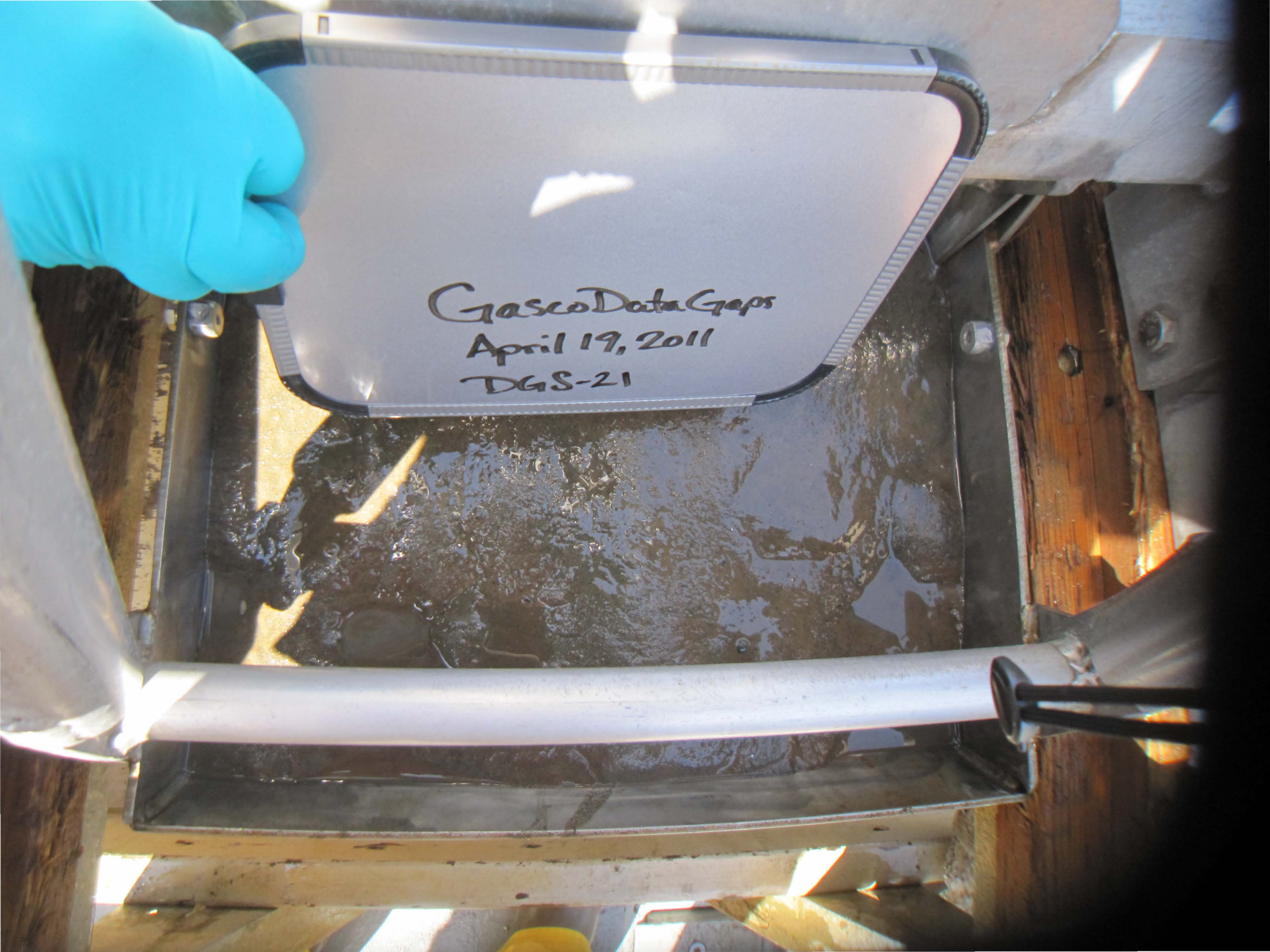
GascoDataGaps
April 19, 2011
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GascoDataGaps
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GascoDataGaps
April 19, 2011
DGS-25

Gasco Data Gaps
April 19, 2011
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CAUTION-STAND CLEAR WHILE IN USE

GascoDataGaps
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Gasco Data Gaps
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CAUTION STAND CLEAR WHILE IN

Gasco Data Gaps
April 19, 2011
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Gasco Data Gaps
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3" (75MM) GRIPPER®
CAUTION:STAND CLEAR WHILE IN USE

GascoDataGaps
April 19, 2011
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GascoDataGaps
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3" (75MM) GRIPPER®
CAUTION:STAND CL

GascoDataGaps
April 19, 2011
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Gasco Data Gaps
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GRIPPER®
CAUTION:STAND CLEAR WHILE IN USE

GascoDataGaps
April 19, 2011
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Gasco Data Gaps
April 19, 2011
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GascoDataGaps
April 19, 2011
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Gasco Data Gaps
April 20, 2011
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Gasco Data Gaps
April 20, 2011
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Gasco Data Gaps
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Gasco Data Gaps
April 20, 2011
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Gasco Data Gaps
April 20, 2011
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Gasco Data Gaps
April 21, 2011
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Gasco Data Gaps
April 20, 2011
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Gasco Data Gaps
April 20, 2011
DGS-53

Gasco Data Gaps
April 21, 2011
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Gasco Data Gaps
April 21, 2011
U3C2

Gasco Data Gaps
April 21, 2011
U4Q1

Gasco Data Gaps
April 21, 2011
U4Q1

Gasco Data Gaps
April 21, 2011
U4Q2

Gasco Data Gaps
April 21, 2011
U4Q2