APPENDIX C

FIELD LOG BOOK SCANS

Sleeting, rain, 35°F, overcast

04-18-11 Kaitlin Barklow

0800 SLC Airport
1200 Kalispell for supplies
1400 at EMSL Lab in Libby to meet w/ Ron Mahoney
1600 talk with Rob Burton, PRI, regarding on-site travel tomorrow
1605 talk with Mike Chapman, agree to meet at Flyway at 0800 tomorrow
1645 leave Libby Field Office to buy supplies at Ace
1730 back to hotel

Overcast, 28°F, snowing

Jeremy Peterson
Kaitlin Barklow

04-19-2011

0730 Field Office
0800 meet JP and Mike Chapman @ Flyway
0830 arrive @ LRC-06

0838 P4-50001
50 mL
begin filtering 50 mL sample

0840 GPS location: LRC-06 PIV
N 48.41153°
W 115.45623°
Elev = 2142 ft.

0845 P4-50002
10 mL
begin filtering 10 mL sample

0855 P4-50003
1 L poly
Collect 1 liter poly grab sample

0900 collect water quality data
0905 leave site

overcast, no precip. 30°F

04-19-2011 KB, JP

0910 arrive @ CC-02

0915 collect GPS point CC-02 PIV

115.43074°

48.43429°

elev = 2792 ft.

Mark sampling location with orange flagging (take photo)

0918 collect 1L grab sample

P4-50006

1 L grab

0922 P4-50004 begin filtering samples

50 mL

0923 P4-50005

10 mL

0932 collect water quality readings

0935 decon equipment

0937 leave site

partly sunny, no precip. 35°F, breezy

KB, JP

0940 arrive @ LRC-02

mark sample site with orange flagging, take photo

0943 collect GPS point LRC-02 PIV

115.43353°

48.43386°

2,730' elev.

0945 collect 1 L poly grab sample

P4-50009

1 L grab

0950 begin filtering 10 mL and 50 mL

P4-50007

50 mL

0952 P4-50008

10 mL

1006 collect water quality parameters

1010 leave site

partly sunny, snowing, 35°F

KB, JP

1015 arrive @ TP, mark sample location and take photo

1018 P4-50012

1 L grab

collect 1 L poly grab sample

1020 begin filtering samples

P4-50010

50 mL

1022 P4-50011

10 mL

1034 collect water quality parameters

1037 collect GPS point TP PIV

115.42424°

48.44571°

elev: 2922 ft.

decon equipment

1043 leave site

1047 decon at ampitheater

1145 Libby Field Office to fill out COCs, pack samples, etc.

1215 deliver samples to EMSL

1400 complete [illegible]

Libby OU3 Phase IV
overcast, 40°F, calm Kaitlin Barklow
Jeremy Peterson

04-26-11

0715 at Libby Field Office
0800 meet JP and M. Chapman @ Flynway
0824 arrive @ LRC-06
0826 collect bottle to settle for 10 min
0828 collect 1 liter grab sample

P4-50013
grab, FS

0830 collect 1 liter grab field duplicate

P4-50014
grab, FD

0838 begin filtering 50 mL sample and field duplicate

P4-50015
50 mL, FS

#50016 had excess water - possible oversight, no air purge?

P4-50016
50 mL, FD

→ R. Mahoney examining, appears to be larger organic particulate.

0925 begin filtering 10 mL sample and field duplicate

P4-50017
10 mL, FS

P4-50018
10 mL, FD

Libby OU3 Phase IV
Overcast, 40°F, calm

04-26-11 cont. KB, JP

0933 begin filtering 50 mL field blank

P4-50019
50 mL, FB

0935 begin filtering 10 mL field blank

P4-50020
10 mL, FB

0943 collect 1 liter field blank

P4-50021
1 liter grab, FB

0945 collect Field Water Quality Parameters
read flume at 1.62
0947 decon equipment
0950 leave site

Libby OU3 Phase IV
Overcast, 45°F, breezy

04-26-11 cont. KB, JP

1005 arrive @ LRC-02
1010 collect 1 liter grab sample

P4-50022
1 liter, grab

1010 collect 1 liter for filtering to sit for 10 min

1020 begin filtering 50 mL sample

P4-50023
50 mL, FS

1021 begin filtering 10 mL sample

P4-50024
10 mL, FS

1043 collect water quality parameters
decon equipment
read flume at 1.70
1045 leave site

Libby OU3 Phase IV
overcast, 45°F, breezy

04-26-11 cont. KB, JP

1050 arrive @ CC-02
1051 collect 1 liter bottle to sit for 10 min
1052 collect 1 liter poly grab sample

P4-50025
1 liter grab

1101 begin filtering 50 mL sample

P4-50026
50 mL, FS

air would not purge water

1102 begin filtering 10 mL sample

P4-50027
10 mL, FS

1130 collect water quality readings
decon equipment
read flume at 0.84
1133 leave site

Ron Mahoney checked – blown filter

KB

Libby OU3 Phase IV
partly cloudy, 50°F, windy

04-26-11 cont. KB, JP

1136 arrive @ TP
1137 collect 1 liter to let settle
1140 collect 1 liter poly grab sample

P4-50028
grab, 1 Liter

1147 begin filtering 50 mL sample

P4-50029
50 mL, FS

1148 begin filtering 10 mL sample

P4-50030
10 mL, FS

1215 collect water quality readings
decon equipment
1220 leave site
1223 decon at amphitheater
~~Libby Field Office for paperwork~~
1300 ~~deliver samples to~~ at KB EMSL
Ron Mahoney looking at samples 50015, 50026, 50018, 50023, 50016, 50029, 50024

04-26-2011 Libby OU3 Phase IV

At EMSL, Ron Mahoney examining filters:

✓ # 50015 - OK

✓ 50026 - wet, ~~possible air purge oversight in the field~~ KS filter blown

✓ 50018 - OK

✓ 50023 - OK

✓ 50016 - wet; possible air purge oversight in field; some organic gross particulate

50029 - OK

✓ 50024 - few droplets of water

✓ ~~50013~~ KS 50017 - OK

✓ 50019 - few droplets of water

✓ 50020 - OK

✓ 50027 - OK

50030 - few droplets of water

1430 Libby Field Office for paperwork

1505 walk samples to EMSL

1535 back to Caboose

Libby OU3 Phase IV

05-02-11

Kaitlin Barklow

1400 arrive @ EMSL to pick up filters, bottles, cooler

1500 at Libby Field Office to perform Quanta maintenance and calibration:

replaced pH sensor and pH fluid

7.0 pH = 7.0

10.0 pH = 10.0

40 NTU turb. = 40 NTU

240 ~~TC~~ ORP = 240 mV

465 ORP = 465 mV

1413 uS/cm cond. = 1.413 mS/cm

1600 at Caboose

KB

Libby OU3 Phase IV

05-03-11 Overcast, 50F, no precip Kaitlin Barklow
Jeremy Peterson

0800 Flyway
0815 arrive @ LRC-06
0817 collect 1 liter poly grab

P4-50031
1 liter grab

collect bottle to settle for 5 min

0822 begin filtering 50 mL sample

P4-50032
50 mL

took 4 min for first 25 mL, took 7 min for second 25 mL

0827 begin filtering 10 mL sample

P4-50033
10 mL

took approx 2 min.

0843 Flume reading 1.73'
0845 collect water quality readings
decon equipment
0847 leave site

Libby OU3 Phase IV

05-03-11 cont. Partly sunny, 52F KB, JP

0850 arrive @ LRC-02
collect 1 bottle for settling
0852 collect 1 liter poly grab

P4-50034
1 liter grab

0855 begin filtering 50 mL sample

P4-50035
50 mL

took about nine min.

0900 begin filtering 10 mL sample

P4-50036
10 mL

took approx. 90 sec.

0907 collect water quality readings
flume reading = 1.84'
decon equipment
0910 leave site

Libby OU3 Phase IV
Mostly cloudy, 55F

05-03-11 cont. KB, JP

0915 arrive @ CC-02
collect bottle for settling

0917 collect 1 liter grab sample

P4-50037
1 liter grab

0920 begin filtering 50 mL sample

cannot purge air-blown filter?

P4-50038
50 mL

took approx. ~~15~~ 17 min.

0923 begin filtering 10 mL sample

P4-50039
10 mL

took approx. 2½ min.

0940 collect water quality parameters
Flume reading = 0.76'
decon equipment
0945 leave site

Libby OU3 Phase IV
Overcast, windy, 53F

05-03-11 cont. KB, JP

0953 arrive @ TP
collect bottle for sampling

0955 collect 1 liter grab sample

P4-50040
1 liter grab

0958 begin filtering 50 mL sample

P4-50041
50 mL

took 5 min.

1000 begin filtering 10 mL sample

P4-50042
10 mL

took 90 sec.

1005 collect water quality parameters
decon equipment
1010 leave site
1030 decon @ amphitheater
1115 Libby Field Office
1150 EMSL, checking filters
P4-50038 - filter blown
P4-50041 - OK

Libby OU3 Phase IV

05-03-11 cont.

KG

P4-50042 - OK
P4-50039 - OK
P4-50033 - OK
P4-50035 - OK
P4-50036 OK

1245 Libby Field Office; paperwork, sample prep, package Quanta

Libby OU3 Phase IV

05-09-11 Kaitlin Barklow

1430 Arrive @ EMSL for supplies.

1500 Libby Field Office

Calibrate Quanta

ORP 240 mV = 240 mV

ORP 465 mV = 465 mV

cond. 1413 µs/cm = 1.413 ms/cm

turb. 40 NTU = 40 NTU

pH 10.0 = 10.0

pH 7.0 = 7.0

DO 948 baro x 0.75 = 711

KB

Libby OU3 Phase IV

Mostly sunny. 38F

Kaitlin Barklow
Jeremy Peterson

05-10-11

0730 Libby Field Office

0800 Flyway

0820 arrive @ LRC-06
collect bottle for settling

0822 collect 1 liter grab

P4-50043

1 liter grab

0825 begin filtering 50 mL sample

P4-50044

50 mL

0827 begin filtering 10 mL sample

P4-50045

10 mL

0832 collect 1 liter grab field duplicate

P4-50046

1 liter FD

0838 begin filtering 50 mL field dup

P4-50047

Libby OU3 Phase IV

Mostly sunny, 38F

05-10-11 cont.

KB, JP

0840 begin filtering 10 mL field dup

P4-50048

10 mL FD

0845 collect 1 liter grab field blank

P4-50049

1 liter FB

0847 begin filtering 50 mL Field Blank

P4-50050

50 mL FB

0850 begin filtering 10 mL Field Blank

P4-50051

10 mL FB

0853 collect water quality parameters
Flume reading = 2.23'
decon equipment

0900 leave site

Libby OU3 Phase IV
Sunny, 43F

05-10-11 cont. KS, JP

0908 arrive @ LRC-02
collect bottle for settling
0910 collect liter grab

P4-50052
1 liter grab

0913 begin filtering 50 mL sample

P4-50053
50 mL FS

0915 begin filtering 10 mL sample

P4-50054
10 mL FS

0921 water quality readings
Flume reading = 2.30'
water flowing around flume –
the surrounding areas are very
marshy.
decon equipment
0925 leave site

Libby OU3 Phase IV
Sunny, 43F

05-10-11 cont. KS, JP

0927 arrive @ CC-02
collect bottle for settling

0930 collect 1 liter grab sample

P4-50055
1 liter grab

0932 begin filtering 50 mL sample

P4-50056
50 mL

0935 begin filtering 10 mL sample

P4-50057
10 mL

0942 collect water quality readings
Flume reading = 0.86'
decon equipment
0945 leave site

Libby OU3 Phase IV
sunny, 52F

05-10-11 cont. KB, JP

0950 arrive @ TP

collect bottle for settling

0952 collect 1 liter grab sample

P4-50058

1 liter grab

0955 begin filtering 50 mL sample

P4-50059

50 mL

0957 begin filtering 10 mL sample

P4-50060

10 mL

1000 collect water quality parameters

decon equipment

1005 leave site

Libby OU3 Phase IV

05-10-11 cont. KB, JP

1015 decon @ amphitheater

1045 Flyway

1100 Libby Field Office

1124 deliver samples to EMSL

05-16-2011 Kaitlin Barklow

1415 arrive @ EMSL for supplies

1435 Libby Field Office

Quanta Calibration

ORP 465 mV = 465 mV

ORP 240 mV = 240 mV

cond. 1413 us/cm = 1.413 ms/cm

turb. 40 NTU = 40 NTU

pH 10.0 = 10.0

pH 7.0 = 7.0

DO baro 942 x 0.75 = 706.5; calib = 707

Overcast, rain, 45F Kaitlin Barklow
Jeremy Peterson

05-17-2011

0730 Libby Field Office

0800 Flyway

0815 arrive @ LRC-06

0816 collect bottle for settling

0817 collect 1 liter grab

P4-50061

1 liter grab

0821 begin filtering 50 mL sample

P4-50062

50 mL

0823 begin filtering 10 mL sample

P4-50063

10 mL

0832 water quality parameters

flume over-flowing approx. 6" above top

approx. 5% by-passing flume on the west side

decon equip.

0835 leave site

Libby OU3 Phase IV
Overcast, rain, 43F

05-17-11 cont. KB, JP

0845 arrive @ LRC-02
collect bottle for settling

0846 collect 1 liter grab sample

P4-50064
1 liter grab

0850 begin filtering 50 mL sample

P4-50065
50 mL

0852 begin filtering 10 mL sample

P4-50066
10 mL

0900 water quality parameters
stream is overflowing banks upstream of flume in both directions - very large amount of water, surrounding area is very marshy
decon equip.

Libby OU3 Phase IV
Overcast, sprinkles, 45F

05-17-11 cont. KB, JP

0905 arrive @ CC-02
collect bottle for settling

0906 collect 1 liter grab sample

P4-50067
1 liter grab

0910 begin filtering 50 mL sample

P4-50068
50 mL

0912 begin filtering 10 mL sample

P4-50069
10 mL

0920 water quality parameters
Flume reading = 1.06'
decon equip.

0923 leave site

Libby OU3 Phase IV
overcast, rain, 45F

05-17-11 cont. KB, JP

0925 arrive @ TP
collect bottle for settling
0926 collect 1 liter grab sample

P4-50070
1 liter grab, FS

0930 begin filtering 50 mL FS

P4-50071
50 mL FS

0932 begin filtering 10 mL FS

P4-50072
10 mL FS

0935 collect 1 liter grab FD

P4-50073
1 liter grab FD

0937 begin filtering 50 mL FD

P4-50074
50 mL FD

0939 begin filtering 10 mL FD

Libby OU3 Phase IV
overcast, rain, 45F

05-17-11 cont. KB, JP

0942 collect 1 liter grab Field Blank

P4-50076
1 liter grab, FB

0943 begin filtering 50 mL Field Blank

P4-50077
50 mL FB

0944 begin filtering 10 mL Field Blank

P4-50078
10 mL FB

0948 water quality parameters
decon equip.
0950 leave site

Libby OU3 Phase IV

05-17-11 cont. KB

1000 decon @ ampitheater

1020 Flyway

1040 Libby Field Office

1105 EMSL to deliver samples and check filters. (R. Mahoney)

P4-50077 = OK

P4-50078 = OK

P4-50075 = OK

P4-50072 = OK

P4-50071 = OK

P4-50074 = wrinkled

P4-50068 = OK

P4-50069 = OK

P4-50065 = OK

P4-50066 = OK

P4-50063 = visible particulate

P4-50062 = uneven distribution

Libby OU3 Phase IV

05-23-11 Kaitlin Barklow

1730 Libby Field Office
calibrate Quanta meter

ORP 465 mV = 465 mV
ORP 240 mV = 240 mV
cond 1413 µs/cm = 1,413 ms/cm
turb 40 NTU = 40 NTU
pH 10.0 = 10.0
pH 7.0 = 7.0
DO baro = 944 × 0.75 = 708 calibration

KB

Libby OU3 Phase IV

overcast, 55F ..... Jeremy Peterson
Kaitlin Barklow

05-24-11

0630 Libby Field Office

0700 Flyway

0716 arrive @ LRC-06
collect 1 liter bottle for settling

0717 collect 1 liter grab sample

P4-50079
1 liter grab

0721 begin filtering 50 mL sample

P4-50080
50 mL FS

0723 begin filtering 10 mL sample

P4-50081
10 mL FS

Flume = 2.61'

0727 water quality parameters
decon equipment

0730 leave site

Libby OU3 Phase IV

overcast, 55F

05-24-11 cont.

KB, JP

0736 arrive @ LRC-02
collect 1 liter bottle for settling

0738 collect 1 liter grab sample

P4-50082
1 liter grab

0741 begin filtering 50 mL sample

P4-50083
50 mL FS

0743 begin filtering 10 mL sample

P4-50084
10 mL FS

0748 water quality parameters
decon equipment
Flume = 2.51' but overflowing banks quite a bit

0749 leave site

Libby OU3 Phase IV
Overcast, 55F

05-24-11 cont. KB, JP

0751 arrive @ LL-02
collect 1 liter bottle for settling

0752 collect 1 liter grab sample

P4-50085
1 liter grab

0756 begin filtering 50 mL sample

P4-50086
50 mL FS

0758 begin filtering 10 mL sample

P4-50087
10 mL FS

0800 water quality parameters
decon equipment
Flume = 0.69'
0805 leave site

Libby OU3 Phase IV
Overcast, 57F

05-24-11 cont. KB, JP

0808 arrive @ TP
collect 1 liter bottle for settling

0809 collect 1 liter grab sample

P4-50088
1 liter grab

0811 begin filtering 50 mL sample

P4-50089
50 mL FS

0812 begin filtering 10 mL sample

P4-50090
10 mL FS

~~015~~ 0815 KB water quality parameters
decon equipment
0817 leave site
0830 decon at amphitheater

Libby OU3 Phase IV

05-24-11 cont.

0900 Libby Field Office

0945 EMSL to deliver samples

KS

KB

Libby OU3 Phase III

Kaitlin Barklau

05-30-2011
1730 Caboose to pick up Coolers
1745 Libby Field Office
Quanta Calibration

pH 7.0 = 7.0
pH 10.0 = 10.0
ORP 240 mV = 240 mV
ORP 465 mV = 465 mV
DO = baro @ 945 x 0.75 = 709
SpC = 1413 uS/cm = 1.413 mS/cm
turb 40 NTU = 40 NTU

KB

KB

Libby OU3 Phase IV

05-31-2011 Sunny, clear, 40F

Kaitlin Barklow
Jeremy Peterson

0730 Libby Field Office
0800 meet JP @ Flyway
0830 arrive @ LRC-06
collect bottle for settling

0832 collect 1 liter grab

P4-50091
1 liter grab FS

0835 begin filtering 50 mL FS

P4-50092
50 mL FS

0836 begin filtering 10 mL FS

P4-50093
10 mL FS

0840 collect water quality parameters
decon equipment
Flume reading = 2.29'
0842 leave site

Libby OU3 Phase IV

Clear, sunny, 48F

05-31-11 cont.

KB, JP

0849 arrive @ LRC-07
collect 1 bottle for settling
0850 collect 1 liter grab

P4-50094
1 liter grab FS

0854 begin filtering 50 mL FS

P4-50095
50 mL FS

0855 begin filtering 10 mL FS

P4-50096
10 mL FS

0900 collect water quality parameters
decon equipment
Flume overflowing; head =
0905 leave site

Libby OU3 Phase IV
Sunny, 50F

05-31-11 cont. KB, JP

0906 arrive @ CC-02

collect bottle for settling

0907 collect 1 liter grab FS

P4-50097

1 liter grab FS

0911 begin filtering 50 mL FS

P4-50098

50 mL FS

0912 begin filtering 10 mL FS

P4-50099

10 mL FS

0915 collect 1 liter grab FD

P4-50100

1 liter grab FD

0916 begin filtering 50 mL FD

P4-50101

50 mL FD

0917 begin filtering 10 mL FD

P4-50102

Libby OU3 Phase IV
Sunny, 50 F

05-31-11 cont. KB, JP

0920 collect 1 liter grab blank

P4-50103

1 liter grab FB

0921 begin filtering 50 mL FB

P4-50104

50 mL FB

0922 begin filtering 10 mL FB

P4-50105

10 mL FB

0925 collect water quality parameters

decon equipment

Flume reading = 0.62'

0928 leave site

KB

Libby OU3 Phase IV
Sunny. 55F

05-31-11 cont. KS, JP

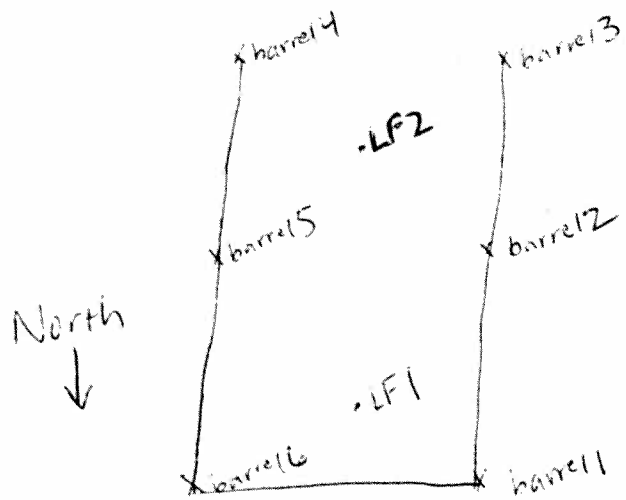
0940 arrive at ~~TR~~ Land Farm

collect GPS point at center of first Land Farm (northern LF)

LF1
N 48.43882°
W 115.41771°
elev = 3594 ft.
(center point)

LF2
N 48.43859°
W 115.41776°
elev = 3593 ft
(center point)

Soil samples collected approx. 2" deep.



Libby OU3 Phase IV
Sunny. 60F

05-31-11 cont. KS, JP

Barrel 1 = N48.43881°, W115.41786°
elev = 3594'

Barrel 2 = N48.43877°, W115.41792°
elev = 3593'

Barrel 3 = N48.43847°, W115.41796°
elev = 3596'

Barrel 4 = N48.43849°, W115.41763°
elev = 3593'

Barrel 5 = N48.43869°, W115.41753°
elev = 3593'

Barrel 6 = N48.43881°, W115.41757°
elev = 3593'

LF1 samples are composite from points LF1, Barrel 1, Barrel 2, Barrel 5, and Barrel 6

LF2 samples are composite from points LF2, Barrel 2, Barrel 3, Barrel 4, and Barrel 5

* 2 jars collected for each LF1 and LF2

1015 leave site

Libby OU3 Phase IV
Sunny, 60F

05-31-11 cont. KB, JP

1029 arrive @ IP
collect bottle for setting

1030 collect 1 liter grab FS

P4-50106
1 liter grab FS

1034 begin filtering 50 mL FS

P4-50107
50 mL FS

1035 begin filtering 10 mL FS

P4-50108
10 mL FS

1038 collect water quality parameters
decon equipment
1040 leave site
1045 decon @ amphitheater

Libby OU3 Phase IV

05-31-11 cont. KB

1115 Libby Field Office for COCs, paperwork
1230 EMSL to deliver 6 samples will ship Hygeia and Energy samples from Kalispell FedEx on 06-01-2011.

KB

Libby OU3 Phase IV

06-06-11 Kaitlin Barklow

1800 Libby Field office
Calibrate Quanta.

pH 7.0 = 7.0
pH 10.0 = 10.0
turb 40 NTU = 40 NTU
cond. 1413 ms/cm = 1.413 ms/cm
ORP 240 mV = 240 mV
ORP 465 mV = 465 mV
DO barometer 942 x 0.75 = 707 calib.

Inventory:

*running low on ORP standard; all others are good
64 10 mL syringes
87 50 mL syringes
124 30 mL syringes
11 Ace coolers
10 gallons DI water

Libby OU3 Phase IV
Overcast, SSF

Jeremy Peterson

06-07-2011
0800 meet @ Flyway
0810 arrive @ LRC-06
collect 1 bottle for settling

0812 collect 1 liter grab sample
P4-50109
1 liter grab

0815 begin filtering 50 mL FS
P4-50110
50 mL

0817 begin filtering 10 mL FS
P4-50111
10 mL

0820 collect water quality parameters
decon equipment
Flume reading = 1.87'
0822 leave site

Libby OU3 Phase IV
Overcast, 55F

06-07-11 cont.
0827 arrive @ LRC-02 KB, JP
collect 1 bottle for settling
0829 collect 1 liter grab sample

P4-50112
1 liter grab

0831 begin filtering 50 mL FS

P4-50113
50 mL FS

0832 begin filtering 10 mL FS

P4-50114
10 mL FS

Flume reading = 1.93'
0836 water quality parameters
decon equip.
0838 leave site

Libby OU3 Phase IV
Overcast, 58F

06-07-11 cont.
0839 arrive @ ICC-02 KB, JP
collect 1 bottle for settling
0840 collect 1 liter grab sample

P4-50115
1 liter grab

0844 begin filtering 50 mL FS

P4-50116
50 mL

0845 begin filtering 10 mL FS

P4-50117
10 mL

Flume reading = 0.56'
0850 water quality parameters
decon equipment
0852 leave site

Libby OU3 Phase IV

06-07-11 cont.

KB, JP

0857 arrive @ TP

collect 1 bottle for settling

0858 collect 1 liter grab sample

P4-50118

1 liter grab

0901 begin filtering 50 mL FS

P4-50119

50mL

0902 ~~begin~~ KB begin filtering 10 mL FS

P4-50120

10 mL

0905 collect water quality parameters

decon equip.

0907 Leave site

0915 decon @ ampitheater

0935 Libby Field office; paperwork

1015 deliver samples to EMSL

Libby OU3 Phase IV

06-07-11 cont. KB, JP

0857 arrive @ TP
collect 1 bottle for settling
0858 collect 1 liter grab sample

P4-50118
1 liter grab

0901 begin filtering 50 mL FS

P4-50119
50mL

0902 ~~begin~~ KB begin filtering 10 mL FS

P4-50120
10 mL

0905 collect water quality parameters
decon equip.
0907 Leave site
0915 decon @ ampitheater
0935 Libby Field Office; paperwork
1015 deliver samples to EMSL

Libby OU3 Phase IV

06-13-11 Kaitlin Baskiewicz

1400 Libby Field Office
Quanta Calibration

pH 7.0 = 7.0
pH 10 = 10.0
turb 40 NTU = 40 NTU
cond 1413 µS/cm = 1.413 mS/cm
ORP 240 mV = 240 mV
ORP 465 mV = 465 mV
DO baro = 948 x 0.75 = 711

KB

Libby OU3 Phase IV

06-14-2011 Partly Sunny, 52F Kaitlin Barkla
Jeremy Peterson

0800 Flyway
0815 arrive @ LRC-06
collect 1 bottle for settling
0816 collect 1 liter grab FS

P4-50121
1 liter grab

0820 begin filtering 50 mL FS

P4-50122
50 mL

0821 begin filtering 10 mL FS

P4-50123
10 mL

0823 Water quality parameters
Flume reading = 1.90'
decon equip.
0824 leave site

Libby OU3 Phase IV
Mostly Sunny, 52F

06-14-2011 cont. KB, JP

0830 arrive @ LRC-02
collect bottle for settling
0831 collect 1 liter grab FS

P4-50124
1 liter grab FS

0835 begin filtering 50 mL FS

P4-50125
50 mL FS

0836 begin filtering 10 mL FS

P4-50126
10 mL FS

0838 collect 1 liter grab Field Dup

P4-50127
1 liter grab FD

0840 begin filtering 50 mL Field Dup

P4-50128
50 mL FD

Libby OU3 Phase IV
Mostly sunny, 52F

06-14-2011 cont. KS, JP

0841 begin filtering 10 mL Field Dup

P4-50129

10 mL FD

0842 collect 1 liter grab Field Blank

P4-50130

1 liter grab FB

0843 begin filtering 50 mL Field Blank

P4-50131

50 mL FB

0844 begin filtering 10 mL Field Blank

P4-50132

10 mL FB

0846 water quality parameters
Flume reading = 1.97'
decon equip.

0848 Leave site

Libby OU3 Phase IV
Sunny, 55F

06-14-2011 cont. KS, JP

0850 arrive @ LC-02
collect bottle for settling

0851 collect 1 liter grab FS

P4-50133

1 liter grab FS

0855 begin filtering 50 mL FS

P4-50134

50 mL FS

0856 begin filtering 10 mL FS

P4-50135

10 mL FS

0859 Water quality parameters
Flume reading = 0.56'
decon equip

0900 leave site

KS

Libby OU3 Phase IV
Partly sunny, 55F

06-14-11 cont.

KB, JP

0904 arrive @ IP
collect bottle for settling
0905 collect 1 liter grab FS

P4-50136
1 liter grab

0909 begin filtering 50 mL FS

P4-50137
50 mL

0910 begin filtering 10 mL FS

P4-50138
10 mL

0912 water quality parameters
decon equip
0913 leave site
0918 decon @ ampitheater
0930 Flyway
0950 Libby Field Office
1015 drop-off samples to EMSL

Libby OU3 Phase IV
Partly sunny, 55°F

06-14-11 cont. KB, JP

0904 arrive @ IP
collect bottle for settling
0905 collect 1 liter grab FS

P4-50136
1 liter grab

0909 begin filtering 50 mL FS

P4-50137
50 mL

0910 begin filtering 10 mL FS

P4-50138
10 mL

0912 water quality parameters
decon equip
0913 leave site
0918 decon @ amphitheater
0930 Flyway
0950 Libby Field Office
1015 drop-off samples to EMSL

KB

Libby OU3 Phase IV

06-27-11 Kaitlin Barklow

1400 Libby Field Office
Quanta Calibration
pH 7.0 = 7.0
pH 10.0 = 10.0
turb. 40 NTU = 40 NTU
cond. 1413 µS/cm = 1,413 µS/cm
ORP 240 mV = 240 mV
ORP 465 mV = 465 mV
DO baro = 946 x0.75 = 710

KB

Libby OU3 Phase IV
Partly cloudy. 53F Kaitlin Barklow
Jeremy Peterson

06-28-11

0800 Flyway

0814 arrive @ LRC-06
collect 1 bottle for settling

0815 collect 1 liter poly grab sample

P4-50139
1 liter grab

0819 begin filtering 50 mL sample

P4-50140
50 mL

0820 begin filtering 10 mL FS

P4-50141
10 mL

0823 water quality parameters
Flume reading = 1.54'
decon equip.

0825 leave site

KG

Libby OU3 Phase IV
Mostly sunny. 55F

06-28-11 cont. ②

KG, JP

0831 arrive @ LRC-02
collect 1 liter bottle for settling

0832 collect 1 liter grab sample

P4-50142
1 liter grab

0836 begin filtering 50 mL FS

P4-50143
50 mL

0837 begin filtering 10 mL FS

P4-50144
10 mL

0840 water quality parameters
Flume reading = 1.56'
decon equip.

0842 leave site

KG

Libby OUS Phase IV
Mostly sunny, 57F

06-28-11 ③ cont.

0844 arrive @ CC-02
collect bottle for settling
0845 collect 1 liter grab sample

P4-50145
1 liter grab

0848 begin filtering 50 mL FS

P4-50146
50 mL

0849 begin filtering 10 mL FS

P4-50147
10 mL

0852 water quality parameters
Flume reading = 0.37'
decon equip.
0854 leave site

KCB

Libby OUS Phase IV
Partly to mostly cloudy, 57F

KCB, JP 06-28-11 ④ cont. KCB, JP

0856 arrive @ TP
collect bottle for settling
0857 collect 1 liter grab

P4-50148
1 liter grab

0900 begin filtering 50 mL FS

P4-50149
50 mL

0901 begin filtering 10 mL FS

P4-50150
10 mL

0904 water quality parameters
decon equipment
0906 leave site
0920 take photos @ Landfarm Location
0935 decon @ amphitheater
1015 Libby Field Office
1030 drop off samples to EMSL

KCB

Libby OU3 Phase IV
Partly Sunny 55F JP BC

7-5-11 Cont.
0840 Flyway
09:10 Arrive @ LRC-6
Collect 1 bottle for settling
0913 Collect 1 liter poly grab Sample

P4-50151
1 liter grab

0918 begin filtering 50 mL Sample

P4-50152
50 mL

0919 begin filtering 10 mL Sample

P4-50153
10 mL

Collect 1 liter grab Field dup
0922

P4-50154
1 Liter FD

0924 begin filtering 50 mL field dup

P4-50155
50 mL Fd

Libby OU3 Phase IV
Sunny, 55F

7-5-11 Cont. JP, BC
0926 begin filtering 10 mL field dup

P4-50156
10 mL Fd

0929 Collect 1 liter grab field BLANK

P4-50157
1 liter FB

0931 begin filtering 50 mL Field Blank

P4-50158
50 mL FB

0932 begin filtering 10 mL Field Blank

P4-50159
10 mL FB

Water quality parameters
Flume reading = 1.3'
decon equip.

09:36 Leave Site

Libby OU3 PHASE III
Sunny 55F JP BC

7-5-11 Cont.
9:41 Arrive @ LRC-2
Collect bottle for settling
09:42 Collect 1 liter grab sample

P4-50160
1 liter grab

0948 begin filtering 50mL sample

P4-50161
50 mL sample

0949 begin filtering 10 mL sample

P4-50162
10 mL FS

Water quality parameter
Flume Reading = 1.293
decon equip

0954 Leave site

JP

Libby OU3 Phase IV
Sunny 55F JP, BC

7-5-11 Cont.
10:01 Arrive @ CC-2
10:02 Collect bottle for settling
10:03 Collect bottle 1 liter sample

P4-50163
1 liter grab

10:10 begin filtering 50 mL sample

P4-50164
50 mL FS

10:11 begin filtering 10 mL sample

P4-50165
10 mL FS

Water quality parameter
Flume Reading =
decon equip.

10:16 Leave site

JP

Libby OU3 PHASE IV

Sunny 56°F JP, BC

7-5-11 Cont.

10:23 Arrive @ (TP)

10:24 Collect bottle for settling

10:25 Collect 1 liter grab sample

P4-50166

1 liter sample

10:31 begin filtering 50 mL sample

P4-50167

50 mL Fs

10:32 begin filtering 10 mL sample

P4-50168

10 mL Fs

Water quality parameter

[redacted]

decon equip.

10:44 leave site.

decon @ amp.
10:52

Libby OU3 Phase IV
overcast, 60F

07-12-11 KB, JP

0800 Flyway

0814 arrive @ LRC-06
collect bottle for settling

0815 collect 1 liter grab sample

P4-50169

1 liter grab

0819 begin filtering 50 mL sample

P4-50170

50 mL

0820 begin filtering 10 mL sample

P4-50171

10 mL

0824 water quality parameters
decon equip.
Flume reading = 1.18'

0826 leave site

KB

Libby OU3 PHASE IV

Sunny 56F JP, BC

7-5-11 Cont.

10:23 Arrive @ (TP)

10:24 Collect bottle for settling

10:25 Collect 1 liter grab sample

P4-50166

1 liter sample

10:31 begin filtering 50 mL sample

P4-50167

50 mL Fs

10:32 begin filtering 10 mL sample

P4-50168

10 mL Fs

Water quality parameter

[redacted]

decon equip.

10:44 leave site.

decon @ amf.
10:52

Libby OU3 Phase IV
overcast, 60F

0712-11 KB, JP

0800 Flyway

0814 arrive @ LRC-06
collect bottle for settling

0815 collect 1 liter grab sample

P4-50169

1 liter grab

0819 begin filtering 50 mL sample

P4-50170

50 mL

0820 begin filtering 10 mL sample

P4-50171

10 mL

0824 water quality parameters
decon equip.
Flume reading = 1.18'

0826 leave site

KB

07-12-11 cont. overcast, 60F KS, JP

0837 arrive @ LRC-02

collect bottle for settling

0838 collect 1 liter grab

P4-50172

1 liter grab

0842 begin filtering 50 mL FS

P4-50173

50 mL

0843 begin filtering 10 mL FS

P4-50174

10 mL

0845 water quality parameters

decon equip.

Flume reading = 1.15'

0847 leave site

KS

07-12-11 cont. overcast, 60F KS, JP

0849 arrive @ ~~LRC~~ KS CC-02

collect bottle for settling

0850 collect 1 liter grab FS

P4-50175

1 liter grab

0854 begin filtering 50 mL FS

P4-50176

50 mL

0855 begin filtering 10 mL FS

P4-50177

10 mL

0903 water quality parameters

decon equip.

Flume reading = 0.25'

0905 leave site

KS

Libby OU3 Phase IV
overcast, 62F

07-12-11 cont.

KB, JP

0911 arrive @ IP
collect bottle for settling
0912 collect 1 liter grab FS

P4-50178
1 liter grab

0916 begin filtering 50 mL FS

P4-50179
50 mL

0917 begin filtering 10 mL FS

P4-50180
10 mL

0919 water quality parameters
decon equip.
0921 leave site
0930 decon @ amp.
1000 Libby Field Office
1025 drop off samples to EMSL

Libby OU3 Phase IV

overcast, 62F

07-12-11 cont. KB, JP

0911 arrive @ [IP]

collect bottle for settling

0912 collect 1 liter grab FS

P4-50178

1 liter grab

0916 begin filtering 50 mL FS

P4-50179

50 mL

0917 begin filtering 10 mL FS

P4-50180

10 mL

0919 water quality parameters

decon equip.

0921 leave site

0930 decon @ amp.

1000 Libby Field Office

1025 drop off samples to EMSL

KB

07-18-2011 Kaitlin Barklow

Quanta Calibration:

pH 7.0 = 7.0

pH 10.0 = 10.0

turb. 40 NTU = 40 NTU

cond. 1413 us/cm = 1.413 ms/cm

ORP 240 mV = 240 mV

ORP 465 mV = 465 mV

DO baro = 946 x 0.75 = 710

INVENTORY:

4 gallons DI water

9 Ace coolers for shipping samples

ample calibration solutions

40 10 mL syringes

102 30 mL syringes

61 50 mL syringes

KB

Libby OU3 Phase IV
Clear, 65F

Kaitlin Barklow
Jeremy Peterson

07-19-11

0800 Flyway

0812 arrive @ LRC-06
collect bottle for settling

0813 collect 1 liter grab FS

P4-50181

1 liter FS

0817 begin filtering 50 mL FS

P4-50182

50 mL FS

0818 begin filtering 10 mL FS

P4-50183

10 mL FS

0822 collect 1 liter grab FD

P4-50184

1 liter FD

0823 begin filtering 50 mL FD

P4-50185

50 mL FD

Libby OU3 Phase IV
Clear, 65F

07-19-11 cont.

KB, JP

0824 begin filtering 10 mL FD

P4-50186

10 mL FD

0827 collect 1 liter grab FB

P4-50187

1 liter FB

0828 begin filtering 50 mL FB

P4-50188

50 mL FB

0829 begin filtering 10 mL FB

P4-50189

10 mL FB

0833 water quality parameters
flume reading = 1.03'
decon equip.

0836 leave site

KB

Libby OU3 Phase II
Clear, 65F

07-19-11 cont. KS, JP

0842 arrive @ LRC-02
collect bottle for settling
0843 collect 1 liter grab FS

P4-50190
1 liter FS

0847 begin filtering 50 mL FS

P4-50191
50 mL FS

0848 begin filtering 10 mL FS

P4-50192
10 mL FS

0850 water quality parameters
decon equip.
Flume reading = 0.99'
0852 leave site

KS

Libby OU3 Phase IV
Clear, 65F

07-19-11 cont. KS, JP

0856 arrive @ CC-02
collect bottle for settling
0857 collect 1 liter grab FS

P4-50193
1 liter FS

0901 begin filtering 50 mL FS

P4-50194
50 mL FS

0902 begin filtering 10 mL FS

P4-50195
10 mL FS

0904 water quality parameters
decon equip.
flume reading = 0.25'
0906 leave site

KS

Libby OU3 Phase IV
Clear, 70F

07-19-11 cont. KB, JP

0912 arrive @ TP
collect bottle for settling
0913 collect 1 liter grab FS

P4-50196
1 liter FS

0917 begin filtering 50 mL FS

P4-50197
50 mL FS

0918 begin filtering 10 mL FS

P4-50198
10 mL FS

0920 water quality parameters
decon equip.
0922 leave site
0927 decon @ amphitheater
1000 Libby Field Office
1020 drop off samples to EMSL

KB

7 78

clear, 70F

07-19-11 cont.

KB, JP

0912 arrive @ $\boxed{TP}$

collect bottle for settling

0913 collect 1 liter grab FS

P4-50196

1 liter FS

0917 begin filtering 50 mL FS

P4-50197

50 mL FS

0918 begin filtering 10 mL FS

P4-50198

10 mL FS

0920 water quality parameters

decon equip.

0922 leave site

0927 decon @ amphitheater

1000 Libby Field Office

1020 drop off samples to EMSL

— Libby OU3 Phase IV —

7-25-11 1011112.0102 B. Downey KB

Quanta Calibration:

	initial	Final
(7) pH =	6.93	7.00
(10) pH =	10.11	10.00
Turb 40 =	46.2	40
1413 um Cond. =	1432	1413
ORP 240 =	329	240
ORP-465 =	433	465
DO baro =	946	× 0.75 = 710

e h

65°F

7-26-11 101112.0102 B. Downey pg 1

0813 - Arrive @ LRC-06,
- Collect bottle 4 settling,
0818 - Collect 1 L. bottle grab FS,
P4-50199

0820 - Begin filling 50 mL FS,
P4-50200

0822 Begin filling 10 ml FS,
P4-50201

- Collected Water Quality parameters,
- Decon equipment, Flume reading = 09.4',
0830 - Left site,
0837 - Arrive @ LRC-02,
- Collect bottle 4 settling,
0839 - Collect 1L. bottle grab FS,
P4-50202

0842 - Begin filling 50 ml FS,
P4-50203

0843 Begin filling 10 ml FS,
P4-50204

7-26-11 Cont. pg 2

- Collected water quality - decon'd equip
- Flume reading = 0.91'
0849 - Left site,
0851 - Arrived @ CC-02,
- Collected bottle 4 settling,
0852 Collected 1 Liter bottle grab. FS,
P4-50205

0856 - Begin filling 50 mL FS,
P4-50206

0858 - Begin filling 10 mL FS,
P4-50207

- Collected water quality parameters - C
- Flume reading = 0.26',
0902 - Left site,
0909 - Arrive @ TP,
- Collected 1 Liter bottle 4 settling,
0911 - Collect 1 L. bottle grab. F.S.,
P4-50208

0915 - Begin filling 50 mL FS,
P4-50209

1-26-11 cont.

pg 3

0917 - Begin filling 10 mL FS,
P4-50210

0918 - Collected Dup. 1 L, grab F.
P4-50211

0920 - Begin filling 50 mL. F. Dup,
P4-50212

0922 Begin filling 10 mL - F. Dup,
P4-50213

0924 - Collected 1 litter blank
P4-50214

0925 - Begin filling 50 mL. blank,
P4-50215

0927 - Begin filling 10 mL blank,
P4-50216

- Collected water quality params - Decon equip.,
0930 - Left site,
1000 - back to Field office,
1040 - Dropped samples w/ EMSL. 1-26-11

8-9-11 Cont. ~~pg. 3~~

* Collected water quality param. Down equip.
- No water in spill way - Down ranger
- Double checked quanta @ Field office all reading good.

1015 - Dropped samples w/ EMSL.

BD

Cloudy ~

Libby OU3 Phase IV

8-22-11 1011112.0102 B. Downey

- Quanta Calib. -

	Initial	Final
PH (7)	7.15	7.00
PH (10)	8.62	10.00
SC	0.551	1.413
ORP (240)	253	240
ORP (465)	441	465
Turb. (40NTU)	39.9	40.0
DO	946 = 710	

BD

Cloudy — Libby OU3 Phase IV — (p.1)

8-23-11 101112.0102 B. Downey

0819 - Arrive @ LRC-06 - collected settling bottle

0819 - Collect 1 liter grab FS

P4-50229

0824 - Collect 50 mL FS

P4-50230

0825 - Collect 10 mL FS

P4-50231

- Collected water quality param. Decon'd equip.,
Flume reading = 0.68' = 2.17 cfs,

0831 - Left site,

(p.2)

8-23-11

0834 - Arrive @ LRC-02, collect settling bottle,

0834 - Collect 1 liter grab FS,

P4-50232

0839 - Collect 50 mL FS,

P4-50233

0841 - Collect 10 mL FS,

P4-50234

- Collected water quality param., Decon'd equip.,
Flume reading = 0.60' = 1.79 cfs,

0843 - Left site,

p.3

8-23-11

0845 - Arrived @ CC-02, collect settling bottle,
0846 - Collect 1 liter grab FS,

P4-50235

0851 - Collect 50 mL FS,

P4-50236

0853 - Collect 10 ml FS,

P4-50237

0854 - Collect 1 Liter grab FD,

P4-50238

0856 - Collect 50 mL FD,

P4-50239

p.4

8-23-11

0858 - Collect 10 mL FD,

P4-50240

0859 - Collect 1 Liter grab FB,

P4-50241

0901 - Collect 50 mL FB,

P4-50242

0903 - Collect 10 mL FB,

P4-50243

- Collected water quality param., Decord equip.,
Flume reading = 0.18 - 0.22 cfs,

0906 - Left site,

p.5

8-23-11

0908 - Arrived @ TP collect settling bottle,
0909 - Collected 1 liter grab FS,

P4-50244

0913 - Collect 50 mL FS,

P4-50245

0915 - Collect 10 mL FS,

P4-50246

- Collected water quality param., Decond equip,
0926 - Left site, Decon'd ranger,
0934 - Final decon @ trailer.
0938 - Left site,
0950 - Arrived @ Field office,
1030 - Dropped samples w/ EMSL,

RD

-Libby OU3 phase IV-

8-8-11 101112.0102 B. Downey

* Quanta Calibration:

	Initial	Final
pH-7	6.93	7.00
pH-10	10.11	10.00
Turb. (40 NTU)	46.2	40
Cond. (1.413 ms)	1.437	1.413
ORP (240)	329	240
ORP (465)	433	465
DO baro = 946 x 0.75 = 710		

2

RH

84 clear - Libby OU3 Phase IV - pg. 1
8-9-11 10U12.0102 B. Downey
0800 - Arrive @ LRC-06, collect settling bottle.
0806 - Collected 1 L. grab. FS
P4-50217

0810 - Begin filling 50 mL FS.
P4-50218

0812 - Begin filling 10 mL FS.
P4-50219

* Collected water quality parameters,
Flume reading = 0.80' = 2.80 cfs,
0818 - Left site,
0820 - Arrived @ LRC-02, collect settling bottles.
0822 - Collected 1 L. grab FS.
P4-50220

0826 - Begin filling 50 mL FS.
P4-50221

0828 - Begin filling 10 mL FS.
P4-50222

* Collected water quality param.

8-9-11 Cont. pg. 2
Flume reading = 0.75' = 2.53 cfs.
0833 - Left site,
0835 - Arrived @ CC-02, collect settling
0836 - Collect 1 L. grab FS.
P4-50223

0842 - Begin filling 50 mL FS.
P4-50224

0844 - Begin filling 10 mL FS.
P4-50225

* Collected water quality param.
Flume reading = 0.20' = 0.26 cfs.
0846 - Left site,
0848 - Arrived @ TP, collected settling bot
0849 - Collected 1 L. grab. FS.
P4-50226

* Moose/geese/ducks have been seen in TP,
0855 - Begin filling 50 mL. FS,
P4-50227

0857 - Begin filling 10 mL. FS.,
P4-50228

3-9-11 Cont. ~~pg. 3~~

Collected water quality param. Down equip.
No water in spill way - Down ranger
able checked quarts @ Field office all
ting good,
15 - Dropped samples w/ EMSL,

BD

- Libby OU3 Phase IV -

9-5-11 1011112.0102 B. Downey

Quanta Calibration

	Initial	Final
pH 7 =	7.35	7.00
pH 10 =	9.73	10.00
SC (mS/cm) =	1.409	1.413
Turb. =	41.1	40
~~ORP~~ ORP 240 =	302	240
ORP 465 =	382	465
DO = 949 =	711	

BD

9-5-11

settling bottle,
F5,

cord equip,

94

-Libby OU3 Phase IV- (p.1)

9-6-11 1011112.0102 B. Downey

0848 Arrive @ LRC-06, collected settling bottle,

0849 - Collect 1 Liter grab FS,

P4-50247

0853 - Collected 50mL FS,

P4-50248

0855 - Collected 10mL FS,

P4-50249

* Collected water quality parameters, Decon'd equip.,
Flume reading = 0.59' = 1.74 cfs,

0858 - Left site,

(p.2)

9-6-11 Cont.

0905 - Arrive @ LRC-02, collected settling bot

0907 - Collect 1 Liter grab FS,

P4-50250

0910 - Collected 50mL FS,

P4-50251

0912 - Collected 10mL FS,

P4-50252

* Collected water quality parameters, Decon'd equ
Flume reading = 0.51' = 1.39 cfs,

0914 - Left site,

9-6-11 Cont.

0915 - Arrive @ [CC-02], collected settling bottle,
0917 - Collected 1 liter grab FS,

P4-50253

0920 - Collected 50 mL FS,

P4-50254

0922 - Collected 10 mL FS,

P4-50255

* Collected water quality parameters, Decon'd equip,
Flume reading = 0.18' = 0.22 cfs,
0924 - Left site,

9-6-11 Cont.

0930 - Arrive @ [TP], collected settling bottle
0932 - Collected 1 liter grab FS.

P4-50256

0935 - Collected 50 mL FS.

P4-50257

0937 - Collected 10 mL FS.

P4-50258

* Collected water quality parameters, Decon'd
0941 - Left site, * Duck near sampling poin
0948 - Decon'd ranger, then left mine site,
0952 - Final decon @ toilet,
0955 - Left site,
1005 - Arrived @ Field office,
1040 - Dropped samples @ EMSL,

BD

9-6-11

9-19-11 101112.0102 B. Downey

Quanta Calibration

	Initial	Final
pH 7 =	6.86	7.00
pH 10 =	9.99	10.00
SC (1413) =	1.369	1.413
Turb. (40) =	40.5	40.0
ORP (240) =	221	240
ORP (465) =	413	465
DO =	949 = 911	

BD
9-19-11

9-20-11 101112.0102 B. Downey

0646 - Arrive @ LRC-06, collected settling batt

0650 - Collected 1 Liter grab FS,

P4-50259

0653 - Collected 50 mL FS,

P4-50260

0655 - Collected 10 mL FS,

P4-50261

* Collected water quality parameters, Decon'd equip., Flume reading = 0.581 = 1.70 cfs,

0658 - Left site,

Cont. →

9-20-11 Cont.

0706 - Arrive @ [LRC-02], Collected settling bottle

0708 - Collected 1 liter grab FS,

P4-50262

0711 - Collected 50 mL FS,

P4-50263

0713 - Collected 10 mL FS,

P4-50264

0714 - Collected 1 liter grab Dup; FD,

P4-50265

0715 - Collected 50 mL FD,

P4-50266

0717 - Collected 10 mL FD,

P4-50267

Cont. →

9-20-11 Cont.

0718 - Collected 1 Liter grab FB,

P4-50268

0719 - Collected 50 mL FB,

P4-50269

0721 - Collected 10 mL FB,

P4-50270

*Collected water quality param., Decon'd equipment

Flume reading ≈ 0.48' = 1.27 cfs,

0724 - Left site,

Cont. →

9-20-11 Cont. (pg. 4)

0726 - Arrive @ [CC-02] collected settling bottle,
0728 - Collected 1 Liter grab FS,

P4-50271

0731 - Collected 50 mL FS,

P4-50272

0733 - Collected 10 mL FS,

P4-50273

* Collected water quality param., Decon'd equipment,
Flume reading = 0.17 ≈ 0.20 cfs,
0735 - Left site,

Cont. →

9-20-11 Cont. (pg. 5)

0738 - Arrive @ [TT] collected settling bottle,

0746 - Collected 1 Liter grab FS,

P4-50274

0743 - Collected 50 mL FS,

P4-50275

0745 - Collected 10 mL FS,

P4-50276

* Collected water quality params Decon'd equipment,
0747 - Left site,
0754 - Decon'd ranger, then left mine site,
0808 - Left decon trailer,
0820 - Arrived @ field office,
0849 - Dropped samples @ EMSL,

BD 9-20-11