Location CP-2801R Date 6/19/15

Project / Client SSP-1428

Partly cloudy, 70s LL, ZV

2-5'

Sand 2-2.5', then black clay, stiff, dry to sl. moist
PID = 0 ppm

916 CP-2801R-A(2-5)
PID: 7.7 ppm (max), 7.5 (avg)

0942 start geoprobe

5'-9' Brown clay, stiff, dry to sl. moist PID = 0.0 ppm

9'-13' Brown clay, sl. moist
water @ 10.5', soft + saturated below 10.5' PID = 0.0 ppm

13'-17' PID = 0 ppm
Brown / light brown clay, 16.5-17' Gray clay, ALL Saturated

~~1006~~ 1002 ZV CP-2801R-B (5-10.5')
PID = 0 ppm

Location BFC / CP-2801R Date 6/19/15

Project / Client SSP-1428

Partly sunny, 70s

1006 CP-2801R-C (10.5'-15')
PID = 0 ppm

1010 Fred onsite w/ big rig + Brandon

1020 Abandon 2801R + 2801

1023 Big rig breaking asphalt @ CP-2802

1026 Through asphalt
total thickness = 3"

1027 Begin hand augering
Clay @ 1' bgs
sub-base fill = gravel

0'-2'
Dark brown clay, dry, non-cohesive, small amt sand mixed in
Odor in 0-0.5'

1038 CP-2802-A(0-2) + SD-11
PID: 17.0 max
16.8 avg

Rite in the Rain

Location CP-2802 Date 6/19/15

Project / Client SSP-1428

sunny, 70s LM/ZV

2'-5' * reddish staining 3-4'

PID=0 ppm
- 2-3' Crumbly clayey sand & gravel
- 3-4' oily brown clay, plastic, little gravel
- 4-5' V. stiff dk brown clay, not oily

1048 CP-2802-A(2-5)

PID: 5.1 ppm (max), 4.8 (avg)

1050 start geoprobe

5-9' compressed in macro core
stiff to soft dk brown clay,
sl. moist, PID=0

9-14'
soft dk brown clay, PID=0
water at 12.4'

14-19'
saturated brown clay, PID=0

1109 CP-2802-B
PID: 7.9 max 3.0 avg

1111 CP-2802-C 10-12.4'
PID: 18.3 max, 4.0 avg

Location Date 6/19/15

Project / Client SSP-1428

1120 abandon hole

1145 Crew 1 moves inside to pack coolers / scan / etc. Big rig goes back to Crew 2

MADE IN TACOMA
— SINCE 1916 —
Rite in the Rain®
— DEFYING MOTHER NATURE —

ALL-WEATHER

ENVIRONMENTAL FIELD BOOK

Numbered Pages

Name CREW #1

Address BOOK 5

Phone

Project

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US Pat No. 6,863,940
12-14

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Location ________ Date 6/22/15

Project / Client ________

7:00 At site @ S8 Cliff & Alexa, Theo
Discuss new (old & updated) sampling procedure with Adam

10:00 AM Calibrate air monitoring.

10:15 CP_ ~~3~~ 3105 Jeff & Jacob. Thomas, AZ

RAD Background: 21610

10:21 7" core - no oily layer/black layer
sand - Saturated
@ 10" 8.0 ppm
22" sand - ~~[illegible]~~ PID
@ bottom of sand

A(0-2)
~~[illegible]~~
10:42

H₂O @ 30" ~~total depth~~ including subbase
8" past sand fill
↳ clay

10-14"
PID ~~bulk~~ max: 4.7 ppm
~~A(2-5)~~
RAD: ~~205~~ 24

Bulk PID max: 9.3 ppm @ 5'
lowest: 1.0 ppm
RAD: 205716

11:28
A(2-5)

Location _____ Date _____

Project / Client _____

Location _____ Date 6/22

Project / Client _____

CP-3105
0-2" Concrete
7"-30" Sand saturated

H_2O . from 10"-30"

Clay (0-2') saturated black
soft & plastic

Clay (2-5') same as above

Clay (0-2') PID readings
max at (10-14") 4.7 ppm
Samples taken from this @ 10:42

Clay (2-5') PID readings
6.1 ppm to 8.3 ppm

Sample taken @ 11:28

Location _____ Date _____

Project / Client _____

12:50 Location CP-3117

Thomas et

Concrete slab thickness 6.5"
~~Course~~ sand underneath.
Jeff & ~~Jacob~~ went to pickup
PVC pipe to keep the hole
open.

4' sand subbase

A(0-2)

14:19

12-18" : PID = 14.7 ppm
all others ≈ 6-7 ppm
H_2O @ 1.5 ft down
after subbase
RAD: 25572

Black, clay, soft, plastic.

Location _____ Date 6/22/15

Project / Client _____

A(2-5)

14:38

3.5' = 26 ppm
RAD = 25589

PID 12.6, 12.4, 26, 10., 4.3
Interval readings.

Black clay, soft plastic,

16:00 CP_3104

start coring: 16:10
stop coring: ~~16:14~~ 16:14
start coring: 16:16
stop : 16:16

core: 7.5"
cement, leveled twice
tile on top with black
adhesive - asbestos?

Location _____ Date _____

Project / Client _____

Location _____ Date 6/22/15

Project / Client _____

41"
~~4~~ 3 sand subbase after concrete

A(0-2)

16:42

PID:
0"-6" : 8.5 ppm
6-12" : ~~37~~ ppm 37 ppm
12-18" : ~~28~~ ppm 28 ppm
18-24" : ~~23~~ ppm 27 ppm

RAD: 22920

Black soft clay, plastic

A(2-5)

16:52

2-2.5' = 76 ppm
2.5-3.5' = 9.9 ppm
~~3-3.5~~ 3.5-4' = 24 ppm
4-5' = 24 ppm

RAD: 22579

TD = 9 ft (5' past concrete/subbase)

no obvious water

Black soft clay

Location _____ Date 6/23/15

Project / Client _____

7.00 AM On site - Alexa, Omnik
Set up the coolers & Load Cart.
Daily activity meeting with Adam
Health & Safety issues discussed.
Air Monitoring devices calibrated.

9.00 AM CP-3110
Jeff & Jason.

start coring: 9:15
stop : 9:19 - lost power
start 9:25
stop 9:27

Concrete ~~Slab~~ Slab 2.5" + 7.5" = 11.0"
Top piece had metal mesh.
black substance between pieces.

3" subbase - gravel, 1 in plus subangular

A(0-2)

10:00

PID max:
0-6" 3.6 ppm
6-12" 4.4 ppm
12-18" 4.7 ppm
18-24" 3.2 ppm

Black dry clay, stiff

Location _____ Date 6/23/15

Project / Client _____

A(2-5)

10:10

2' 1.5 ppm
2.8 ppm
3.3 ppm
3.2 ppm
5' 0.8 ppm

RAD: 21435

Black dry clay, stiff.

B

10:30

PID interval: 0.0 ppm
PID built max: 3.1 ppm
RAD: 19710

Brown moist clay

Location _____ Date 6/23/15

Project / Client _____

C

10:43
10-15

PID int: 0.0 ppm
PID bulk max: 2.7 ppm
RAD: 20171

moist brown clay

D

10:54
15-20

water @ 16.5 ft

PID int: 0.0 ppm
Bulk PID max. 0.1 ppm
RAD: 20592

Brown clay moist to wet soft.

E

11:00
20-25

PID int: 0.0 ppm
PID Bulk max: 0.0 ppm
RAD: 20674

Location _____ Date 6/23/15

Project / Client _____

F

11:19
25-30

green grey to black clay

28' ft = wet
PID int: 0.0 ppm
RAD - 20068
PID bulk max: 0.0 ppm

G

11:39
30-31

Green-grey clay
v. stiff

PID int: 0.0 ppm
Bulk PID max: 0.1 ppm
RAD: 20373

H

11:49

green grey with iron staining
PID int: 0.0 (Cont)

2' recovery, no sample sent

Location

Date 6/23/15

Project / Client

H

12:10

35-39

35-39'

PID int: 0.0ppm
Bulk PID max: 0.1 ppm
RAD: 20495

- green grey clay, very hard dry
- will not go down any further
- iron staining

Location

Date 6/23/15

Project / Client

CP-3112

Start coring 13:30

Only 5" gravel incl. on core

core is in two pieces, top piece is 2.5" w/ black material between two parts.
Second part is 9" long
Top piece has metal mesh

11.5"

15" gravel subbase
grade > 1 in

A (0-2)

14:03

0-6" = 0.0 ppm
6"-12" = 0.0 ppm
12"-18" = 0.0 ppm
18"-24" = 0.0 ppm

bulk PID: 0.0 ppm
RAD: 29655

hard black clay, uniform

Location _____ Date 6/23/15

Project / Client _____

A (2-5)

14:15

PID

2' 0.0ppm
0.0 ppm
0.0 ppm
0.0 ppm
0.0 ppm

5'

Bulk PID max: 0.0 ppm
RAD: 29571

2.5-5'
brown, sticky, hard, plastic,
@ 2.5-5', black dry clay

B

14:55

PID int: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 30550

Black clay, dy to moist
plasticy, stiff

Location _____ Date 6/23/15

Project / Client _____

C

15:12

PID int: 0.0 ppm
Bulk PID: 0.0 ppm
RAD: 30384

Brown, moist/damp, plastic
Soft. Uniform. More wet
with depth

D

15:20

PID int: 0.0 ppm
Bulk PID max: 0.0
RAD: 31573

~~to~~ H_2O @ 16.5'

Brown, wet, uniform, plastic

Location _____ Date 6/23/15

Project / Client _____

E

15:32

PID int: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 30376

very soft, brown, moist

F

15:47

PID int: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 30567

v. plastic, grey-brown, soft, moist
H_2O @ 20 ft

Location _____ Date 6/23/15

Project / Client _____

PID int: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 30266

G

16:05

Grey green clay, iron staining

H

16:23

PID int: 0.0 ppm

grey green clay, moist, iron staining

NO SAMPLE TAKEN

Location _____ Date 6/23/15

Project / Client _____

E

15:32

PID int: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 30376

very soft, brown, moist

F

15:47

PID int: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 30567

v. plastic, grey-brown, soft, moist
H_2O @ 28 ft

Location _____ Date 6/23/15

Project / Client _____

G

16:05

PID int: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 30266

Grey green clay, iron staining

H

16:23

PID int: 0.0 ppm

grey green clay, moist, iron staining

NO SAMPLE TAKEN

Location _____ Date 6/24/2015

Project / Client _____

7.00 At site Alexa, Omnia, Theo Cliff.
H&S meeting with Adam
Discuss daily Activity for today
Calibrate Air monitoring Equipm.

9.00 CP-3115 Jeff & Thomas

- Core is 12" thick, one piece. NO black layer visible
- metal mesh is present
- Below concrete, grout like hard surface.
- Try to break it with digging bar 8" more down.
- Try with star head to loosen the material at 23" below the slab surface.
- Down 30"
- Use the rod & point start hammering. down ~ 36"

11:00 - Rod stuck can not pull out with probe

Location _____ Date 6/24/15

Project / Client _____

11:30 Start Coring the hole

12:00 48" below the surface
36" of sandy cement (mortar)
broken pieces vacuumed out.
still same material.
Called Adam to discuss.
Abandon the hole.

14:00 Department 26 → in
Lay down plastic, make
clean & Hot zone
set up the table & work area
Air monitoring. all ✓

1500 Start Coring CP-3118

15:10 end coring @
no hits on PID on core
Core is 12" w/ gravel
on bottom. Appears to be
two pours of concrete,
with black layer (thin)
between them about
3" down from top →

Location _____ Date 6/24/15

Project / Client _____

15:15 2.1 ppm inside hole

on bucket:
0-6" PID = 0 ppm
6-12" PID = 0 ppm
12-18" PID = 0 ppm
18-24" PID = 0 ppm

A(0-2) BD-10-06/24/15

15:35

PID int: (in bags)
0-6 = 0 ppm
6-12 = 0 ppm
12-18 = 0.2 ppm
18-24 = 0.2 ppm

RAD: 19312

dark brown clay, some gravels < 1 inch
more dense deeper, dry. [redacted]

Location _____ Date 6/24/15

Project / Client _____

A(2-5) PID out of bucket

15:45

2-2.5': 0 ppm
2.5-3': 0 ppm
3-3.5': 0 ppm
3.5-4': 0 ppm
4.5-5': 0 ppm

PID int (in bags):
2-2.5: 0.0 ppm
2.5-3' 0.3 ppm
3-3.5' 0.0 ppm
3.5-4' 0.0
4-4.5' 0.1 ppm
4.5-5' 0.0 ppm

RAD: 19700

Dark brown to black clay
Dry, breaks easy

Location _____ Date 6/24/15

Project / Client _____

4:30 drillers start to put woke on rig to prepare to enter D/26

leave D/26 area @ 5:30

8:15 @ CP-3118 w/ Alexa, Onnick, Jeff + Thomas 6/25/15

8:45 Start drilling

B

9:00
5-10

PID int: 0.0 ppm
Bulk PID max: 0.2 ppm
RAD: 18349

Brown, hard, clay, deeper is more moist, plastic

Location _____ Date 6/25/15

Project / Client _____

C

9:10
10-15

PID int: 0.2 ppm at 12'
0.0 ppm everywhere else
PID bulk max: 0.3 ppm
RAD: 18780

Brown, 12.5'-15' more wet, soft, plastic clay.
10-12.5' more stiff

D

9:30
15-20

PID int: 0.0 ppm
Bulk PID max: 0.8
RAD: 19351

Brown, moist, wet, plastic clay no obvious staining

Wet starts @ 18'.
H_2O = 18' below.

Rite in the Rain

Location _____ Date 6/24/15

Project / Client _____

4:30 drillers start to put woke on rig to prepare to enter D/26

leave D/26 area @ 5:30

8:15 @ CP-3118 w/ Alexa, Onnick, Jeff + Thomas 6/25/15

8:45 Start drilling

B

9:00
5-10

PID int: 0.0 ppm
Bulk PID max: 0.2 ppm
RAD: 18349

Brown, hard, clay, deeper is more moist, plastic

Location _____ Date 6/25/15

Project / Client _____

C

9:10
10-15

PID int: 0.2 ppm at 12'
0.0 ppm everywhere else
PID bulk max: 0.3 ppm
RAD: 18780

Brown, 12.5'-15' more wet, soft, plastic clay.
10-12.5' more stiff

D

9:30
15-20

PID int: 0.0 ppm
Bulk PID max: 0.8
RAD: 19351

Brown, moist, wet, plastic clay no obvious staining

Wet starts @ 18'.
H_2O = 18' below.

Rite in the Rain

Location _____ Date 6/25/15

Project / Client _____

E

9:45

20-25

PID int: 0.0ppm
Bulk PID max: 1.4
RAD: 18789

darker brown, grey, plastic, moist, no obvious staining

F

9:57

25-30

PID int: 0.0 ppm
Bulk PID: 0.9 ppm
RAD: [redacted] 18440

darker brown - grey, plastic, moist plastic, no obvious staining.

Total Depth 30.0' native

Location _____ Date 6/25/15

Project / Client _____

CP-3113
start coring 12:05
end coring 12:15

cone came out in two pieces, with black mastic layer in between. Top piece is small at 2.5", bottom piece at 9.5" inches long for a total of 12". There is a metal mesh right above mastic layer on top piece.
3" >1/4 Gravel Subbase
PID 0.0ppm on cone and in hole.

A(0-2)

12:35

BD-11-06/25/15
PID 0.0 ppm for all buckets

PID int: RAD: 20913
0-6": 0.0 ppm
6-12": 0.5 ppm Black brown clay, stiff, clay, plastic,
12-18": 0.2 ppm
18-24": 0.5ppm + little bit of oil, bottom of 2

Location _____ Date 6/25/15

Project / Client _____

A (Z-5)

12:55

free oil! @ 2'9".
2'9" picture taken

2' 0.0 ppm out of bucket
0.0 ppm
0.0 ppm
0.0 ppm
0.0 ppm
5'

2.5' - shiny bucket = oil!

2' 0.7 ppm (in bags)
0.7 ppm
1.1 ppm
0.4 ppm
0.3 ppm
5'

RAD: 21375

Black brown clay, PCB oil, stiff, breaks easy, dry, plastic

Location _____ Date 6/25/15

Project / Client _____

B

13:39
5-10

PID int/cont: 0.0 ppm
Bulk PID max: 0.9 ppm
RAD: 21708

dark brown black, plastic, a couple oil smears on liner, dry, soft

C

13:47
10-15

PID int/cont: 0.0 ppm
Bulk PID max: 1.4 ppm
RAD: 20817

dark brown, soft, plastic clay, moist.

Location _____ Date 6/25/15

Project / Client _____

D

13:56
15-20

PID int/cont: 0.0ppm
Bulk PID max: ~~0.8~~ 0.8ppm
RAD: 20861

dark black brown, wet, plastic

H_2O @ 18' very wet

E

14:05
~~19~~-23

wet, dark brown, black plastic,

NO SAMPLE COLLECTED
ALL WET

Total Depth 23'

Location _____ Date 6/25/15

Project / Client _____

15:00 CP-3111 ±1 ft

~~start coring~~
end coring: 15:20 subbase gravels

Core is 12" long (total), split into two pieces. Top layer is 4" long, bottom piece is 8" long. There is a black mastic layer between the two pieces. The top piece has a metal mesh layer very close to bottom of top 4".

PID: 0.0 ppm on core and in hole

A (0-2)

16:25

	PID int:	Bulk int:
~~0~~	0"-6": 0.0ppm	0.1ppm
	6"-12": 0.0ppm	0.3ppm
	12"-18": 0.0ppm	0.6ppm
		0.7ppm
	18"-24": 0.0ppm	0.3ppm

BD-12-06/25/15

RAD: 22730

dark brown clay, dry, plastic, stiff
No oil or sheen

Rite in the Rain

Location _____ Date 6/25/15

Project / Client _____

A (2-5) PID int:

16:39

2' 0.0 ppm
0.0 ppm
0.0 ppm
0.0 ppm
0.9 ppm
5'

~~No oil or sheen present~~ - Dark brown clay, plastic, dry. No free oil present

PID bulk int:

2' 0.1 ppm
1.3 ppm
3.8 ppm
10.7 ppm
5' 10.9 ppm

RAD: 22374

slight sheen @ 4', no free oil

Location _____ Date 6/25/15

Project / Client _____

B

17:19

PID: cont:
2.0 ppm @ 7 ft
avg: 1.2 ppm
Bulk PID max: 8.4 ppm
RAD: 21132

dark brown/black clay, plastic, hard, dry, stiff.
No obvious sheen, no free oil

C

17:28

PID cont: 2.2 @ 12'
avg: 1.0 ppm
Bulk PID max: 9.9 ppm
RAD: 21611

dark brown/black clay, plastic, moist, deeper gets more moist)
no obvious sheen, no free oil

Location _____ Date 6/25/15

Project / Client _____

D

17'-35

PID cont: 2.4 @ 18'

Bulk PID max: 10.3 ppm, 8.2 avg

RAD: 21639

H_2O @ 18'

dark brown/black, plastic, wet, saturated past 18'
No obvious sheen. no free oil

Location _____ Date 6/26/15

Project / Client _____

7:00 AM on BFC

8:15 took Rinsate samples after deconed equipment used at Dept 26.

10:15 CP-3109

start coring 10:20

end coring 10:30 - ~~need attachment cone > 1 ft~~

Core is 14" long, in 2 pieces. Top piece is 2.5" long, with black mastic layer inbetween. 11.5" for the bottom piece. Gravels below core.

mastic weigh present

1in the hole = 38.0 ppm

0.2 ppm on core

Rite in the Rain

Location _____ Date 6/25/15

Project / Client _____

D

17'-35

PID cont: 2.4 @ 18'

Bulk PID max: 10.3 ppm, 8.2 avg

RAD: 21639

H_2O @ 18'

dark brown/black, plastic, wet, saturated past 18'
No obvious sheen. no free oil

Location _____ Date 6/26/15

Project / Client _____

7:00 AM on BFC

8:15 took Rinsate samples after deconed equipment used at Dept 26.

10:15 CP-3109

start coring 10:20

end coring 10:30 - ~~need attachment cone > 1 ft~~

Core is 14" long, in 2 pieces. Top piece is 2.5" long, with black mastic layer inbetween. 11.5" for the bottom piece. Gravels below core.

mastic weigh present

1in the hole = 38.0 ppm

0.2 ppm on core

Rite in the Rain

Location _____ Date 6/26/15

Project / Client _____

A(0-2)

11:05

BD -10 - 06/26/15

PID in bags:

0'-6" = 0.9 ppm

6"-12" = 1.5 ppm

12"-18" = 0.5 ppm

18-24" = 0.3 ppm

RAD: 16248

brown clay, stiff, dry, plastic. No obvious staining or free product.

A(2-5)

11:18

Background = 0.0 ppm

PID in bags:

2'-2.5' = 1.3 ppm

2.5'-3' = 0.8 ppm

3'-3.5' = 0.5 ppm

3.5'-4' = 0.5 ppm

4'-4.5' = 0.5 ppm

4.5'-5' = 0.2 ppm

RAD = 16120

Location _____ Date 6/26/15

Project / Client _____

deeper is softer, at bottom of 5', black clay.

4' 9" = layer of gravel.

B

11:52

PID cont: 0.0 ppm

PID bulk max: 0.5 ppm

RAD: 15467

dark brown black clay, deeper = softer, plastic

No obvious staing or free product

C

12:02

PID cont: 0.0 ppm

PID bulk max: 0.5 ppm

RAD: 15569.

14' am 15' = very soft.

black brown/black clay. Plastic. Soft. No obvious staining or free product.

Location _____ Date 6/26/15

Project / Client _____

D

12:12

PID cont: 0.0 ppm
Bulk PID max: 0.2 ppm
RAD: 16 238

H_2O @ 18'

dark brown/black soft - Plastic. Wet @ 18'. No obvious staining or free product.

E

12:20

PID cont. 0.0 ppm
confirmation of water
dark brown/black - grey. V. soft. Wet. Plastic. No obvious staining or free product.

NO SAMPLE TAKEN. SATURATED.

TD: 23'

Location _____ Date ~~6/26/15~~ 6/26/15

Project / Client _____

CP-3107

Start coring @ 13:36
end coring @ 13:41

Core does not have black mastic layer. But made of two types of material. Came up in 3 broken pieces. Top section of 1 type of concrete is 4" w/ metal mesh ~~tape~~ 2" down. Second type of material is 8" long, for a total of 12" core.

PID on core: 0.0 ppm
PID in hole: 3.4 ppm

3" ~~fine~~ dirt sublease, a few gravels

Location ______ Date 6/26/15
Project / Client ______

BD-11-06/26/15

A(0-2)
14:07

No hits on pid ~~out~~ on auger out of hole
PID in bags
0"-6": 0.5 ppm
6"-12": 0.2 ppm
12"-18": 0.3 ppm
18"-24": 0.3 ppm
RAD: 15770.

dry, dark brown, plastic.
No obvious staining or free product.

A(2-5)
14:25

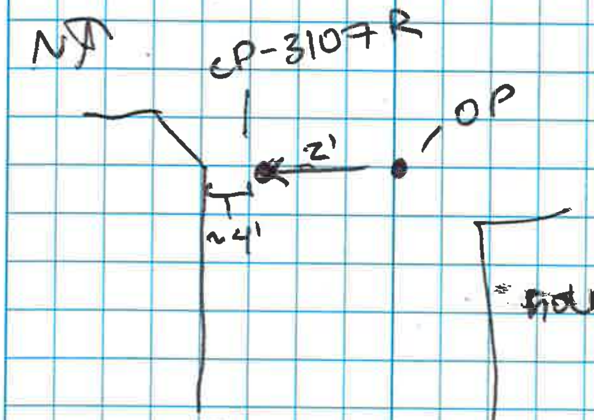
No hits on PID out of augers.
PID in bags:

There is a cinder block wall about 1' away from hole. Hit something hard at 5' 4" depth (from top). Believed to be footing. Collected sample, ~~moving~~ will

terracore

Location ______ Date 6/26/15
Project / Client ______

be 1 foot shy of total 2-5'. Moving hole 2' west from original.



NOT TO SCALE

PID samples in bags.
2' 0.1 ppm
0.1 ppm
0.3 ppm
4' 0.3 ppm

RAD: 15527

Location _____ Date 6/26/15

Project / Client _____

CP-3107-R

Coring start: 14:50
Coring stop: 15:07

1.5 ppm in hole.
Nothing (0.0 ppm) on core

Core came up in two pieces, with black layer in between. Core is 12" total, with top piece 3.5" long, and the second piece is 8.5" long. There is a metal mesh present in the top piece.

* not hand augering down to 5' — drilling down and collecting subsequent samples from 5' depth on.

Location _____ Date 6/26/15

Project / Client _____

B

15:40

PID cont: 0.0 ppm
Bulk PID max: 0.2 ppm
RAD: 15694

dark brown-grey clay, moist deeper plastic, soft. No obvious staining or free product.
v. moist @ 11'

C

15:50

PID cont: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 15778

wet @ 13.5' (13.5')

dark brown, moist, plastic. more moist to wet deeper. No obvious staining or free product.

Location _____ Date 6/28/15

Project / Client _____

D
15:58

PID cont': 0.0 ppm
Bulk PID max: 0.1 ppm
RAD 16913

all wet, color change from dark brown to grey at 18". plastic, No obvious staining or free product.

Location _____ Date 6/29/15

Project / Client _____

Sunny 75°F

10:15 Jeff & Thomas, Alexa Omi

CP-3002

asphalt = 9" (incl. roadbase)
subbase = 9"
total = 18"

A(0-2)
10:48

BD-10-06/29/15

PID on buckets and in hole = 0.0 ppm

PID in bags (int.)
0' 0.0 ppm
↓ 0.0 ppm
2' 0.0 ppm

RAD: 24648

Brown, moist

Rite in the Rain

Location _____ Date 6/28/15

Project / Client _____

D
15:58

PID cont': 0.0 ppm
Bulk PID max: 0.1 ppm
RAD 16913

all wet, color change from dark brown to grey at 18". plastic, No obvious staining or free product.

Location _____ Date 6/29/15

Project / Client _____

Sunny 75°F

10:15 Jeff & Thomas, Alexa Omi

CP-3002

asphalt = 9" (incl. roadbase)
subbase = 9"
total = 18"

A(0-2)
10:48

BD-10-06/29/15

PID on buckets and in hole = 0.0 ppm

PID in bags (int.)
0' 0.0 ppm
↓ 0.0 ppm
2' 0.0 ppm

RAD: 24648

Brown, moist

Rite in the Rain

Location ______ Date 6/29/15

Project / Client ______

A (2-5)

10:50

PID in hole + on buckets = 0.0ppm

Hit refusal at 4'

Moving hole 4.5' south, 3' east. Will resample and hand auger 0-5' for CP-3002R

PID bag int.

0'	0.0 ppm
↓	0.0 ppm
	0.0 ppm
	0.0 ppm
4'	0.5 ppm

RAD = 24838

Dark brown / black, v. moist, iron staining, a few concrete gravels. Plastic. soft.

Location ______ Date 6/29/15

Project / Client ______

CP-3002R

48" ~~A7~~ A7 ~~4"~~ 4" of asphalt + subbase, mostly gravels (0.5"-1")

↳ 3 in of asphalt +

A (0-2)

12:00

PID 0.0 ppm on each bucket and in hole

PID in bags:

0"-6" = 0.0 ppm

6"-12" = 0.0 ppm

12"-18" = 0.0 ppm

18-24" = 0.0 ppm

RAD: 25709

Dark brown clay, plastic, v. dry, a few cement pieces.

Location _____ Date 06/29/15

Project / Client _____

A (2-5) PID 0.0 ppm on each bucket and in the hole.

12:12

PID int in bags
2-2.5': 0.0 ppm
2.5-3': 0.0 ppm
3-3.5': 0.0 ppm
3.5-4': 0.0 ppm
4-4.5': 0.0 ppm
4.5-5': 0.0 ppm

RAD: 26756

Dark brown clay, dry, plastic, stiff.

B

12:58

5-8 ~~feet~~ feet = 1 foot recovery mostly water

PID cont: 0.0 ppm
PID bulk max: 0.4 ppm
RAD: 25399

Brown clay, plastic, wet due to water seeping down.

Location _____ Date 6/29/15

Project / Client _____

C

13:07

H_2O @ 14'

PID cont: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 25583

Brown clay, wet, soft, plastic

D

13:15

PID cont: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 24594

Brown clay, wet at 17', about 2-2.5", soft, plastic

13:30 Probe exhaust making strange noise. stop for repair

MADE IN TACOMA — SINCE 1916 —

Rite in the Rain

— DEFYING MOTHER NATURE —

ALL-WEATHER

ENVIRONMENTAL FIELD BOOK

Numbered Pages

Name CREW #1

Address BOOK 5

Phone

Project

RiteintheRain.com

US Pat No. 6,863,940
12-14

CONTENTS

Reference Page Index

Location _____ Date 10/29/15

Project / Client _____

17:30 Found the problem of that strange noise.

Broken plate needs to be replaced.
Order the part will be in next day 10 AM.

Location _____ Date 10/30/15

Project / Client _____

7:00 Onnie, Aleva, Adam, Clif, Theo on site.

8:03 Big rig at CP-3003 to break open concrete

8:15 CP-3001 break open asphalt & subbase.

8:20 Jeff & Thomas at AZ hand auger

3" asphalt
16" total (asphalt + subbase)

300'

A(0-2) BD-10-04/30/15
PID = 0.0 ppm in hole and each bucket

8:34

PID in bags

0"-6" = 0.0 green-grey to
6"-12" = 0.0 black clay
12"-18" = 1.4 Damp. some
18"-24" = 2.8 wood piece.
Plastic.

RAD: 19777

Location _____ Date 10/29/15

Project / Client _____

17:30 Found the problem of that strange noise.

Broken plate needs to be replaced.
Order the part will be in next day 10 AM.

Location _____ Date 10/30/15

Project / Client _____

7:00 Onnie, Aleva, Adam, Clif, Theo on site.

8:03 Big rig at CP-3003 to break open concrete

8:15 CP-3001 break open asphalt & subbase.

8:20 Jeff & Thomas at AZ hand auger

3" asphalt
16" total (asphalt + subbase)

300'

A(0-2) BD-10-04/30/15
PID = 0.0 ppm in hole and each bucket

8:34

PID in bags

0"-6" = 0.0 green-grey to
6"-12" = 0.0 black clay
12"-18" = 1.4 Damp. some
18"-24" = 2.8 wood piece.
Plastic.

RAD: 19777

Location _____ Date 6/30/15

Project / Client _____

A (2-5)

8:48

PID = 0.0 ppm in hole and on each bucket

PID in bags:

2'-2.5' = 3.4 ppm
2.5'-3' = 2.1 ppm
3'-3.5' = 1.2 ppm
3.5'-4' = 0.6 ppm
4'-4.5' = 0.2 ppm
4.5'-5' = 0.0 ppm

RAD: 19477

Black to dark brown (lighter deeper) damp, stiff, plastic,

B

12:21

PID cont: 0.0 ppm
BULK PID max: 0.2 ppm
RAD. 25484

Perched water at 9'
surrounding brown clay is stiff, plastic

Location _____ Date 6/30/15

Project / Client _____

12.5' = H_2O

C

12:28

PID cont: 0.0 ppm
PID bulk max: 0.0 ppm
RAD: 25961

Brown clay, plastic, stiff before 12.5', wet + soft after 12.5'.

TD = 19' - PID cont: 0.0 ppm

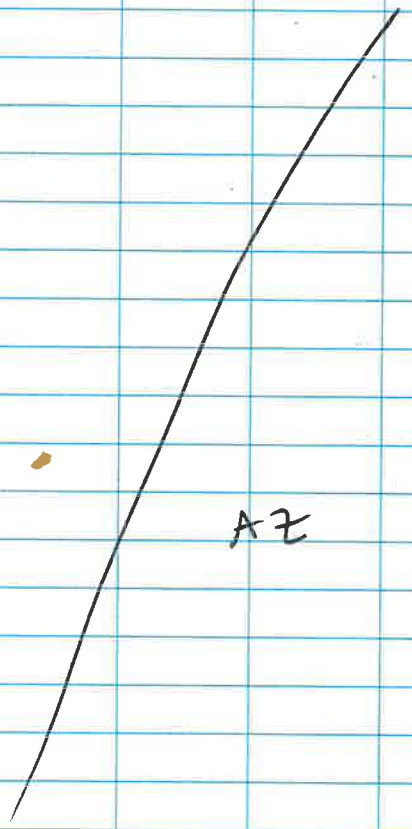
D

all saturated from 15-19

NO SAMPLE COLLECTED FOR D

Location _____ Date _____

Project / Client _____



Location _____ Date 4/30/15

Project / Client _____

CP-3001 @ 9:15

Start augering - Need to use casing due to hole collapsing by sub base. 3½' casing in the hole. Need deeper. Casing top damage due to hammering it down. Down 4½' need to go deeper. Cannot extend the casing. Pull casing out install new one. Hole collapsed.

10:00 Left for ~~re~~purchasing new casing & coupling.

Jeff replacing broken bracket of the probe.

10:50 Start augering CP-3001 (incl. asphalt)

11:30 6.5' (!!!) of gravel and asphalt and sand to native clay.

3" asphalt

Location _____ Date 6/30/15

Project / Client _____

A (0-2) 1.5' down = H_2O perched?

11:41

0.0 ppm out of bucket and in hole

PID in bags:

0"-6": 0.5 ppm
6"-12": 0.7 ppm
12"-18": 0.9 ppm
18"-24": 0.7 ppm

RAD: 20330

Brown clay moist from perched water, plastic, stiff

PID in hole and in auger = 0.0 ppm

A (2-5) PID in bags:

11:52

2-2.5: 1.5 ppm
2.5-3: 2.0 ppm
3-3.5: 2.4 ppm
3.5-4: 2.0 ppm
4-4.5: 0.1 ppm
4.5-5: 0.1 ppm

RAD:

wet due to perched water, brown clay, moist, soft.

Location _____ Date 6/30/15

Project / Client _____

B

13:09

PID cont: 0.0 ppm
Bulk PID Max 0.5 ppm
RAD: 25308

stiff clay, but covered in surface (?) water. Brown, gray plastic

C

13:24

PID cont. 0.0 ppm
PID Bulk max 2.6 ppm
RAD: 25427

Brown-grey plastic, covered in surface (?) water. stiff/soft.

D

13:37

PID cont. 0.0 ppm
Bulk PID max 0.0 ppm
RAD: 24272

17.5' color change from brown to grey-green.

stiff but covered in wet

Location _____ Date 6/30/15

Project / Client _____

CP-3402

A(0-2) BD-12-06/30/15

15:40

PID 0.0 ppm in hole and on each auger

PID in bag:

0"-6" = 0.0 ppm
6"-12" = 0.0 ppm
12"-18" = 0.0 ppm
18"-24" = 0.0 ppm

RAD: 16111

Brown dry, soil/clay. Some organic debris mixed in.

A(2-5)

15:51

PID 0.0 ppm on hole and each bucket

PID in bags:

2"-2.5": 0.0 ppm
2.5-3: 0.0 ppm
3-3.5: 0.0 ppm
3.5-4: 0.0 ppm
4-4.5: 0.0 ppm
4.5-5: 0.0 ppm

Location _____ Date 6/30/15

Project / Client _____

RAD: 15305

Brown black clay

3-3.5' dark brown, dry some organic material

2.5-3'

B

16:25

PID cont: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: 15184

Brown, hard, stiff clay. dry.

Location _____ Date 10/30/15

Project / Client _____

C

16:30

PID cont: 0.0 ppm
Bulk PID max: 0.0 ppm
RAD: (only 2 ft)

* Hit refusal at 12'
C sample is 10 - 12'

Location _____ Date _____

Project / Client _____

Stage II Field Notes – Crew 2

Location _____ Date _____

Project / Client _____

* Hand Auger refusal at 2.5' below road base - decision made to push through with Rods on Geoprobe.

Location BFC Date 5/6/15

Project / Client SSP-1428

(A Duplicate: BD-20-05/06/15)

7:15 RAD source check: 229,354 cpm

CP211R Brush Asphalt 0832

0" - 4" Asphalt PAD - 4"

4" - 10" Road base - 10" - gravels, sands silts & clays loose

(0-2') 0-24" (Fill materials)

A 0845 mixed clays, gravels, silts & sands, black/gray/brown clays, stiff, clay, loose, - no odor no stains.

PID 6" intervals = 0.2 ppm; Blank = 0.2

Bulk PID = Hi 3.4 ppm; Aug. - 3.0 ppm

RAD = 13,478 cpm

(2-5') tan clays, 2 - 2.5 - thin gravel/cement layer at 2.5-2.7'; then tan/reddish brown clays stiff, moist PID = 0.0 ppm

(5-10) Reddish brown / lt. tan clays, moist; soft.

B 0854 no odor, no stains

PID 6" intervals = 0.0 ppm; Blank = 0.0

Bulk PID = Hi 1.0 ppm, Aug. 1.0 ppm

RAD = 13,460 cpm

Location _____ Date _____

Project / Client _____

CP-211R
T.D. = 15'
H_2O = 14.5'
Road base = 10"

Samples: A, B & C
A-Duplicate: BD-20-05/06/15

Location BIC Date 5/6/15

Project / Client SSA-1428

CP 211R (10-15')
C
0858
reddish brown/lt tan/
mustard clays; soft to very soft
moist to wet at 14.5'
water at 14.5'; high plasticity
PID 6" int envelope = 0.0 ppm; Blank = 0.0
Bulk PID = Hi. 1.8 ppm; Amb 1.0 ppm
Rad = 13,149 cpm

15-20'
D

PID 6" int envelope = ppm; Blank =
Bulk PID = Hi ppm; Amb ppm
Rad = cpm

Location ______ Date ______

Project / Client ______

CP011R

'0-2'

PID 6" = 4 ppm

12" = 5.6 ppm

18" = 9 ppm

Location BFC Date 5/6/15

Project / Client SSP-1428

A-Duplicate: BD-21-05/06/15

CP-011R Break Asphalt 1040

0" — 4" Asphalt PID = 4 + membrane

4" - 15 Road base = (1" gravels, sds, clays + silts)

(moved location 31.5' - East of original hole)

(0-2') clays; (Fill, materials)

A

10:52

tan/black/gray clays; dry; loose, stiff; with gravels 1-3" diam;

No odor

PID - 6" intervals = see chart ppm; Bkgd = ppm

Bulk PID = Hi 4.5 ppm; Ave 4.4 ppm

RAD = 12406 cpm

(2-5') same litho - (fill materials) to 5'; mixed clays, + gravels. loose, dry to slightly moist

(5-10') Very poor recovery (< 1') mixed

B

1100

black + lt brown to tan clays, soft; moist to very moist

no odor, no S/A cas

PID 6" intervals = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 2.4 ppm; Ave 2.3 ppm

RAD = 11685 cpm

Location _____ Date _____

Project / Client _____

CP01R
T.D = 25'
H20 = 23.1'
Road base 15"

Samples: A, B, C, D & E
A Duplicate: B021-05/06/15
⊗ moved location 31.5' to E-SE of original hole.

Location BFC Date 5/6/15

Project / Client SSA 1428

C 10-15'
1104 Lt brown clays, fine clays, moist to very moist, soft no odor no stains, very moist
RAD = 13,046 cpm at 13.0'
PID 6" = 0.0 ppm High plasticity
Bulk PID = Hi 1.6 ; Ave 1.6 ppm

D 15-20'
1109 Lt Brown to brown clays, soft to very soft; very moist, very moist at 16.5-17';
PID 6" = 0.0 ppm ; Bkg = 0.0 ppm ; RAD = 13,087
Bulk PID = Hi 2.7 ; Ave 2.5 ppm

E 20-25'
1128 Brown clays, very soft, very moist to wet at 23.1'-25'; high plasticity.
no odor no stains

PID 6" interval = 0.0 ppm ; Bkgd = 0.0 ppm
Bulk PID = Hi 2.1 ppm ; Ave 2.1 ppm
RAD = 12,787 cpm

12:25 RB-20-05/06/15

Location _____ Date _____

Project / Client _____

CP-3/03
T.D.= 5'
H2O= 12" Concrete 5.5" (0.45') Total 35.5"
Sub base ~~N/A 2" 5.5" 30"~~
Samples: A(0-2'); A-(2-5')
A-Duplicate: BD-20-05/07/15
* Note: Sub base was included in sample A(0-2') due to possible PCBs

14:32 finished coring - open hole PID=0.5 ppm

14:54 auger coated with oily substance.

PID intervals 2-5' (6" intervals):
0.2 ppm @ 2.5'
0.5 ppm @ 3.0'
0.5 ppm @ 3.5'
0.7 ppm @ 4.0'
0.5 ppm @ 4.5'

(BD-20-05/07/15)

Location BFC Date 5/7/15

Project / Client SSA 1428

CP 3/03 Core Concrete @14:28

0"- 5.5"(0.45') Concrete PID = 5.5"(.45')

5.5"(0.45')- 30" Sub base = coarse sand PID = 0 ppm
(part of 0-2' sample) well rounded.

0-2' A 1525 Coarse, well-rounded sand (fill), moist, clay ~~below 30"~~ (Brown soils)
Clay brown, ~~silty~~, soft, wet
water at 1.0' PID=20,538 ppm
PID 6" intervals = ~~0.0, 4.2~~ ppm; Bkgd= ~~0.0~~ ppm
Bulk PID= Hi 4.2 ppm; Ave 2.5 ~~2.5~~ ppm

2-5' 1530 Brown ~~silty~~ clay, soft, very moist, oily, slight oil odor
Color change to dark brown at 3.5'
Clay below 30" (gloves coated with Oil)
PID 6" intervals = see table ppm; Bkgd= 0.2 ppm
Bulk PID=Hi ~~4.2~~ 4.6 ppm; Ave ~~2.5~~ 5.0 ppm
PID=22,36[illegible] ppm

Location _____ Date _____

Project / Client _____

CP 178
T.D. = 5'
A20 = 12"
Sub base = included in sample (A-(0-2'))
Samples: A(0-2) + A(2-5)
A-Duplicate: BD-2L-05/07/15

PID 6" Intervals:
0.5' = 0.5 ppm
1.0' = 0.8 ppm
1.5' = 1.0 ppm
2.0' = 1.6 ppm
2.5' = 0.5 ppm
3.0' = 1.1 ppm

⊛ d-1 Ammonia used to clean equipment for augers, etc used to complete Borings: CP-3103 & CP-178 on 5/7/15

Location BFC Date 5/7/15

Project / Client SSP-1428

CP 178 Core Concrete
0'-.5' Concrete PID = 0.5'
~~5'~~ Sub base included in 0-2'
Auger @ 1602

0-2' Coarse, well-rounded sand (fill), Brown soft.
A(0-2) wet at 1.0'
1624 oily 1-2'

PID 6" intervals = see table ppm; Bkgd = 0.4 ppm
Bulk PID = Hi 10.5 ppm; Ave. 5.0 ppm
PAH = 28,450 cpm

2-5 Coarse sand, as above 2-2.5', Brown
~~A(2-5)~~ clay below 2.5'
1627 Light brown-to ~~tan~~ dark brown ~~silty~~ clay, soft to v. soft, moist to v. moist, ~~oily 1-2'~~ ew

PID 6" intervals = see table ppm; Bkgd = 0.5 ppm
Bulk PID = Hi 9.2 ppm; Ave. 4.5 ppm
PAH = 29,701 cpm

Location _____ Date _____

Project / Client _____

CP-3102
T.D. = 5'
H2O = 18"
sub base - n/a
samples: A(0-2) + A(2-5)
A-Duplicate: BD-20-05/08/15

8:51 PID in hole after coring = 1.2 ppm
see crew #1 log for air monitoring

@ 8:00 took rinsate blank RB-20-05/08/15 on hand auger bucket from CP-3103 / CP-178

PID 6" intervals:
2.5' = 0.3 ppm
3.0' = 0.0 ppm
3.5' = 0.0 ppm
4.0' = 0.0 ppm
4.5' = 0.0 ppm
5.0' = 0.9 ppm

Location BFC Date 5/8/15

Project / Client SSP-1428

0720 RAD Source check: 326,176 cpm
model # 2221 / serial # 108862

CP-3102 Core Concrete 0842
0" - 1.0' Concrete RAD = 12" (1.0')
(12") 1.0' - 1.67' sub base = 20" (part of 0-2' sample)
(hand Auger 0905)

(A-Duplicate: BD-20-05/08/15)

(0-2') Coarse, well-rounded sand (GW), water at 18" (Brown/tan)

9:17 clay at 20" - gray-brown silty clay, soft to med. stiff, plastic, moist

PID 6" intervals = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 2.2 ppm; Ave. 2.1 ppm
RAD = 28,862 cpm

(2-5')

A (2-5')

9:30 gray-brown clay, moist to very moist; highly plastic, no odor or visible staining

PID 6" intervals = see table ppm; Bkgd = 0.0 ppm
Bulk PID = Hi = 6.9 ppm; Ave 3.4 ppm
RAD = 28,413 cpm

Location ______ Date ______

Project / Client ______

CP-3101,
T.D. = 5'
H2O = 2.0' (24")
Subbase = 18"

Samples: A(0-2'); A(2-5')
A-Duplicate: BD-21-05/08/15

see Crew #1 log for air monitoring

PID 6" intervals	
2.5'	= 0.0 ppm
3.0'	= 1.3 ppm
3.5'	= 0.0 ppm
4.0'	= 0 ppm
4.5'	= 1.8 ppm
5.0'	= 0.8 ppm

Location BFC Date 5/8/15

Project / Client SSP1428

(A-Duplicate: BD-21-05/08/15)

3101 Core Concrete @ 0930

~~CA3102 (0-1.5')~~ Concrete Pad = 6" (0.5')

A (0-2') (6-24") Sub base = 18"

Hand Auger @ 9:57

1004 Course, well rounded sand (SW), Brown/tan water at 2', ~~top~~ bot. 3' Slightly oily

PID 6" intervals = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 3.5 ppm; Ave. 3.0 ppm

RAD = 25,470 cpm

A-(2-5') gray-brown clay, wet, soft,

10:15 high plasticity, no odor

PID 6" intervals = (see table) Bkgd = 0.0

Bulk PID = Hi: 11.0 ppm; Ave ~~0.5~~ 5.0 ppm

RAD = 27,508 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/8/15

Project / Client SSP-1428

11:25 Equipment rinsate blank from CP-3102 & 3101 RB-21-05/08/15 (cleaned w/ d-limonene)

CP-2102 - Gravel surface - 1206
0"-32" Road base gravels; ~¼-3" diameter, lime stone/dol. rocks; sands, silts & clays; angular

(0-2') 0-24" Black organic rich clays, stiff, dry to sl. moist, marshy odor, no stains
A (0-2)
1255

(A-Duplicate: BD-22-05/08/15)

PID 6" intervals = 0.0 ppm; Blank = 0.0 ppm
Bulk PID = Hi 0.4 ppm; Ave. 0.2 ppm
RAD = 14.486 cpm

(2-5')
A-(2-5')
1306
Dark gray-black organic-rich clays, stiff, dry to sl. moist, no odor/stains

PID 6" intervals = 0.0 ppm; Blank = 0.0 ppm
Bulk PID = Hi 0.1 ppm; Ave. 0.1 ppm
RAD = 14.822 cpm

Location _____ Date _____

Project / Client _____

CP-202
T.D. = 20'
H20 = 17.2
Roadbox = 32"

Samples: A*, B, C & D
A-Duplicate: BD-22-05/08/15

* A(0-2) + A(2-5)

Location BFC Date 5/8/15

Project / Client SSP-1428

CP-202 (3' recovery)

(5-10') 5'-10' –

B
1328

Dark gray clay, grading to brown at 8-3', stiff to mod. stiff, slightly moist, no odor/stains

PID 6" ~~intervals~~ continuous = 0.0 ppm; Bkgd = 0.0
Bulk PID = Hi 2.1 ppm; Ave. 2.0 ppm
RAD = 14,534 cpm

(10-15')

C
1333

Brown to grayish brown clay, soft to mod. soft, slightly moist, very moist at bottom, no odor/stains

PID 6" ~~intervals~~ continuous = 0.0 ppm; ~~Bkgd~~ = 0.0 ppm
Bulk PID = Hi: 0.9 ppm; Ave. 0.8 ppm
RAD = 15,049 cpm

(15-20')

D
1336

Brown/ grayish brown clays, soft to very soft at 17.2'
very moist to wet at 17.2'
water @ 17.2' (sample above 17.2')

PID 6" ~~intervals~~ continuous = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi: 0.9 ppm; Ave 0.4 ppm
RAD = 13,813 cpm

Location _____ Date _____

Project / Client _____

PID Screening 2-5'. 1.4 ppm @ 3',
30.4 ppm @ 4'
5.3 ppm @ ~~4.5'~~ 2V 4.3'
40.0 ppm @ 4.5'
82.9 ppm @ 4.8'
rest = 0 ppm (above 3')
VOC sample at 4.8'

(A-Duplicate: BA-23- 05/08/15)

Location BFC Date 5/8/15

Project / Client SSA 1428

CP-2104 - Gravel/Surface/Road Base
0" - 30" Hand Auger 1404
Road base gravel, sand, silts, clays

(0-2') A(0-2) 14:31 dark gray-black clay, v. stiff, plastic, moist, no odor, no stains

PID 6" intervals = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.8 ppm; Ave. 0.7 ppm
RAD = 14,401 cpm

(2-5') A(2-5) 14:45 black organic-rich clay, v. stiff, plastic, sl. moist, some organic material, ~~no odor~~ 2V no stains, slight petroleum odor increasing w/ depth 3'-5'

PID 6" intervals = (see table) ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 81.1 ppm; Ave. 60 ppm
RAD = 14,857 cpm

Location _____ Date _____

Project / Client _____

CP-2104
T.D. = 20
H20 = 16.5'
Road base = 30"

samples: A, B + C + D
A duplicate: BA-23-05/08/15
*A(0-2) + A(2-5')
+ petroleum odor 3'-5'

+ petroleum odor noted by driller when pulling rods for C

Location BFC Date 5/8/15

Project / Client SSP-1428

CP2104 (no sample-soils falling out of plastic liner)
B- (5-10') No recovery

PID 6" intervals = . ppm; Bkgd = ppm
Bulk PID = Hi ppm; Ave. ppm
RAD = cpm

C- (10-15')
1454 gray-brown clay, soft, moist no odor in core; no visible stains;

PID = 6" intervals = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 1.6 ppm; Ave. 1.6 ppm
RAD = 14,160 cpm

D- (15-20')
1457 GRAYish BROWN CLAY; soft to very soft, very moist to wet water at 16.5'; no odor no stains

PID 6" intervals = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.3 ppm; Ave. 0.3 ppm
RAD = 13,701 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/11/15

Project / Client SSA/1428

CP 2105 Gravel/surface 0818

(Teh Lab A Duplicate)

(0-2') 0-3.4" Reddish brown clays with few
A(0-2) gravels in upper 4-6";
0825 3.0- no odor no stains.

PID 6" intervals = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi; 0.0 ppm; ave 0.0 ppm
RAD = 17,997 cpm

(2-5') 2- 3.5 same lithology reddish
A(2-5) brown clays stiff to med soft,
moist., no odor, no stains
0840 3.5 5.0 - Black organic rich clays, soft
moist.

PID 6" intervals = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi 1.8 ppm; ave 0.9 ppm
RAD = 17,737 cpm

Location ______ Date ______

Project / Client ______

CP-210S,
T.D.= 24'
H2O= 19.7'
sub base = NA; gravel surface

Samples: A, B, C, D+E

TekLab- Ar Duplicate

Location BFC Date 5/11/15

Project / Client 56P-1428

CP-210S ~~(5-8')~~ ~~8-12'~~ 5-10'

B
0912
Black/grayish black, clay, stiff, slightly moist, no odor, no stains.

PID 6" instrands= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi 1.4 ppm; Ave 1.4 ppm
NAP= 18270 cpm

(10-15') ~~12-16'~~ 10-15'

C
0917
gray clay soft, moist to very moist at 15.7' + moist at 12'.
no odor no stains
PID 6" instrands= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi 1.4 ppm, ave 1.4 ppm
NaI= 18,350 cpm

~~16-20'~~ 15-20'
D
0920
gray clays, soft, moist to very moist at 19.7 water
No odor, no stains
PID 6" int. = 0.0 ; Bkgd= 0.0 ppm
Bulk PID= Hi-1.3 ; Ave - 1.3
NaI= 17,853 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/11/15

Project / Client SSA1428

CA 2103 20-24'

E

0935

same lithot color., soft to mod stiff, moist.
no odor no stains

PID= 6" int. 0.0 ppm Blank 0.0
Bulk PID= H. 2.4 Ave. 2.4
RAD= 18,020 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/11/15

Project / Client SSP 1428

CP 2106 Ground Surface 955

(0-2) Reddish brown clay, soft
A(0-2) moist, with few gravels at surface <2-3"
1008 no odor, no stains;

(Tech Lab-A-Duplicate)

MD 6" intervals = 0.0 ppm; Rhyd = 0.0 ppm
Bulk MD = Ht; 1.5 ppm; Ave 1.5 ppm
RAD = 17,490 cpm

2-5' 2-3.5'
A(2-5') Reddish brown clay, stiff,
1017 slightly moist;
3.5'-4.5' Grayish black clay; stiff,
slightly moist; 4.5-5 - Black clay, soft, moist
MD 6" intervals = 0.6 ppm; Rhyd 0.6 ppm
Bulk MD = Ht, ~~3.0~~ ppm; Ave. ~~1.5~~ 2.5 ppm
RAD = ~~17490~~ 17,906 cpm

114

Location ______ Date ______

Project / Client ______

CP 2106,
T.D= 9' (Refusal)
H2O= NA
Road base = NA - gravel surface

Samples: A, B, ~~X~~

Teh Lab - A - Duplicate
(Water @ 10' at 1st Location)

- B sample @ 10' hit obstruction refusal - moved, (water at 10'); moved 2.5' to SW - Augered to 3' & hit obstruction; refusal; again
- Decision made to go back to original location & auger down to 5' (cut & hole) & collect B sample only.

(1200 - refusal at 9.0' third time)

Location BFC Date 5/11/15 115

Project / Client SSA/428

CP-2106 - ~~5/8/8-12~~ 5-10'

B
1200

Black organic rich clays, soft to med stiff; moist, no odor no stains

PID 6" intervals = 0 - .4 ppm; Bkgd. 0.4 ppm
Bulk PID = Hi 1.4 ppm; Ave 0.7 ppm
RAD = 17,532 cpm

12-16
C

PID 6" intervals = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Ave ppm
RAD = cpm

16-20'
D

PID 6" intervals = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Ave ppm
RAD = cpm

Location

Date

Project / Client

Due to problems with FedEx lack of sample delivery; had to redrill CP-2102; moved well 1.0 to east & redrilled hole as CP-2102R.

Location BFC

Date 5/11/15

Project / Client SSP-1428

CP-2102R - Gravel Surface 1305
0" - 32" Road base gravels

(0-2) 0" - 24" Black clays; stiff
A(0-2) slightly moist to dry
1357 no odor no stains

Continuous PID = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 1.1 ppm; Ave- 1.1 ppm
RAD = 14231 cpm

(Test Lab A - Duplicate)

(AC2-5') grayish black clays, stiff to med soft, moist to slightly moist.
1359
no odor, no stains

PID continuous = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 0.6 ppm; Ave 0.6 ppm
RAD = 15399 cpm

Location ______ Date ______

Project / Client ______

CP2102R
T.D = 20'
H_2O = 17.2'
Road base = 32"

samples: A, B, C + D
A(0-2') + A(2-5')
~~(Teh Lab A - Duplicate)~~
no TehLab - A Duplicate - lack of soil quantity

Location BFC Date 5/11/15

Project / Client SSP-1428

CP2102R

B (5-10')
1402
gray clays, stiff to med. soft, slightly moist to moist at 9' no odor no stains

PID Continuous at core = 0.0 Bkgd = 0.0 ppm
Bulk PID = Hi; 1.1 ppm; Ave. 1.0 ppm
RAD = 15236 cpm

(10-15')
C
1405
gray clays, stiff to med. soft slightly moist to moist with depth no odor no stains, very moist at 11.0
Continuous PID = 0.0 Bkgd = 0.0 ppm
Bulk PID = Hi 0.5 ppm; Ave = 0.5 ppm
RAD = 14914 cpm

D 15-20'
1419
grayish black clays, soft to very soft, very moist to wet at 17.2' - 19' [illegible] 19' - 20'
H_2O at 17.2' no odor no stains
Continuous over core = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.5 ppm; Ave = 0.5 ppm
RAD = 14,331 cpm

Location ______ Date ______

Project / Client ______

Location ______ Date 8/11/15

Project / Client SSP-1428

CP-4304 Concrete PAD 45" thick
45"-48" Subbase 3" gravel sands/silts/clays 48" total
Hand Auger @ 1503

0-2' 0-18" Brown clays; stiff, slightly moist,
A(0-2) no odor no stains
1510 18"-24" black organic rich clays soft moist,

PID 6" intervals = 0.4 ppm, Bkgd = 0.4 ppm
Bulk PID = Hi 1.1 ppm, Ave. 0.5 ppm
RAD = 2[illegible],973 cpm

(2-5) 2'-2.5' same litho as above,
A(2-5) then 2.5-5 - gray clays,
1525 soft, moist, somewhat loose; gray to light gray with depth;

PID 6" intervals = ~~0.0~~ 0.4 ppm, Bkgd = 0.4 ppm
Bulk PID = Hi 2.2 ppm, ave. 1.1 ppm
RAD = 22,515 cpm

Location ______ Date ______

Project / Client ______

CP 4304
H2O = 15.2'
T.O. = 17'
subbase = 48"

samples; A(0-2); A(2-5), B, C + D

Tek Lab A Duplicate sample

Location BFC Date 5/11/15

Project / Client SSP-1 $28

CP 4304

B (5-10) 1555 — gray clays, soft, moist, no odor no stain.

PID - Continuous = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = H. 1.3 ppm; Ave. 0.6 ppm
Rad = 22,619 cpm

C - 10-13 1600 — grayish brown clays; soft to very soft - moist to very moist, no odor no stains
wet at 12.8' - 13.0
PID - Continuous = 0.5 at 13; Bkgd = 0.0 ppm
Bulk PID = H. 1.4 ppm; Ave 0.7 ppm
RAD = 20,095 cpm

D ~~(13-17)~~ (15-20') 1604 — grayish brown clays; soft to very soft, very moist to wet at 15.2' no odor no stains

PID continuous = 0.7 at 15; Bkgd = 0.0 ppm
Bulk PID = Hi 1.4 ppm; Ave. 0.7 ppm
RAD = 22,986 cpm

Location ______ Date ______

Project / Client ______

⊗ concrete at 25.5" – will core remaining slab remaining in hole on 5/12/15

⊗ completed coring concrete left in CA-4306 @ 0834 5/12/15

slab#1 – 17" sub base – 8.5" } > 36"
slab#2 – 10.5"

Location BFC Date 5/11/15
5/12/15

Project / Client SSP-1428

CA 4306 Concrete slab = ~~18~~ 17" cut

subbase – ~~18~~ 17" – ~~24"~~ ~~28"~~ 25.5" cut

fill – clays + coarse sands; ~~Refusal at 25.5~~; | concrete

Teklab A-Duplicate

(0-2') A(0-2) 0920 — 0'-24" Grayish black clays, stiff, slightly moist; No odor no stains

PID Continuous = 0.0 ppm Bkgd = 0.0 ppm
Bulk PID = Hi 1.6 ppm; Ave 0.8 ppm
RAD = 21,395 cpm

A-2-5/ 2-5 0946 — Grayish black clays, stiff, slightly moist; slight increase in moisture with depth
No odor no stains

PID Continuous = 0.0 Bkgd = 0.2 ppm
Bulk PID = Hi 0.6 ppm; Ave. 0.6 ppm
RAD = 21033 cpm

Location ______ Date ______

Project / Client ______

CA4306
T.D.= 13'
H20= 8.9'
Sub base = 8.5 Total = 36"
Concrete = #1 = 17" #2 = 10.5"
Samples: A(0-2); A(2-5); B, C
Teklab A-Duplicate

CA-4306
T.D. 13'
H20= 8.9'
1st Concrete = 17"; Subbase = 8.5"
2nd Concrete = 10.5" Total 36"

Samples: A(0-2); A(2-5')
B+C Teklab A-Duplicate

Location BFC Date 5/11/15

Project / Client 55/1-1488

CA4306
(5-8')
B
10:05

gray clays, soft, moist to very moist at 8.9' - wet, No odor no stain

wet at ~~16.9~~ 8.9 = 17.5' RAD = 21,488 cpm

PID Cont. = 0.2 Bkgd. = 0.2 ppm

Bulk NO2H. 21,488 1.2 ppm; Avg. 0.6 ppm

C
(10-15)
10:15

Gray clays, soft to very soft, very moist to wet at 11.2

wet at 11.2'

PID Continuous = 0.0 Bkgd. = 0.0 ppm

Bulk NO2H. 0.0 ppm; Avg. 0.0 ppm

RAD = 20960 cpm

D
(15-20)

PID Continuous = ppm; Bkgd = ppm

Bulk NO2 H. ppm; Avg ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

CP-4305
T.D.= 17'
H2O= 16.2'
Concrete= 12" > 12" total
sub base = 0"
Samples: B, C + D
Crew #1 - A(0-2) + A(2-5)
Tek Lab A-Samples - Crew #1

⑧ Strong petroleum odor 9-13' - 420 ppm - Bulk sample PID

Location BFC Date 5/12/15

Project / Client SSA-1428

CP-4305
Samples A(0-2) & A(2-5) collected by Crew #1;
12" concrete pad; sub base 0"

B - 5-10' dk grey greyish black; clay; soft, moist
1049
no odor no visible stains
due to soil color
PID Continuous = 3.7-15 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 6.0 ppm; Ave = 3.0 ppm
RAD 19,480 cpm

C 10-13' Same lithology grey clays; soft, very moist.
1051
strong petroleum throughout
core - 10-15'; very moist to wet at 12.5
PID Continuous = 110-200 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 420 ppm; Ave. 400 ppm
RAD = 19945 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/14/15

Project / Client SSP 1428

15-20'
O ~~15-20~~' - same gray clays, soft
turning soft at 16.2' very moist
1056 to wet at 16.2'; grayish brown/dark
~~0556~~ no odor; no visible stains
wet at 16.2' - 17'

PID Continuous = 0.6 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 2.5 ppm ave. 1.0 ppm
RAD = 19,528 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/12/15

Project / Client SSF-1428

CP-4303 auger (collected A(0-2) + A(2-5) samples

Concrete pad = 14"
Sub base = 0" > 14" total

B-1214 (5-10') grayish brown clays, soft, moist to very moist. (poor recovery 1.5')
strong petroleum odor starts at 8.4-9'; appears to be stained, black (free water @ 9')

PID continuous = >100-40 ppm
Bulk PID = Hi 22 ppm, ave.
RAD = 17,953 cpm

Blank = 0.0 ppm

20

C-1218 (10-15') possible free product at 9'-9.2'
very thin layer over water @ 9'-9.2'
very strong petroleum odor (1.3' of recovery): sands, fine angular gravels 11.6-12.6'

PID continuous = 120' @ 10 ppm, Blank = 0.0 ppm
Bulk PID = Hi ppm, Ave
RAD = cpm

(PID of soil in plastic liner 200 ppm)

then Black clays 12.6-13'; plastic liner coated with hydrocarbons;
(* Terra Core samples only) + water sample

Location _____ Date _____

Project / Client _____

CP4303
T.D.= 17'
H2O= 9'
Concrete = 14"
sub base = 0"

(Crew #1: samples: A (0-2) + #2-5')
Tek Lab - A - duplicate
Samples: B + C - Terra Core only

⊗ Strong petroleum odor/possible thin layer of free product at 9-9.2'
PID = 200 ppm

Location BFC Date 5/12/15

Project / Client SSF-1428

CP-4303
(5-20?)
0

1239

15-20 - Grey clay; very soft, no sample collect
below water + petroleum impacted soils no noticeable odor
Very moist to wet 15-20'. no stains

PID - continuous = 8.6 ppm; BKgd = 0.0 ppm
Bulk PID = Hi; NA ppm; ave. NA ppm
RAD = NA cpm

Location _____ Date _____

Project / Client _____

⊛

CP-264
T.D. 13'
H_2O = 11.5
Concrete = 26"
Sub base = 0"
(Crowell: A(0-2)+A(2-5)+
Teklab Sample #s Duplicate
Samples: B, + C only)

⊛ Very strong petroleum odor - 7-9'; PID = 295 ppm
petroleum odor - 9-11.5'; PID = 214 ppm

Location BFC Date 5/12/15

Project / Client SSP-1428

CP 264 - Concrete slab 26"
sub base = 0" total 26"

(5-10') 5-10. Gray clay, soft to
B very soft at 8.5-9'; moist to
332 very moist at 8.5-9'; strong petroleum
odor - stained dk gray 7-9'

PID Continuous = 64-240 ppm, Bkgd = 0.0 ppm
Bulk PID-Hi 295 ppm, Ave. > 200 ppm
RAD = 18, 250 cpm

(10-13') 10-13 Sand gray clays, strong petroleum
C odor to = 11-11.5', then
337 wi water 11.5-13' - grayish brown
clays; staining 9'-11.5' dk gray.

free water at 11.5'
PID Continuous = 120 → 25 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 295 (9→11.5) ppm; Ave. > 200 → 140 ppm
RAD = 18.576 214 cpm

Location _____ Date _____

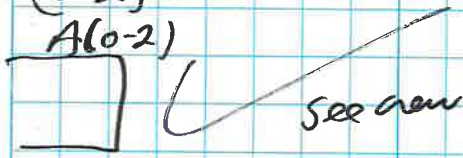
Project / Client _____

Location BFC Date 5/12/15

Project / Client SSP-1428

CP0203 concrete PAD = 10"
sub base = 0"

(0-2)
A(0-2)



PID Continuous = 0 ppm; Bkgd = ppm
Bulk PID = Hi 2.0 ppm; Ave. 1.0 ppm
RAD = cpm

A(2-5) see earth / field book

5-10'
B
1426

Grayish brown / gray clay; soft - med stiff, med. st, no odor no stain.

PID continuous = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 2.0 ppm; Ave. 1.0 ppm
RAD = 18229 cpm

Location ______ Date ______

Project / Client ______

CP 0203
T.D. = 17'
H20 = 15.0'
Concrete PAD = 10"
Sub base = 0"

A(0-2) + A(2-5) + 7 dkleds
A-duplicate ~~...~~ by Chem#1

Samples: B; C+D

Location BFC Date 5/12/15

Project / Client SSP 1428

CP 0203 ~~10-15~~ – same clays, + color
C (~~10-15~~) moist to very moist at
1429 12-13'; soft to very soft
no odor, no visible stains.

PID continuous = 0.5 ppm at 12.5'; Bkgd 0.0 ppm
Bulk PID = Hi; 0.4 ppm; Ave 0.2 ppm
RAD = 19,550 cpm

15-20'
~~20-25~~ – grayish brown/gray clays,
D ~~20~~ 15-~~..~~ very soft; very moist to
wet at 15.0';
1438 no odor no stains

Free water @ 15' (wet)
PID – continuous = 0.0 ppm; Bkgd = 0.0
Bulk PID = Hi; 2.0 ppm Ave; 1.0 ppm
RAD = 17,798 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/12/15

Project / Client SSP 1428

Tehlab - Geoprobe

CP-0202 Concrete RAD = 4.5"
sub base = ~~6"~~ 5"
gravels, sands, silts & clays

(0-2) gray clays, stiff, slightly moist, no odor no stains
A(0-2)
1530

PID continuous = 0.0 ppm Bkgd = 0.0 ppm
Bulk PID Hi 7.0 ppm; Ave. 3.5 ppm
RAD = 24,489 cpm

(2-5) gray clays, stiff, slightly moist, no odor no stains
A(2-5)
1533

RAD = 23,736 cpm
PID Continuous = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID Hi 1.5 ppm; Ave. 0.7 ppm

B-(5-10')
1537
gray clays, stiff, softer with depth, moist, faint petroleum odor at 7.3 to 9'; very moist at 9.0'

PID = Cont. 12 ppm @ 7.3; 5 ppm at 6'
5 ppm at 8'

Bulk PID Hi = 32 Ave. 30 | RAD 23,~~736~~ 498 cpm

Location ______ Date ______

Project / Client ______

CP-0202
T.O. = 13'
H2O = 12.3'
Concrete = 4.5" } 5.0" total
sub base = .5"
Samples: A(0-2); A(2-5);
B&C
TekLab: A-Duplicate

Faint Petroleum odor ~ 3 to 9' (PID = 12 ppm)
PID Bulk sample = 32 ppm

Location BFC Date 5/12/15

Project / Client SSP-1428

CP-0202 — gray clays soft to (~~10~~ 13') slightly stiff below 12', moist to very moist at ~~12~~ 13' (wet)
no odor no stains

1540

PID Continuous = 0.0 ppm, Background = 0.0 ppm
Bulk PID = A. 0.6 ppm; ave 0.4 ppm
RAD = 23 ~~495~~ 627 cpm

D (~~1520~~)

CONTENTS

PAGE	REFERENCE	DATE

Location BEC Date 5/13/15

Project / Client SSP-1428

CP-0204

Concrete slab = 12"

Sub base =

A(0-2') + A(2-5') collected by Crew #1 on 5/12/15

B (5-10') Black / grayish black clays, stiff to med. soft, slightly moist.

0807 No odor, no visible stains.

very moist at 10'.

PID Cont. = 1.9 @ 0.4 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 14.4 ppm; Ave. 13.0 ppm

RAD = ~~20,400~~ cpm

20,074

C (@13') grayish brown / gray clays, soft to very soft, moist to very moist at 12.8'

0811

very moist at 12.8'

PID Continuous 2.7 @ 10' ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: ~~3.4~~ 12.3 @ 10' ppm; Ave. 12.0 ppm

RAD = 20,400 cpm

Location _____ Date _____

Project / Client _____

CA 0204
T.D = 17'
H2O = 16.9'
Concrete = 12" → 15" total
Sub base = 3"

samples: ~~A~~, B + C + D

PID Hi = 12.3 @ 10'
no odor, no stains viz. bb

Location BFC-- Date 5/13/15

Project / Client SSA 1428

0815

1) (13-20') grayish brown, clays soft to very soft, very moist to wet at 16.9

~~wet at 16.9~~ water at 16.9'

PID cont. = 3.1 @ 16.7'; Bkgd = 0.0

Bulk PID = Hi: 8.6 ppm Ave 7.5 ppm

MD = 20,185 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/13/15

Project / Client SSP-1428

5/13/15

CP-0207 0-10' Concrete PID= 10"-
sub base 10"-12" coarse grands-3" diam
dolomite, sand & lts tclays

(0-2) Black organic rich clays. 0-1.5
A(0-2), 1.5' thin gray clays, stiff, to
mod soft at 2', slightly moist to
dry no odor no stains
1253 Roof fragments visible

PID Continuous: 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: 0.1 ppm; Ave. 0.1 ppm
RAD= 25,683 cpm

(2-5') grayish brown- 2-2.5
A(2-5') thin grayish black clays. to 4.5
thin brown clays at 4.5-5.0'
1302 stiff to mod soft At 5', slightly moist

PID Continuous = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID= Hi: 0.5 ppm; Ave. 0.1 ppm
RAD= 24,546 cpm

(BD-20-05/18/15)

8

Location _____ Date _____

Project / Client _____

CP- 0207
T.D- = 17'
H2O = 16.7'
Concrete = 10" >12"
sub base - 2"

Sample: A(0-2), A(2-5);
Samples: A, B, C + D
A-Duplicate: BD-20-05/13/15
PID=Hi 31 ppm @ 10.5'

0822 5/14/15
Note: All VOA's contained 5 ml of fluid before adding soil plugs

Location BFC Date 5/13/15-5/14/15

Project / Client SSA-1428

5/14/15 0207

CP0207 0-8' gray to dk gray clays, stiff; B (5-10) slightly moist;

1158

no odor possible dk stains - 5-6.5'

8-10' gray clays

PID Continuous= 1.3 @ 6.5' ppm; Bkgd= 0.4 ppm
Bulk PID=Hi 2.2 ppm; Ave. 2.1 ppm
RAD= 25458 cpm

10-15' grayish brown clays, mod soft to soft, moist,

C

1201

very moist to wet at 12.8'

no noticeable odor @ 10.5' no visible stains

PID Cont. = 31 @ 10.5' ppm; Bkgd= 0.4 ppm
Bulk PID=H, 3.5 ppm; Ave. 3.0 ppm
RAD= 24,548 cpm

15-20' grayish brown clays; soft to very soft, very moist to wet at 16.7';

D

1206

no noticeable odor; no noticeable stains

PID Cont. = 14' @ 15' ppm; Bkgd= 0.4 ppm
Bulk PID= Hi 19.6 ppm Ave 16.0 ppm
RAD= 25,146 cpm

10

Location ______ Date ______

Project / Client ______

11

Location BFC Date 5/13/15

Project / Client SSP- 1428

(BO-21-05/13/15)

CP-0205 Co Concrete/Asp = 12"
(gravels/sands silts/clays) Sub base = 4' → Total 16"
Auger 13:11

(0-2') black clays, stiff - 0"-6";
A(0-2') 6"-24- grayish brown clays,
1318 stiff to mod soft, slightly moist,
to dry, no odor no stains
PID - Continuous = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = H: 0.0 ppm; Ave 0.0 ppm
RAD = 26,590 cpm

(2-5') 2-2.5 Black clays, stiff, slightly moist
A(2-5') 2.5-3.0 - Brown clays (fill);
1328 3.0-4.0 gray clays, stiff, mod soft
at 4.5-5.0, slightly moist. no odor
no stains color changes to brown 4.5-5.0'
PID cont. = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = H: 0.0 ppm; Ave: 0.0
RAD = 27,990 cpm

(5-10') gray clays - 5-8' [illegible]
B grayish brown clays 8-9', stiff
1608 slightly moist, no odor, no stains

PID cont. 0.0 ppm; Bkgd = 0.0
Bulk PID-H: 0.0; Avg: 0.0
RAD = 26,460 cpm

Location _____ Date _____

Project / Client _____

CP-0205
T.O. = 17'
H2o = 16.3'
Concrete = 12" } Total 16"
Sub base = 4" }

Samples: A(02), +A(2-5),
A- Duplicate: BD-24-05/13/15
B. C+D

Faint to moderate petroleum odor
10-16.3'

Location BFC Date 5/13/15

Project / Client SSA1428

CP-0205 (9-16')

C (1622) gray clays, soft, moist to very moist; faint to mod. petroleum odor; @ 10-13';

PID Cont. = 25 @ 11.5' ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 28.4 ppm; Ave = 20.0 ppm
RAD = 25,912 cpm

D (5-20) (1632) gray/brown clays, very soft, moist to very moist 13-14.8
faint petro. odor, 13-16.3'

Wet at 16.3'
PID Continuous = 9.4 @ 14 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 7.7 ppm; Ave. 4.2 ppm
RAD = 25.63 cpm

Location _____ Date _____

Project / Client _____

CP-0206
T.D = 17'
H20 = 16.4'
Concrete = 12" } Total 15"
Sub base = 3" }
Samples: B, C + D

Location BFC Date 5/13/15

Project / Client SSP 1428

0-12"

CP-0206 Concrete PAD
Sub base = 12"-15"

A(0-2) } collected by Crew #1
A(2-5) } + A-Duplicate

(5-10') gray clays; stiff, slightly moist, no odor, no stains
B
1541

PID cont. = 0.9 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 6.4 ppm; Ave = 4.0 ppm
RAD = 26,500 cpm

10-15' grayish brown clays, no odor, no stains
C soft to very soft at 12.7'; moist to
1546 very moist at 12.7' RAD 24,743 cpm
PID cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.8 ppm; Ave 0.4 ppm

15-20 grayish brown clays, very
D soft, very moist to wet at
1549 16.4' no odor, no stains

PID Cont. = 7.0 @ 14.8' ppm; Bkgd = 0.0 ppm
Bulk PID = Hi = 0.4 ppm; Ave = 0.2 ppm
RAD = 28,885 cpm

Location ____ Date ____

Project / Client ____

Depth	PID
2.0	3 ppm
2.5'	5
3.0'	6
3.5'	8
4.0'	9
4.5'	6
5.0	6

Location BFC Date 5/13/15

Project / Client SSP1428

(A-Duplicate: BD-22-05/13/15)

CP0208 Concrete pad = ~~7"~~ 11"
sub-base = 3 total 14"
gravels, sands, silts & clays

(0-2) (fill) mix of black clays & pea sand
A(0-2) gravels 0"–6";
1430 Black clays – 6"–12" gray clays
12"–18", 18"–24 – grayish black
clays stiff; slightly moist; slight petroleum odor
PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 48 ppm; Ave = 15 ppm
RAD = 21,882 cpm

(2-5) gray clays 2-3; then
A(2-5') ~~3-6'~~ 3-5' grayish black/black clays;
1442 stiff – med soft, slightly moist,
slight petro odor;
PID Cont = see table ppm; Bkgd = ppm
Bulk PID = Hi: 22.3 ppm, Ave = 11.0 ppm
RAD = 19,915 cpm

(5-8') 5-8' gray clays; possible staining,
B 1454 then 8' – Brown clays; grayish brown
stiff, faint petro odor @ 6'
PID Cont. 9.0 @ 6" ppm; Bkgd. 0.0 ppm
Bulk PID Hi: 26.3 ppm; Ave = 23 ppm
RAD = 19315 cpm

Location ____ Date ____

Project / Client ____

CP-0208
T.D. = 17'
H_2O = 15.8'
Concrete = 11" } Total 14"
sub base 3"
Samples: A(0-2); A(2-5) B
C + D
A-Duplicate: BD-22-051315

Slight petroleum odors from 2-15.7' - PID Hi = 20 ppm

* Note: All sample doubled checked for soil content + establish VOA's container methanol before filling with soils; - All samples properly filled + ready for shipment to lab 1730

Location BFC Date 5/13/15

Project / Client SSP M28

CP-0208 (10-15')

C (1457)

Brown clays; grayish brown soft to very soft at 12-15'

Very moist to wet at 12';

slight petro odor;

PID cont. 12.0 @ 11.0' ppm; Bkgd = 0.8 ppm

Bulk PID = Hi: 8.6 ppm; Ave. 8.0 ppm

RAD = 19,316 cpm

(15-20')

D (1500)

Sand lithology, very moist to wet at 15.8'

v. soft. very faint petro odor;

Wet at 15.8'

PID cont. 9.4 @ 15.7' ppm; Bkgd = ~~0.0~~ 0.8 ppm

Bulk PID = Hi: ~~8.6~~ 20.0 ppm; ave. ~~8.0~~ 10.0 ppm

RAD = 20,416 cpm

Av. PID - over length of core - ~~4~~.0 - 9.0 ppm

8

Location _____ Date _____

Project / Client _____

CP- 0207
T.D- = 17'
H2O = 16.7'
Concrete = 10" >12"
sub base - 2"

Sample: A(0-2), A(2-5);
Samples: A, B, C + D
A-Duplicate: BD-20-05/13/15
PID=Hi 31 ppm @ 10.5'

0822 5/14/15
Note: All VOA's contained 5 ml of fluid before adding soil plugs

Location BFC Date 5/13/15-5/14/15

Project / Client SSA-1428

5/14/15 0207

CP0207 0-8' gray to dk gray clays, stiff; B (5-10) slightly moist;

1158

no odor possible dk stains - 5-6.5'

8-10' gray clays

PID Continuous= 1.3 @ 6.5' ppm; Bkgd= 0.4 ppm
Bulk PID=Hi 2.2 ppm; Ave. 2.1 ppm
RAD= 25458 cpm

10-15' grayish brown clays, mod soft to soft, moist,

C

1201

very moist to wet at 12.8'

no noticeable odor @ 10.5' no visible stains

PID Cont. = 31 @ 10.5' ppm; Bkgd= 0.4 ppm
Bulk PID=H, 3.5 ppm; Ave. 3.0 ppm
RAD= 24,548 cpm

15-20' grayish brown clays; soft to very soft, very moist to wet at 16.7';

D

1206

no noticeable odor; no noticeable stains

PID Cont. = 14' @ 15' ppm; Bkgd= 0.4 ppm
Bulk PID= Hi 19.6 ppm Ave 16.0 ppm
RAD= 25,146 cpm

Location _____ Date _____

Project / Client _____

CP263
T.D. = 17'
H2O = 15.9'
Concrete = 15"
Sub base = 0"
Samples: A(0-2); A(2-5')
B, C, D

A-Duplicate: 30-20-05/14/15

Strong Petroleum odor 9-11.6' PID = 385 ppm

(X) All VOA's had fluids before placing soil plugs in bottles.

Location BFC Date 5/14/15

Project / Client SSA-1428

CP263 Concrete Pad = 15" (3 pieces)
Sub base = none

(0-2) 0-2' Reddish brown clays, mixed with A(0-2)' black + brown clays (fill material)
13:25 to 24", dry to slightly moist, ~~stiff~~ Brittle to stiff;
no odor no stains
PID Cont. 0.0-0.3 ppm; Bkgd = 0.0-0.3 ppm
Bulk PID = Hi 2.9 ppm; Ave. 2.0 ppm
RAD = 19,490 cpm

2'
A(2-5') 2-3' Grayish brown, stiff - dry to slightly moist;
13:40 3-4.5' gray, slightly dk gray, stiff, dry
no odor no stains
dk gray at 4.5'-5.0'
PID Cont. 0.4 ppm; Bkgd = 0.4 ppm
Bulk PID = Hi 1.2 ppm; Ave. 0.6 ppm
RAD = 19,205 cpm

Location _____ Date _____

Project / Client _____

Location BJC Date 5/14/15

Project / Client SSA-1428

CA263 (5-10') gray/dk gray to black Clays, soft, moist, petroleum odor-faint. 8.7-9.0 to 10'

B 1352

PID Cont. 55 @ 8.7' ppm; Bkgd = 0.4 ppm
Bulk PID=Hi 122 ppm; ave. 115 ppm
RAD = 19,214 cpm

(9-13') Gray clays, soft to very soft

C 1356

@ 9.7' - strong petroleum odors - 9 to 11.6'
Hom faint to slight - 11.6 - 13';
very moist to wet at 12.8'; - poss. bedrock

PID Cont. 245 @ 9.3' ppm; Bkgd = 0.4 ppm
Bulk PID=Hi 385 ppm; ave. 300 ppm
RAD = 19,432 cpm

(13-20') grayish brown clays; soft to very soft - moist to very moist

D 14:00

wet at 15.9'
Very faint petroleum odor ~~13-15'~~ @ 15'
Free water 15.9'

PID Cont. 49 @ 15' ppm; Bkgd = 0.4 ppm
Bulk PID=Hi 5.2 ppm; ave. 1.4 ppm
RAD = 19,138 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/14/15

Project / Client SSPIMS

(A-Duplicate: BD-21-05/14/15)

CP-4302 0-33" (concrete core = 33"
sub base (none)

(6-21) 0-2 Gray clay, soft to med st.ff,
A(0-2) (some moisture due to core fluids);
1515 no odor, no stains.
(fill materials)

PID cont. = 0.0 ppm; Bkgd = 0.4 ppm
Bulk PID = Hi 2.2 ppm; avg = 1.0 ppm
RAD = 18,915 cpm

(2-5') (fill material) mixed black, gray clays &
A-(2-5) gravels & sands, well Rounded
1530 structural sands, angular dol/limestone
gravels, brown clays, tan/brown sands;
soft; moist to wet; @ 5.0' - Possible free product
At 4.5-5'
PID cont. 0.0 ppm; Bkgd = 0.4 ppm
Bulk PID = Hi - 3.9 ppm; avg = 1.0 ppm
RAD = 18,626 cpm

petroleum in solution?! - slight sheen on
free water?? strong petroleum odor no tail

Location _____ Date _____

Project / Client _____

CP4302
T.D. = 17'
H20 = 13.9'
Concrete = 33"
Sub base = 0"

Samples: A(0-2'); A(2-5');
~~B~~ C+D +
~~@430-25 (@ 4.6-5')~~
A-Duplicate: BO-21-05/14/15

(4302S- @4.5-5') sample
Strong petroleum odor - high
PID = 523 ppm - Bulk sample

All VOAs contained fluids
before following with soil plugs

Water sample collected from auger
~~collected~~ no visibles sheen or free product
noted on water sample

Location BFC Date 5/14/15

Project / Client SSP-1428

CP4302 (5-B')
B
1550
< 1 foot recovery
(All gravel - no sample)
sand clays & sands mixed - gravels
1-2", angular; dol/limestone
NA

PID Cont. ppm; Bkgd= ppm
Bulk PID = Hi ppm; Ave. ppm
RAD = ~~15~~ 150 cpm

10-13 Gray clays, possible stained
C soils very moist, very soft
1556 9-13', strong petroleum odor;
moist to wet 13'-14.5'

PID Cont. 67 ppm @12' ppm; Bkgd= 1.1 ppm
Bulk PID = Hi 523 ppm; Ave. 500 ppm
RAD = 18,320 cpm

13-20' gray clays; poss. stained,
D strong to petroleum odor - very
1603 moist to wet; ~~13.5'-14.5'~~ @ 15'
odor decreases with depth; slight to mod. odor
~~Wet at 13.9'~~

PID Cont. 19 @ 15.6' ppm; Bkgd= 1.1 ppm
Bulk PID = Hi 35.8' ppm; Ave 30.0' ppm
RAD = 18,460 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/15/15

Project / Client SSP-1428

CP- 430/ Core Concrete 0744
0"- 13" Concrete Part= 13"
13"- 13" Sub base = 0"

(0-2) 0"-24 Reddish brown clays;
A(0-2) slightly moist, soft. (Fill materials)
0818 no odor no stains

PID Cont. = 0.3 ppm; Bulk = 0.3 ppm
Bulk PID=Hi 1.8 max 1.8 avg
RAD= 24502 cpm

2-5 2-5 Reddish brown clays,
A(2-6) soft, moist (Fill materials)
0840 2.5-4.5 pieces of weathered claystone bedrock; +
soft bedrock fragments; @4.5' bluish gray;
PID Cont. 0.4 ppm; Bkgd= 0.4 ppm
Bulk PID=Hi 0.4 ;avg 0.4 ppm
RAD= 24.440 cpm

Location ______ Date ______

Project / Client ______

CP 4301
T.D.= 15'
H_2O= 14.3'
Concrete = 13"
Sub base = 0

Samples: A(0-2), A(2-5), B, C + D
A-Duplicate: BD-20-05/15/15

Location BFC Date 5/15/15

Project / Client SSP-1428

~~4.5-7~~ 5-10'

CP 4301 (~~5-8~~) 5-10'

B — 0850 — gray clays, soft to med stiff; moist; no odor, no stains

PID cont. = 0.5 ppm Bkgd = 0.5 ppm
Bulk PID = Hi 1.4 ppm Ave. 1.3 ppm
RAD = 23587 cpm

~~9-11'~~ 10-15'

C — 0855 — grayish brown; clays, soft to med stiff; soft at 12', moist to very moist at 12'. no odor no stains
wet at 14.3'

PID cont. = 0.4 ppm; Bkgd = 0.4 ppm
Bulk PID = Hi 1.2 ppm; Ave. 1.0 ppm
RAD = 24251 cpm

~~[illegible]~~ 15-20'

D — 0905 — grayish brown clays soft to very soft; very moist to wet
No odor no stains

PID Cont. = 0.6 ppm; Bkgd = 0.6 ppm
Bulk PID = Hi 0.8 ppm; Ave. 0.8 ppm
RAD = 23.409 cpm

Location ______ Date ______

Project / Client ______

1st core 11"

note: 3" into top of 1st core has layer of black/brown coating between lower portion of 1st core ~~[illegible]~~ 6" of sub base gravels/clays,

2nd 10"

Concrete core = 10"   total 1st + 2nd slabs + layer between = 27"

Location BFC   Date 5/15/15

Project / Client SSP 1428

CP-3203 core concrete @ 1009

0" – 11" Concrete RAD = 11"

11" – 17" sub base = 2" + 4" clays

17" – 27" 2nd slab of concrete

(0-2') 0'–2.0' grayish brown clays; soft, slightly moist to moist;

A(0-2')

1113

2'-5' Brown clays, soft, moist, black clay

no odor no stains

(fill materials 0-2')

PID Cont. = 0.6 ppm ; Bkgd = 0.6 ppm

Bulk PID = Hi 1.5 ppm; Ave. 0.6 ppm

RAD = 2205 cpm

(2-5') 2 - 3' mixed black/brown clays, soft, moist;

A(2-5')

1128

3 - 5' gray clays, soft, slightly moist, stiff; large gravel (4" diam) at 4.5' (Fill materials)

no odor no stains.

PID Cont. = 0.6 ppm; Bulk = 0.6 ppm

Bulk PID = Hi 1.2 ppm; Ave. = 1.2 ppm

RAD = 21345 cpm

Location _____ Date _____

Project / Client _____

CP-3203
T.D. = 20'
H20 = 16.9'
1st Concrete Slab = 11" Total
Sub base = ~~6~~ 6" } 27"
2nd Concrete slab = 10"
Sample: A(0-2'); A(2-5'),
B, C+D
A-Duplicate = BD-27-05/15/15

All VOA's contained fluids before adding soil plugs

Location BTC Date 5/15/15

Project / Client SSP-1428

CP-3203 (5-10') B 1142 — grayish brown clays, soft to very soft; moist; no odor no stains

PID-Const. 0.7 ppm; Bkgd = 0.7 ppm
Bulk PID = Hi 1.2 ppm; Ave. 1.2 ppm
RAD = 21786 cpm

(10-15') C 1147 — grayish brown clays, soft to very soft. moist to very moist; no odor no stains

PID Const. = 0.7 ppm; Bkgd = 0.7 ppm
Bulk PID = Hi 1.6 ppm; Ave. 1.6 ppm
RAD = 20664 cpm

(15-20') D 1150 — grayish brown/gray clays, very soft to wet at 16.9'; no odor, no stains

water @ 16.9'

PID Const. 0.7 ppm; Bkgd 0.7 ppm
Bulk PID = Hi 1.6 ppm; Ave. 1.6 ppm
RAD = 20,532 cpm

Location ______ Date ______

Project / Client ______

5/18/15 @ 0850

@ moved location ~1' east of original boring.

* All VOA's contained liquids before placing soil in VOAs

Location BFC Date 5/18/15

Project / Client SSPA-1428

CP- 2105 A gravel surface 0850
<2" of gravels + clays

(0-2) reddish brown clays, + gravels
A(0-2) 0-2' stiff, slightly moist,
0900 no odor no stains

(Tech Lab A-Duplicate)

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 2.2 ppm Avg. 2.0 ppm
RAD = 13,253 cpm

A (2-5) same color + litho; 2-2.5
A(2-5) then brown clays: 2.5-3.0
0914 then black organic rich clays 3-5.0'
stiff - med soft, slightly moist
no odor no stains

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 1.7 ppm; Avg 1.5 ppm
RAD = 14145 cpm

Location ______ Date ______

Project / Client ______

CP-2105A
T.D= 20'
H2O= 18.75'
Gravel surface only

Samples: A(0-2); A(2-5)
A, B, C, + D

Tek Lab - A (Duplicate)

⊛ All VOA's for all samples contained soil + fluids when placed in cooler
1009
[illegible]
5/18/15

Location BFC Date 5/18/15

Project / Client SSAA-1428

CP-2105A

B 5-10' 0920 dk gray to black clays soft to mod soft, moist, no odor no stains;

PID Conc. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 2.3 ppm; Avg. 2.0 ppm
RAD = 12883 cpm

C 10-15 0934 same litho + color soft to very soft at 13'-13.4' no odor no stains

Water at 13.25' - 15'
PID Conc. = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi 2.9 ppm; Avg 2.7 ppm
RAD = 12246 cpm

D 15-20' 0945 grayish brown clays soft to very soft, moist to very moist wet 15-15.25; same grayish brown clays.
+ again wet
wet at 18.75'-19.5'

PID = 0.0 ppm; Bkgd = 0.0
Bulk PID = Hi: 4.5 ppm; Avg = 3.0 ppm
RAD = 13,848 cpm

Location _____ Date _____

Project / Client _____

5/18/15 @ 1039

⊗ move location ~2' east of original boring location.

CP-2104R
T.D=
H2O=
Road base = 32"
Samples: A(0-2) + A(0-5)

TekLab & Daylight

Location BFC Date 5/18/15

Project / Client SSPA-1428

CP-2104R Gravel surface
0"-32" hand Auger @ 1043
coarse gravels, sands, silts clays.

(0-2') Grayish black/black clays, A(0-2) stiff; organic/root fragments frequent throughout; 1107
no odor no stains

PID Const. 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 19.8 ppm; Avg = 10.0 ppm
RAD = 14329 cpm

(2-5') Black organic rich clays, moist
A(2-5) faint petroleum odor @ 3.0'
1125 strong petroleum odor @ 3.8-4.0' to 5.0'
soft to med. stiff
11@ 5.0';
PID Const. = 286 @ 4.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 712 ppm; Avg. 200 ppm
RAD = 13541 cpm

Location _____ Date _____

Project / Client _____

Bulk

Location BFC Date 5/18/15

Project / Client SSPA-1428

CP-2210 Hand auger @ 1244

0' - 24" Gravel surface - gravels, sands, silts, +clays; loose, dry

(Tek-Lab - A Duplicate)

A(6-2) 1305 gray/grayish black, clays, stiff, slightly moist, no odor no stains;

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID - Hi 9.8 ppm; Avg = 6 ppm
NaOz 14218 cpm

Q-5) 2-3' Black clays

A(2-5) 1320 2-5' Brown clays, stiff, slightly moist; distinct petroleum odor at 4.5-5.0'; strong. (paint odor)

PID Cont. 20 ppm @ 4.5-5.0' ppm; Bkgd = 0.0 ppm
Bulk PID - Hi 369 ppm; Avg = 250 ppm
NaOz = 15,249 cpm

Location _____ Date _____

Project / Client _____

CP-2210
TD. = 25'
H20 = 24.5'
Gravel surface = 24"

Samples: A(0-2); A(2-5)
B, C, D & E

Tek Lab A - Duplicate

C
PID
10.9 = 59 ppm
12.3 = 76 ppm

Location BFC Date 5/18/15

Project / Client SSPA-1428

CP-2210

(5-10') gray clays / gray ish brown - 5-8', B 1327 mod. faint petroleum odor - 5.7'; then very faint 7-8'; slightly moist 8-10' Black clays, organic rich slightly moist., stiff - mod soft.

PID Const. = 3.8 @ 5.5' ppm; Blank = 0.0 ppm
Bulk PID = Hi: 337 ppm; Avg = 100 ppm
RAD = 14,713 cpm (faint odor)

10-15' gray / gray ish brown clays, C 1340 stiff to mod. soft; slightly moist, possible fracial 10-14', moist at 14-15' faint - mod. petroleum odor; decreases at 13.5'

PID Const. = 76 @ 12.3 ppm; Blank = 0.0 ppm
Bulk PID = Hi: 1,243 ppm; Avg = 508 ppm (faint odor)
RAD = 14,536 cpm

15-20' sandy clays, gray / gray ish brown D 1358 soft., moist, very faint petroleum odor - 15-18', possible stratacies 15-18'

PID const. = 18.0 @ 17.9' ppm Blank = 0.0 ppm
100.0
Bulk PID = Hi: 83 ppm; Avg = 60.0 ppm
RAD = 13 893 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/18/15

Project / Client SSPA-1428

CA 2216

E 20-25' - gray/grayish brown clay, soft to very soft at 24.5-25' moist to very moist at 24.5-25' water @ 24.5'

1405

Very faint chemical odor 20-23' (paint like odor)

PID Cont. = 6.9 @ 22.3' ppm; Bkgd = 0.0 ppm, Avg = 50 ppm

Bulk PID = Hi: 252

RAD = 13,893 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/18/15

Project / Client SSPA(428

CA0602 - Gravel surface

0"-24' - gravels, sands, silts & clays - gravels > 3" diam.

Hand Auger @ 1545

(0-2) Fill materials; mixed gravels, sands, silts & clays; gray & black clays; dry - loose; no odor no stains

A(0-2)

1557

PID Cont. = 0.0 ppm; Bkgd 0.0 ppm

Bulk PID = Hi 0.7 ppm; Avg = 0.3 ppm

RAD = 16184 cpm

(2-5) Gray clays, soft, slightly moist, no odor, no stains

A(2-5')

1606

PID Cont. = 0.0 ppm; Bkgd 0.0 ppm

Bulk PID = Hi 0.5 ppm; Avg = 0.3 ppm

RAD = 14979 cpm

Location ______ Date ______

Project / Client ______

CP-0602
T.D. = 20'
H2O = 19.0'
Road base = 24"

sample = A (0-2), B (2-5),
B, C + D

Tellus-A-Duplicate

1) original location - obstruction at 2.5'
2) * moved boring 1- East -
obstruction @ 2.5';
3) (*) moved 2nd time 8' - E-NE per
Adam Hobson instructions @1530
1540 obstruction at 2.5' able to
auger to 42" Another obstruction
encountered;
able to push through 2" obstruction
& collect sample (2-5);

Location BJC Date 5/18/15

Project / Client SSPA-1428

CP-0602 - (5-10')

B
1610

gray clays, stiff to med soft at 9'; moist,
no odor no stains

PID cont. 0.0 ppm; Bkgd. 0.0 ppm
Bulk PID = Hi 4.1 ppm; Avg. 3.7 ppm
RAD = 15891 cpm

(10-15') gray clays, soft, moist,
C
1615

no odor no stains

PID Cont. = 0.0 ppm; Bkgd. 0.0 ppm
Bulk PID = Hi 5.5 ppm; Avg. 5.0 ppm
RAD = 15836 cpm

(15-20') grayish brown clays, soft
D
1620

to very soft, moist to wet at
19.0' - (H2O) - 20'
no odor no stains

PID Cont. = 0.0 ppm; Bkgd. 0.0 ppm
Bulk PID = Hi; 4.4 ppm; Avg. = 3.0 ppm
RAD = 16510 cpm

Location _____ Date _____

Project / Client _____

Location BTC Date 5/19/15

Project / Client SSFA 1428

Morning RAD source check:
3116376
CP-0601 - Gravel/Sand
0-6" coarse gravels, sands silt & clays
Hand Auger @ 0843

(0-2) Brown clays, s.t.ff, slightly
A(0-2) moist; (fill?)
0854 no odors no stains.

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID-Hi: 0.4 ppm; Avg = 0.2 ppm
RAD = 14,991 cpm

(2-5) Brown clays. s.t.ff to mod.
A(2-5) soft at depth, slightly moist,
0911 to moist at 5'; (fill?)
no odor no stains

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID-Hi: 1.4 ppm; Avg. 0.7 ppm
RAD = 15705 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/19/15

Project / Client SSPA-1428

CA 0601

(5-10) mixed gray/brown/black clays, + gravels; (1.3' recovery).
B dry, stiff. fill no targets
0927 no odor no staining

MD Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk MD = H. 0.0 ppm 0.0
RAD = 14192 cpm

10-15 (poor recovery < 1.8')
C mixed black, brown, gray clays, moist soft
0938 with coarse grounds; 2-3" rocks in end of plastic liner at refusal depth 14'.
⊗ Free water at 13.3'
MD cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk MD = Hi 2.5 ppm; Avg = 1.5 ppm
RAD = 14043 cpm.
Refusal 14' hit rocks;

Location ____________ Date ____________

Project / Client ____________

Location BFC Date 5/19/15

Project / Client SS/A/428

CP- 2202 Gravel/Surface

0" – 6" coarse Gravels, sands, silts, clays, membrane @ 6" depth

Hand Auger @ 1014

(0-2) 0-2' grayish brown clays, stiff; slightly moist, mixed with coarse gravels, (fill materials)

A(0-2)

1037

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 2.7 ppm; Avg. 2.4 ppm

RAD = 12982 cpm

(2-5) Fill materials.

A(2-5) encounter 6" piece of sandstone boulder between 30" – 36" below base of gravels onto; mixed - blk, gray, lt. gray, red clays green clays & gravels & sands – 2-4.5; 4.5-5' black clays soft.

1100

PID-Int. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 2.3 ppm; Avg = 2.0 ppm

RAD = 13505 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/6/15

Project / Client SSPA-1428

CP-2202

(5-10') S- black clays, / grayish black stiff 5-9'- then soft 9-10'

B

1108 mod. petroleum odor at 9-10';

slightly moist;

PID Ent= 47 @ 9.5' ppm; Blank 0.0 ppm

Bulk PID= Hi 2.0 ppm; Avg= 1.0 ppm

RAD= 12,992 cpm

(10-15') Black clays, soft, moist

C

1125 petroleum odor 11-15'

mod. poss. bb stained 10-15';

PID Ent= 75 ppm @ 12.5' ppm; Blank= 00 ppm

Bulk PID= Hi: 562 ppm; Avg. 300 ppm

RAD= 13935 cpm

(15-20') gray/ grayish brown clays, faint

D

1131 petroleum odor 15-16'; soft to

very soft at 16-20';

Free water @ 16.8'

possible stained 15-16.8'

PID Ent. = 28.8 @ 15.5' ppm; Blank= 0.0 ppm

Bulk PID= Hi 48.8 ppm; Avg. = 25 ppm

RAD= 24,424 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/19/15

Project / Client SSPA-1428

CP 2201 Gravel/surface

0" – 6" Gravels, sands, silts & clays

Hand auger @ 1300

(0-2) 0-2' Fill materials; - mixed black/

A(0-2) grey clays, & coarse gravels; sands,

1312 silts & clays; slightly moist, loose;

no odor no staining

PID Cont. = 0.0 ppm; Bkgd 0.0 ppm

Bulk PID Hi = 2.4 ppm; Avg = 1.0 ppm

RAD = 13073 cpm

(2-5') (fill mat.) 2 – 3.5 mixed

A(2-5) black/brown/grey clays & gravels;

1331 loose, slightly moist; no odor, no staining

3.5 – 5' - Brown clays; stiff-med

soft at 5'; moist at 5'

PID-Cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 1.5 ppm; Avg. = 1.0 ppm

RAD = 13,927 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/19/15

Project / Client SSPA-1428

CP-2201

(5-10') Gray/dk gray clays, stiff-mod soft at 8-10'; moist; plastic
No odor no stains
B
341

PID Const. 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID-Hi 0.0 ppm; Avg = 0.0 ppm
RAD = 13276 cpm

(10-15') grayish brown/gray clays; soft, moist to very moist,
No odor no stains
C
1350

PID Const. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg 0.0 ppm
RAD = 13844 cpm

(15-20') gray clays; soft to very soft at 17.4'; moist to very moist at 17.4'
thin clay lenses below 19-20'
No odor, no stains
H2O at 17.4'
D
1358

PID Const. = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg. 0.0 ppm
RAD = 13,242 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/19/15

Project / Client SSPA 1428

CP-0701 - Gravel surface

0"-6" gravels, sands, silts & clays

Hand Auger @ 1450

(0-2') Fill (materials: grayish brown,
AC0-2) clays, gravels & sands, silts, loose
1505 dry,
no odor no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg. = 0.0 ppm
RAD = 15278 cpm

(2-5) 2-4' silt Grayish brown clays, stiff to
AC2-5) mod. soft, slightly moist; some gravels,
1523 4-5 gray clays, moist, mod soft
no odor no stains
organic rich clays

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg. 0.0 = ppm
RAD = 14735 cpm

Location _____ Date _____

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Project / Client SSPA-1428

CP-0701

(5-10') gray clays / brown clays, stiff-mod. soft, slightly moist to moist at 9.6'

B

1529

~~no odor~~ ~~no stain~~

Very faint odor, hydrocarbon at 9.5-10'

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID=Hi ~~0.0~~ 32.5 ppm; Avg. ~~0.0~~ 22.0 ppm

RAD= ~~[illegible]~~ 14555 cpm

(10-15) gray clays, soft to very soft @ 14.8'; moist to very moist; wet at 14.5'; ; Strong to moderate petroleum odor - 10-15'

C

1535

PID cont.= 119.0 @ 11.7' ppm; Bkgd= 0.0 ppm

Bulk PID=Hi 734 ppm; Avg. 400 ppm

RAD= 14709 cpm

(15-20') grayish brown clays, soft to very soft, moist to very moist, At 19.0'

D

1540

Wet at 19.0'

PID Cont. = 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 4.0 ppm; Avg.= 2.5 ppm

RAD= 16.694 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/19/15

Project / Client SSFA/428

CP 2203 gravel surface

0"–2" gravels, sands, silts & clays

hand Auger @1602

(02) 2'-5 fill materials; mixed

A(0-2) black/gray & gravels & coarse sands,

1623 loose, dry;

no odor no stains

PID Cont. = 0.0 ppm, Bkgd = 0.0 ppm

Bulk PID Hi 0.0 ppm, Avg = 0.0 ppm

RAD = 15,465 cpm

(2-5) Fill moist; mixed gray/brown clays

A(2-5) & gravels/sands – 2–3.5'

1642 3.5–5.0 grayish brown clays,

stiff, slightly moist, no odor

no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg. 0.0 ppm

RAD = 16,091 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/19/15

Project / Client SSPA-1428

CP-2203 (@10')

B
1650

grayish brown clays, stiff
moist no odor no stains
very moist at 7.5'–9.2'
then slightly drier 9.2–10'

PID Int.= 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi: 0.8 ppm; Avg 0.4 ppm
RAD 10063 cpm

(10-15') grayish brown clays, soft
C
1653

moist, no odor no stains
very moist at 14.5' to wet
no odor no stains

PID Int. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 0.0 ppm; Avg. 0.0 ppm
RAD = 10664 cpm

(15-20') SAME clays & color,
D
1659

soft very soft, moist to
very moist wet at 19.4
no odor no stains
water @ 19.4'

PID Int= 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi: 0.0 ppm; Avg 0.0 ppm
RAD 16,650 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/20/15

Project / Client SSPA 1428

RAD source: 314719 cpm
CP 336 Asphalt AAD
0"–2" membrane e 2"
none road base
Hand auger @ 0907

(0-2) Fill materials; black/gray clays, gravels, sands, mo-st, soft to loose, pieces of clay stone bedrock, gravel/clay
A(0-2) no odor no stains
0926

PID Cont. 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi: 4.9 ppm; Avg= 3.0 ppm
RAD= 15422 cpm

(2-5) Fill materials 0–4.8; gravels; black, gray, brown clays; pieces of clay stone bedrock; gravels- 3" diam. (do/calcinestone);
A(2-5)
934

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: 2.7 ppm; Avg= 2.0 ppm
RAD= 16450 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/26/15

Project / Client SSPA-1428

CP-336 (5-10')

B 0945 Fill materials; gray & brown clays, with angular gravels no odor no stains, soft, moist wet @ 9.5'

PID Cont. = 0.4 ppm; Bkgd = 0.4 ppm
Bulk PID=Hi: 1.9 ppm; Avg = 1.4 ppm
RAD = 14955 cpm

(10-15)' C 0948 grayish brown clays, soft, to very soft @ 12.2'; - 12.9'; wet @ 12.2'; stiff below 13'-15' moist; Free water @ 12.2' no odor no stains

PID Cont.= 0.5 ppm; Bkgd = 0.5 ppm
Bulk PID=Hi: 2.1 ppm; Avg 1.5 ppm
RAD = 15500 cpm

(15-20') D 0955 Grayish brown/gray clays, soft to very soft, plastic; very moist to wet @ 19.3'; no odor no stains

PID Cont.= 0.6 ppm; Bkgd = 0.6 ppm
Bulk PID = Hi: 2.2 ppm; Avg = 1.8 ppm
RAD = 14925 cpm

Location ______ Date ______

Project / Client ______

5/20/15

(*) well location found to be in asphalt parking lot to the west of original GPS location

* ~~0-2"~~ 0-6" solvent - chemical odor PID = 806 ppm
6"-12" solvent odor PID 310 ppm
open hole PID = 100 ppm

@ 1143

(*) Decision made to abandon hole until proper PPE can be worn to drill well by crew.

Location BFC Date 5/20/15

Project / Client SSPA-1428

CP-~~331~~ 322 Asphalt surface @ 1050

0"-6" asphalt;

6"-12" road base - gravels, silts + clays, sandy loose, dry.

(0-2) 0-12" Fill material soils - strong chemical

A(0-2) odor in soils when fresh surface

1157 exposed PID = 310 ppm.; gray clays,

(Collect 7 encore + 1 glass jar only Light gray clays)

PID Cont = 310 ppm; Bkgd = 0.6 ppm

Bulk PID = Hi; ppm; Avg. ppm

RAD = cpm

(2-5)

A

PID cont. ppm; Bkgd = ppm

Bulk PID = Hi; ppm; Avg. ppm

RAD = cpm

78

Location _____ Date _____

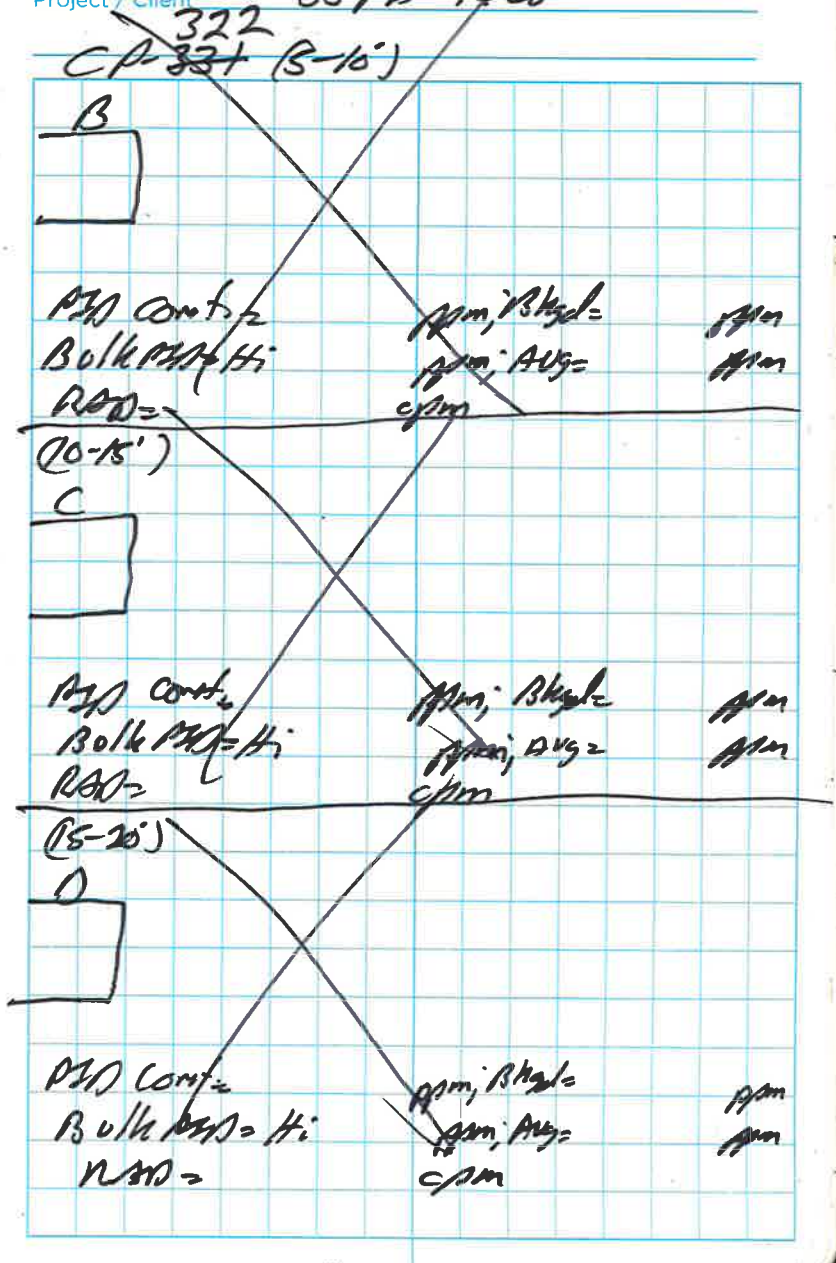
Project / Client _____

79

Location BFC Date 5/20/15

Project / Client SSPA-1428

CP-322 (5-10')



Location ____ Date ____

Project / Client ____

Location BFC Date 5/20/15

Project / Client SSPA-1428

CP-2209

0" - 4" Grass/topsoil surface

Hand auger @ 1313

(0-2)0' Fill materials - mixed ~~gravels~~ gravels, sand, clays (black clays) moist; soft, loose;

A(0-2)

1324

No odor no stains

PID Conc. 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi [illegible] 1.0 ppm; Avg = 0.7 ppm
RAD 17718 cpm

(2-5) fill materials ~~2.0~~ 3.0'; same as above,
A(2-5)

1338

3.0 - 5.0'; gray clays, soft to mod. stiff, moist;
No odor no stains

PID Conc. 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi 2.1 ppm; Avg = 1.8 ppm
RAD = 11251 cpm

(soil/stone moist due to surface water from 6" below surface land)

Location
Date
Project / Client

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Project / Client SSPA-1428

CP-2209

(5-10') gray/grayish brown clays, stiff - mod soft
B moist, very moist
1348 6'-6.5'

no odor no stains

PID Cont. 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.3 ppm; Avg = 0.1 ppm
RAD = 16254 cpm

(10-15') gray clays, stiff to mod
C soft, moist; no odor no stains
1353

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 1.3 ppm; Avg = 1.0 ppm
RAD = 16231 cpm

(15-20')
D gray/grayish brown
1357 clays, stiff - 15-18' then soft; moist to very moist 18-to 20'; no odor no stains

PID Cont = 0.0 ppm; Bkgd 0.0 ppm
Bulk PID = Hi 1.9 ppm; Avg 1.7 ppm
RAD = 16860 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 5/20/15

Project / Client

20-25' SSPA-1428

E
1403

gray clays, soft to very soft, moist to very moist,

wet at 22.5'

no odor no stains 0.0

PID cont.= 0.0 ppm; Bkgd= 0.0

RAP= 15744 cpm

PID Hi = 1.8 ppm Avg = 1.5

Location _____ Date _____

Project / Client _____

Location BFC Date 5/20/15

Project / Client SSPA-1628

CP-33 Breach Pad @ 1450

0" – 4" Asphalt pad

4" – 8" Road base gravels, sands & clays, silty

(0-2) Fill materials 0'–2'

A(0-2) mixed coarse gravels, sands, clays & silts, angular gravels, brown/tan & black clays;

1505 No odor no stains

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID=Hi: 2.1 ppm; Avg = 0.9 ppm

NAD = 15,378 cpm

A-(2-5) fill materials – coarse

A(2-5) gravels: 1–3" gravels: C dolomite/

1521 limestone fragments); some clays,

black clays – mostly gravels 2–5")

some silty sands 60-70% gravels.

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 3.1 ppm; Avg. 2.8 ppm

NAD = 15062 cpm

B.

1530 Refusal @ 8' wood or shoe,

no sample recovered –

– 6" of wood in end of core tubing/liner –

Location BFC Date 5/20/15

Project / Client SSPA-1428

CA-331R Break asphalt @ 1545

0"- 4" Asphalt pad

4"- 8" Road base - gravels, sands, silts + clays; loose

(0-2') Fill materials; gravels; sands

A(0-2') silts + clays, loose, dry to moist, no odors no stains; Blk, Brown, grey clays

1601

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 2.6 ppm; Avg = 2.1 ppm
RAD = 15141 cpm

(2-5') fill materials, mixed layers of

A(2-5') clays, (Blk, Brown/grey), sands, silts; gravels - 1-3"; Angular; few sandstone fragments - 4"; 60-75% gravels;

1634

PID Cont - 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 2.4 ppm; Avg = 2.2 ppm
RAD = 15111 cpm

⊗ CA-331R - 11' North of CA-331

Location BFC Date 5/20/15

Project / Client SSPA-1428

CA-331R (5-10')

No sample < 3" - Rocks;

B

1640

⊗ Refusal at 10'; Rocks 1/1 liner in shoe

(Refusal at 8.0 wood in shoe) on original hole

PID Cont. = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Avg. ppm
RAD = cpm

(10-15')

C

PID Cont. = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Avg ppm
RAD = cpm

(15-20')

D

PID Cont. = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Avg ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

Below surface Depth	PID – inside open hole	Soil
2.0 –	168 ppm	90 ppm
2.5 –	140 ppm	100 ppm
3.0	674 ppm	538 ppm
4.0		1203 ppm

Depth	At surface open hole	5' above hole
5.5'	27 ppm	17 ppm

Location BFC Date 5/21/15

Project / Client SSPA-1428

RAD source check: ~~#1293~~ 287392

CP322R Break Asphalt 0917

0"– 6" Asphalt pad

6"– 12" road base

(0-2): fill materials: mixed coarse

A(0-2) gravels, black/brown/greenish gray

0937 clays, loose, dry/slightly moist; chemical/odor/solvent?; no obvious stains

PID Cont.= 538 @ 2' ppm; Bkgd= 00 ppm

Bulk PID= Hi 563.0 ppm; Avg. 550 ppm

RAD= 14629 cpm

(2-5) Greenish gray clays, fill materials

A(2-5) with some organics, wood debris, ~~gravels~~,

1000 gravels, 2-3" diameter; 5 oft, moist; Abundant wood fragments – 4.5-5'

Red clay at 4.6-5.0', soft moist to wet,

PID Cont.= 1203 @ 4.0' ppm; Bkgd= 6.0 ppm

Bulk PID= Hi 959 ppm; Avg. 730 ppm

RAD= 18931 cpm

Location _____ Date _____

Project / Client _____

chemical odor faint - 5-8' -
PID = 9.0 ppm @ 5.5' hi

Location BFC Date 6/26/15

Project / Client SSA-1428

CA-322R (5-20')

B
1014

Very moist to wet at 5-6'
+ again at 8.-8.5'
gray/brown clays 5-8.9';
then black clays; 8.9-10'; -5 ft. moist

PID Cont. = 5.5' = 9.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 400 ppm; AVG = 352 ppm
RAD = 13382 cpm

(10-15')
C
1018

gray clays (10-12'), soft to very soft, moist to very moist,
12-15' brown clays, soft to very soft, moist,
no noticeable stain, faint odor

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 35.6 ppm; AVG = 25.1 ppm
RAD = 13520 cpm

(15-20')
D
1023

gray clays, organic rich,
soft, to very soft at 19.5';
moist to very moist, (no noticeable odor)
no odor no stains very faint??
water @ 19.5' wet

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 15.1 ppm; AVG 10.0 ppm
RAD = 14,164 cpm

Location _____ Date _____

Project / Client _____

CP-0702

⊗ obstruction @ 4.0' bgs; cannot advance beyond 4.0'; able to get through; will collect sample

* changed waste code to TPH/Solid

Location BFC Date 5/21/15

Project / Client SSPA-1428

CP-0200702

0"–12" Gravel/surface, coarse gravels; ¼–1½"; angular; loose; sands, silts, clays
moisture @ 12" Hand auger @ 1132

(0-2) Grayish brown clays; stiff,
A(0-2) slightly moist;
1258 no odor no stains

PID Cont. = 0.0 ppm; Blank 0.0 ppm
Bulk PID = H. 0.6 ppm, Avg. 0.3 ppm
RAD = 13,064 cpm

(2-5) 2-4' Black clays; mixed with
A(2-5') gravels (Gravel from upper
1322 12"); obstruction @ 4' [concrete]
4-5' No soil sample

PID Cont. = 0.0 ppm; Blank 0.0 ppm
Bulk PID = H. 10.6 ppm; Avg. 7.9 ppm
RAD = 12336 cpm

Location _____ Date _____

Project / Client _____

5-10' PID	8.0 Depth	50 ppm
	9.0	1336
	9.5	386
	10	580
	11.5	3,700

Location BFC Date 5/21/15

Project / Client SSPA-1428

CP-0702 (9-10')

B — 1332

Black clays, s.ff mod soft, no odor above 5-8'; strong petroleum odor, possible stained below 8-10'; (gasoline odor)

PID Const. see table ppm; Blank 0.0 ppm

Bulk PID=Hi: 929 ppm, Avg. 872 ppm

RAD= 1710 cpm

(10-15) C — 1338

gray to grayish brown clays, s.ff; s lightly moist; possible staining

Very strong petroleum odor 10-13; below 13-faint odor-15

PID Const.= 3,700 ppm; Blank= 0.0 ppm

Bulk PID=Hi: 717 ppm; Avg. 558 ppm

RAD= 12449 cpm

(15-20') D — 1345

grayish brown clays, soft to very soft at (9.-20' moist to very moist, no odor, no staining

water @ 19.3'

PID Const= 0.0 ppm; Blank= 0.0 ppm

Bulk PID=Hi: 13.3 ppm; Avg. 10.2 ppm

RAD= 12341 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/21/15

Project / Client SSPA-1428

CP 2204

Soil/surface
Hand Auger @ 1429

(0-2) Grayish black clay, soft
A(0-2) somewhat loose, slightly moist
1442 fill-materials- 0.2', some gravels (1-3"),
no odor no stains

PID Cont. = 0.0 ppm; Brth = 0.0 ppm
Bulk PID = Hi - 0.0 ppm; Avg - 0.0 ppm
RAE = 20984 cpm

2'-4' Mixed brown/grayish
(2-5') brown/black clays, - fill
A(2-5) materials, some gravels throughout
1505 Angular gravels (1-2");
Grayish brown clays; soft to mod stiff
moist, no odor no stains. - 4-5'

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg. 0.0 ppm
RAE = 19369 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/21/15

Project / Client SSPA-1428

CP-2204 (5-10')

B 5-10' brown/grayish brown, clays, fill materials to
1509 no odor no stains
moist to wet at 8.5'-10'

PID Cont.= 0.0 ppm; Bkgd=0.0 ppm
Bulk PID=Hi 2.2 ppm; Avg=1.4 ppm
RAD= 19985 cpm

(10-15') 10-15' brown/grayish brown clays,
C soft, to very soft, very moist
1512 to wet no sample

Wet at ~~8.5'-10'~~ 10-15'

PID Cont.= 0.0 ppm; Bkgd=0.0 ppm
Bulk PID=Hi ppm; Avg= ppm
RAD cpm

(15-20')
D

PID Cont. ppm; Bkgd= ppm
Bulk PID=Hi ppm; Avg= ppm
RAD= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 5/21/15

Project / Client SSPA-1428

CP-2401

Grass Surface, topsoil, with gravels sands, silt & clays

Hand Auger @ 1544

(0-2) Fill materials - large pieces of concrete, rocks + gravels, sands, clays & silt, black/brown/grey clays, soft, loose, dry

(Con) 1556

no odor no stains

PID Conc. 0.0 ppm; Bkgd 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

RAD 17,390 cpm

(2-5') Fill materials - same as above

(2-5) 2-5' soil becoming moist at 4'; 4" of coal in bottom of auger sample

1615

no odor no stains

PID Conc. = 0.0 ppm; Bkgd 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

RAD 17,347 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date ______

Project / Client SSPA-1428

CP-2401 (5-10')

B
1625

gray/grayish brown clays
stiff, slightly moist,
moisture increases with depth
no odor no stains; plastic:

PID Conc. 0.0 ppm; Bkgd. 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg. 0.0 ppm
RAD = 17841 cpm

(10-15')
C
1633

same litho & color
moist to very moist at 14.5-15'
soft to very soft at 14.5
no odor no stains

PID Conc. 0.0 ppm; Bkgd. 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg. 0.0 ppm
RAD = 16940 cpm

(15-20')
D
1638

same litho & color,
soft to very soft; moist to very moist
no odor no stains

wet at 19-20'

PID Conc: 0.0 ppm; Bkgd. 0.0 ppm
Bulk PID = Hi: 0.0 ppm; Avg. 0.0 ppm
RAD = 17453 cpm

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Location BFC Date 6/10/15

Project / Client SSPA-1428

Drillers / Brandon / Fred / Rig # 7822

Hot/humid / 82°F / slight breeze

Geologist / Clif & Leland - Geo #2

Equipment: PID, 4 gas meters

CP-2208 Break Concrete @ 0940

0" – 6" Concrete Pad

6" – 6" (No road base/sub base gravels)

A(0-2) 0 – 2 grayish black clay; mois.t, soft; Fill materials

0955

no odor no stains

PID Cont: 0.0 ppm; Bkgd 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

NaI = 16135 cpm

A(2-5') Fill - mixed gray, black, green is/gray clay; with wood fragments mo.st to wet; soft to very soft.

1006

no odor no stains

PID Cont. = 0.0 ppm; Bkgd = 0.00 ppm

Bulk PID = Hi 0.0 ppm Avg 0.0 ppm

NaI = 16143 cpm

Location _____ Date _____

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Project / Client SSPA-1428

CP-2208

B (5-10') (Poor recovery < 1.5')
possible fill- clays, mixed with gravels - Black clays, moist to wet, mod soft
1011 no odor no stains
PID Cont: 0.0 ppm; Bkgd: 0.0 ppm
Bulk PID: Hi 0.0 ppm; Avg: 0.0 ppm
RAD: 15,451 cpm

C (10-15')
1015 (no recovery - push in tubing)
PID Cont: ppm; Bkgd: ppm
Bulk PID: Hi ppm; Avg: ppm
RAD: cpm

D (15-20')
1020 Brown/grayish brown clays, soft to very soft, moist to very moist, weight 19.1', high plasticity
no odor no stains
PID Cont: 0.0 ppm; Bkgd: 0.0 ppm
Bulk PID: Hi 0.0 ppm; Avg: 0.0 ppm
RAD: 15,509 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/10/15

Project / Client SSPA-1428

hand Auger

CP-1903 - Gravel Surface @ 1055

0"-12" Road base Gravels - limestones / dolomite, passed @ 3-4"

AC(0-2) gray/ grayish black clays, med. stiff, slightly moist, occassional pieces of gravels, <5%, no odor, no stains

1111

PID Cont. = 0.0 ppm, Bkgd = 0.0 ppm

Bulk PID = Hi: 0.0 ppm, Avg = 0.0 ppm

RAD = 20053 cpm

AC(2-5') black/grayish black clays, stiff, slightly moist, no odor, no stains

1128

PID Cont: 0.0 ppm, Bkgd = 0.0 ppm

Bulk PID = Hi: 0.0 ppm, Avg = 0.0 ppm

RAD = 20258 cpm

Location _____ Date _____

Project / Client _____

Adam on location @ 11:41
out at 11:37

Location BFC Date 6/16/15

Project / Client SSPA-1428

CP-1903

B(5-10') grayish brown clays, moist, slightly stiff to mod soft, brown below 8-10'
1135 no odor no stains.
PID cont. 0.0 ppm; Bkgd 0.0 ppm
Bulk PID=ft: 0.0 ppm; avg = 0.0 ppm
RAD = 20007 cpm

C(10-16') Brown clays, soft to very soft with depth moist to very moist
1149 no odor no stains
PID cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID=ft: 0.0 ppm; avg = 0.0 ppm
RAD = 19537 cpm

D(15-20') brown clays, soft to very soft; moist to very moist, wet at 18.9'; high plasticity
1153 no odor no stains
H20 @ ~~18.1'~~ 18.9'
PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID=ft: 0.0 ppm; avg = 0.0 ppm
RAD = 19109 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/10/15

Project / Client SSPA-1428

CP-1901 (same crew)

- gravel surface too hard auger
@ 1251

0" - 12" gravels - limestone/dolomite; peasized to 2" diam; angular - road base

A(0-2) Fill materials - mixed clays, gravels, fine sands 0-18"
1308 stiff, loose, dry; Blk, brown, lt brown;
18-24" grayish blk clays stiff, slightly moist to dry; no odor no staining
PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm
NaI = 16887 cpm

A(2-5') Black/grayish black clays, stiff - mod soft; slightly moist;
1320

no odor no stain

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm
NaI = 16,873 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/10/15

Project / Client SSPA-1428

B(5-10) GP-1901

1341 grayish brown clays; soft moist,

no odor no stains

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg. = 0.0 ppm

RAD = 16648 cpm

C-(10-15) grayish brown clays; soft-v.soft moist to very moist.

1344 wet at 14'; high plasticity water @ 14-15

no odor no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

RAD = 16768 cpm

D(15-20) same lithology as above, soft to very soft; high plasticity, moist to very moist, wet at 19.0' water 19.0 - 20'

1349 No odor, no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg. = 0.0 ppm

RAD = 17212 cpm

Location _____ Date _____

Project / Client _____

* moved location 5' to NNE due to concrete obstruction at 1.5' below surface

Adam on location @ 15:15

Location BFC Date 6/10/15

Project / Client SSPA 1428

CP-1902 (SAME CREW)

GRAVEL/SURFACE

0"- 1.5" gravels - limestone/dolomite; pea sized to 2", angular

1.5'-3.0' - concrete/rocks - broke through

A(0-2) Black clays, stiff, slightly mo. st;

1520

no odor no stains

PID Cont. = 0.0 ppm; Blank = 0.0 ppm

Bulk PID = Hi: 0.0 ppm; Avg = 0.0 ppm

RAD = 20684 c/m

A(2-5) Black/grayish black clays, mod soft, moist;

1540

no odor no stains

PID Cont. = 0.0 ppm; Blank = 0.0 ppm

Bulk PID = Hi: 0.0 ppm; Avg = 0.0 ppm

RAD = 20,241 c/m

Location _____ Date _____

Project / Client _____

Location BFC Date 6/14/15

Project / Client SSPA-1428

CP-1902

B(5-10')

NO RECOVERY

PID Cont.= ppm; Bkgd= ppm

Bulk PID = Hi: ppm; Avg= ppm

RAD= cpm

C(10-15') 6/14

grayish brown clays, soft to very soft at 14.6'; moist to very moist at 14.6'

high plasticity

no odor no stains

PID Cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID = Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 19805 cpm

D(15-20') 6/24

grayish brown clays, mod. soft; soft at 19.2'; moist to very moist - wet at 19.2'

wet at 19.2'

no odor no stains

PID Cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID = Hi: 0.0 ppm; Avg= 0.0 ppm

RAD = cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/10/15

Project / Client SSPA-1428

CP 285

broke Gravel surface @ 1658

0"–2.5' gravels/road base/– dol./limestone, angular, pea size to

2.5'– 3" diameter

A(0-2)

PID Cont. = ppm; Bkgd = ppm

Bolk PID = Hi: ppm; Avg = ppm

NAD = cpm

A-(2-5)

PID Cont. = ppm; Bkgd = ppm

Bolk PID = Hi: ppm; Avg = ppm

NAD = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/10/15

Project / Client SSPA-1428

CA 285

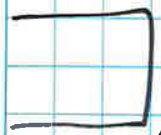
B (5-10')

PID Cont. = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Avg = ppm
RAD = cpm

C (10-15)

PID Cont. = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Avg = ppm
RAD = cpm

D (15-20)



PID Cont. = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Avg = ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

Gamma check
6/11/15

Unit PR202073
270831 cpm

Encountering large gravels/
small cobbles of limestone/dolomite
rock as part of levee for flood
control / berm; Attempting to
drill through obstructions

(Drillers: Fred / Brandon
Geologist: Clif Page / Leland
East side of site)

Location BFC Date 10/11/15

Project / Client SSP-1428

CP-4205

Brush Asphalt @ 1039
Asphalt Thickness
Road base 8"-18";
@ 3"
Concrete 3-5"

A(0-2) Fill materials - mixed black/
brown/tan/reddish brown clays, stiff;
1123 loose, slightly moist;

no odor no stains
PID-Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm
Rad = 19083 cpm

A(2-5) 1.4' recovery - All
1130 rock/concrete/<2" of
clay
(no sample collected)

PID Cont. = ppm; Bkgd = ppm
Bulk PID = Hi ppm; Avg. ppm
Rad = cpm

Location _____ Date 6/11/15

Project / Client _____

* IAM m. onsite 0930
offsite 1130

Adm onsite 1135
offsite 1150

Location BFC Date 6/11/15

Project / Client SSPA-1428

CP-4205

B (5-10') (Fill materials) mixed black clays, brown clays, rocks

1133 (limestone/dol); dry; loose (2.3' of recovery only)

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID-Hi: 0.0 ppm; Avg. 0.0 ppm
RAD = ~~[illegible]~~ 1946 cpm

C (10-15') fill materials; mixed brown/tan clays, gravels, rocks; some sands, fine to coarse grained; (1.5' of recovery)

1138 (No odor no stains)
(Refusal at 12.5')

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID-Hi: 0.0 ppm; Avg = 0.0 ppm
RAD = 1949 cpm

D-(15-20)

1143

PID Cont = ppm; Bkgd = ppm
Bulk PID-Hi: ppm; Avg = ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

* Encountered obstruction at 3.0' bgs; ASC to get through

* Second obstruction 4.5' bgs.

Ian onsite 1255
off 1305

Location BFC Date 06/14/15

Project / Client SSPA-1428

CP-4206

Brush Asphalt @ 1248

0-3" Asphalt pad
3-8" Concrete
8"-18" Road base

AC(0-2) F: fill materials – mixed GM/ brown/tan clays, some gravels & rocks, dry, loose, X

1258

no odor no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID Hi: 7.0 ppm; Avg. 4.0 ppm
NaI = 18909 cpm

AC(2-5) F: fill materials – mixed, clays, GM/tan brown / dk brown clays – pieces of plastic found; grey clays with some gravels.

1310

no odor no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID Hi: 0.0 ppm; Avg = 0.0 ppm
NaI = 18758 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/11/15

Project / Client SPA-1428

CP-1206

B(5-10) fill materials - mixed brown clays & abundant gravels & rocks, + concrete pieces; loose, dry,

3/5

no odor no stain

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 7.0 ppm; Acq 2.0 ppm

RAD= 18,665 cpm

C-(10-15) (1.2' recovery)

fill materials - same as above

3/8 (Refusal @ 12') - rocks/concrete gravels only

no odor no stain

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 8.0 ppm; Acq= 2.0 ppm

RAD= 19,195 cpm

D-(15-20)

PID Cont= ppm; Bkgd= ppm

Bulk PID= Hi: ppm; Acq= ppm

RAD= cpm

Location _____ Date _____

Project / Client _____

Ian M onsite @ 1300
off 1454

Art A onsite @ 1430
off 1436

Location BFC Date 6/11/15

Project / Client SSPA-1428

CP-4204

Break asphalt @ 1403

0"- 3" Asphalt pad
3"- 8 Concrete pad
8-18 Road base

A(0-2) Fill materials- mixed, Brown/blk/tan clays, some gravels, loose- slightly moist;
1413

no odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 18443 cpm

A(2-5') Fill materials - 2-2.5'; same as above, dry to slightly moist,
1423 2.5-5'- brown/tbrown clays; moist, soft. (Fill) tblk clays.

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 19051 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 06/11/15

Project / Client SSPA 1428

CP-4204

B(5-10') Fill materials — gray clays, red clays, tan clays & gravels; limestone/dolomite; no odor no stains dry to slightly moist, stiff,

1431

PID cont= 0.0 ppm; Blank 0.0 ppm

Bulk PID= 0.0 ppm; Avg = 0.0 ppm

RAD= 18455 cpm

C-(10-15) Fill materials - mixed-gray clays; (Refusal @ 14') red/tan clays, gravels/rocks- dolomite/limestone Angular >2" diameter; no odor no stains

1433

PID cont= 0.0 ppm; Blank= 0.0 ppm

Bulk PID= 0.0 ppm; Avg= 0.0 ppm

RAD= 18288 cpm

D-(15-20)

PID Cont= ppm; Blank= ppm

Bulk PID= ppm; Avg= ppm

RAD= cpm

2

CONTENTS

PAGE	REFERENCE	DATE

* encountered obstruction at 2.5' – push through w/ill rod tip to 2.9 & collected sample 2-5 with core barrel.

3

Location BFC Date 6/12/15

Project / Client SSPA-1428

CP-4201

Break asphalt @ 1045

0"-6" Asphalt

6"-16" concrete

16"-20" Road base

A(0-2') Fill materials; greenish gray/ lt tan/ lt brown clays; loose; dry to slightly moist; some blk clays segments

1059

No odor no stain.

PID cont. 0.4 ppm, Bkgd. 0.2 ppm

Bulk PID Hi 7.0 ppm; Avg. 2.0 ppm

RAD = 18417 cpm

A(2-5') Fill materials – mix of gray clays; tan clays/brown clays & gravels/rocks-dol/limestone; loose, slightly moist

1110

no odor no stain

PID cont. = 0.2 ppm. Bkgd. 0.2 ppm

Bulk PID = Hi 3.0 ppm, Avg. 1.8 ppm

RAD = 18082 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/12/15

Project / Client SSPA-1428

CP-4201

B-(5-10) F: 1/ materials - mix - tan/ gray clays, gravels / rocks - dolomite/limestone; inconsistency; no odor (1.5' recovery)

1113

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = H: 2.1 ppm; Avg = 1.0 ppm

RAD = 18103 cpm

C-(10-15') F: 1/ materials - mixed tan/ H brown clays, gravels/rocks - (dolomite/limestone) no odor no stains (Refusal at 13.0')

1117

PID cont. = 0.2 ppm; Bkgd = 0.2 ppm

Bulk PID = H: 1.2 ppm; Avg = 0.9 ppm

RAD = 17716 cpm

Location _____ Date _____

Project / Client _____

Location BTC Date 6/12/15

Project / Client SSCPA-1428

CP-2901

Brick asphalt/307

0"-12" Asphalt PAD

12-16" Road base - gravels, silts, sds. & clays.

A(0-2) brown/reddish most brown clays, stiff, slightly moist, no odor, no stains - appears to be fill materials

319

no odor no stains

PID cont: 0.0 ppm, Bkgd= 0.0 ppm

Bulk PID= Hi: 1.4 ppm; Avg= 1.3 ppm

RAD= V3057 cpm

A(2-5) gray clays mixed brown clays/blk clays 2-4' then changes to black clays; grayish black. - fill materials, some gravels, moist increasing with depth moist, slightly stiff - moist at 4.0'

335

PID cont: 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 13261 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/12/15

Project / Client SSPA-1428

CP-2901

B (5-10) 5-7- Gray clays, soft mo.st;

1338 7-6' brown/lt brown clays, soft moist, (high plasticity)

PID cont.- 0.0 ppm; Bkgd = 0.0 ppm

BulkPID-Hi 0.3 ppm; Avg. 0.1 ppm

RAD= 13280 cpm

C-(10-15) Brown clays / lt brown clays soft to very soft @ 8t. 6-15'

1341 moist to very moist, wet at 14.6'

high plasticity

no odor no stains

PID Cont: 0.0 ppm; Bkgd= 0.0 ppm

BulkPID=Hi 0.1 ppm; Avg: 0.0 ppm

RAD= 13,859 cpm

D (15-20) sand lithology & color; moist to very moist, soft

1344 very soft at 19.6 - 20'; wet at 19.6'

no odor, no stains

PID Cont: 0.0 ppm; Bkgd= 0.0 ppm

BulkPID=Hi 0.1 ppm; Avg= 0.0 ppm

RAD= 13,652 cpm

high plasticity

Location _____ Date _____

Project / Client _____

Location BFC Date 6/12/15

Project / Client SSPA 7428

CP-2902

Broom Asphalt @ 1440

Asphalt pad 0"-4"

Road base 4"-8"

A(0-2) Fill materials- mixed Hgray/brown/black clays, stiff, slightly moist, some gravels.

1450

no odor no stains.

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 1.1 ppm; AVG = 0.5 ppm

RAD = 12334 cpm

A(2-5) Fill materials- mixed clays gray/black/brown clays 2-4.5' (wood pieces at 4.5')

1501

stiff to mod soft, slightly moist to moist at 4.5-5'; - Brown/Hbrown clays-4.5-5'

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.1 ppm; AVG = 0.1 ppm

RAD = 13396 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/12/15

Project / Client SSPA-1428

CP-2902

B(5-10) (2.5' recovery):
grayish brown clays, soft
moist, very moist at 10'
high plasticity
no odor no stains

1506

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 0.7 ppm; Avg 0.2 ppm
LS RAD = ~~12334~~ 12664 cpm

C (10-15) same lith & color;
moist to very moist at 13'-14';
soft to very soft; high plasticity

1509

no odor no stains
PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 0.2 ppm; Avg = 0.1 ppm
RAD = 12896 cpm

D (15-20) Black organic rich clays
15-18' - mod soft to stiff, moist
then grayish brown clays - 18-20'
mod soft to stiff, moist
no odor no stains

~~1510~~ 1513

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = 0.5 ppm; Avg 0.4 ppm
RAD = 13260 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/12/15

Project / Client SSPA-428

CP-2902

(20-25) grayish brown clays,
soft - very soft at 24.5'-25'
1920 moist very moist; wet at 24.5'
no odor no stains
water @ 24.5'

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.4 ppm; Amb = 0.2 ppm
Rad 13569 cpm

Location ______ Date ______

Project / Client ______

⊗ Gamma Reading Check 6/12/15
231,975 cpm

Location BFC Date 6/12/14

Project / Client SSPA-1428

CP-4202

Break asphalt @ 0846
0"-3" asphalt pad
3-10" concrete pad
10"-13" road base

A(0-2) Fill materials- tan/very light brown clays, loose, slightly moist; with gravels; possible fragments of claystone;

0855

no odor; no stains

PID cont:= 0.6 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 2.3 ppm; Avg= 1.0 ppm
RAD= 15123 cpm

A(2-5) Fill materials - some cobbles, some wood fragments; black clays, fragments of claystone;

0905

PID cont: 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 2.5 ppm; Avg. 1.0 ppm
RAD= 14571 cpm

B(5-10) Fill materials- Same mixed tan/lt brown clays, some gray clays + gravels;

0910

RAD= 14,228 cpm

PID cont: 0.4 ppm; Bkgd= 0.1 ppm
Bulk PID=Hi 1.5 ppm; Avg= 0.8 ppm

140

Location ______ Date ______

Project / Client ______

141

Location BFC Date 6/12/15

Project / Client SSPA 1428

CP-4202

C (10-15) same < 6" All gravel/rocks dol/limestone

0914

Refusal @ 11'

No Sample

PID cont: ppm; Bkgd = ppm

Bulk PID = Hi ppm; Avg = ppm

RAD = cpm

D (15-20)

PID cont. = ppm; Bkg = ppm

Bulk PID = Hi ppm; Avg ppm

RAD = cpm

142 Location Date 6/12/15

Project / Client

I am m. onsite @ 0910

0-2	PID (ppm)
0-6	5.0
6-12	18.0
12-18	-6.0
18-24	-13.0

Location BFC Date 6/12/15 143

Project / Client SSPA-1428

CP-4203

Break asphalt @ 0945

0"-4" Asphalt pad

4"-12" Concrete pad

12-17" Road base

A(0-2) Greenish gray/lt tan clays, fill- dry to slightly moist, soft and stiff,

0956

faint chemical odor, no noticeable stain (paint thinner??)

PID cont.= 18 ppm; Bkgd= 0.5 ppm

Bulk PID= Hi 7.0 ppm; Avg= 6.0 ppm

RAD= 14945 cpm

A(2-5) Fill- same materials - & color dry, loose, blocky; some gravels

1005 ~~(recovery 2.1')~~ no odor no stains

PID Cont. = 0.2 ppm; Bkgd 0.2 ppm

Bulk PID Hi 1.4 ppm; Avg= 1.2 ppm

RAD= 14342 cpm

144

Location ____ Date ____

Project / Client ____

145

Location BFC Date 6/12/15

Project / Client SSPA-1428

CP-4203 (2.2' recovery)

B(5-10) fill materials - mixed, gray/black/tan/brown clays; rocks/limestone/dolomite; loose, slightly moist, no odor, no stains.

1011

PID Int. = 0.2 ppm; Bkgd = 0.2 ppm

Bulk PID = H; ~~0~~ 1.0 ppm; avg = 0.8 ppm

RAD = 14077 cpm

C(10-15) (2.1' of recovery)

1012

fill materials - gravels/rocks/tan/brown clays; dry to slightly moist; (13.5' refusal) loose; no odor no stains

PID cont. Int. = 0.1 ppm; Bkgd = 0.1 ppm

LS

Bulk PID = H: ~~0.9~~ 0.5 ppm; avg = ~~0.8~~ 0.5 ppm

RAD = 14289 cpm

Location _____ Date _____

Project / Client _____

_____

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Common Field Data Error Codes

Error codes are used to explain common mistakes and are written above or close to the mistake. Commonly used error codes include:

RE	Recording Error
CE	Calculation Error
TE	Transcription Error
SE	Spelling Error
CL	Changed for Clarity
DC	Original Sample Description Changed After Further Evaluation
WO	Write Over
NI	Not Initialed and Dated at Time of Entry
OB	Not Recorded at the Time of Initial Observation

Note: Error code should be circled, dated, and initialed when recorded.

Hazard Classifications

Class 1 Explosives
Class 2 Gas
Class 3 Flammable Liquid
Class 4 Flammable Solids (Potential spontaneous combustion, or emission of flammable gases when in contact with water)
Class 5 Oxidizing Substances and Organic Peroxides
Class 6 Toxic (poisonous) and infectious substances
Class 7 Radioactive material
Class 8 Corrosives
Class 9 Miscellaneous dangerous goods

Container type abbreviations (for sampling guidelines)

BR - Boston Round • ABR - Amber Boston Round • AJ - Amber Jug • AWM - Amber Wide Mouth • Poly - Polyethylene Bottles • BOD - Bottle • CWM - Clear Wide Mouth

Location ______ Date 6/15/15

Project / Client ______

⊛ obstruction encountered @ 20";
instructed to hammer through
by Adam
faint chemical odor @ 26";
Open hole PID = 34 ppm

Location BFC Date 6/15/15

Project / Client SSPA-1428

Cloudy mild;

Drillers - Fred / Brandon
Geologist; Cliff Pope, Leland

CP-179
Break asphalt @ 0842
Asphalt pad = 0" – 6"
Road base 6" – 12"
gravels, sands, silts clays

A(0-2) 0 – 8" red clays, soft, moist;
8 – 14" concrete No odor
0907 14 - 24" Black organic rich clays,
stiffs slightly moist; no stains
PID cont. = 0.7 ppm; Bkgd = 0.5 ppm
Bulk PID = Hi; 4.1 ppm; Avg = 2.5 ppm
RAD = cpm

A(2-5) 2-3' Blk organic Rich clays,
soft moist; gray ish brown after 2-3'
0915 no odor no stains
High Plasticity

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi; 2.8 ppm; Avg = 2.0 ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/15/15

Project / Client SSFA-1428

CP-179

B (5-10') grayish brown clays, soft moist, brown clays
0918 no odor no staining
high plasticity

PID cont. = 0.4 ppm; Bkgd = 0.4 ppm
Bulk PID = Hi 3.2 ppm; Avg = 2.0 ppm
RAD = ppm

C (10-15) Brown clays, soft to very soft
at 13.2'; → 15';
0922 wet at 13.2 - 15';
High plasticity
no odor no staining

PID cont = 0.4 ppm; Bkgd = 0.4 ppm
Bulk PID = Hi 1.3 ppm; Avg = 0.7 ppm
RAD = cpm

D (15-20) same lithe & color;
brown clays ± moist to wet at
0924 17.7 — 19.8' - wet - free water
very moist - 15 - 17.7'
19.8' - 20 - moist; no odor no staining

PID cont. = 0.4 ppm; Bkgd 0.4 ppm
Bulk PID = Hi 1.3 ppm; Avg = 0.7 ppm
RAD = cpm

Location

Date

Project / Client

Location BFC

Date 6/15/15

Project / Client SSPA-1428

same crew cloudy / humid

77°F;

CP-1101

Break Asphalt @ 10:00

Asphalt PAD = 0" - 6"

Road base = 6" 16" - gravel, silt, silts & clays

CP-1101 Fill material / 1+ tan,

AC(0-2) yellowish tan & brown clays mixed,

1012 soft, loose; some black clays; grayish tan; dry

foreign chemical odor no stain

PID cont: 3.4 @ 12" ppm; Bkgd: 0.4 ppm

Bulk Matl: 5.0 ppm; Avg = 3.5 ppm

RAD = cpm

AC(2-5) same fill materials mixed

gray/black, tan/brown clays,

1018 moist, soft

no odor no stains

PID cont = 0.4 ppm; Bkgd = 0.4 ppm

Bulk Matl: 2.0 ppm; Avg = 2.0 ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

C-Sample 10-13'

C2 Sample 13-15'

time- 1025

C2 PID Hi 168 ppm

Avg 122 ppm

Location BJC Date 6/15/15

Project / Client BSPA-1428

CP-101

B(5-10) (6" recovery only)

Terra Core sample only

1022 mixed rocks, wood & grey clay

soft- moist, faint chem. odor.

PID cont= 1.0 ppm; Bkgd= 0.4 ppm

Bulk PID=Hi NA ppm; Avg= NA ppm

NAD= NA cpm NA

C(10-15) grayish brown clays,

very soft moist to wet at 13'-

1025 15'; H2O ≈ 13.0'

mod. chemical odor; no obvious stains

PID cont.= 79 @ 12.6' ppm; Bkgd= 0.4 ppm

Bulk PID= Hi 85 ppm; Avg= 69 ppm

NAD= cpm

D(5-20) grayish brown clays,

very soft very moist to wet

1028

mod petroleum odor; no visible staining

PID Cont: 31 @ 18.2' ppm; Bkgd= 0.4 ppm

Bulk PID= Hi 98 ppm; Avg= 70 ppm

NAD= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/05/15

Project / Client SSPA-1428

Sand Drill crew / geologist

CP-0901

Break asphalt @ 1116

Asphalt pad = 0"-6"

Road base = 6"-18"

A(0-2) Fill materials - lt brown/tan silty clays, clayey silts, moist, soft loose, very fine sands,

1128

no odor no stains

PID Cont = 0.1 ppm, Bkgd = 0.1 ppm

Bulk PID = Hi 0.4 ppm; Avg = 0.0 ppm

NAD = cpm

A(2-5) Sand lt tan/ colors, soft, loose, moist, some black clays @ 4.5-5'

1135

no odor no stains

PID Cont. = 0.1 ppm; Bkgd 0.1 ppm

Bulk PID Hi 0.6 ppm; Avg = 0.6 ppm

NAD cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/15/15

Project / Client SSPA-1428

CP-0901

B (5-10') (Recovery 1.7')

1139 gray/grayish brown clays
possible blk staining @ 9.9 - 10'
petroleum odor @ 9.7' - faint to mod
v. soft, moist to very moist at 10'

PID Cont= 9.7 @ 10 ppm; Blk= 0.3 ppm
Bulk Headspace: 11.9 ppm; Avg= 8.0 ppm
RAD= cpm

C (10-15) grayish brown clays, blk staining from 10-11.2'; very soft. very moist,

1142 wet at 13' → 15'
petroleum odor faint-mod - 10-15';
high plasticity.

PID cont= 5.5 wet @ 15' ppm; Blk= 0.4 ppm
Bulk Headspace: 33.0 ppm; Avg = 25.0 ppm
RAD= cpm

D (15-20') lt brown/grayish brown
clays, very soft; very moist to wet

1145 wet at 15 - 17.5'
very faint petroleum odor 15 - 20'

PID Cont= 5.0 @ 15.5' ppm; Blk= 0.4 ppm
Bulk Headspace: 16.7 ppm; Avg= 15.0 ppm
RAD= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/15/15

Project / Client SSPA-1428

SAmecan / geologist

CP-0902

Brush asphalt @ 1258

Asphalt pad = 0" - 6"

Road base = 6" - 18" - gravels, sands, silts & clays

CP-0902

AC0-2) Fill materials - mixed brown/black/gray clays, s.t.ff, dry to slightly moist, loose, some gravels, no odor no stains

1307

PID Cont. 9.0. @ 1.5' ppm; Bkgd = 0.2 ppm

Bulk PID: Hi: 43 ppm; Avg = 35 ppm

RAD = cpm

A(2-5) 2-2.5 fill materials - coarse sands, well rounded, dry; loose, moist.

1317

2-5-5' - Grayish black/grayish brown clays, s.t.ff - rock soft, moist, loose; very faint chem odor; no obvious stains

PID-Cont. 180 @ 2.5 ppm; Bkgd = 0.2 ppm

Bulk PID: Hi: 286 ppm; Avg = 272 ppm

RAD = cpm

poss. hi PCBs ??

Location _____ Date _____

Project / Client _____

Location BFC Date 6/15/15

Project / Client SSPA-1428

CP-0902

B (5-10') brown clays / grayish brown clays, soft to very soft, high plasticity; moist to very moist at 8.5'-10'; wet at 9.7'; faint chem odor

#324

possible PCB's high plasticity - no visible stain

PID cont.: 4.9 @ 8' ppm; Bkgd = 0.1 ppm

Bulk PID = Hi: 236.0 ppm; Avg = 120.0 ppm

RAD = cpm

C (10-15) brown / grayish brown clays, very soft - very moist to wet at 13.2'-15'; very faint chemical odor, possible PCBs high plasticity; no visible stain

#330

PID cont.: 39 @ 11.5 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 228 ppm; Avg = 200 ppm

RAD = cpm

D-(15-20) brown clays 15-19.6'; gray clays 19.6-20'; soft to very soft very moist to wet at 18.1'-19.6'; very faint chem. odor, - no obvious stain

#333

PID cont.: 2.5 @ 17' ppm; Bkgd = 0.0 ppm

Bulk PID: Hi: 75 ppm; Avg = 39 ppm

RAD = cpm

32

Location ____________ Date ____________

Project / Client ____________

33

Location BFC Date 6/15/15

Project / Client 55PA1428

SAme drill crew / geologist

CP-0904

raining / lightning delay for ~~ft~~ 30"

1420-1450; heavy rains; ~~rai~~ 1520

Break asphalt @ 1523

Asphalt pad = 0"-4"; 4"-8" concrete

Road base = 8-12" gravels, sands

silts + clays.

A(0-2) reddish brown clays 0-8";

gray/grayish black clays 8"-24";

1535 stiff, moist, sour odor

PID Cont. = 3.2 @ 12" ppm; Bkgd 0.1 ppm

Bulk PID = Hi: ~~4.6~~ 5.8 ppm; Avg = 4.6 ppm

RAD = cpm

A(2-5) blk/gray clays, soft, moist

sour odor; wet due to

1541 surface water

no obvious stains

PID Cont. = 30 ppm @ 3.5 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 91.6 ppm; Avg = 86.5 ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

Location BJC Date 6/15/15

Project / Client SSPA-1428

CP 0904

B (5-10') Grayish brown clays, soft to very soft, very moist, -

1546 high plasticity

no stains, very faint chem odor

PID const = 6.0 @ 7.8' ppm; Bkgd = 0.1 ppm

Bulk PID = Hi: 366 ppm; Avg = 352 ppm

NaI = cpm

C (10-15') grayish brown clays, soft to very soft, no obvious stains

1549 very moist to wet @ 13'-15'

very faint chemical odor

PID Const: 50 @ 11.0' ppm; Bkgd = 0.1 ppm

Bulk PID = Hi: 183 ppm; Avg = 182 ppm

NaI = cpm

D (15-20') grayish brown clays, very soft

1553 very moist to wet 15-20'

poss. bb bk/gray stains throughout;

~~no obvious odor~~ poss. ble faint unknown chemical odor

PID Const: 0.9 (AVG) ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 87.1 ppm; Avg = 79.0 ppm

NaI = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA-1428

Drillers: Fred/Brandon; Geologist/CWP/Leland
Cloudy mild; steve

CP-0903

Brush Asphalt @ 0817

Asphalt PAD = 0" – 6"

Road base = 6" – 24"

AC0-2) Fill materials – mix of fine to med sands (tan), orangish brown; gray/ black clays; 0-18" –

0829

gray clays – 18-24", soft, moist;

PID Cont: 1.0 @ 18" ppm; Bkgd = 0.1 ppm

LS Bulk PID = Hi 11 ppm; Avg = 10.4 ppm

RAD = cpm

AC2-5) Fill materials – mixed gray/blk/brown clays; med stiff to soft, moist, some gravels, minor sand stone (v.f. to med. sands);

0840

no obvious stains; no odor

PID cont: 2.4' @ 2.0 ppm; Bkgd = 0.1 ppm

Bulk PID = Hi 83 ppm; Avg = 63 ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA 1428

CP-0903 (Sameaews)

B (5-10') grayish brown clays, soft to very soft, moist to very moist;

0847 (chem odor - 5-10')
petroleum odor (strong) at 9'-10';
stained Blebs;

PID cont= 103 @ 9.7' ppm; Bkgd= 0.1 ppm
Bulk PID= Hi: 83 531 ppm; Avg= 62 460 ppm
RAD= cpm

LS

C (10-15') Brown / grayish brown clays;
very soft, moist to very moist; to 13';
then brown clays 13-15'; very moist to
H20 @ 12.9' - wet 13-15';
poss. blebs staining 10' - 13';

0851

PID cont= 58 @ 11.6' ppm; Bkgd= 0.1 ppm
Bulk PID= Hi: 324 260 ppm; Avg= ppm
RAD= cpm

LS

D (15-20') Brown clays, very soft, very moist
to wet 15-19.7';

0854

petroleum odor - faint to mod (15-17.8'
no obvious staining

PID cont= 13.0 @ 17.4' ppm; Bkgd= 0.8 ppm
Bulk PID= Hi: 80 ppm; Avg= 65 ppm
RAD= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA 1428

same drill crew / same geologist

CP-0905

Break asphalt @ 0933

Asphalt pack = 0" – 4"

Road base = 4" → 24"

24" – 30" concrete

A(0-2) Fill materials – mixed fine sands (v. fine to medium); clays, soft; 0-6"; then 6"-24" black/gray/brown/greenish brown clays; mod stiff-soft; some gravels; no obvious odor, no stains

0958

PID Cont: 3.9 @ 18" ppm; Bkgd = 0.8 ppm

Bulk PID Hi: 22 ppm; Avg = 16 ppm

Rad = cpm

A(2-5) Fill materials – 2 – 3.8'; mixed fine/black/brown clays; cream colored clays/fine sds; then brown clays – 3.8 – 5'; soft moist

1003

PID Cont = 3.4 @ 3.5' ppm; Bkgd = 0.8 ppm; no odor, no stains

Bulk PID Hi: 5.5 ppm; Avg = 2.5 ppm

Rad = cpm

Rubber found in sample

Location _____ Date _____

W Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA-1428

CP-0905

B(5-10') grayish brown clays - 5-8.5 soft, moist, no odor no stains, 8.5-10' Brown clays, soft, moist no odor, no obvious stains; high plasticity

1007

PID Conc= 2.1 @ 8.0' ppm; Bkgd= 0.1 ppm
Bulk PID= Hi 1.9 ppm; Avg= 0.1 ppm
Notes: cpm

C(10-15) Brown clays, soft to very soft moist to very moist, wet at 12.1'; slightly oily wet but very moist below 13'-15' faint chemical odor - VOC's? - solvents??

1011

H20 @ 12.1'-13' wet - possible staining

PID Conc= 2.5 @ 14' ppm, Bkgd= 0.1 ppm
Bulk PID= Hi 1.7 ppm; Avg= 0.8 ppm
Notes: cpm

D-(15-20) Brown clays, very soft, very moist to wet 15-20'; very faint chemical odor; no obvious staining;

1013

PID Conc= 1.2 @ 15.5' ppm; Bkgd= 0.1 ppm
Bulk PID= Hi 2.1 ppm; Avg= 1.5 ppm
Notes: cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA 1428

same crew / same geologist

CA 0906

Break asphalt @ 1103

Asphalt pad = 0" - 3"

Road base = =(3 - 10 - concrete 6)
↘ 10-18

A(0-2) Fill materials reddish brown clays, stiff, slightly moist; 0-12";
1117 then black/grayish black clays; mixed with some brown clays, few rock fragments; no odor no stains.

PID Cond = 0.1 ppm; Bkgd = 0.1 ppm
Bulk PID = Hi: 2.9 ppm; Avg = 2.6 ppm
RAD = cpm

A(2-5) fill materials 2 - 2.3'; as above then grayish brown clays, stiff, slightly moist;
1127

no odor no obvious stains

PID cond = 0.1 ppm; Bkgd = 0.1 ppm
Bulk PID = Hi: 4.7 ppm; Avg = 3.0 ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA-1428

CP-0906

B (5-10') grayish brown clays, soft, moist

1131 no odor no staining

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi: 2.6 ppm; Avg= 2.0 ppm

Nal= cpm

C (10-15) brown clays, very soft, very moist to wet at 13.4'-15';

1134 H2O @ 13.4', wet - to 15'

no odor no staining

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi: 2.0 ppm; Avg= 2.0 ppm

Nal= cpm

D (15-20')

Brown clays, very soft, very moist

1137 to wet 15-20';

no odor no staining

PID cont: 0.1 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 3.7 ppm; Avg= 2.5 ppm

Nal= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA-1428

Specimens

CP 0907

Brush asphalt @ 1231

Asphalt pad = 0-6"

Roadbase = 6" - 18"

A-(0-2) Fill materials - lt brown/tan clays; black/gray clays - stiff, slightly moist; 0-16" pieces of plastic

1246

16" - 24" - black/gray ish blk clays, stiff to mod soft, slightly moist, no odor, no stains

PID Cont. 0.5 @ 22" ppm; Bkgd 0.0 ppm

Bulk Haz Hi 4.4 ppm; Haz 3.0 ppm

RAD

A(2-5) brown/grayish brown clays, stiff - mod soft slightly moist, no odor no stains

1255

PID Cont. 1.6 @ 18" ppm; Bkgd 0.0 ppm

Bulk Haz Hi 18.2 ppm; Haz 17.6 ppm

RAD

Location ______ Date ______

Project / Client ______

Location BZC Date 6/16/15

Project / Client 55/A/428

B (5-10') brown clays, soft-firm to soft
slightly moist to moist below 9'-10';
no odor, no stains

1258

PID cont. = 0.1 @ 8' ppm; Bkgd = 0.0 ppm
Bulk PID Hi: 13.5 ppm; avg = 10.5 ppm
Rap = gpm

C (10-15') brown clays; grayish brown clays,
soft to very soft, very ~~softy~~ moist,
to wet @ 13'-15';
very very faint odor - solvent??
~~no odor~~ no stain

1301

PID cont. = 1.6 @ 11.5' ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 9.6 ppm; Avg = 8.0 ppm
RAP = gpm

D (15-20') brown clays, soft to very soft;
very moist 15-19'; then wet 19-20'
~~no odor~~ no stains
very very faint odor - solvent??
Very wet at 19.-20'

1304

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID Hi 2.0 ppm; Avg = 2.0 ppm
RAP = gpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA-1428

same area

CP-0908

Brush asphalt 1350

Asphalt pad = 0"=6"

Road base 6"=18"

AC(0-2) Fill materials - Brown clays

0-6", no odor no stains

1400 6"-24" grayish brown clays, dry to slightly moist, stiff to med soft

PID cont. 0.0 ppm; Bkgd 0.0 ppm

Bulk PID = Hi 1.5 ppm; avg 1.5 ppm

RAD = cpm

AC(2-5) Brown clays, stiff, slightly moist, brittle, dk brown clays

1409 no odor no stains

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 1.4 ppm; avg 1.4 ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/16/15

Project / Client SSPA-1428

CP-0908

B(5-10) Brown clays, mod soft-v soft at 9.0'-10', moist to very moist at 10', no odor no stains

1412

PID cond. = 0.0 ppm; Bkgd 0.0 ppm

Bulk Hz = Hi: 0.9 ppm; Avg = 0.9 ppm

RAD = cpm

C-(10-15) Brown clays, soft to very soft, high plasticity; moist to very moist 11.5-13.4 no odor no stains

1415

wet at 13.4' — 15'

PID cond. = 0.0 ppm, Bkgd 0.0 ppm

Bulk Hz = Hi: 0.7 ppm; Avg = 0.7 ppm

RAD = cpm

D(15-20) 15-17.6 brown clays, ll + brown clays very soft, very moist to wet @ 17.6-20'

1418

17.6-19'-grayish brown clays, very moist; no odor no stains; Color changes to gray at 19'

PID cond = 0.0 ppm; Bkgd 0.0 ppm

Bulk Hz = Hi: 1.5 ppm; Avg = 1.0 ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

⊗ Oily smell 25-27.5' →

Location BFC Date 6/16/15

Project / Client SSPG-1428

CP-0708

E (20-25') gray clays, very soft, very moist;

1421 (possible stained soils 20-25') oily smell faint chemical odor 20-25';

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

LS Bulk PID= Hi ⊗ 1.0 ppm; Avg= 0.8 ppm

NAP= cpm

F (25-30') gray clays - soft to very soft, moist 25-27.5 changes to greenish gray clays; 27.5-30'; stiff to very stiff moist; iron staining on broken surfaces; lean clays

1424

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0.1 ppm; Avg= 0.0 ppm

NAP= cpm

G (30-35') lt Green / greenish gray clays stiff to very stiff / hard / iron stained lean clays

1427

no odor no chemical stains

PID cont. = 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0.3 ppm; Avg= 0.1 ppm

NAP= cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/16/15

Project / Client SSPA-1428

CP 0908

H (35-40') (2-' recovery) stiff;
greenish clays 35-36.6' - then gravels, silts clays, & fine sands.
wet - 36.7' free water
1433 (38.3' refusal)
angular subrounded
BASAL gravel zone 36.7 - 38.1 - gravels - 36.7 - 38.1' (limestone)
PID Conc = 0.0 ppm; Bkgd = 0.0 ppm
BZ/MAX = H₂ ppm; Avg = ppm
RAR = ppm
Bedrock 38.1 - 38.3 - claystone/siltstone bedrock
weathered, slightly moist, micaceous; hard;
well rounded gravels 38 - 38.1'; qtz gravels

Location ______ Date ______

Project / Client ______

Location BFC Date 6/17/15

Project / Client SSAA-1428, Dan/Lars/Fred/Brandon/Steve) Geologist: [illegible]

CP-0909 Cloudy/mild)

Break Asphalt @ 0811
Asphalt pad 0"–3"
Concrete pad 3" 11"
Road base = 11"–18"

A(0–2) 0–12 Black clays organic rich; dry to slightly moist, loose

0822 12"–24" Brown clays – dry to slightly moist, loose
very faint chem. odor, no obvious stains
PID Cont.: 1.5e[10] ppm; Bkgd 0.1 ppm
Bulk PID: Hi: 3.7 ppm; Avg 2.0 ppm
notes

(A Duplicate BD-20-06(17/15))

A(2–5) Brown clays loose; dry to slightly moist

0830

No odor, no stains

PID cont.: 0.9 [illegible] ppm; Bkgd: 0.6 ppm
Bulk PID: Hi: 5.7 ppm; Avg: 4.5 ppm
notes

Location _____ Date _____

Project / Client _____

Location BFC Date 6/17/15

Project / Client SSPA-1428

CP-0909

B (5-10) Brown clays, soft, slightly moist to moist with depth.

0832

no odor no stains

(very faint chemical odor - sweet solvent?)

PID cont.= 0.9 Avg ppm; Bkgd= 0.8 ppm

Bulk PID=Hi 1.1 ppm; Avg= 1.0 ppm

RAD= cpm

C (10-15) Brown clays, soft to very soft, high plasticity, moist to very moist wet at 13.4' to 15'.

0834

*dry cleaning solvent smell (dry cleaning odor) possible faint chemical odor

PID cont.= 1.4 ppm; Bkgd= 1.1 ppm

Bulk PID=Hi 1.7 ppm; Avg= 1.0 ppm

RAD= cpm

D (15-20') 19.7 Brown clays, very soft, very moist to wet 15-20'

0837

19.7-20 gray clays, very soft - very moist

very faint chemical odor; throughout

no obvious stains

PID cont.= 0.9 Avg ppm; Bkgd= 0.3 ppm

Bulk PID=Hi: 1.3 ppm; Avg= 0.8 ppm

RAD= cpm

Location Date

Project / Client

Location BFC Date 6/17/15

Project / Client SSPA-1428

CP-1201 (Same as 1/5; Cloudy/mild)

(A-Duplicate BD21-06(17/15))

Break Concrete @ 0930
Concrete PAD = 0" - 3"
Roadbase = 3" - 6" gravels, sdy silts, + clays.

A(0-2) Brown / dk brown clays, soft, moist

0940

chemical / odor - sweet odor - dry cleaning chemical, no obvious stains

PID Contr 0.7 ppm; Bkgd = 0.4 ppm
Bulk PID = Ht: 4.6 ppm; Avg = 3.3 ppm
RAD = cpm

A(2-5) 2-2.5 Dark brown clays, soft, med stiff, moist;

0943

2.5 - 5 - Brown / lt brown clays, soft - med stiff; moist; (dry cleaning smell) faint chem odor, no obvious stains

PID cont: 0.6 ppm; Bkgd 0.3 ppm
Bulk PID = Ht: 1.4 ppm; Avg 1.0 ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

@ 11.9' - oily substance
002 ing from soil - photo taken

(SAMPLE - extra sample)
C2 - (13-15')

Bulk PID 6.7 ppm (HI) Avg 5.0 ppm

Location BFC Date 6/17/15

Project / Client SSPA-1428

CP120

B-(5-10') Brown clays, very soft, very moist to wet 5-10', high plasticity faint dry cleaning chemical odor throughout,

0958

PID cont: 0.6 ppm; Bkgd= 0.4 ppm
Bulk PID Hi: 2.1 ppm; Avg= 1.9 ppm
RAD= cpm

C (10-15) Brown clays, very soft, very moist to wet; oily stain 13-15'

1001

high plasticity 15'
very wet @ 13.6' - possible free product - strong chemical odor - dry cleaning

PID Cont. = 1.1 ppm; Bkgd= 0.0 ppm
Bulk PID Hi: 6.7 ppm; Avg= 5.0 ppm
RAD= cpm

D-(15-20) Brown clays, very soft, very moist to wet 15-20',

1004

changes to gray clays @ 19.5'-20' chemical odor dry cleaning odor, possible oily staining

PID cont= 0.5 ppm; Bkgd= 0.1 ppm
Bulk PID= 1.0 ppm; Avg= 0.7 ppm
RAD= cpm

Location ____ Date ____
Project / Client ____

Location BFC Date 6/17/15
Project / Client SSP1428
(same crews)

CP-1203
Break Concrete @ 1054
Concrete pad = 0" — 3"
~~road~~ road base = 3" - 6"

A(0-2) gray to grayish brown clays, mod soft to stiff, moist, with gravels
1103 (sands throughout - possible fill materials
chemical odor - dry cleaning smell; trash - rubber pieces
PID Cont = 0.2 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 0.3 ppm; Avg = 0.3 ppm
RAD = cpm

A(2-5) Fill materials - brown clay, with globs of gray & wood fragments
1117 some gravels & sands; moist, soft
dry cleaning chemical odor - dry clean chem; no obvious stains
PID Cont = 0.2 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 0.8 ppm; Avg = 0.7 ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

Raymond onsite 11:20
off 11:30
asked what hole we were on

Adam onsite ≈ 11:40 - 11:50

Location BJC Date 6/17/15

Project / Client SSA-428

CP-1203

1121 BC(5-6) Brown clays, s-t. ft to mod. soft 9.5'-@ 9.5-10'; moist to very moist at 9.5' to' oil staining faint chem odor;

PID Cont= 0.5 ppm; Bkgd= 0.1 ppm
Bulk PID= Hi: 0.1 ppm; Avg= 0.1 ppm
RAD= cpm

1124 C(10-15) Brown clays, very soft, very moist to wet @ 13.4'; -15'; poss. lite oily staining chemical odor - dry clean chem

PID cont= 0.5 ppm; Bkgd= 0.1 ppm
Bulk PID= Hi: 0.1 ppm; Avg= 0.0 ppm
RAD= cpm

1129 D-(15-20) Brown clays very moist to wet 15-20'; oily globs throughout; dry cleaning odor; oily staining throughout;

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi 0.2 ppm; Avg= 0.1 ppm
RAD= cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/17/15

Project / Client SSPA-1428

CA-1203

E (20-25) grayish brown clays 20-22'

134 grades to gray clays 22-25';

very soft, very moist to wet 20-25';

very very faint dry cleaning chem odor, with depth

PID Conc = 0.2 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.1 ppm; Avg = 0.0 ppm

RAD = cpm

Location ______ Date ______

Project / Client ______

Rain storm 1300 - 1330

(obstruction @ 34" time 1323)
⊗ pd am direct Falcon to pound through obstruction slowly
attempted to break through hammering but could not penetrate obstacle.
⊗ pieces of concrete observed at end of "shoe",
A(0-2) PID reading maybe due to moisture? Rose slowly

* Instructed by Harvey to move location 5' to the west @ 1406

Location BFC Date 6/17/15

Project / Client SSPA 1428

(SAndrews)

CP-120R
Break Concrete 1143
Concrete pad = 0" - 3"
Road base 3" - 6"

1300

A(0-2) 0-2': Fill materials - mixed black clays; gray clays mixed with gravels silts & sand; pieces of nylon bag/tarp; white @ 12"; then more as above; no stains, no odor

PID Cont: 0.0 ppm; Bkgd = 0.0 ppm
Bulk Max. Ht: 32.0 ppm; Avg = 16.0 ppm
NAP = cpm

~~A(2-5) 2 - 2'4": obstruction - concrete, -~~

~~(very very faint chem odor)~~

~~PID Cont. = ppm; Bkgd = ppm~~
~~Bulk Max. Ht: ppm; Avg = ppm~~
~~NAP = cpm~~

Location BJC Date 6/17/15

Project / Client SSPA-1428

CP120R | Brookasphalte 14" concrete = 0"-3" road base = 7"-6"

A(0-2) Fill materials - mixed black/gray clays, with gravels, small [illegible]; silt; moist, loose;

1424

PID cont.= ppm; Bkgd= ppm

Bulk HD= Hi ppm; Avg= ppm

RAD= cpm

A(2-5) 2-2.4' same obstruction level as CP-120 @ concrete obstruction.

PID cont.= ppm Bkgd= ppm

Bulk HD = Hi ppm; Bkgd= ppm

RAD= cpm

Location BJC Date 6/17/15

Project / Client SSPA 1428

CP-102R (see next page for A sample)

B(5-16) Brown clays, soft, moist very moist at 9.8'; no visible stains passible faint chem odor

1524

PID Cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk HD= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= cpm

C(16-15) Brown clays, soft to v. soft very moist to wet; changes to dk gray/brown at 14.5' very faint chemical odor; no visible stains wet at 13.6'

1525

PID Cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk HD= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= NA cpm

D(15-20') dk gray/brown mixed clays very soft to wet (5-20');

1530

no obvious odor, ~~no stains~~ possible small pockets of oil??

PID Cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk HD= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= cpm

Location BFC Date 6/17/15

Project / Client SSPA-1428

~~CP120R~~

~~A(0-2)~~

Break asphalt @ 1411
concrete = 0"-3"
road base = 3"-6"

~~1424~~

~~Fill materials - mixed black/gray clays, with gravels, sands, ~~rocks~~ silt; moist, loose;~~

~~PID cont. = ppm; Bkgd = ppm~~
~~Bulk MO = Hi ppm; Avg = ppm~~
~~RAD = cpm~~

~~A(2-5) 2-2.4' same obstruction level as CP-120 - concrete obstruction.~~

~~PID cont: ppm Bkgd = ppm~~
~~Bulk MO = Hi; ppm; Avg = ppm~~
~~RAD = cpm~~

Location BFC Date 6/17/15

Project / Client SSPA1428

CP-1202R (see next page for p. 78 A sample)

B(5-10')

1524

Brown clays, soft, moist very moist at 9.8'; no visible stains possible faint chem odor -

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk MO = Hi 0.0 ppm; Avg = 0.0 ppm
RAD = cpm

C-(10-15) Brown clays, soft to v.soft very moist to wet; changes to dk gray/brown at 14.5' very faint chemical odor; no visible stains wet at 13.6'

1525

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk MO = Hi; 0.0 ppm; Avg = 0.0 ppm
RAD = NA ~~cpm~~

D(15-20') dk gray/brown mixed clays very soft to wet (15-20');

1530

no obvious odor, ~~no stains~~; possible small pockets of oil??

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk MO = Hi 0.0 ppm; Avg = 0.0 ppm
RAD = cpm

Location BFC Date 6/17/15

Project / Client SSPA-1428

CP-1202R (same as a 5)

Break asphalt @1459

Asphalt pad = 8" asphalt 0-8"
concrete = 8"—12"
(moved to original location) road base 12"–18"

A (0-2)' gray/grayish black organic rich clays; stiff, dry/slightly moist;
1512
changes to brown clays @ 18-24"; mod soft, loose, no obvious stains
possibly very faint chemical odor

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm
RAD = cpm

A (2-5') Brown clays, soft mod-stiff, loose, slightly moist;
1519
no noticeable odor/or stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm
RAD = cpm

Location BFC Date 6/17/15

Project / Client SSPA-1428

CP-1202R

E (20-25') Grayish brown clays - 20-21' changes to gray clays 21-25'
soft, very soft moist to very moist
20-25';
~~1524~~ 1533
no odor, no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 cpm
Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm
RAD = cpm

F (25-30') Gray clays, very soft, very moist to wet;
~~1527~~ 1536
no odor no stains

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi. 0.0 ppm; Avg = 0.0 ppm
RAD = cpm

G (30-35') gray clays, stiff, moist no odor no stains
~~1536~~ 1537
31.6 grades into lean clays, lt gray/greenish gray; iron stained, stiff, no odor, moist

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm
RAD = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/17/15

Project / Client SSPA-1428

CR-1202R

H (35-40') greenish gray, lean clays, mod soft, s.t.ff, mo.st, 35-37.9'

542 37.9-38.2 - gravels- limestone gravels, wet

Refusal at 38.5'

angular to sub angular, subrounded <2" dia

Bedrock at ~~38.7~~ 38.2 - 38.5 - siltstone

lt. green/greyish green siltstone/claystone

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

PID Boh= lt; 0.0 ppm; Avg= 0.0 ppm

NaI= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/17/15

Project / Client SSPA-1428

CR-1202R

H (35-40') grayish gray, lean clays, mod soft, s.t.ff, mo.st, 35-37.9'

[542] 37.9-38.2 - gravels-limestone gravels, wet

Refusal at 38.5'

angular to sub angular, subrounded <2" dia

Bedrock at ~~37.9~~ 38.2 - 38.5 - siltstone

lt. green/grayish green siltstone/claystone

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

PID Bulk- lt; 0.0 ppm; Avg= 0.0 ppm

Max= ppm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/17/15

Project / Client SSPA-1428

SAMPLERS

CP-3801

Break asphalt @ 1655

Asphalt pad = 4" (4"-14" concrete)

road base = 14" 20"

AC(0-2) black/grayish black clays, dry, stiff, loose, mixed with limestone

1715 dol. / gravels < 2" diam, some sand / silt & fill (materials), lt brown / tan clays

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = H. 0.2 ppm; avg = 0.0 ppm

AC(2-5) Black/grayish black clays, stiff, slightly moist,

1720 mixed with gravels to 2.5" 2.5-5' BGS organic rich clays, stiff, moist, no odor, no stains

PID cont: 0.0 ppm Bkgd = 0.0 ppm

Bulk PID = H. 0.2 ppm Avg = 0.1 ppm

B(5-8) Black clays / grayish black stiff, slightly moist,

1723 grades to grayish brown @ 7-8', no odor no stains

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = H: 0.0 ppm; Avg. = 0.0 ppm

Location _____ Date _____

Project / Client _____

Location BFS Date 6/10/15

Project / Client SSA-1425
CA-3801

C (10-15) Brown clays, soft to very soft, moist to very moist wet at 13.2'—13.7'

1727

H20 @ 13.2'—13.7'

PID cont.= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID-Hi: 0.2 ppm; Avg= 0.2 ppm

D (15-20)

PID= Cont.= ppm; Bkgd= ppm
Bulk PID= Hi: ppm; Avg= ppm

Location _____ Date _____

Project / Client _____

Location BFS Date 6/10/15

Project / Client SSA A-1425
CP-3801

C (10-15) Brown clays, soft to very soft, moist to very moist wet at 13.2' – 13.7'

1727

H20 @ 13.2' – 13.7'

PID cont.: 0.0 ppm; Bkgd: 0.0 ppm

Bulk PID-Hi: 0.2 ppm; Avg: 0.2 ppm

D (15-20)

PID: Cont.: ppm; Bkgd: ppm

Bulk PID: Hi: ppm; Avg: ppm

Location ______ Date ______

Project / Client ______

Location BZC Date 6/8/15

Project / Client SSPA-1428 - Clear/warm

~~Drillers-Fred/Brandon~~ (75°F)

Geologist - Cups/Leland

CP-3802

Break asphalt @ 0815

Asphalt pad = 0" — 3

Concrete pad = 3" — 9"

Road base = 9" — 12" - gravels, sands, silts + clays

A(0-2) Fill materials - mixed - blk/brown/ gray clays, with dol/limestone gravels; stiff, loose, dry; pieces of claystone bedrock (gray); 18-24" - loose, hard, dry no odor no stains

0-2'

0833

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 0.8 ppm; Avg = 0.4 ppm

RAD = 13753 cpm

A(2-5) 2 - 3' - mixed blk/gray clays with gravel zone at 34"

0847

(gravel zone @ 34" - dol/+ limestone - sands + silts mixed), prasized to 2" diam;

Blk organic clays 3.5 - 5'; slightly moist, stiff

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 0.3 ppm; Avg = 0.1 ppm

RAD = 12292 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/18/15

Project / Client SSPA-1428

B (5-10) Blk/gray brown clays, stiff
slightly moist 5-8'
0851 very moist to wet at 9.5'
8-10' gray brown clays stiff-med soft
very moist to wet at 9.5-10'
PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID Hi 0.1 ppm; Avg= 0.0 ppm
Rad 13141 cpm

C (10-15) Brown clays, soft to very soft,
very moist,
0853
wet at 14.3'; No odor, no stains
PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID Hi 0.0 ppm; Avg= 0.0 ppm
Rad 13,396 cpm

D (15-20) Brown clays very soft,
wet; 15-20'
0856 no sample collected
in water zone - No odor; No stains
PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID Hi ppm; Avg= ppm
Rad= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/18/15

Project / Client SSPA-1428 (same crews)

CP-223

Break Asphalt @ 0932

Asphalt pad = 0" - 3"

Concrete pad = ——

Road base = 3-6"

A(0-2) Fill materials - mixed BH/brown clays & gravels (dol/limestone) - pea sized to < 2"; some fn sands & silts; greenish gray; loose, dry; st. ff clays no odor no stains

0945

PID Cont = 0.0 ppm; BKgd = 0.0 ppm

Bulk/Max H. 0.7 ppm; Avg = 0.6 ppm

RAD = 16,592 cpm

A(2-5) 2-3' SAND - mixed BH/brown/brown clays, slightly moist; with some gravels, sands & silts;

1007

3' — 5' BH clays/dk gray clays, st. ff, moist

PID Cont: 0.0 ppm; BKgd = 0.0 ppm

Bulk/Max H: 0.3 ppm; Avg = 0.3 ppm

RAD = 16681 cpm

Location _____ Date _____

Project / Client _____

Location BJC Date 6/18/15

Project / Client SSPA-1028

CP223

B(6-10) Black/dk gray clays; stiff-to mod soft; moist, no odor, no stains

1009

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: 0.5 ppm; Avg= 0.4 ppm
RAD= 17118 cpm

C-(10-15) Black/grayish black clays 10-10.5' then brown clays/slightly grayish brown 10.5-15'; stiff to mod soft 10-14.6' then soft 14.6-15' - moist to very moist at 14.6' wet

1017

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: 0.1 ppm; Avg= 0.0 ppm
RAD= 16899 cpm

D-(15-20) Brown clays, very soft, very moist to wet 15-20'; all samples in water (no samples collected) no odor no visible stains

1020

PID cont. 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: ppm; Avg= ppm
RAD= cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/18/15

Project / Client SSPA 1428

(same crews)

CP-0301

BH Gravel surface @ 1100

landscape gravels - 0" — 2" soil

concrete pad - 2" — ~~2 ft~~ 8"

gravels 8" — 24"

A(0-2) fill materials - mixed blnd/ brown/gray clays with cobbles & gravels; dry, loose;

1122

no odor no stains

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = H; 1.5 ppm; Avg = 0.5 ppm

RAD = 13706 cpm

A(2-5) 2- 4' — fill materials — same as above - gravels throughout.

(2' of recovery)

1127

4- 5 - Black clays; med soft, moist, no odor no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = H: 0.0 ppm; Avg = 0.0 ppm

RAD = 12825 cpm

Location _____ Date _____

Project / Client _____

Location B7C Date 6/18/15

Project / Client SSPA-1428

CP0301

B-(5-10) Black clays 5-10 -
1130 stiff, slightly moist., no odor
no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 13234 cpm

C (10-15) 10- 10.8- Black clays, stiff,
slightly moist;
1140 10.8- 15.- Brown clays, moist
to very moist; no odor no stains
Wet at 14.2' - soft to very soft

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 12969 cpm

D(15-20) ~~X~~ brown clays, very
1145 Soft V. moist to wet 15-20'
(No Sample collected)
no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi ppm; Avg= ppm
RAD= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/18/15

Project / Client SSPA-1428

(same cows)

CP 0302

Break Concrete @ 1244

Concrete pad = 0" – 8"

sub base = 8" – ~~28"~~ 36"

A(0-2) Fill materials – mixed black, green, tan clays; dry; loose; 0-18"- 18-24"- Black organic clay; slightly moist., stiff, – no odor no stains

[316]

PID cont. = 0.0 ppm; Blank = 0.0 ppm

Bulk PID=Hi 2.8 ppm; Avg = 2.0 ppm

RAD = 13530 cpm

AC2-5) Black clays slightly moist, loose, organic rich, (marshy odor;) dom no odor no stains

[327]

PID Cont: 0.0 ppm; Blank 0.0 ppm

Bulk PID=Hi: 1.0 ppm; Avg 0.5 ppm

RAD = 13381 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/18/15

Project / Client SSPA 1428

CP-0302

B(5-10) Black clays to 9.0, stiff slightly moist

1344

then

9-10' — Brown clays, stiff slightly moist

PID Cont. = 0.0 no odor no stains ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 0.0 ppm; Avg = 0.0 ppm

RAD = 13193 cpm

C(10-15) tan/Brown clays., soft to very soft, mo. st to very mo. st, wet 13.8'-15';

1350

no odor no stains

Wet at 13.9'

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

RAD = 13688 cpm

D(15-20) Brown clays, very soft, very mo. st to wet 15-20';

1353

no odor; no stains, (No sample - at/in water zone)

PID Cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: ppm; Avg = ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/18/15

Project / Client SSPS 1428

(same crews)

CP 30 3701

Brush concrete @ 1438

Concrete rubble = 0"- 10"

Road base = 10- 24"

A(0-2) fill materials- tan to lt brown - silty / sandy clays; v. fine sands, slightly moist, loose,-

1449

no odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= H: 0.0 ppm; Avg= 0.0 ppm

RAD= 13865 cpm

A(2-5) fill materials- tan / to lt brown clays, silty / sandy clays; i moist; loose; (v. fine sands);

1500

no odor no stains

PID cont= 0-0 ppm; Bkgd= 0-0 ppm

Bulk PID= H: 0.1 ppm; Avg= 0.0 ppm

RAD= 14022 cpm

Location ______ Date ______

Project / Client ______

Location BIC Date 6/18/15

Project / Client SSPA-1428

CP 3701 (1.6' of recovery)

B(5-10) tan/lt brown silty/sandy clays, ~~silty~~ clayey silts; v.fn sands/silts;

1505

no odor no stain

⊗ perch water? 8.6'–9'; free water

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 0.1 ppm; Avg = 0.0 ppm

RAD = 12864 cpm

C(10-15)/13' refusal at 13' (wet 10–13')

10–12.6" – tan/lt. brown clayey silts/silty clays with v.fn sands, wet

1509

very soft; 12.6–13' greyish brown clays/silts with limestone/dol. gravels <2" diam.; + weathered clays/silts

no odor no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 0.0 ppm; Avg = 0.0 ppm

RAD = 13,159 cpm

D(15-20)

PID cont = ppm; Bkgd = ppm

Bulk PID = Hi: ppm; Avg = ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

* took photo of AC(2-5) interval 2-2.5' - coarse gravels + sands

Location BFC Date 6/18/15

Project / Client SSPA-1428

(same crew)

CA3702

Break Concrete @ 1557

Concrete Pad = 0" - 10"

Roadbase = 10 - 18"

AC(0-2) Fill materials - mixed tan/lt brown clays, silty clays, clayey silts w. fine sands; 0-18"

1613 18-24' coarse gravels, well graded; loose, moist, - lt brown/greenish gray; some small gravels

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 0.2 ppm; Avg = 0.0 ppm

RAD = 03/85 cpm

AC(2-5) Free water @ 2.5' (perched) Coarse gravels at 2.0 -

1620 clay/limestone fill materials; angular gravels 1" - 4" diameter; hole caving in; decision made to push to 5' + attempt to collect B-Sample

PID Cont = ppm; Bkgd = ppm

Bulk PID = ppm; Avg = ppm

RAD = NO SAMPLE cpm

(perched water zone 2.5-6.5')

Location _____ Date _____

Project / Client _____

Location BFC Date 6/18/15

Project / Client SSPA-1428

CP-3702

B (5-10') grayish black clays, very soft - very moist to wet; (5-8') high plasticity

1630 grayish brown clays 8-10' medium plasticity

PID conc= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi; 2.3 ppm; Avg= 2.0 ppm

RAD= 13235 cpm

C (0-15) 0-13' gray clays; soft to very soft

13-15' grayish brown clays; soft to very soft

1635 ; very moist to wet @ 14.6-15'

PID Conc= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= 0.5 ppm; Avg= 0.3 ppm

RAD= 12988 cpm

D (5-20) wet 15-20'—

PID conc= ppm; Bkgd= ppm

Bulk PID= Hi ppm; Avg= ppm

RAD= cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/19/15

Project / Client SSPA-1428

Drillers: Fred/Brandon ; SSPA crew/Leland

Clear/warm

CP-0904R

Brush Asphalt @ 0814

Asphalt Pad = 0"-4"

Concrete Pad = 4"-8"

Road Base = 8"-12"

A(0-2) mixed brown/grey/dk brown clays, stiff; s/lightly moist.

0820

no odor no stains

~~PID cont. = 3.5 ppm; Bkgd = 0.0 ppm~~

PID cont. = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 1.6 ppm; Avg. 1.9 ppm

RSO = 14192 cpm

A(2-5) Brown clays, med soft, moist.

Very moist @ 4.8'-4.9';

0826 very faint chemical odor 3.-5';

PID cont: 3.9@3.5'; 209@4' ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 171 ppm; Avg = 162 ppm

RSO = 14698 cpm

Location ______ Date ______

Project / Client ______

Location BEC Date 6/19/15

Project / Client SS/A-1428

CP-0904R

B (5-10') Brown clays, soft to v. soft
moist to very moist;
wet @ 9.0'-10';

0829

Very faint chem. odor w/o stain

PID cont. 42 @ 9.8' ppm; Bkgd = 0.0 ppm
Bulk PID-H: 101.0 ppm; Avg = 80.0 ppm
NAP = 14307 ppm

C- (10-15) Brown clays, very soft
very moist to wet

0833

faint chem odor to 15', ~~18.5~~
wet at 13.0-15' high plasticity
PID cont. = 1.8 @ 15' ppm; Bkgd = 0.0 ppm
Bulk PID H: 175 ppm; avg = 160 ppm
NAP = 15193 ppm

D (15-20) 15-18.5 Brown clays, very soft
very moist to wet

0835

18.5-20' gray clays, soft, moist to v. moist high plasticity
PID cont. = 1.7 @ 20' ppm; Bkgd = 0.0 ppm
Bulk PID = H: 43.0 ppm; Avg = 42.7 ppm
NAP = 14569 ppm

Location ______ Date ______

Project / Client ______

Location BZC Date 6/19/15

Project / Client SSPA-1428

CP0904R

E (20-25) Gray clays very soft, very moist to wet 20-25

0839

no obvious stains; faint chem odor

PID cont= 1.9 @ 23' ppm; Bkgd= 0.0 ppm

Bulk PID Hi: 21.9 ppm; Avg= 20.6 ppm

RAD= 15008 cpm

F (25-30) gray clays 25-29' moist, soft then loamy greenish gray

0843

clays 29-30' stiff - slightly moist no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID Hi: 5.2 ppm; Avg= 3.0 ppm

RAD= 15007 cpm

G (30-35') green/greenish gray clays, loam, soft - very moist - to wet at 31.2 with iron staining

0845

wet at 31.2-32', then stiff 32.3-34' dryer

PID cont. = 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 15023 cpm

(then soft-wet 34-35')

Location ____ Date ____

Project / Client ____

Location BFC Date 6/19/15

Project / Client SSPH 1428

CP 0904R

H (35-40): Refusal @ 38'

0848

greenish gray/greenish clays, loamy clays, wet 35.6' - to 37.5

Bedrock 37.5-38'

PID Conc: 0.0 ppm; Bkgd: 0.0 ppm

BulkPID: Hi: 9.9 ppm; Avg: 8.0 ppm

RAD: 14483 cpm

Ⓐ Bedrock - greenish silty claystone, clayey siltstone - weathered;

very wet gravel zone with subangular rounded gravels of limestone/(dol)/quartz pebbles - 35.6 - 37.5 with sands, silt + clays throughout.

Location _____ Date _____

Project / Client _____

Location BFC Date 6/19/15

Project / Client SSPA-1428

(same area)

CP-090/R Break asphalt @ 9:15

Asphalt pad = 0-6"

Concrete pad = NA

Road base = 6"-18" - started completion below 18"

A(0-2)

0928 (No recovery in core barrel)

PID Cont. = NA ppm; Bkgd = NA ppm

Bulk PID: Hi: 0.8 ppm; Avg = 0.8 ppm

RAD = 14163 cpm

A(2-5) Tan/lt brown clays, silty clays; dry to slightly moist,

0930 no odor no stains

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID: Hi: 0.0 ppm; Avg = 0.0 ppm

RAD = 14,163 cpm

B(5-10) Brown clays, 5-8.6' moist to very moist, gray to black 8.6-10'; stainings 8.5-10'; petroleum odor

0934 PID cont = 20.6 @ 9' ppm; Bkgd = 0.0 ppm

Bulk PID: Hi 27.6 ppm; Avg = 25 ppm

RAD = 14346 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/19/15

Project / Client SSPA-M28

CP-0901R

C(10-15) grayish brown clays, soft, moist, turning moist

0937 petroleum odor; possible staining, wet at? 13.2'

PID cont= 8.7 @ 12.5' ppm; Bkgd= 0.5 ppm

Bulk MeOH: 27.9 ppm; Avg= 26.0 ppm

RAD= 14561 cpm

D(15-20) ~~same lithology color~~ ~~dry moist to wet clays~~ (CH)

0939 faint petroleum odor; possible blebs staining high plasticity

PID cont. = 5.2 @ 18' ppm; Bkgd= 0.5 ppm

Bulk MeOH: 36.1 ppm; Avg= 32.0 ppm

RAD= 14762 cpm

E (20-25) Gray clays, soft, moist; high plasticity

0941 very faint chem odor

No obvious staining

PID cont= 0.7 ppm; Bkgd= 0.5 ppm

Bulk MeOH: 3.4 ppm; Avg= 3.8 ppm

RAD= 14985 cpm

Location

Date

Project / Client

Location AFC

Date 8/19/15

Project / Client SSPA

CP-090IR

F(25-30) 25-28.5 gray/grayish black clays soft to very soft; moist to very moist; 28.5-30 stiff greenish gray clay/lean clays very faint petroleum odor

0944

PID Cont= 1.7 @ 28.0 ppm; Bkgd= 0.5 ppm

Bulk PID= Hi 2.4 ppm; Avg= 2.0 ppm

RAD= 14836 cpm

G(30-35') greenish gray/green lean clays, with iron staining

0948

no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 3.0 ppm; Avg= 2.5 ppm

RAD= 14897 cpm

H(35-40') Refusal @ 39.2'

same litho to 36.4-

0953

36.4 → 38.5 - gravelly, sands, silts & clays (limestone/dol. gravels), wet 36.4-38.5'

Bedrock @ 38.5

PID cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 5.0 ppm; Avg= 3.5 ppm

RAD= 14,263 cpm

⊗ claystone/siltstone bedrock greenish/greenish gray, hard, dry, bedded.

gravels - subangular, subrounded, rough surface

Location ____ Date ____

Project / Client ____

could not hand auger below 3.0
will attempt to push through with
drill bit; - able to grind through
with steel bit;

Location BFC Date 6/19/15

Project / Client SSPA-1428

same crew Steve/(Brandon) Cliff & Leland

CP-2301
grass surface @ 1227

AC(0-2) Fill material - topsoils (→ dk brown, silts & clays) 0-6"; then fill materials mixed black / brown clays with gravels; 6-24": loose, slightly moist

1236

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk MBAsH: 0.7 ppm; AVS= 0.7 ppm
RAD= 15289 cpm

AC(2-5) 2-2.5 - clays, brown clays then coarse gravels, sands & silts to 3.' concrete at 3-5'; through after 5'

1305

PID cont. = 0.0 ppm; Bkgd= 0.0 ppm
Bulk MBAsH: 2.2 ppm; AVS= 1.0 ppm
RAD= 16309 cpm

Location ____ Date ____

Project / Client ____

Location BFC Date 6/19/15

Project / Client SSP-1428

CP-2301

B(5-10) grayish black clays, stiff slightly moist.

1308

change to grayish brown clays @ 9.5'
no odor no stains

PID cont. = 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID = Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 16595 cpm

C(10-15) grayish brown clays, very soft, very moist to wet at 14.7'-15'
no odor no stains; high plasticity

1312

wet at 14.7'

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: ~~16,570~~ 0.0 ppm; Avg= 0.0 ppm
RAD= 16,570 cpm

D(15-20) grayish brown/brown clays. very soft, very moist, wet

1316

No ~~0~~ Sample All in water zone 15-20. no odors, no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: ppm; Avg. = ppm
RAD= cpm

Location _____ Date _____

Project / Client _____

Location RFC Date 6/19/15

Project / Client SSPA-1428

(Sameacres)

CP 2302

Gravel surface @ 1347

Road base gravels/silts, sds, clay

0"–24"

A(0-2) BH/grayish black clays, slightly moist; stiff/loose; 0-2';

1418

no odor; no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 14,350 cpm

A(2-5) BLACK/grayish black clays, stiff-med soft, moist, moisture increases with depth

1435

no odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID-Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 14639 cpm

Location _____ Date _____

Project / Client _____

6/19/15
Equipment Blank collected @ 1600

Location BFC Date 6/19/15

Project / Client SSPA-1428

CP-2302

B (5-10) Grayish brown clays, soft, stiff; moist,

1445

no odor no stains

PID cont.: 0.0 ppm; Bkgd: 0.0 ppm
Bulk PID: 0.0 ppm; Avg: 0.0 ppm
RAD: 14053 cpm

C (10-15) Grayish brown clays, very soft. v. moist to wet, wet at 14.2 +/- 15': high plasticity

1452

no odor no stains

PID cont: 0.0 ppm; Bkgd: 0.0 ppm
Bulk PID: 0.0 ppm; Avg: 0.0 ppm
RAD: 14296 cpm

D (15-20) Grayish brown clays wet 15-20'; high plasticity; very soft no odor no stains

1455

(no sample - Alluvium Zone)

PID cont: 0.0 ppm; Bkgd: 0.0 ppm
Bulk PID: NA ppm; Avg: NA ppm
RAD: cpm

Location ______ Date ______

Project / Client ______

PID

0 - 6	0.0
6 - 12	0.0
12 - 18	0.0
18 - 24	0.0
2.' - 2.5	0.0
2.5 - 3.0	0.0
3.0 - 3.5	0.0
3.5 - 4.0	0.0
4.0 4.5	
4.5 - 5	

Location BZC Date 6/22/15

Project / Client SSPA -1428

Drill Crew / / Geologist; CWP/Theo

Hot partly cloudy; 79°F to 95°F
Area Bldg 26

CP- 2701
Break concrete @ 0955
Concrete pad - 0"-5"
Road base - 5"-9"

A(0-2) Black Clay; stiff; slightly moist (Fill)

1016

no odor no stain;

PID cont. = 0.0 ppm; Bkgd. 0.0 ppm
Both PID Hi: 0.0 ppm; AvgZ 0.0 ppm
NaI: 14,075 cpm

A(2-5) (Fill materials) mixed Bk, Brown clays; with gravels; stiff; slightly moist

1030

no odor no stains

PID cont. 0.0 ppm; Bkgd: 0.0 ppm
Both PID Hi - 0.0 ppm; AvgZ 0.0 ppm
NaI: 13,130 cpm

CREW #2

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Location BFC Date 6/22/15

Project / Client SSPA-1428

CA-2205

B-(5-10)

RAE= cpm

PID cont= ppm; Bkgd= ppm

Bulk Max Hi: ppm; Avg= ppm

C-10-15

PID cont= ppm: Bkgd= ppm

Bulk Max Hi: ppm; Avg= ppm

RAE= cpm

D-(15-20)

PID cont, ppm. Bkgd. ppm

Bulk Max Hi: ppm; Avg= ppm

RAE cpm

Location _____ Date _____

Project / Client _____

	RAW PID	Bulk PID
0-6	0.0	0.0
6-12	0.0	
12-18	0.0	
18-24	0.0	
2.-2.5	0.0	
2.5-30	0.0	
30-35	0.0	
3.5-40	0.0	
4.0-4.5	0.0	
4.5-50	0.0	0.0

Location BFC Date 6/23/15

Project / Client SSPA-1428

Ashland/Steve/Brandon: Geologist: Cam/Tess

Clear, warm- 75°F-85°F

CP-285

Break ground surface @ 0850 to 0935

ground- sands, silt & clays, 4" ± landscape membrane, gravels 2-3", angular, dolomite/limestone; 0"-24"

A(0-2) Black organic rich clays, stiff to very stiff, dry,

0940

no odor no stain

PID Cont: ≈ 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0 ppm; Avg= 0 ppm

RAD= 14306 cpm

A(2-5) Blk organic rich clays grading to grayish black med stiff, slightly moist,

1010

no odor no stain

PID cont. 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi ppm; Avg= ppm

RAD= 13948 cpm

Rite in the Rain

Location ________ Date ________

Project / Client ________

Location BFC Date 6/23/15

Project / Client SSPA-1428

CP-285

B-(5-10) Brown/grayish brown clays soft, moist

1015

no odor no stains

PID cont: 0.0 ppm; Bkgd: 0.0 ppm

Bulk PID-Hi: 0.1 ppm Avg: 0.1 ppm

RAD= 13334 cpm

C (10-15') same lith & color moist to very moist at 14.75', soft-to very soft 14.75'

1023

no odor no stains

PID cont: 0.0 ppm; Bkgd: 0.0 ppm

Bulk PID=Hi: 0.1 ppm; Avg: 0.0 ppm

RAD= 13636 cpm

D (15-20') Brown clays, soft to v. soft @ 17.6'; very moist to wet @ 17.6' → 20'

1030

no odor no stains

PID cont: 0.0 ppm; Bkgd: 0.0 ppm

Bulk PID=Hi: 0.1 ppm; Avg: 0.0 ppm

RAD= 13,478 cpm

Location ______ Date ______

Project / Client ______

RAW PID		BulkPID
0 - 6"	0.0	0.0
6"-12"	0.0	↓
12"-18"	0.0	
18"-24"	0.0	
2.0 - 2.5	0.0	
2.5 - 3.0	0.0	
3.0 - 3.5	0.0	
3.5 - 4.0	0.0	
4.0 - 4.5	0.0	
4.5 - 5.0	0.0	0.0

⊛ obstruction @ 2.5' below surface, large cobble/concrete piece, will attempt to grind past obstruction with star bit & collect soil samples below that point; xable to grind through/around rock @ 1149

obstruction @ 4'; will use rods to push 4-5' collect sample w core barrel, if possible.

Location BFC Date 6/23/15

Project / Client SSPA-1428

(Simultaneous)

CP-2206

Broke Concrete @ 1107 to 1149

concrete pad = 0"-8"

Road base = 8"- 30"

gravels, sands, silts & clays

A-(0-2) Black clays; stiff, med soft, stiff mixed brown, greenish gray clays, no odor no stains

1156

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

BulkPID=Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 10812 cpm

A(2-5) (Fill materials) — mixed blk/brown clays, pieces of bedrock claystone/shales; siltstone sl gray/greenish gray & gray, all the way from 3.0 - 5.0'

1224

No odor No stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

BulkPID= Hi 0.5 ppm; Avg= 0.3 ppm

RAD= 13,882 cpm

Location ______ Date ______

Project / Client ______

Location BJC Date 6/23/15

Project / Client SS/AJ428

CP-2206 (SAME AREA)

B (5-10) (No recovery on B sample possible rocks blocking core barrel (most likely fill materials))

1258

PID cont= ppm; Bkgd= ppm
Bulk MD2 Hi ppm; Avg= ppm
RAD= cpm

C-(10-15) Blk clays soft, moist grades to grayish brown clays at 12-15; soft, moist no odor no sheen

1306

PID cont= 0.0 ppm, Bkgd= 0.0 ppm
Bulk MD2 Hi 0.2 ppm; Avg= 0.2 ppm
RAD= 13946 cpm

D (15-20') grayish brown clays, soft to very soft at 18.5-20'; moist to very moist, wet at 19.7'

1310

H2O @ 19.7'

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk MD2 Hi 0.2 ppm; Avg= 0.2 ppm
RAD= 13,344 cpm

12

Location ______ Date ______

Project / Client ______

13

Location BKC Date 6/23/15

Project / Client SSPA/428 (5 Andaeus)

E @ 20-25 / Gray/Grayish-brown Clays Zone totally saturated

All below waterline @ 19.7'

13/8

No sample collected

v. soft, wet 20-25;

PID cont = NA 0.0 ppm; Bkgd NA 0.0

Bulk MM = H; NA ppm; Bkg = NA ft³

RAD = NA cpm

Rite in the Rain

Location _____ Date _____

Project / Client _____

	PID (ppm)	Bulk PID (ppm)	
0 - 6	0.6		
6 - 12	1.7		
12 - 18	0.0		
18 - 24	0.0		
2 - 2.5	0.0	27	
2.5 - 3.0	4.7	29	faint petro odor
3.0 - 3.5	6.5	37	faint petro odor
3.5 - 4.0	460	727	↓
4.0 - 4.5	874	1482	strong petro odor
4.5 - 5.0	1,580	1,038	↓

* 1500 stopped due to rain / lightning

Equipment Blanks collected @ 1530

Bkfl @ Lab 1600

Location BFC Date 6/23/15

Project / Client SSA-1428

CP-2003 (same news)

Brush Asphalt @ 1427

Asphalt pad = 0" - 6"

Concrete pad = 6" - 12"

Road base = ↓

gravels, sands, silts & clays

AC0-2 (Fill materials)

mixed bk./brown clays, dry, loose, stiff

1445

no odor, no stain

PID conts 1.7 @ 6-12" ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 33.9 ppm; Avg = 28.4 ppm

RAD = 13792 cpm

AC2-5 Black organic rich clays slightly moist; soft to med. stiff,

staining → 3.0 to 5'

1616 1639 faint → to strong petroleum odor 2.5 — 5.0.

PID conts 1,580 @ 4.5-5.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: 1,482 4.0-4.5 ppm; Avg = 500 ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

Location BJC Date 6/23/15

Project / Client SSPA-1428

CA-2003

B (5-10') Bk/grayish Bk clays, soft moist;
1692 mod. petroleum odor; poss. thin Bk stringers

PID Cont.= 278 @ 6.5' ppm; Bkgd= 0.0 ppm
Bulk PID-Hi: 190 ppm; Avg= 180 ppm
RAD= 12567 cpm

C (10-15') gray/grayish brown clays, soft to very soft at 12'-15'; moist to very moist, wet at 12'; wet at 12-15
1700 faint petroleum odor
PID Cont.= 1.6 @ 11.5' ppm; Bkgd= 0.0 ppm
Bulk PID-Hi: 0.7 ppm; Avg= 0.7 ppm
RAD= 13203 cpm

D (15-20) grayish brown clays very soft, very moist to wet @ 17.5
1704 very faint petroleum odor no obvious staining
H2O @ 17.5'
PID Cont.= 0.2 @ 16.5' ppm; Bkgd= 0.0 ppm
Bulk PID-Hi: 0.2 ppm; Avg= 0.0 ppm
RAD= 12675 cpm

Rite in the Rain

Location _____ Date _____

Project / Client _____

Note: hole will be advanced adj. to broken steam drain pipe coming from bldg roof drains. pipe broken by hand auguring on 6/24/15; pipe repaired & location ready to be drilled below asphalt, roadbase & concrete slurry used to stabilize drain pipe.

Location BFC Date 6/24/15

Project / Client SSPA-1428

Crew: Steve/Brandon / CWP/Theo

(Duplicate: BD-20-06/24/15)

Host 72-92°F, humid

CP-2205

Break Asphalt @ 0960

Asphalt pkg = 0" – 4.5"

Road base 4.5 – 20"

Bottom of core 20" – 38" – Concrete slurry

A(0-2) Bk clays & silts moist

0911

No odors noted

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk MP-Hi 0.4 ppm; Avg = 0.0 ppm

NaI = 13,355 cpm

A-(2-5) gray / grayish Bk clays soft, moist

0917

~~No odor~~ no stains

V. faint petroleum odor

PID cont = 0.0 ppm; Avg = 0.0 ppm

Bulk MP-Hi 14.4 ppm; Avg = 0.0 ppm

NaI = 13,793 cpm

Rite in the Rain

Location ______ Date ______

Project / Client ______

~~Sample: CP-22~~

Location BFC Date 6/24/15

Project / Client SS PA-1428

CP-2205

B (5-10') Same litho & color

0927 strong petro. odor

PID Cont= 127 @ 7' ppm; Bkgd= 0.0 ppm
Bulk PID Hi 1,675 ppm; Avg= 0.0 ppm
RAD= 13,873 cpm

C (10-15') same litho & color
very soft, very moist @ 14.2-15'
0935 H2O @ 14.2'
mod. petroleum odor 10-10.5
no odor 10.5-15'
PID Cont= 27 @ 10.5 ppm; Bkgd= 0.0 ppm
Bulk PID Hi 13.7 ppm; Avg= 0.0 ppm
RAD= cpm

D (15-20) gray/greyish brown clay
wet → 15-20'
All sample below/in water zone
no odor
no stains
no sample collect
PID Cont= NA ppm; Bkgd= NA ppm
Bulk PID Hi ppm; Avg= ppm
RAD= cpm

Location ______ Date ______

Project / Client ______

	RAW PID (ppm)	Bulk PID
0"-6"	2.0	
6"-12"	0.6	
12"-18"	0.6	
18-24	0.6	
2.0-2.5	0.2	4.6
2.5-3.0	1.0	4.9
3.0-3.5	1.4	4.0
3.5-4.0	0.2 wet at depth	2.6
4.0-4.5	0.1 possible	1.3
4.5-5.0	0.1 surface water	0.9

CP-2002
(*) Sample at CP 2002-S
water sample from core barrel / collected at 1126

Location BPK Date 6/24/15

Project / Client SSRA 1428

(same crews)

CP 2002
Break Asphalt 1025
Asphalt pad = 0"-4"; ~~Concrete~~ road base 4"-15"
~~Road base~~ = then concrete pad at 15"-27'

A (0-2)
1041 Bk clay, dry to moist, slightly soft-soft,
no odor no stain
PID Cont. 0.6 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: 5.5 ppm; Avg = 5.5 ppm
Rad: 12,573 cpm

A(2-5) Same lith & color
1058 loose, dry - slightly moist, (wet at 2.6' - free water) water entering hole from 2.6' during hand augering
no odor no stain
PID Cont. 1.4 ppm Bkgd = 0.0 ppm
Bulk PID = Hi: 4.9 @ 2.5-3.0 ppm, Avg = ppm
Rad: 12,589 cpm

Location ______ Date ______

Project / Client ______

(B-sample)

⊗ water in core barrel collected in jar; appears to have very thin layer of product on water surface — chemical odor noted;

Location BFC Date 6/24/15

Project / Client SSPA-1428

CP-2002

B (5-10') core barrel full of wet water⊗ No odor / no staining in soil

1126 gray / grayish brown clay, stiff to med soft 5-9.5; moist 9.5-10 - soft very soft, moist to very moist.

PID cont = 8.2 @ 8 ppm; Bkgd = 0.0 ppm

Bulk PID H₂ 2.6 ppm; Avg = 0.0 ppm

RAD 12,057 cpm

C (10-15') same lith & color

1134 very soft, wet at 14.6-15.0'

H₂O @ 14.6'

no odor no staining

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = H; 0.0 ppm; Avg = 0.0 ppm

RAD = 12,544 cpm

D (15-20') gray clay, very soft very moist to wet 15-20'

1140 No sample collect (all in water zone)

PID cont. NA ppm; Bkgd NA ppm

Bulk PID = H; NA ppm; [illegible] ppm

RAD ~~12,544~~ cpm

Orf

Location ______ Date ______

Project / Client ______

	Raw PID	Bulk PID
0 - 6"	0.4	3.2
6" - 12"	0.2	2.3
12" - 18"	0.3	4.6
18" - 24	0.4	3.4
2.0 - 2.5	0.0	7.3
2.5 - 3.0	0.0	7.8
3.0 - 3.5	0.0	4.3
3.5 - 4.0	1.4	6.4
4.0 - 4.5	1.7	5.2
4.5 - 5.0	1.0	1.1

⊗ moved hole 3.5' N-northeast of original hole after encountering large gravels in original hole; at 26"-30";

⊗ New hole hammered 36" still in gravels

End onsite @ 1345
left @ 1415

Location BFC Date 6/24/15

Project / Client SSPA-1428

(Same crews) Jason / Brandon - Bowler Geologist / CWS / Theo

CP-4506

Break asphalt @ 1304

Asphalt pad = 0" - 4"

None Concrete pad = ~~4 - 6"~~

Road base = 4" - ~~26~~ 36"

gravels, sands, silts & clays

A(0-2) Fill materials - mixed clays, silts ~~gravels - black;~~

1345 tan / lt brown clays, moist; soft;

no odor no stains

PID cont = 0.4 ppm; Bkgd = 0.0 ppm

Bulk PID = H; 4.6 ppm; Avg = 3.0 ppm

RAD = cpm

A(2-5') same lithology / color

moist, very moist, soft.

1403

PID cont = 1.7 @ 4.0-4.5' ppm; Bkgd = 0.0 ppm

Bulk PID = H; 7.8 @ 2.5-3.0 ppm; Avg = 0.0 ppm

RAD = 12206 cpm

Location ____ Date ____

Project / Client ____

Location BFC Date 6/24/15

Project / Client 55PA-1428

CP-4506

B(5-10') tan clay with gray streaks, stiff, slightly moist

1424

No odor no sheen

PID cont= @ 7.9 @ 8' ppm; Bkgd- 0.0 ppm

Bulk PID: Hi 30.9 ppm; Avg= 29.0 ppm

RAD= ~~12206~~ cpm 12085 cpm

C(10-15) same lith / g clay; very soft; very moist to wet 10-15'

1428

Water @ 14.4 -15

no odor no sheen

PID cont 1.5 @ 12' ppm; Bkgd= 0.7 ppm

Bulk PID= Hi: 65.7 ppm; Avg= 65 ppm

RAD= 12477 cpm

D(15-20') tan / mixed lt gray clay; greenish gray; very moist- mod soft to stiff 15-17.6

1434

17.6 changes to lt gray clay; soft very moist; water @ 19.7'

gravel sat 19.9'- 20.0'

PID Cont= 1.2 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 9.6 ppm; Avg= ~~8.8~~ 8.8 ppm

RAD= 12,049 cpm

Location _____ Date 6/24/15

Project / Client _____

	Raw PID	Bulk PID
0 – 6"	0.0	0.6
6"-12"	0.0	0.4
12"-18"	0.0	0.5
18"-24"	0.0	1.0
2.0 – 2.5	0.0	6.0
2.5 – 3.0	0.0	0.8
3.0 – 3.5	0.0	1.2
3.5 – 4.0	0.0	0.8
4.0 – 4.5	0.0	1.2
4.5 – 5.0	0.0	0.9

Location BFC Date 6/24/15

Project / Client SSPA-1428

(Same crew)

CP-4508

Break Asphalt @ 1535

Asphalt PID = 0"-4"

Concrete PID = N/A

Road base = 6" - 36"

gravels, sands, silts & clays

A (0-2') tan / lt brown clays, soft, very moist

1550 no odor; no stain

PID cont. 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID: Hi 0.0 @ 18"-24" ppm; Avg = ppm

RAD = 12595 cpm

A (2-5') same lithology & color soft very moist,

1608 2.5' encountered gravelly clay zone; no odor no stains

PID cont. 0.0 4.0 ppm; Bkgd 0.0 ppm

Bulk PID: Hi 1.2 @ 40-45' ppm; Avg = 0.0 ppm

RAD = 12,551 cpm

Location ____ Date ____

Project / Client ____

Location BFC Date 6/24/15

Project / Client SCPA

CP-4508

B (5-10') tan / lt brown clays, very soft
very moist to wet 8-10'

1627 gravel zone @ 8-9' - very wet
wet @ 8.0'

poss. [illegible] very faint chem. odor

PID cont: 0.0 ppm; Bkgd: 0.0 ppm
Bulk MO: 6.7 ppm; Avg: 0.0 ppm
RAD: 12,717 cpm

C (10-15') same litho/color to 1627
mod soft - stiff clays moist

1632 faint chemical odor; no obvious stains,
changes to lt. gray clay @ 14.7'

PID cont: 8.0 @ 14' ppm; Bkgd: 0.6 ppm
Bulk MO: 456 ppm, Avg: 460 ppm
RAD: 12,790 cpm

D (15-20')

1640 greenish gray clays, soft very moist
to wet @ 19.4'
wet @ 19.4' → 20'

PID cont: 69 @ 16.5' ppm, Bkgd: 0.6 ppm
Bulk MO: 834 ppm, Avg: 500 ppm
RAD: 13,143 cpm

Location ________ Date 6/25/15

Project / Client ________

RAD calibration
247,537 cpm
#287961

0810 TAM CAVANAUGH - FES onsite

	PID	headspace
0-6	0.0	1.6
6-12	0.0	1.8
12-18	0.0	3.7
18-24	0.0	3.1
2.0-2.5	0.0	0.8
2.5-3.0	0.0	1.7
3.0-3.5	0.0	1.8
3.5-4.0	0.0	1.5
4.0-4.5	0.0	1.4
4.5-5.0	0.0	1.3

Location BFC Date 6/25/15

Project / Client SSPA-1428

Drill crew/Jason Brandon; Geologist/Cup/Ideo

Hot/humid 80°F - 93°F

CP-4501

Break Asphalt @ 0841

Asphalt RAD = 0" - 4"

~~concrete~~ RAD = 4" - 10"

road base = ↗

0853

A(0-2) Fill materials mixed - brown/yellow brown clays v. stiff dry 0-18" no odor no stains

18-24 tan/lt brown clays, soft moist

PID Cont = ~~0.0~~ ~~gravel zone~~ ppm; Bkgd = 0.0 ppm

Bulk MID = Hi 3.7e 12" ppm; Avg = 0.0 ppm

RAD = 13271 cpm

0910

A(2-5) same brown clays, soft moist.

gravel zone 4.0-4.5'

no odor no stains

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk MID = Hi 1.8e30 ppm, Avg = 0.0 ppm

RAD = 13,080 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/25/15

Project / Client SSPA-1428

CP-4501

B (5-10) FAT / lt brown clays, stiff, slightly moist, with abundant iron staining;

0927

no odor no stain

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

RAD = 13,101 cpm

C (10-15) same litho & color; yellow tan stiff - med soft to 14.7

0935

soft - very moist to wet at 14.7-15.

H2O @ 14.7' (perched ??)

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

RAD = 13,454 cpm

D (15-20) same litho / color very soft, very moist to wet

0942

H2O @ 19.5'

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg = 0.0 ppm

RAD = 13,454 cpm

Location _____ Date _____

Project / Client _____

	Raw PID	Bulk PID
0-6	0.0	2.4
6-12	0.0	2.7
12-18	0.0	2.6
18-24	0.0	1.8
2.0-2.5	0.0	2.5
2.5-3.0	0.0	3.3
3.0-3.5	0.0	2.0
3.5-4.0	0.0	3.4
4.0-4.5	0.0	3.7
4.5-4.6	0.8	2.0

10:30 I am Left S.T.

Location BFC Date 6/25/15

Project / Client SSPA-1428

(Same areas)

CP-4507 - Brush asphalt @ 1022

Asphalt pad: 0" - 4"

Road base: 4" - 10"

gravel, sandy, soft clays;

A(0-2) tan / lt. brown clays, soft, moist;

1034

no odor no stain

PID Cont. 0.0 ppm; Bkgd: 0.0 ppm

Bulk PID: Hi: 2.7 @ 6" ppm; Avg: ppm

RAE: 13131 ppm

A(2-5) same lithology/color, soft, mod stiff moist, somewhat loose

1059

high plasticity

no odor no stains

PID Cont.: 0.8 @ 4.5' ppm; Bkgd 0.6 ppm

Bulk PID: Hi: See table ppm; Avg 0.0 ppm

RAE: 13214 ppm

Rite in the Rain

Location ______ Date ______

Project / Client ______

Location BFC Date 6/25/15

Project / Client SSPA-1428

CP-4507

B (5-10') lt brown/tan clays
stiff, moist,

1118

no odor no stains
PID cont. = 0.0 ppm; Bkgd. 0.0 ppm
Bulk PID = Hi: 1.6 ppm; Avg= 0.0 ppm
RAD= 13306 cpm

C (10-15) same litho/color
soft to very soft 14.5'-15'
wet (H2O) - some small gravels
throughout < 1/4"

1119

no odor no stains
PID cont= 0.2 @ 11' ppm; Bkgd= 0.0 ppm
Bulk PID = Hi: 11.6 ppm; Avg= 11.1 ppm
RAD= 13072 cpm

D (15-20) same litho/color
very soft moist & wet,

1125

H2O @ 19.4' in gravels - 20'
gravel zone 18.8' → 20'

PID cont= 1.0 @ 18' ppm; Bkgd= 0.0 ppm
Bulk PID: Hi 6.5 ppm; Avg= 6.0 ppm
RAD= 12,843 cpm

Location ______ Date ______

Project / Client ______

	Raw PID	Bulk PID
0" – 6"	0.0	0.0
6 – 12"	0.0	0.7
12" – 18	0.0	1.4
18 – 24	0.0	0.8
2.0 – 2.5	0.0	
2.5 3.0		
3.0 3.5		
3.5 – 4.0		
4.0 – 4.5		
4.5 – 5.0		

⊗ 18" – hole caving in with coarse gravels + sand/silts – will attempt to case off with PVC pipe + attempt to get below gravels.

will push from ≈ 3.5 – 5' with rod in an attempt to recover 3.5–5' zone;

⊗ moved hole location 6.0' to the east adj. to bldg foundation.

Location BFC Date 6/25/15

Project / Client SSPA 1428

(Sand lens)

CP-4302 (moved east)

Break asphalt 1306 / 1324

Asphalt pad = 0" – 2"

Road base – 2 – 6"

A(0-2) fill materials – mixed clays, brown/dk brown + small gravels, blk clays, tan clays. water @ 18" – surface water

1320

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi 0.0 ppm; Avg. = 0.0 ppm

RAD = cpm

A(2-5) – Fill materials gravels, silts, clays, sand, hole caving in with gravels, allow water. All sloff from gravels etc below asphalt pad

1404

PID cont = ppm; Bkgd = ppm

Bulk PID = Hi ppm; Avg = ppm

RAD = cpm

(no sample collected)

Location ______ Date ______

Project / Client ______

Obstruction (@ 6" below surface)
refusal by drilling / direct push-
metal record from shoe
1507 I AM onsite
1520 Left site
geometer said
* moved hole 6" to the east per
Alan's instructions

Location BFC Date 6/25/18

Project / Client SSPA-1428

CA450A

B (0-10)

PID Cont: ppm; Bkgd: ppm
Bulk PID = Hi: ppm; Avg: ppm
RAD = cpm

C (10-15)

PID Cont: ppm; Bkgd: ppm
Bulk PID = Hi: ppm; Avg = ppm
RAD = cpm

D (15-20)

PID cont: ppm; Bkgd: ppm
Bulk PID: Hi: ppm; Avg: ppm
RAD = cpm

Location ____ Date ____

Project / Client ____

	Raw PID		Bulk PID
0-6	0.0		0.0
6-12	0.0		0.0
12-18	0.0		0.0
18-24	0.0		0.0
2.0-2.5	0.0		0.0
2.5-3.0	0.0		2.2
3.0-3.5	2.2		4.2
3.5-4.0	1.0		4.4
4.0-4.5	0.0		2.7
4.5-5.0	0.0		1.6

Location BFC Date 6/25/15

Project / Client SSPA+428

Sanemons / lot 950 / [illegible] / 10797

CP-4503

Broke asphalt @ 1615

Asphalt [illegible] = 0" - 3

Road base = 3" - 20"

AC(0-2) fill materials mixed blk / brown clays; stiff, dry - with gravels; - 0 - 18". 18" - 24 - brown / tan clays, stiff, slightly moist, no odor no stains

1627

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi ppm; Avg = ppm

Rad = 14196 cpm

AC(2-5) lt brown / tan clay, mod soft, moist, moisture increases with depth

1645

no odor, no stains

PID Cont = 2.2 @ 3.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi; see table ppm; Avg = 0.0 ppm

Rad = 14,179 cpm

Location _____ Date _____

Project / Client _____

Location BJC Date 6/25/15

Project / Client SS14-1428

CN- 4503

B (5-10) tan/lt brown clays, very soft moist to very moist

1704

Very moist to wet 8.5'

No odor no stains

PID cont= 0.0 ppm; Blkgd= 0.0 ppm

Bulk PID=H: 0.0 ppm; Avg= 0.0 ppm

RAD= 13,291 cpm

C (10-15) SAme lith & color

Very soft, very moist to wet;

1710

No odor no stains

PID cont= 0.0 ppm; Blkgd 0.0 ppm

Bulk PID=H: 1.8 ppm; Avg= 0.0 ppm

RAD= 13,387 cpm

D (15-20') SAme lithe /color

Very soft, very moist

1725

high plasticity

Wet at 19.2 --> 20

PID cont= 0.0 ppm, Blkgd 0.0 ppm

Bulk PID=H= 2.5 ppm; Avg= 2.5 ppm

RAD= 14079 cpm

Rite in the Rain

Location ______ Date ______

Project / Client ______

		Raw PID (ppm)	Bulk PID	
0-	6	0.0	0.0	
6	12	8.8	12.2	faint odor
12	18	32.0	52.3	
~~18~~	24	15.0	20.0	
2.0-	2.5	2.0	13.5	
2.5	3.0	5.0	12.8	
3.0	3.5	0.7	19.3	
3.5	4.0	1.8	27.2	
4.0	4.5	7.2	25.1	
4.5	5.0	5.8	22.4	

Location BFC Date 6/26/15

Project / Client SSPA-1428

Drill crew - Jason / Brandon; Geologist: [illegible] / Theo

Cloudy / mild / no showers

63°F → 79°F

(Duplicate BD-20-06/26/15)

CP-4502R

Break asphalt @ 0938

Asphalt pad = 0"-4"

Road base = 4"-10"

A(0-2) .. fill materials - mixed tan/brown 0-18 gray clays stiff, dry.

0947 — v. faint odor

18"-24 tan/lt brown clays, moist, slightly soft

PID cont: see table ppm; Bkgd= 0.6 ppm

Bulk PID= Hi ppm; Avg= ppm

RAD= 13580 cpm

A(2-5) tan / lt brown clays, soft; moist;

1016 — no obvious odor, no stains

PID cont= see table ppm; Bkgd= 0.0 ppm

Bulk PID= Hi see table ppm; Avg= 0.6 ppm

RAD= 13,665 cpm

Rite in the Rain

Location ____ Date ____

Project / Client ____

Location BFC Date 6/26/15

Project / Client SSPA-1428

CP-4502R

B(5-10') tan / brown clays, stiff slightly moist to moist at

1037 9.6' very moist at 14.6-15'

no odor no stains

PID conte 0.0 ppm; Bksd = 0.0 ppm

Bulk MAz H; 47 ppm; Avg - 45 ppm

RAD: 13555 cpm

C(10-15) tan / lt brown clays, soft moist to very moist;

*very angular sds, fine sands

1045 (C10-15) gravelly clays, 12.8-15'

very moist to wet at 14.2'-15

PID cont: 21@13 ppm; Bksd: 0.0 ppm

Bulk MAz H: ~~47~~ 170 ppm; Avg = 0.0 ppm

RAD = ~~13559~~ TIL cpm

D (15-20) same litho / color;

very soft, moist to very moist

1052 wet 19.2-20' - very gravelly clays,

water @ 19.2'

PID cont = 3.6@16' ppm; Bkgd = 0.0 - ppm

Bulk MAz H; 44.5 ppm; Avg = 0.0 ppm

RAD = cpm

Location _____ Date _____

Project / Client _____

	Raw PID (PPM)	Bulk PID
0" 6"	1.7	2.1
6" 12"	0.0	0
12" 18"	0.0	0
18" 24"	0.0	0
2. - 2.5	0.0	1.7
2.5 - 3.0	0.0	1.9
3.0 - 3.5	0.0	1.9
3.5 - 4.0	0.0	1.8
4.0 - 4.5	0.0	1.6
4.5 - 5.0	0.0	1.0

* obstruction 20" bgs; will attempt to ground through; through @ 28";

* I Arm onsite @ 1211

Location BFC Date 6/26/15

Project / Client SSPA

(Same crews)

cloudy, mild 75°F

CP-4504

Break Asphalt @ 1211

Asphalt Pad = 0" - 4"

total 28"

Roadbase = 4" - 10" + 18 of Concrete

AC(0-2) dark / lt brown clays, soft, to med. stiff, slightly moist,

1229

no odor no stains

PID cont = 1.7 @ 6" ppm; Bkgd = 0.0 ppm

Bulk PID = Hi see table ppm; Avg = 0.0 ppm

RAD = 1233 cpm

AC2-5' lt tan / lt brown clays very soft, very moist; Free water @ 4.0'; high plasticity

1248

no odor no stains

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi see table ppm; Avg = 0.0 ppm

RAD = 12 462 cpm

Rite in the Rain

56
Location _______ Date _______
Project / Client _______

54
Loc
Pro

57
Location BFC Date 6/26/15
Project / Client SSPA- 1428
CP-4504

B (5-10) lt tan / lt brown clays, stiff / med soft, slightly moist
1303
dryer with depth 8-10';
no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk MeOH: 0.3 ppm; Avg= 0.3 ppm
RAD= 12091 cpm

C (10-15) same litho / color, soft to very soft; moist to very moist
1316
very moist to wet at 14.4'-15';
no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk MeOH: 1.1 ppm; Avg= 1.0 ppm
RAD= 12481 cpm

D (15-20) 15/16.5 same litho / color
Soft to very soft, very moist
1315
16.5-20- gray / lt green-ish clays / lean clays
Wet @ 19.8' - gravel zone - 19.8-20.0

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk MeOH: 1.0 ppm; Avg= 1.0 ppm
RAD= 12301 cpm
* Abundant iron staining from 16.5-20'

Location ______ Date ______

Project / Client ______

RAW PID		BulkPID
0-6 –	0.0	0.8
6-12 –	0.0	0.8
12-18 –	0.0	0.5
18-24 –	0.0	0.3
2.0-2.5 –	0.0	0.7
2.5-3.0 –	0.0	1.4
3.0-3.5 –	0.0	1.2
3.5-4.0 –	0.0	0.6
4.0-4.5 –	0.0	1.3
4.5-5.0 –	0.0	1.8

Location RFC Date 6/26/15

Project / Client SSPA-1428

(Same area)

CP-4505

Break asphalt @

Asphalt pad = 0" – 2"

2" – 8"

Road base = ↙

A(0-2) fill materials – mixed brown/ blk/ tan clays, with angular gravels, stiff, slightly moist, pieces of sands gravels lithified; abundant iron on gravels;

1400

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: ppm; Avg = ppm

RAD = 12244 cpm

A(2-5) same litho/ color; moist/ slightly soft; 2 – 2.5,

1439

then tan/ lt brown clays, soft, moist, no odor, no stains. Fill water @ 4.5' –

PID cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID Hi: See table ppm; Avg = 0.6 ppm

RAD = ~~10~~ 11,959 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/26/15

Project / Client SS/A-1428

CP-4505

B (5-10') tan/lt brown clays very soft, moist to very moist

1500

no odor no sheen

PID cont: 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID: 0.6 ppm; Avg= 0.6 ppm

Bulk RAD= 11,841 cpm

C (10-15) lt brown/grayish brown clays very soft to soft; very moist to wet to 14'

1508

then stiffer 14-15'; organic debris noted.

PID cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= 0.2 ppm, Avg= 0.2 ppm

RAD= 12357 cpm

D (15-20) Grayish brown clays/gray organic fragments noted; clays slightly moist, stiff below 1?'

1517

wet at 19.4-20.0

PID Cont.= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= H: 0.0 ppm; Avg= 0.0 ppm

RAD= 11,911 cpm

Location _____ Date _____

Project / Client _____

	Rae PID	Bulk PID
0 - 6	0.0	1.2
6 - 12	0.0	1.4
12 - 18	0.0	1.0
18 - 24	0.0	1.2
2.0 - 2.5	0.0	0.8
2.5 - 3.0	0.0	1.5
3.0 - 3.5	0.0	1.5
3.5 - 4.0	0.0	1.6
4.0 - 4.5	0.0	1.8
4.5 - 5.0	0.0	1.8

1551 IAN still at s.t.

Free water @ 12"

Location BFC Date 6/26/15

Project / Client SSPA-1427 (same crews)

CP 1601

Brush asphalt @ 1551

Asphalt/Pavement = 0" — 4"

Concrete - 4" - 10"

Road base = 10" - 12"

AC(0-2) Blk organic rich clays; 0-6"

6" - 24" Greenish gray clays, stiff, to very stiff, slightly moist. no odor no stains

1613

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi: 1.4 ppm; Avg= 0.0 ppm

RAD= cpm

AC(2-5) Grayish brown clays, stiff to mod. stiff, slightly moist; no odor no stains

1630

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi ppm; Avg= ppm

RAD= 15/88 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/25/15

Project / Client BSA-1128

CP-1601

B(5-10) mixed tan/grayish brown clays, soft, moist
1645 no odor
Free water @ 8.6'
PID cont.= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= H, 0.0 ppm 0.0
RAD= 1626 cpm

C(10-15) tan/grayish brown clays, very soft, moist
1652 gray clays 11-15'
Wet at 14.8'
PID cont.= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 1284 cpm

D(15-20') same/little/color
1658 very soft, very moist
wet at 18.8'
wet at 18.8' no odor no stain
High Plasticity
PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0 ppm
RAD= 1241 cpm

Rite in the Rain

Location ______ Date ______

Project / Client ______

Depth	Raw PID	Bulk PID
0-6 -	0.0	2.2
6-12 -	0.0	0.8
12-18 -	0.0	2.7
18.0-24 -	0.0	1.5
2.0-2.5 -	0.0	1.5
2.5-3.0 -	0.0	2.0
3.0-3.5 -	0.0	2.0
3.5-4.0 -	0.0	2.2
4.0-4.5 -	0.0	2.0
4.5-5.0 -	0.0	1.2

(Archived BD-20-06/29/15)

Location BFC Date 6/29/15

Project / Client SSPA-1428

Drillers: Steve/Brandon / Geo.: CWP/Theo

Clear Hot / 87°F

CP-1602

Break Asphalt @ 0915

Asphalt RAD = 0" - 2"

Concrete RAD = 2" - 6"

Road base = 6" - 10"

AC0-2 | 0-18" fill materials, mixed clays brown/black,

0924 | 18-24" - Blk. organic rich clays, mixed gray clays, stiff, slightly moist, no odor, no stains - Fill materials

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: ppm; Avg = ppm

RAD = 13325 cpm

AC2-5 | 0 = Fill materials Black organic rich clays. stiff, moist, / gray clays, organic rich

0944 | no odor no stains.

PID Cont = 0.0 ppm. Bkgd = 0.0 ppm

Bulk PID = Hi: ppm; Avg = ppm

RAD = 13,280 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP-

B(5-10) Gray/brown/gray 5-6.5
6.5-10- It brown clay soft
to very soft @ 8.6'; moist to
1003 very moist 8.6-10', to wet free water
no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 12848 cpm

C(10-15) Same litho/color
changes to grayish brown at 13-15'
1008 very soft very moist to wet 10-15'
no odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID Hi: 0.0 ppm; Avg= 0.0 ppm
RAD= 12754 cpm

D(15-20) Same litho/color
very soft very moist to wet
1013 15-20; very wet free water @ 19.8'
no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi: 0.0 ppm; Avg= 0.0 ppm
RAD= 12980 cpm

Location ____ Date ____

Project / Client ____

	Raw PID	Bulk PID
0 6	0.0	1.6
6-12	0.0	1.6
12-18	0.0	1.3
18-24	0.0	1.2
2.0-2.5	0.0	1.5
2.5-3.0	0.0	1.7
3.0-3.5	0.0	1.7
3.5-4.0	0.0	2.2
4.0-4.5	0.0	1.5
4.5-5.0	0.0	0.9

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP-1802 Arenaceous (N Parking lot-GSA)

(A-Asphalt:BD-21-06/29/15)

Break asphalt @ 1108
Asphalt pad = 0"- ~~#08~~ 4"
Concrete pad = ~~4"~~
Road base = 4"-8"

A(0-2) 0-6 Black organic clays, stiff, slightly moist, mixed with brown
1116 clays -6-24"; Brown / lt brown clays moist- mod.soft; no odor, no stains.
PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: ppm. Avg= ppm
RAD= 11547 cpm

A(2-5) Brown / lt. Brown clays, moist mod soft
1140 3.0-3.5' -4.5' gravels / pieces of sandstone / chert gravels; Angular gravels < 3"; limestone / [illegible]
PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID= Hi: ppm; Avg= ppm
RAD= 11651 cpm
(4.5-5.0- Brown clays, soft, moist)

Location ____ Date ____

Project / Client ____

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP-1802

B(5-10') lt brown/brown clays, slightly gray; stiff, slightly moist; yellowish Brown with depth, increase in moisture, gravelly

1200

PID cont= 0.0 ppm; Bkgd= 0.5 ppm

Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 11,223 cpm

C(10-15) same litho/color gravels throughout, angular; very moist to wet

1207

wet at 13.1-15'

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 10,934 cpm

D(15-20') same litho/color very soft, very moist/wet 15-20'; gravels throughout, angular limestone/dol. & chert,

1211

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID=Hi NA ppm; Avg= ppm

RAD=

No Sample/Cph collect all in water zone

Location ______ Date 6/29/15

Project / Client ______

Depth	Ambient	ppm BulkMD
0-6	0.0	0.3
6-12	0.0	0.5
12-18	0.0	0.8
18-24	0.0	0.7
2.0-2.5	0.0	0.7
2.5-3.0	0.0	1.0
3.0-3.5	0.0	1.4
3.5-4.0	0.0	1.8
4.0-4.5	0.0	1.8
4.5-5.0	0.0	1.0

* Safety inspector onsite @ 1340
Left @ 1401

Location BFC Date 6/29/15

Project / Client SSPA 1428
(SAmerew)

CP 1801
Break Asphalt @ 1341
Asphalt PAD = 0" - 5"
concrete pad = 5"
Road base = 5 - 10"

AC(0-2) brown/lt brown clays, stiff, slightly moist, occasional gravels

1352

no odor, no stains

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
BulkMD-Hi: ppm; Avg = ppm
RAD = 13526 cpm

AC(2-5) lt brown/tan clays, soft moist,

1409

no odor, no stains

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
BulkMD-Hi: ppm; Avg = ppm
RAD = 13,181 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP-1801

B(5-10) tan/lt tan; yellowish tan clays, very soft, very moist.

1424

no odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID=Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 13,044 cpm

C(10-15) same lithe/color, silt & fine sands very soft, moist to wet at 13.1'

1430

no odor no stains

Wet @ 13.1 - 15'

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID=Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 12666 cpm

D(15-20) same lithe/color silty clays very soft, wet 15-20'

1437

(sodsin water zone) (clay silts with fine sands)

no odor no stain

(No sample collected)

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID=Hi: NA ppm; Avg=NA ppm

RAD= cpm

Rite in the Rain

Location ______ Date 6/29/15

Project / Client ______

Depth	PID (ppm)	Bulk PID
0-6"	0.0	1.0
6"-12"	0.0	1.0
12"-18"	0.0	0.8
18"-24"	0.0	1.1
2.0-2.5'	0.0	1.8
2.5-3.0	0.0	1.2
3.0-3.5	0.0	4.0
3.5-4.0	0.0	2.5
4.0-4.5	0.0	2.0
4.5-5.0	0.0	1.6

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP-1603 (same crews)

Break asphalt @ 1520
Asphalt pad = 0"-11
Concrete pad = N/A
Road base = 11"-13

A(0-2) Surface @ 24"; Black organic rich clays, stiff, slightly moist

1530

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID Hi: see table ppm; Avg = 0.0 ppm
RAD = 12,426 cpm

A(2-5) Same lithos/colors, stiff to med soft, moist

1544

no odor no stains

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID Hi: see table ppm; Avg = 0.0 ppm
RAD = 12,342 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP1603

B(5-10') Grayish brown/ clays, moist mod soft to stiff

1600

no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 12254 cpm

C (10-15) same litho/color

very soft, very moist.

1607

10-15'

H2O @ 10.5'

No odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 12160 cpm

D (15-20') same litho/color

1614

very soft, very moist to wet

15-20';

no odor no staining

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 12,685 cpm

Rite in the Rain

Location ______ Date ______

Project / Client ______

Depth	RAW PID	Bulk PID
0-6 –	0.0	2.2
6-12 –	0.0	0.8
12-18 –	0.0	2.7
18.0-24 –	0.0	1.5
2.0-2.5 –	0.0	1.5
2.5-3.0 –	0.0	2.0
3.0-3.5 –	0.0	2.0
3.5-4.0 –	0.0	2.2
4.0-4.5 –	0.0	2.0
4.5-5.0 –	0.0	1.2

(Duplicate BD-20-06/29/15)

Location BFC Date 6/29/15

Project / Client SSPA-1428

Drillers: Steve/Brandon / Geo.: CWP/Theo

Clear Hot / 87°F

CP-1602

Break Asphalt @ 0915

Asphalt PAD = 0" - 2"

Concrete PAD = 2" - 6"

Road base = 6" - 10"

A(0-2) 0-18" fill materials: mixed clays brown/black,

0924 18-24" - Blk. organic rich clays, mixed gray clays, stiff, slightly moist. no odor no staining - Fill materials

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID = Hi: ppm; Avg = ppm

RAD = 13325 cpm

A(2-5) 0 = Fill materials Black organic rich clays. stiff, moist, / gray clays, organic rich

0944 no odor no stains.

PID Cont = 0.0 ppm. Bkgd = 0.0 ppm

Bulk PID = Hi: ppm; Avg = ppm

RAD = 13,280 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP-

B(5-10) Gray brown / gray 5-6.5
6.5-10- lt brown clay soft
to very soft @ 8.6'; moist to
very moist 8.6-10'; to wet free water
no odor no stains

1003

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 12,848 cpm

C(10-15)' same litho/color
changes to grayish brown at 13-15'
very soft very moist to wet 10-15'
no odor no stains

1008

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID Hi: 0.0 ppm; Avg= 0.0 ppm
RAD= 12754 cpm

D(15-20) same litho/color
very soft, very moist to wet
15-20; very wet free water @ 19.8'
no odor no stains

1013

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID Hi: 0.0 ppm; Avg= 0.0 ppm
RAD= 12980 cpm

Location ______ Date ______

Project / Client ______

	Raw PID	Bulk PID
0-6	0.0	1.6
6-12	0.0	1.6
12-18	0.0	1.3
18-24	0.0	1.2
2.0-2.5	0.0	1.5
2.5-3.0	0.0	1.7
3.0-3.5	0.0	1.7
3.5-4.0	0.0	2.2
4.0-4.5	0.0	1.5
4.5-5.0	0.0	0.9

Location BJC Date 6/29/15

Project / Client SSPA-1428

CA-1802 (N Parking lot-CSB) Sarracens

(A-Asphalt: BD-21-06/29/15)

Break asphalt @ 1108
Asphalt pad = 0" - ~~#08~~ 4"
Concrete pad = ~~4"~~
Road base = 4" - 8"

A(0-2) 0-6 Black organic clays, stiff, slightly moist, mixed with brown clays -6-24": Brown / lt brown clays moist - mod. soft, ; no odor, no stains.

[1116]

PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: ppm; Avg = ppm
RAD = 1154? cpm

A(2-5) Brown / lt. brown clays, moist mod soft

[1140]

3.0-3.5' - 4.5' gravels / pieces of sandstone / chert gravels; Angular gravels < 3"; limestone / Vol.
PID Cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: ppm; Avg = ppm
RAD = 1165 1 cpm
(4.5-5.0 - Brown clays, soft, moist)

Rite in the Rain

Location ____ Date ____

Project / Client ____

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP 1802

B(5-10') lt brown/brown clays
[1200] slightly grey; stiff, slightly moist; yellowish Brown with depth, increase in moisture; gravelly

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk/PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 11,223 cpm

C(10-15) same litho/color
[1207] gravels throughout, angular, very moist to wet
wet At 13.1-15'

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk/PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 10,834 cpm

D(15-20) same litho/color
[1211] very soft, very moist/wet 15-20'; gravels throughout, angular limestone/dol. & chert,

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk/PID=Hi NA ppm; Avg= ppm
RAD= cpm

No sample collect all in water zone

Location ______ Date 6/29/15

Project / Client ______

Depth	Bkgd PID (ppm)	Bulk PID
0-6	0.0	0.3
6-12	0.0	0.5
12-18	0.0	0.8
18-24	0.0	0.7
2.0-2.5	0.0	0.7
2.5-3.0	0.0	1.0
3.0-3.5	0.0	1.4
3.5-4.0	0.0	1.8
4.0-4.5	0.0	1.8
4.5-5.0	0.0	1.0

* Safety dry operator onsite @ 1340 - Left @ 1401

Location BFC Date 6/29/15

Project / Client SSPA 1428 (Sameran)

CP 1801

Break Asphalt @ 1341

Asphalt pad = 0" - 5"

concrete pad = 5C

Road base = 5 - 10"

AC(0-2) brown/lt brown clays, stiff, slightly moist, occasional gravels

1352

no odor, no stains

PID cont. 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID-Hi: ppm; Avg = ppm

RAD = 13526 cpm

AC(2-5) lt brown/tan clays, soft moist,

1409

no odor, no stains

PID cont. 0.0 ppm; Bkgd = 0.0 ppm

Bulk PID-Hi: ppm; Avg = ppm

RAD = 13,181 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP-1801

B(5-10) tan / lt tan; yellowish tan clays, very soft, very moist.

1424

no odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 13,044 cpm

C(10-15) same litho / color, silt & fine sands very soft, moist to wet at 13.1'

1430

no odor no stains

Wet @ 13.1 - 15'

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi 0.0 ppm; Avg= 0.0 ppm
RAD= 12666 cpm

D(15-20) same litho / color silty clays very soft, wet (15-20'), (sands in water zone) (clay silts with sands)

1437

no odor no stain

(No sample collected)

PID cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk PID=Hi NA ppm; Avg=NA ppm
RAD= cpm

Rite in the Rain

Location ____ Date 6/29/15

Project / Client ____

Depth	ppm MW (?)	Bulk ppm
0-6"	0.0	1.0
6"-12"	0.0	1.0
12"-18"	0.0	0.8
18"-24"	0.0	1.1
2.0-2.5'	0.0	1.8
2.5-3.0	0.0	1.2
3.0-3.5	0.0	4.0
3.5-4.0	0.0	2.5
4.0-4.5	0.0	2.0
4.5-5.0	0.0	1.6

Location BFC Date 6/29/15

Project / Client SSPA-1428 (same crews)

CP-1603

Break asphalt @ 1520
Asphalt pad = 0"-11
Concrete pad = N/A
Road base = 11"-13

A(0-2) Surface @ 24";
1530 Black organic rich clays,
stiff, slightly moist

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID Hi: See table ppm; AVG = 0.0 ppm
RAD = 12,426 cpm

A(2-5) same lithology/colors
1544 stiff to med soft,
moist
no odor no stains

PID cont = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID Hi: see table ppm; avg = 0.0 ppm
RAD = 12,342 cpm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/29/15

Project / Client SSPA-1428

CP1603

B(5-10') Grayish brown/ clays, moist mod soft to stiff

1600

no odor no stains

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 12254 cpm

C (10-15) same litho/color

very soft, very moist.

1607 10-15'

· H20@ 10.5'

No odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi 0.0 ppm; Avg= 0.0 ppm

RAD= 12160 cpm

D (15-20') same litho/color

Very soft, very moist to wet

1614 15-20'

no odor no stains

PID Cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= Hi: 0.0 ppm; Avg= 0.0 ppm

RAD= 12,685 cpm

82

Location ______ Date ______

Project / Client ______

83

Location BFC Date 6/30/15

Project / Client SSPA-1428

Drill crew: Jason/Brandon; Geol. Cup/Thao

Clear: Hot. 75-9/67 Extension Bldg 26

CP- 0908R2

Break Asphalt @ 0831

Asphalt Pad = 0"- 4"

Concrete Pad = NA

Road base =

A(0-2)

No sample

RAD = cpm

PID Cont = ppm; Blkgd = ppm

Bulk PID = H: ppm; Avg = ppm

A(2-5) Black clays/gray clays

0838 stiff, slightly moist

no odor no stain

PID Cont = 0.5 ppm; Blkgd 0.0 ppm

Bulk PID = H: 2.0 ppm; Avg = 0.0 ppm

RAD = 12,492 cpm

Rite in the Rain

Location ______ Date ______

Project / Client ______

Location BFC Date 6/30/15

Project / Client SSRA

CP-090 #22

B(5-10) Brown / grayish brown clays, soft, very soft @ 9.4', moist to very moist at 9.4'-10'

0844

dry cleaning odor ~~no odor~~ no sheens observed

PID Cont = 27 ppm @ 9.4' ppm; Bkgd = 0.0 ppm

Bulk PID-H: 70.0 ppm; Avg = 0.0 ppm

RAD = 13,428 cpm

C (10-15) same litho / clay

very soft / very moist to wet

0853

wet at 13.2'

PID Cont = 4.0 ppm; Bkgd = 11.3' ppm

Bulk PID-H: 34.5 ppm; Avg = 33 ppm

RAD = 13,248 cpm

D (15-20) same litho / clay

wet, very soft

0900

PID cont = 5.9 ppm @ 16.6' ppm; Bkgd = 0.0 ppm

Bulk PID-H: 10.7 ppm; Avg = 10 ppm

RAD = 13,349 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/30/15

Project / Client SSAA-1428

CP-0904R2

E(20-25) same litho/color

0908 gray clays @ 19.4'—20.0
wet 20-25';

MD Cont= 0.0 ppm; Bkgd= 0.0 ppm
Bulk MD=Hi: 4.0 ppm; Avg= 4.0 ppm
RAD= 13051 cpm

F(25-30) gray/grayish blk clays,
very soft, very moist to wet

0914 No odor no stains
very stiff @ 29.5-30' greenish gray (ironstained)

MD Cont= 0.4 ppm; Bkgd= 0.4 ppm
Bulk MD=Hi: 2.9 ppm; Avg= 2.9 ppm
RAD= 12886 cpm

G (30-35) same litho/color
stiff hard, slightly moist

0922 fat clays, ironstained,
very wet at 34.10'

MD Cont= ~~0.0~~ 0.8 ppm; Bkgd= 0.8 ppm
Bulk ~~MD~~= 4.4 ppm; Avg= 4.4 ppm
RAD= 13118 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/30/15

Project / Client SSPA-1428

CP-09~~[illegible]~~R2

H (35-46) Refusal @ 38.0'

35-36.4- greenish gray clay; iron stained

0930 36.4 - 37.3- gravelly clay; silty clay with fine sand (wet?).

37.3 - 38'- weathered bedrock greenish gray siltstone/fine sand;

PID cont= 0.0 ppm; Bkgd= 0.0 ppm

Bulk PID= H: 14.8 ppm; Avg= 14.4 ppm

RAD= cpm

clayey siltstone/ bedding planes ~~[illegible]~~ visible; hard;
silty claystone

Location ____ Date ____

Project / Client ____

Location BZC Date 6/30/15

Project / Client SSPA- 1428

(same crews) (3.25" core gravels)

CP-0903R1
Break asphalt @ 1115
Asphalt pad = 6"; 0-6"
Road base gravels = 6"-

A(0-5)

1117

PID cont = 0.5 ppm; Bkgd = ppm

B(5-10)

1130

PID cont = 59 ppm; Bkgd = ppm

C(10-15)

1145

PID cont 4.3 ppm; Bkgd 0.6 ppm

D(15-20')

1156

PID cont 11.3 @ ppm; Bkgd 9.0 ppm

Location ____ Date ____

Project / Client ____

Location BFC Date 6/30/15

Project / Client SSPA-1428

CP-0703R1

E (20-25)

1220

PID Cont = 0.8 ppm; Bkgd = 0.0 ppm

F (25-30)

1250

PID Cont = 2.5 ppm; Bkgd = 0.4 ppm

G (30-35)

1305

PID Cont = 2.4 ppm; Bkgd = ppm

H (35-40)

Refusal @ 38.75'

1315

Bedrock

PID Cont = 5.6 ppm; Bkgd = ppm

Location _____ Date _____

Project / Client _____

Location BFC Date 6/25/15

Project / Client SSPA-1425

CP-090312

Fresh asphalt @ 1345

A(0-5)

1346

PID cont= 0.5 ppm 0.4

B-(5-10)

1354

PID cont= 2.3 ppm 0.4

C (10-15

1403

PID cont= 2.8 ppm 0.5

D(15-20')

1415

PID cont= 0.6 = ppm 0.5

Location _____ Date _____

Project / Client _____

Location BFC Date 6/30/15

Project / Client SSPD-1428

CP-0903R2

G (20-25)

1425

PID cont= 1.2 ppm; Blank= 0.5 ppm

F (25-30)

1436

PID cont= 1.9 ppm, Blank= 0.5 ppm

G (30-35)

1446

PID Cont= 52 @ 28.5' ppm; Blk= 0.5 ppm

H (35-40)

1453

Refusal @ 39.0'
(Claystone/siltstone bedrock)

PID Cont= 0.0 ppm; Blank= 0.0 ppm

Location ______ Date ______

Project / Client ______

	Raw	Bulk PID
0-6	0.2	0.2
6-12	0.0	0.0
12-18	0.2	0.4
18-24	0.0	0.0
2.0-2.5	0.0	0.5
2.5-3.0	0.0	0.5
3.0-3.5	0.0	0.6
3.5-4.0	0.0	0.6
4.0-4.5	0.0	0.4
4.5-5.0	0.0	0.0

Location BFC Date 6/30/15

Project / Client SSPA-1428

CP-340

glass surface 1600

A(0-2) Top soil, brown clays, with 0-2' moist, loose; Abundant roots, grass

1605 PID cont = 0.2 @ 18" ppm, Bkgd = 0.0 ppm
Bulk PID = 0.4 @ 18 ppm; Bkgd 0.0 ppm
RAD = 16,184 cpm

A(2-5) 2-5' no odor no stains

1625 Fill materials - mixed brown clays gravels, pieces of claystone ballast (grey) loose, moist, no odor no stains

PID = 0.0 ppm; Bkgd = 0.0 ppm
Bulk PID = Hi: see table; Bkg = see table
RAD = 16,242 cpm

B(5-10') brown clays, soft & med soft, moist,

1638 no odor no stains
moist @ 8.9 — 9.5'

PID cont 0.0 ppm; Bkgd 0.0 ppm
Bulk PID Hi 0.1 ppm; mod 0.1 ppm
RAD 15594 cpm

Location ______ Date ______

Project / Client ______

Location BFC Date 6/30/15

Project / Client SSPA-1428

CP-3401

C-(10-15)

1641 Stiff, brown / lt brown clay slightly moist - moist wooden, no odor

PID cont 0.0 ppm, Bkgd ppm

Bulk BZ - Hi 0.0 ppm Avg 0.0 ppm

RAD = 15450 cpm

gravel @ 13.4 - 15.0'

D-(15-20) moist to wet gravelly clay

17.2 - 18.4';

1646 18.4 - claystone bedrock; to 20', hard

H_2O @ 17.2' - blocky grayish green

PID Bulk = 0.0 ppm

RAD = 15,345 cpm Bkgd = 0.0 ppm

PID cont = 0.0 ppm

gravels > 2"; angular;