SDMS DocID 2087976

RECORD

12th Street

Landfill

Logbook # 1

SATA03A01368

AR100679

26 August 1999

Weather: Hazy, hot, humid, 86° - occasional drizzle / partly sunny.

1030 Paul Davis (SATA) arrives on-site meet OSC Towle - Stephens Env. Surveying onsite (working)

1100 Tyree Front end loader (rental) dropped off. Tyree onsite - Give H+S training

1200 N+S Rail Road - Line Superintendent arrives - OK to cross tracks w/equip. Take pictures of crossing. must tell Yard master "Burt" 302-429-6059 when we're onsite Shellpot Line

Mario D'Angello (Line super)

1210 Tyree Foreman calls Russ Johnston to tell him we will do test pits on monday - need steam cleaner for decon. - One call notified - This was left on voice mail.

1225 Arrive at entrance where Parcel property line is (≈ 550' down tracks from staging area and 750' from 12th St. overpass). Surveyors continue working.

1415 left message w/ Russ Johnstone need to verify onecall service.

1500 call R. Johnstone - Test pits next week - One call is notified clearing will probably go into monday - Test pits will probably start on tuesday. One call should be ready by then.

26 Aug 1999 (continued)

1530 Tyne leaves site - No PID readings above 0.5 ppm in soils along pathway.
Tyne placed hay down over exposed surfaces.

27 August 1999
weather: Rain previous night
cloudy, humid, warm, 86°

0700 P. Davis (SAIC) onsite - Surveyors onsite.

0745 Tyne onsite to resume clearing operations

0830 Tyne continues clearing pathways to gain access to AOC.

0915 Surveyors continue their work.

1030 call into M. Murphy inquire about lab (CLP) still waiting on it

1035 C. Lacerra - reschedule sampling for tuesday - wednesday (not monday tuesday). 0730 tuesday begin sampling

1100 meet OSC Towle - test pits near exposed drums - poke around exchange (2) subsurface soil samples for (2) sediment samples. Collect sediment: (1) out from bank away from drum cluster and (1) out from drainage ditch: both in mud flat. Pay attention to migration

27 Aug. 1999 (contin.)

paths - surface soils along migration (possible threat) pathways
DONT Remove drums from bank at this stage - Don't overpack drums - only if liquids are encountered.

1330 Tyne leaves site. Met back here 0730 on Monday to continue clearing paths - Test pits to begin on tuesday.

PMD

4

30 August 1999

weather: Partly sunny, cool, 75°, windy
low humidity.

0730 P. Davis (SATA) onsite meet Tyr

0820 Front End loader breaks down -
out of hydraulic fluid.

0845 Tyree purchases more hydraulic fl.

0915 Fixing Front end loader.

0945 Resume clearing pathways. nee
a path from surveyors turnpoint
on 12th street to drum cluster a
Path along parcels property line.
paths from mainline to creek b
lay straw down.

1200 OSC Towle onsite: Surface soil sa
from areas of migration (not fro
disturbed areas made by foot/equ
traffic). Sediment samples from
migration pathways. Test pits ev
≈50' along ridge line - Test pi
from AOC to dirt road (southe
Test pits to see how deep fill
material is and extent of fill m

1345 Tyree off site

1320 OSC Towle off site.

PMD

31 August 1999

weather: Partly cloudy, warm 75°, windy

0730 onsite SATA - P. Davis, Matt Markelli, + Satya Mohanty.
Tyree decorning loader - will exchange for an excavator later today.
Surveyors onsite - SATA prep for sampling.

0815 collect TS-SED-01 sediment from eastern mudflat of Brandywine Creek. Collected from drainage pathway from south side of AOC (down gradient of drainage channel) Brownish-gray sandy clay with some pebbles and silt.

0835 collect TS-SED-02 sediment from eastern bank of creek. Drainage pathway from drum cluster in north west area of AOC. Orange-brown silty clay - some sand + gravel.

0840 collect TS-AM-01 - white ash-like material - light colored fine material
PID = 0.0 ppm

0845 collect TS-AM-02 + FD-03 - white ash-like material from below drum cluster area in NW AOC (bank)
PID = 0.0 ppm.

0855 collect TS-SS-01 - Grayish-purple (maroon) fine silt from next to drum in NW AOC (on bank) Drum cluster area. RAD = 6 mR/Hr
PID = 0.0 ppm.

31 August 1994 (continued)

0900 collect TS-SS-02 from "Hot Spot" during site recon. north of North west portion of AOC (drum cluster area) dark brown silt (organics)
PID = 0.0 ppm RAD = 6 mr/Hr

0910 collect TS-SS-03 from metal detector "Hot Spot" during recon. on east side of ridge 160' SE of northwest AOC drum cluster area. Dark brown silt - organics.
PID = 0.0 ppm RAD = 6 mr/Hr.

0920 collect TS-SS-04 from drainage ditch leading from Southeast drum cluster area. Black fine silt with organics PID = 0.0 ppm

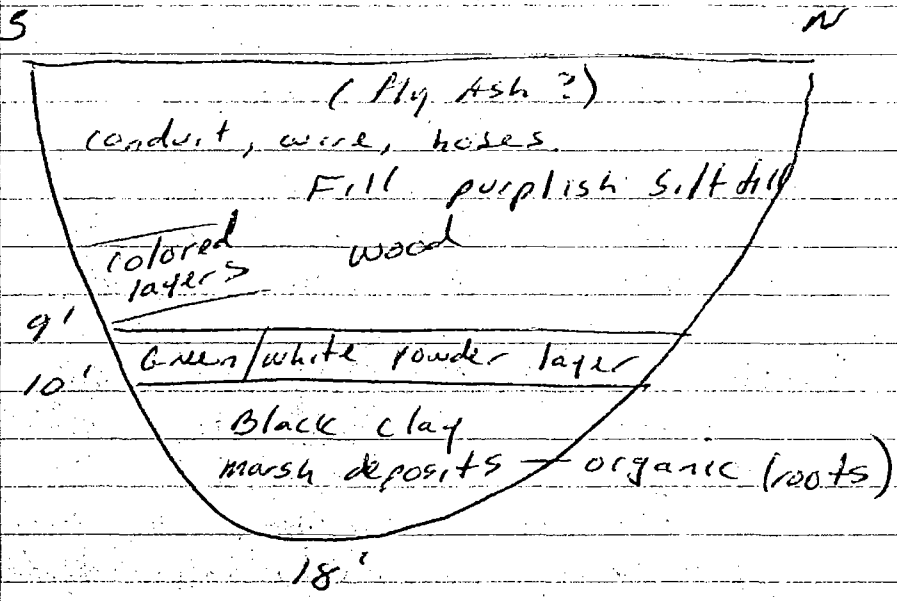
0930 collect TS-SS-05 (FD-01) from south of drum cluster in SE portion of AOC - Black (dark brown silt) organics PID = 0.0 ppm RAD = 6 mr/Hr.

0945 package samples. DO paperwork.

1305 Excavate Test Pit-01 (northend) See Test Pit logs.
Black - dark brown silt - Some rubber hose, wires, wood - white powdery substance.

1320 collect TS-AM-03 white powdery substance (5'-6' bgs) PID = 0.0 ppm rubber hose, wires, Ash at 9' bgs green + white powder - wood, metal pieces

31 August 1999 (Continued)



1340 collect TS-SB-01 (10' bgs)
gold, green, brown, white Crystaline powder type material PID = 0.0 ppm.

1445 Exploratory Test pit - A excavated at SS-02 location - revealed hoses metal mesh wrapped hose.
(25' South of TP-01)

1 September 1999

weather: Partly cloudy, cool, 75°, windy

0730 On-site. Tyme - SATVA D. Davis, M. Martelli, + S. Mohanty.
calibrate PID's.

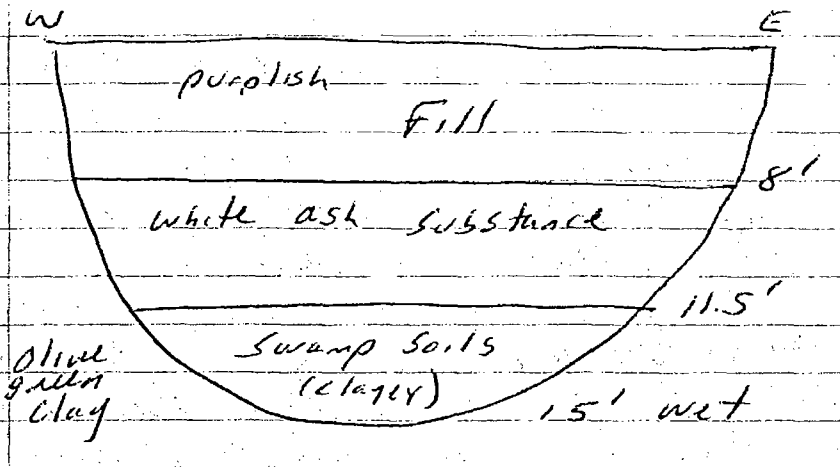
0805 collect TS-DC-01 - from drum #1 located in SE AOC. Black on outer layer - brown interior - rubber substance NO PID reading.

0840 Begin Test Pit-02 (near drum cluster area in NW AOC) along bank. 100' South of TP-01.
0-2' - Dark brown (maroonish) silt. bricks. concrete chunks, metal can boulders (12"-18") rubber hose PID = 0.0 ppm.
2-4' Grayish-brown silt - rubber hose wire wrapped hose
4-6' Br-brn. silt - brick, some rubble
6-8' at 6'6" grayish (ash-like?) material piece of metal - strong sweet chemical odors. PID = 820 ppm
0.0 ppm

0860 collect TS-SB-02 - grayish sandy material (next to metal) also rags with chemical odors (6.5'-7.0' bgs)
7' metal drums (not intact) rubber mold piece (brown) PID: 176 ppm
Breathing zone = 1.6 ppm (not sustained)
8-10' white colored powdery substance (15.4 ppm)
9' brown ash material (slag) NO PID readings ↳ very light (overall) naphthalene odors.

1 Sept. 1999 (continued)

TP-02



Surveying: Stephens Env. states they due to tides schedule (storm) put them out of sink, a lot of property corners can't be found (need to be reset), DEL-DOT surveying consultant need coordination for state coordinates. They need 30 day extention to finish work. OK with OSC Towle.

1000 at XTP-B metal detector "hot spot" South of NW drum cluster area. 0-5' russer hose and wire mesh reinforced hose. Purplish silt - Some bricks (37' south of TP-02)

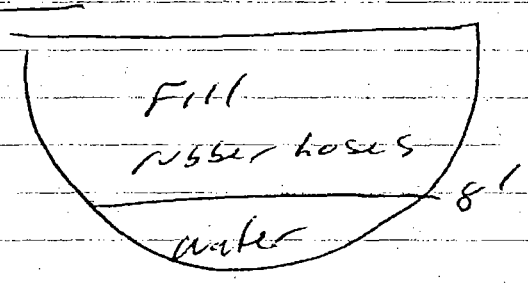
1015 X TP-C metal detector "hot spot" along creek bank - South of NW drum cluster area 4' deep alot of wire and wire reinforced hose.
57' South of TP-02.

1 Sept. 1994 (contin.)

1025 TS-TP-03 - 110' South of NW drum cluster area.
0-6' - Dark brown silt. Rubber hose at 3' is white ashy material.
6' brown substance PID = 0.0 ppm.
6-8' Green silty clayey substance - Gray black ashy material PID = 146 ppm
water at 7' bgs - Sulphur odors
Oily sheen. wires at 8' bgs.

1120 collect TS-TP-03W from Test pit NO. 3 - petroleum type odors - filtered all but VOA.

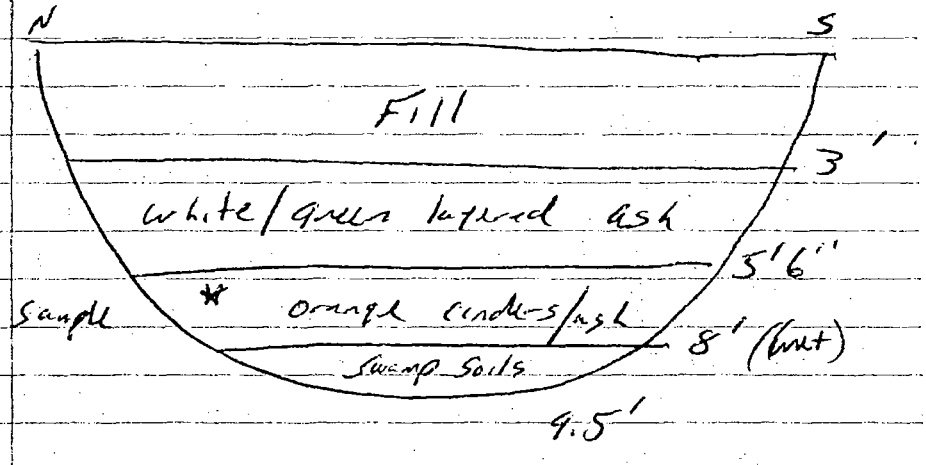
TP-03



1310 At Test Pit NO. 4. Southeast drum cluster area
0-3' - dark brown silt - rubber hose.
3-6' white and orange brown powdery ash-type material. - Collected a waste sample - hose pieces, remnant of burnt debris
6-8' Orange brown cinders/ash, rusty wires
NO PID readings - Steel pail.
8-10' Swamp soil - Black clay.

1 Sept. 1999 (contin.)

TP-04



1340 Collect TS-SB-03 orange cinders NO PID (2' bgs)

1350 collect TS-DC-02 from test pit NO. 2 - drum contents - rubber, gray silt - solvent odors (naphthalene odors)

1400 collect TS-DC-03 from drum #2 at southend in drainage ditch - rags, black tarry - burnt material

1410 XTP-D test pit 40' west of TP-04 drum lid, shredded metal sheeting - Swamp soil at 2' bgs (orange ash) 0-2' dark brown silt (fill) rubber hose 2-5' (drum lid - at 1.5') swamp soil.

1420 XTP-E test pit 60' south of TP-04 (ridge/bump area near entrance to AOC). Steel wire/cable - chemical odors - 55 gal drum (bung top). Strong chemical odors PID = 2000 ppm.

1425 (~~[illegible]~~) - collect TS-DC-04 dark brown/black clayey - water at 3'

1 September 1999 (cont).
OSC. Towel wants additional points surveyed in: extra test pits, toe of fill, cleared paths, etc... This is outside the SOW for surveyor. Towel OKS additional effort which will change original surveying bid for this project. (Surveyor Stephens said it would cost more to do this extra stuff).

PMR
a

2 September 1999

Weather: Partly sunny, warm, 25°, windy, and low humidity

0730 Tyne onsite - SATA - P. Davis

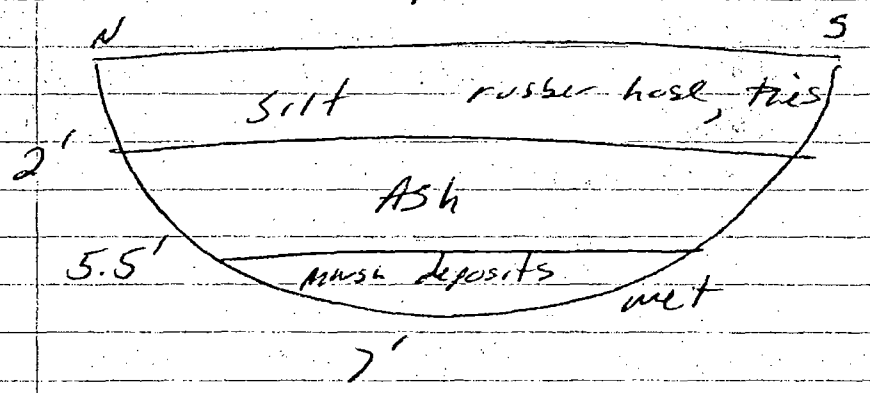
0830 Set up at XTP-F (near SE drum cluster area) on ridge.

0-2' dark brown silt (organics) roots rubber hose and railroad ties.

2-4' orange brown cinders, ash material. Crushed drum (empty) PID=7.6 ppm rubber hoses.

4-6' 5.5' marsh deposits (natural) black/dk. gray clay - roots

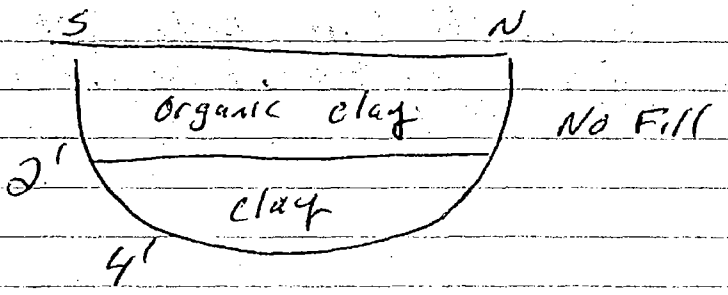
6-7' marsh deposits



0855 XTP-G - South of ridges (exposed crushed drum). [pail]

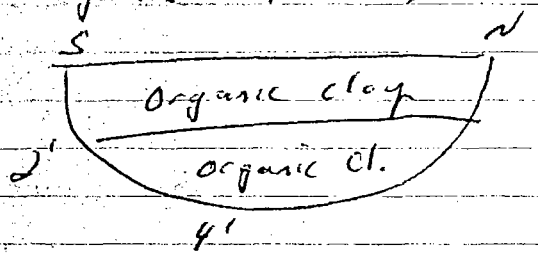
0-2' phragmite roots, brown/gray clay marsh deps.

2-4' grayish brown clay w/roots - No fill encountered



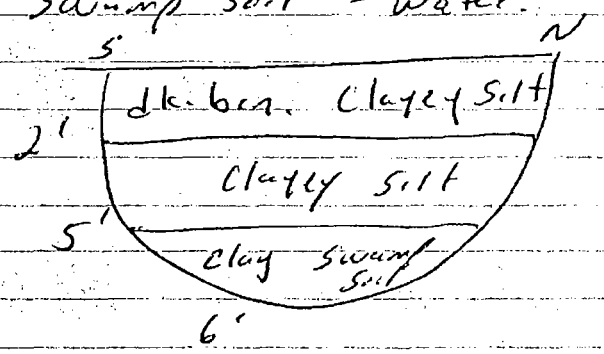
2 September 1994 (contin.)

0905 XTP-H - south of XTP-G
0-2' concrete conglomerate large pieces
dark brown (blk.) clay w/ roots
2-4' grayish-brown clay - w/ roots
organic. NO PID



NO Fill

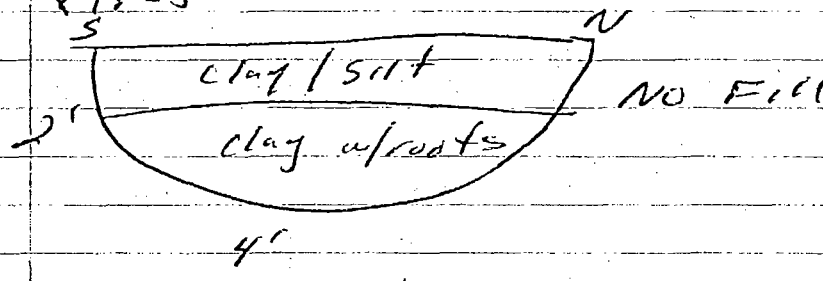
0915 XTP-I 100' south of XTP-H.
0-2' Dark brown (blk.) clayey silt w/ roots - tree stump.
2-4' Tree stump - dk. brn. clayey silt
4-6' grayish-black clay w/ roots
Swamp soil - water.



0940 XTP-J 100' south of XTP-I
(near T-intersection on cleared path).
0-2' dk. brn. clayey silt w/ roots
2-4' gray-brn. clay w/ roots
No fill.

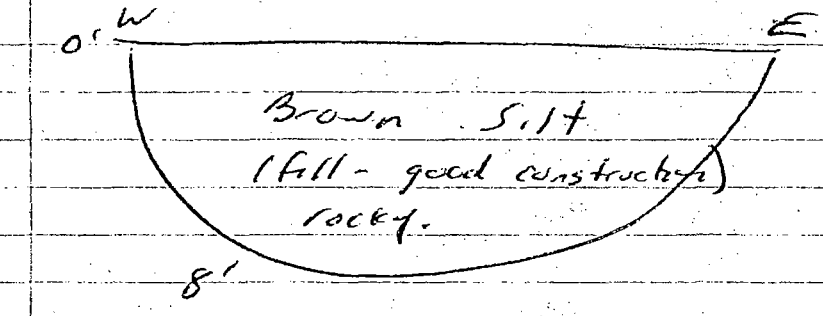
2 Sept. 1989 (contin.)

XTP-J



1000 XTP-K (down Sumner path towards creek).

0-2' Brown silt - rocks 8-12"
2-4' " " " "
4-6' " " " "
6-8' " " " "

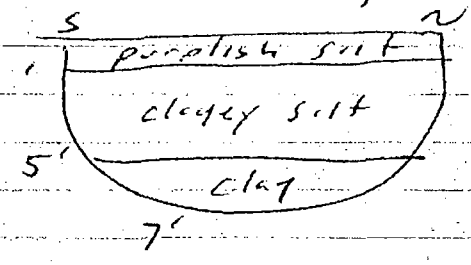


1015 XTP-L 100' South of XTP-J rubber-hose

0-2' dk. brn. silt w/roots - broken bricks
2-4' Orange brown (lt. brn.) silt
rocky - brick fragments.
4-6' grayish brn. silt.
6-8' " " "
8' gray clay - Swamp soil.

8 Sept. 1999 (contin.)

1040 XTP-M 100' South of Surveyors path
0-1' purplish silt.
1-2' dk. brn. clayey silt w/roots
2-5' " " " " " "
5-7' gray-brn. clay - marsh deposits



1050 XTP-N (100' south of XTP-M).
0-2' some rubber hose, conglomerate chunks w/ hose in it. purplish layer to 1'
2-4' brkn. bricks, lumber, conglom. chunks
4-6' dk. brn. silt.
6-8' logs
8-10' Black clay - swamp soil
1130 cover removed drum carcasses with poly sheeting. (2-piles)
N+S RR agreed to 30-day extension, but need 24-hour notice when their (surveyors) go on-site.
EPA will call J. Keys (N+S RR.)
Surveyor must call 'Burt' each day - when they arrive and leave.
1430 off site.
1600 Ship samples at Fred Ex.

8 December 1999

weather: sunny, cool, 58°, breezy.

meeting with coastguard, DNREC, SATA, EPA, ATSDR, and DELDOT.

1400 met at site.

DNREC: Ann Breslin, Donald Lacey, Jennifer Schriber

Coast Guard: Dave Ford, Dan Dugey, S.R. Linskey

EPA: Mike Towel, Charlie Kleman.

DELDOT: Paul Walsh

ATSDR: Becky Walters

SATA: Paul Davis

- Gave DNREC (AB) copy of both site plans
- Object: try to stop direct migration of contaminants from running thru drainage ditch (SW AOC) discharging into creek.
- Need: Quick temp. fix to stop the release of contaminants.

Surveyor: get Topo data and generate topo map - useful for drainage patterns

plug of drainage ditch leading to Creek

silt fence? - basin & retention basin prior to discharging?

stabilize bank in the near future.

CERCLA funds to do quick fix - Then find fix go after PRP.

Needed for DNREC (DC): storm drainage in area (culverts). elev. of R.R. tracks, trap sediment trap. elev. of drainage ditch, plans, watershed for area - site, 2, 10, 100 year storm elevations (floods) for Brandywine creek.

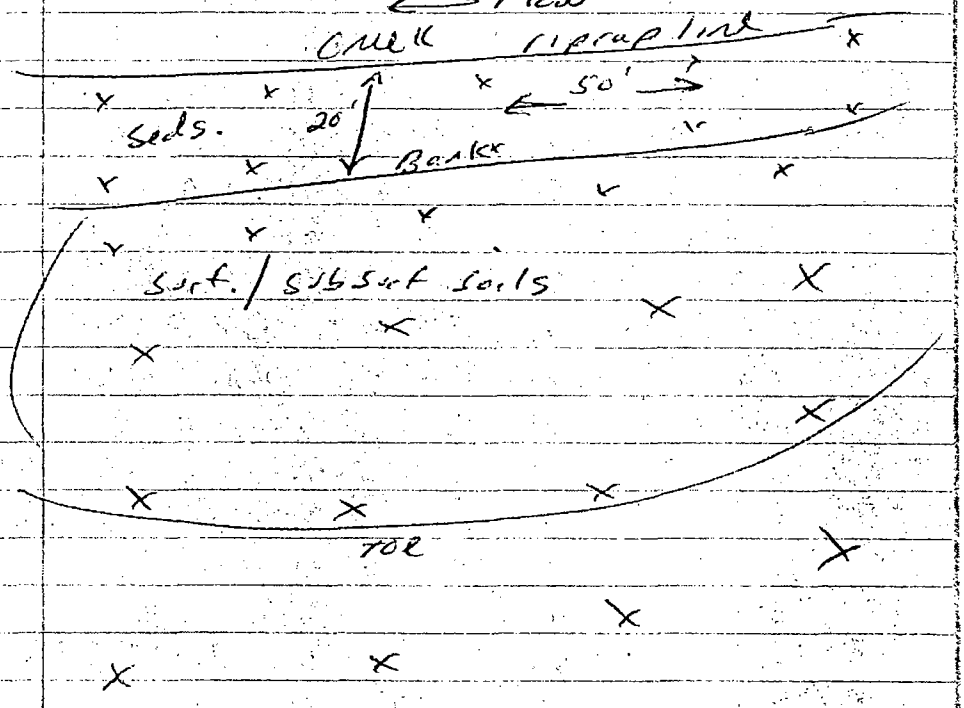
9 December 1999

Weather: Sunny, cool, 60°, breezy.
1400 meet at site:
SATA: Paul Davis & Bob McGlade
EPA: Mike Towel & Shawn Garvin.
NOAA: Peter Knight
DNREC: Anne Breslin
FWS: Chris Guy.

Need additional soil & sediment samples to assess situation.
Characterize soil toward 12th St.
previous biological samples by DNREC result revealed high lead.
DNREC can do XRF lead screening.
Calculate soil volume in AOC.
Expanded Surf. Soil & Subsurf. Soil samples - along bank east to DELDOT property and South.
Wilm. Drum site 51 Data for Seds.
lead levels in shellfish - Tissue analysis of invertebrates -
Catfish Samples.
- Sediment Samples first - if high - then do tissue/bioassay samples
LL50 analysis - need at least 5 Sed Samples
Bank Stabilization: RipRap along bank nothing should be done until data is fully assessed.

9 Dec. 1999 (cont'd.).

Collect samples ASAP.
Sediment samples every 50'
Soil & subsurface samples on a grid
Geoprobe?
XRF - lead field screening



find extent going this way ↓

20% confirmation samples to lab

come up with specific benchmarks
What is protective level
Superfund Guidance to conduct an
ecological assessment.

Sample in January.

11 January 2000

0730 Arrive on site P. Davis, M. Bartos, E. Bailey.

weather: Partly sunny, cool, 45-50°, windy.

0740 call into Burt at NTS RR. tell him we will be working out by creek today and tomorrow. He says ok and will notify his crews.

0750 Prep bottle ware for sampling.

0850 Arrive along NW corner of AOC to begin sediment sampling. measure off and place pin flags for each sediment sample location.

0950 collect TS-SED-03 near bank - XRF

0956 " TS-SED-04 along riprap - XRF

1000 " TS-SED-05 near bank - XRF

1005 " TS-SED-06 near riprap - XRF

1012 " TS-SED-07 near bank TAL metals/XRF

1023 " TS-SED-08 near riprap - XRF

1030 " TS-SED-09 near bank - XRF

1035 " TS-SED-10 near riprap TAL metals/SVOA/XRF

1045 " TS-SED-11 near bank - XRF

also TS-Dup-01 (DNREC) (0000) Also confirm TAL metal.

1105 collect TS-SED-13 near bank - XRF

1110 (DNREC Dup-02) TS-SED-15 near bank - XRF/TAL Met./SVOA

Dup-01 CLP

Tide coming in high - can't get to riprap line samples - change in weather: cloudy, very windy, drizzle

1128 collect TS-SED-16 next to riprap line XRF

1135 collect TS-SED-17 next to bank TAL metals/SVOA/XRF and Dup-03 (DNREC) here

11 January 2000 (Contin.)

1210 Lunch

1245 Resume work (Sampling)

1255 measure off and place soil samples using pin flags.

1405 collect TS-SS-06 face of bank XRF

1410 " TS-SS-07 pathway XRF

1415 " TS-SS-08 face of bank XRF/met./SVOA

1430 " TS-SS-09 face of bank XRF/metals

also TS-Dup-04 DNREC here (0000) (CLP=Dup-2)

1450 collect TS-SS-10 face of bank XRF/met./SVOA

1510 collect TS-SS-11 face of bank XRF/~~met/SVOA~~ CLP

1515 collect ~~also~~ TS-SS-12 face of bank XRF/metals/SVOA

also TS-Dup-05 DNREC here (0000)

1530 Head back to staging area - package samples.

1545 Relinquish XRF samples to A. Breslin of DNREC

1600 Continue packaging samples

1700 leave site

19 - 20.5

12 January 2000

weather	Partly sunny, cool, 40°, breezy
0230	SIATA onsite P. Davis, L. Bailey, M Bartoz
	prepare samples and package
0810	Head out to collect sediment samples
0820	Collect TS-SED-12 - riprap line - XRF
0825	" TS-SED-14 - riprap line - XRF, TAL metal
0835	" TS-SED-18 - riprap line - XRF - TAL/SVOA
0850	" TS-SED-19 - next to bank - XRF - TAL metal
0900	" TS-SED-20 riprap line XRF
0905	" TS-SED-21 next to bank XRF
0910	" TS-SED-22 riprap line XRF
0918	" TS-SED-23 next to bank XRF/TAL metal
0925	" TS-SED-24 riprap line DNREC → (FD-06) XRF
0935	" TS-SED-25 next to bank ~~riprap line~~ XRF
0940	" TS-SED-26 riprap line XRF
0950	" TS-SED-27 next to bank XRF
1000	" TS-SED-28 riprap line XRF/TAL/SVOA
1010	" TS-SED-29 next to bank XRF/TAL metals
1020	" TS-SED-30 riprap line XRF
1030	" TS-SED-31 next to bank XRF
1035	" TS-SED-32 riprap line XRF TAL metals
1050	" TS-SED-33 next to bank XRF
1055	" TS-SED-34 riprap line XRF
1110	Package samples
1215	Resume sampling (soil)
1230	collect TS-SS-13 XRF/TAL met.
1240	collect TS-SS-14 XRF
1245	" TS-SS-15 XRF/TAL metals
1255	" TS-SS-16 XRF
1300	" TS-SS-17 XRF/TAL metals
1310	" TS-SS-18 XRF/TAL metals

12 January 2000 (contin)

1320	collect	TS-SS-19	XRF	
1325	"	TS-SS-20	XRF (FO-07)	DNREC
1330	"	TS-SS-21	XRF/TAL metal	
1340	"	TS-SS-22	XRF	
1345	"	TS-SS-23	XRF	
1350	"	TS-SS-24	XRF/TAL metals	
1400	"	TS-SS-25	XRF	
1405	"	TS-SS-26	XRF	
1410	"	TS-SS-27	XRF	
1420	"	TS-SS-28	XRF/TAL metals	
1435	"	TS-SS-29	bank/fill XRF	

1450 Speak with OSC-Towle regarding background sample locations - DO all that surf./subsurf. soil and sediment at Brandywine State Park.

1505 Package samples

1530 Relinquish samples (XRF) to DNREC
Continue paperwork and packaging
CLP samples

1635 Leave site

730 - 920

13 January 2000

weather:	Cloudy, cool, light rain (on/off) 40°-45°
0700	SATA onsite (P. Davis / E. Bailey / M. Bates)
	prep for sampling.
0755	collect TS-SS-30 bank/fill XRF
0800	" TS-SS-31 " " XRF
0805	" TS-SS-32 " " XRF
0810	" TS-SS-33 " " XRF
0850	" TS-SB-04 XRF / TAL metals / SVOA
	Same location as TS-SS-16.
0915	" TS-SB-05 XRF / TAL metals (TS-SS-15)
0945	" TS-SB-06 XRF / (TS-SS-14)
0950	" TS-SB-07 XRF (TS-SS-13)
1015	" TS-SB-08 XRF / TAL / SVOA (TS-SS-19)
1005	" TS-SB-09 XRF (TS-SS-20)
1040	" TS-SB-10 XRF (TS-SS-21)
1030	" TS-SB-11 XRF (TS-SS-22)
1045	" TS-SB-12 XRF / TAL (TS-SS-28)
1135	package samples.
1235	Go up to Brandywine creek park
	in Wilmington to collect background
	samples.
1250	collect BG-01 (sediment) east side
	of creek near parking area. XRF/T/S
1255	collect BG-02 (surface soil) XRF/T/S
1300	" BG-03 (subsurface soil) XRF/T/S
1330	Package samples
1415	DNREC pickup XRF samples
	Continue packaging / paperwork (CLP)
1530	leave site - Fax COC/TR's to Murphy
	Site OKS team.
1720	~~at~~ fed Ex - Ship samples.

14 February 2000

weather: cloudy, light rain, windy, 45°-55°

0900 Arrive onsite to collect sediment (6" & 12"-depth) samples and soil bioassay samples.
Sediments locations: -05, -07, -08, -09, -11, -15, -18, -23, -24, & -25
Soil bioassay locations -09, -12, -14, -28, -32 (-30, -31) alternates

1000 Speak w/ OSC Toule - SATA and weston to design access road from rr to AOC. (staging area) - also bank stabilization design. must be done ASAP - (next 30 days)
coffer dam - devegetate site / bank, remove sediment, soil cover.

1100 SATA - Petracci arrives onsite

1110 collect bioassay sample from SS-14 location (0-12") TS-SS-~~29~~34 - dark brown silt (some organics)

1120 collect bioassay sample from SS-09 location (0-12") TS-SS-~~30~~35 - dark brown silt with organics and angular pebbles

1130 collect bioassay sample from SS-12 location (0-12") TS-SS-~~31~~36 - white ashy substance with multi colors, wire, hose, scraps

1145 collect bioassay sample from SS-32 location (0-12") TS-BG-04
- Gray silt (ashy?)

1200. collect bioassay sample from SS-28 location (0-12") TS-SS-~~32~~37
Dark brown silt with organics (roots/humus)

14 February 2000 (Continued)

1210 Ice along creek mud flat is too thick at this time - cannot collect sediment samples today - will wait till ice melts more.

1230 Collect TAL metals / pesticides / PCB's samples (collected from bioassay buckets)

1315 Continue with paperwork & packaging

1330 Place excess XRF samples (collected in January and given back to SATA by DNREC) back where the samples came from.

Anne Breslin on site tell her that we couldn't collect sediment samples today - will try on thursday.

1445 leave site - Go to Fed Ex to ship samples.

1530 At Fed Ex - Ship samples

22 February 2000

weather: Sunny, mild, 50°, breezy

0730 P. Davis / J. Petelli on site to sample sediment in Brandywine Creek for DNREC analysis (lead) 6" + 12" depth samples

0805 collect TS-Sed-05A (6"-depth)

0810 collect TS-Sed-05B (12"-depth)

Brown organic silt w/ some streaks

0820 collect TS-SED-07A (6"-depth)

orange brown silty sand - pebbly.

0825 collect TS-Sed-07B (12"-depth)

grayish black silty clay.

0830 collect TS-Sed-08A (6"-depth)

grayish black silty clay.

0835 collect TS-Sed-08B (12"-depth)

grayish black silty clay

0840 collect TS-Sed-09A (6"-depth)

grayish brown silty clay

0845 collect TS-Sed-09B (12"-depth)

grayish brown silty clay.

0855 collect TS-Sed-11A (6"-depth)

grayish black silty clay

0900 collect TS-Sed-11B (12" depth)

0910 collect TS-Sed-15A (6"-depth)

grayish black silty clay.

0920 collect TS-Sed-15B (12"-depth)

grayish black silty clay.

0930 collect TS-Sed-18A (6"-depth)

grayish black silty clay - oily sheen fuel oil odors

0940 collect TS-Sed-18B (12"-depth)

grayish black silty clay - sheen fuel oil (gas) odors

22 Feb. 2000 (continued)

0950 collect TS-Sed-23A (6"-depth)
grayish black silty clay
1000 collect TS-Sed-23B (12"-depth)
grayish black silty clay
1010 collect TS-Sed-24A (6"-depth)
brown silty very fine grained sand
1015 collect TS-Sed-24B (12"-depth)
brown silty very fine grained sand
1025 collect TS-Sed 25A (6"-depth)
grayish black silty clay
1035 collect TS-Sed-25B (12"-depth)
grayish black silty clay
1045 Exploratory hand auger boring
at Sed-25 location 0-4' grayish
black silty clay (soft).
1100 Exploratory hand auger boring
at Sed-15 location
0-3' - grayish black silty clay.
3'-4' purplish sandy clay with
brown colors.
1120 Exploratory hand auger boring
at Sed-09 location
0-4' grayish black silty clay

3 march 2000

weather: Sunny, cool, 50°, windy (meeting)

1300 Arrive onsite - P. Davis, Bill Zahar, Sunday

need elevations - Survey for cofferdam & bank stabil, from top of bank to riprap.

Maybe (probably) need topo for E&S plan.

Send Bill copy of Surveyor's plan

Send FEMA maps to Bill of this area.

1400 leave site

20 March 2000

1000 Meet OSC Towle,
DNREC Ann Breslin
Weston Andrew Harpur
SATA Wilson
on-site
Took a walk on the site to familiarise Mr. Harpur with the specifics and discussed possible solutions for: - site entrance
- bank stabilization
- grading

1200 Left the site. SATA Wilson and Mr. Harpur visited Diamond State Salvage site since similar technique in bank stabilization could be used.

Mr Harpur is to develop E&Splan.
SATA Wilson is to contact surveyor, find out about insurance.
OSC Towle & DNREC - to work on establishing property rights at the north corner of the site.

27 March 2000

Weston Corp. completed scope of work for the site topo survey. Scope was sent to both the surveyor and OSC Towle.

3 April 2000

1000 Site meeting. Present:
EPA OSC: Mike Towle
SATA: Wilson, LaCerra
Guardian: Terry Boos
Joe Cumane } 1-800-345-4395
Jim Crosby } (302) 834-1000
DelDOT: Steven Turley (real estate) (302) 323-4494
David Wood (302) 760 2231
Tetratech: Christopher Geiger (302) 738 7551
(DOT's contractor) 1800 462 0910

Weston Corporate: Bill Zahn
Andrew Harpur

Stephens Environmental (surveyor):
Bruce Hartman
DNREC: Ann Breslin

OSC Towle gave short overview of activities up to date

10:30 Site Walk. OSC Towle aligned responsibilities of different parties. Priority at the moment: clearing with Guardian, so that surveyor will get on to the site. DelDot will oversee that no contaminated soil is graded over their land. Weston Corporate - E&S plan. Property on the northern part of the site might be moved - Mike has a meeting at 1100.

1115 Offsite - Guardian & Weston reps visit Diamond State to inspect the Dortadam.

6 April 2000

weather: sunny, warm around 70°F

1400 SATA Wilson & SATA Dehaven arrive on-site. The purpose of the trip is to familiarize Ms. Dehaven with site conditions, current activities, and future plans.
Guardian is conducting clearing work on-site. Fragmites are being cut down, as well as some of the trees.

1445 SATA off site

7 April 2000

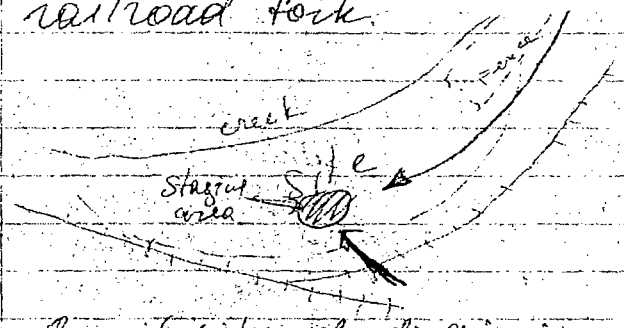
weather: partly sunny, warm around 65°F

700 SATA Wilson arrives on-site and meet with Guardian. SATA explains Health & Safety measures & Guardian personnel signs Health & Safety Plan.

730 Stephens Environmental arrives on-site. They also sign H&S plan. Stephens sets up equipment & starts survey from checking their perimeter points.

1000 Guardian, DNREC (Kristen Thornton), OSC Towle, railroad (John Keys) arrive to the site for the meeting. Jim Crosby (Guardian) was hurt with the chainsaw earlier and taken to the hospital. He returned later and was

able to continue work.
The meeting was focused on access to the site. Final decision was to move the fence on the southern part 10-15 feet inland (from the railroad) to allow construction of the backup road. Another road will be constructed from the railroad fork.



Possibility of draining standing water along the tracks was discussed.

1100 Mike Towle left to meet with the North property owner. Guardian continued clearing. Stephens continued the survey.

1200 Lunch

1230 Survey continues. Guardian continues clearing. Jim Crosby (Guardian) is back on-site from the hospital due to morning chain-saw injury. He has stitches and feels well.

1600 SATH offsite

8 April 2000, Saturday

1200 SATA Wilson arrives on-site to check on the survey. The tide is low and the mudflat is fully exposed. The surveor found a rock retaining wall approximately 25-30 ft from the bottom of the bank. The wall is broken down and is mostly located below the low water level.

1330 SATA off site

23 May, Tuesday

10:00 Pre-bid meeting for geotech drilling:
- Present: Bill Radecke, Site Engineers
  Bob Munyan, Walton Corp
  OSC Towle, Guardian Jim Crosby, SATA Wilson, Weston Harpur. Scope of work was layed out for bidders.
- Jim Crosby & Andrew Harpur discussed modification of the stormwater pond
- Andrew & OSC Towle discussed 3:1 vs 2:1 slopes & whether it makes a difference.
- SATA Weston & OSC Towle discuss SATA schedule & responsibilities on the site. OSC Towle took Site Safety Plan for review.

12:00 SATA off site

S Wilson

31 May 2000

10:00 SATA Wilson on site. Clearing continues. Guardian is preparing for the placement of the stabilized construction entrance

11:00 SATA offsite

2 June 2000

1030 SATA Wilson and SATA DeHaven on-site. Topsoil is being stripped in the future staging area. Stockpile is located north of the staging area. Work is done for the stabilized construction entrance. The pipe was placed underneath. The fence is intact now all around the site.

1130 SATA offsite.

5 June 2000

1300 SATA Wilson on-site. Expecting OSC Towle to be on-site as well.

1450 OSC Towle on site. Discussed drilling operations that are to start on the mudflat. OSC Towle requested that I contact Bill Fahn (Westondesign) to clarify some things about sediment pond construction & to change the outflow location.

1550 SATA Wilson offsite

SW
7 June 2000

730	SATA Wilson onsite. Take site walk
800	Weston Andrew Harper (design) & Mark Eschbacher (geoscience) onsite
830	All take site walk to check the tide & position stakes in the approximate drilling locations.
930	Drillers arrive on site. They have a track rig instead of a skid rig that was requested in the bid proposal.
1000	Drillers begin moving the rig to the GT3 location. The rig gets stuck almost immediately on the soft soil near the river bank. Guardian excavator pulls the rig out and drags it into GT3 location.
1130	Drillers drive first spoon in (2-4') They indicate that they did not bring any shelby tubes (again, a violation of the contract conditions). Drilling otherwise continues as normal.
1320	Drive last spoon (28-30') and prepare to move the rig
1405	The rig is on the bank out of the tidal zone
1480	SATA, drillers & Weston offsite

8 June 2000

7:50	SAIA onsite
8:30	Weston geologist Eschbacher onsite
8:50	Relocating drillers augers & equipment to the GT2 location.
9:10	Start moving rig on the mudflat towards GT2.
9:15	The rig is stuck again. Guardian excavator is called to pull the rig out.
9:45	While being pulled the rig loses track. Drillers are trying to repair it. It takes about 15-20 min before the rig is ready to go again.
10:30	Rig is still on the mudflat being pulled by the excavator.
10:40	Rig is finally in position. Drillers are preparing it for drilling.
11:00	Start drilling.
11:10	Drillers discovered that they don't have bolts for shelby tube.
11:30	Waiting on bolts to take a Shelby sample. Downtime.
11:40	Found bolts. Preparing to take shelby tube sample.
11:52	Trying to push sample tube from 10-12' but hit refusal. Retrieved only 1' of sample.
12:10	Drillers lost auger in the hole! No phone to call the office, all are out to lunch.
12:35	Drillers reached their office. Their truck with the retrieval tool will be sent to the site.

1420 Retrieval tool is on-site. Trying to pull the auger out.
1430 The tide is coming. The rig needs to be moved.
1510 The rig was pulled by excavator and is out of the tide zone.
1520 Tide has reached the borehole
1530 SATA, drillers, weston offsite.
9 June 2000
830 SATA onsite. Drillers onsite. This time drillers brought straps to lower the rig onto mudflat.
930 Lift successful - rig is in location. Plan to collect 8-10' sample right away (since shallower ones were collected yesterday).
1000 Begin drilling.
1030 8-10ft Shelby tube sample collected.
1130 18-20 - silt. 22-24 shelby tube collected; got gravel - sample not successful.
1335 Done drilling GT2
1445 Lifted the rig up w/excavator
1500 Too late to start GT1. Will continue on monday.
1520 Offsite.

12 June 2000

1230 SATA onsite. Drillers have equipment setup and are ready to lift the rig to GT1 location.

1250 Rig is down in the location.

1320 Begin drilling GT1

1450 20-22' Sample taken

1510 23-25' Shelby tube sample attempt - no recovery - water

1530 26-28' - running sands. 1 ft ~~left~~ sand

1550 Ready to go 28-30'

1610 Still trying to get split spoon sample @ 28 ft

1680 Sample taken. Drillers preparing to lift the rig

1730 Rig lifted to the bank

1830 Drillers setup the pump & decon'd the rig.

1900 SATA, drillers, and Weston offsite.

13 June 2000

1150 SATA Wilson onsite. Updated logbook. Phones are installed. Work is only going in the staging area.

1540 SATA offsite

14 June 2000

820 SATA Wilson onsite.

840 OSC Towle onsite

915 Weston's Bill Fahn onsite. Hold a meeting w/ OSC Towle, SATA Wilson, ERES Crosby, & Weston Fahn discussed design specifications.

sediment trap, grade of the bank (3:1, 2:1) burn on the clean part of the property. Steel piling. Bill Fahn stated that final plan should be ready by June 30th.

1050 Weston Fahn offsite

1130 ERRS layed out sed pond contour and are installing siltfence on the lower part of the bank in that area.

1320 DNREC Ann Breslin visits the site for an update. SATA Wilson and ERRS Crosby let her know about latest activities

1530 SATA offsite

Thursday 15 June

820 SATA onsite

930 OSC Toole tasked SATA to delineate contaminated areas on the mudflat using Fish & Wildlife 80% survival for Arsenic & Cromium as a guideline. SATA Wilson input the data onto sample location map. Most remoal areas are those dictated by high lead concentrations.

1100 SATA updating costs from the beginning of site operations

1530 SATA offsite

16 June 2000, Friday

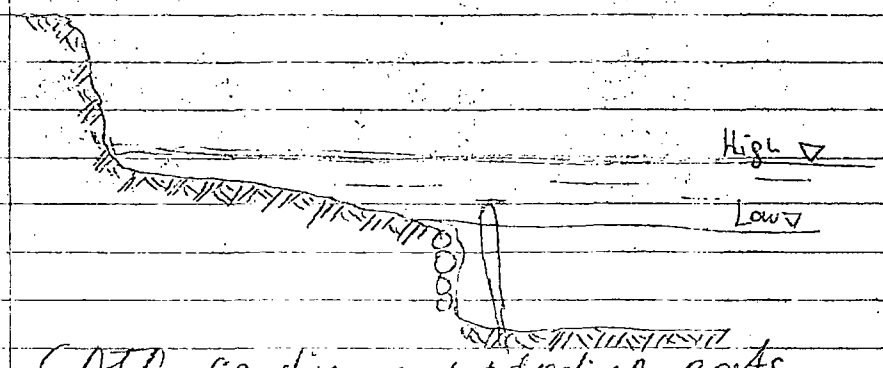
830 SATA onsite

850 SATA download weather and tide info. Weather hot & partially sunny, muggy & humid.

930 Equipment inventory log from the beginning of site operations

1100 SATA filing documents and organizing office

1130 Guardian Jim Crosby brings the sketch of the existing bulk head. This river bottom investigation was requested by Bill Fahn for design purposes. It looks like the retaining wall is mostly fallen apart except for one place where it is still standing



1230 SATA continues updating costs for EPA & SATA

1700 SATA offsite

19 June, Monday

0710 SATA onsite. Generator went down during the weekend - there is no power in the trailers

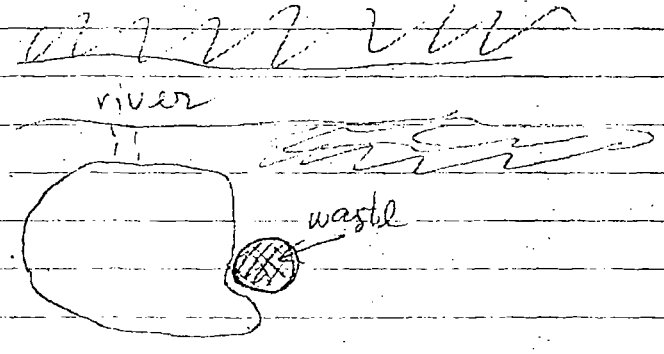
0800 SATA Wilson took a site walk. Guardian is preparing to pump out sedimentation

pond, which is full due to last night's thunderstorms. Tide is coming in, the current in the river seems very high.

1000 Guardian took the elevation on the silt fence (where water came up during high tide). That mark is 4.1' ft which gives plenty of height to construct the pond.

1100 DNREC Ann Breslin visits the site. OSC Towle discusses current activities w/her, particularly construction of the sediment trap, and the northern property that is being cleared now.

1230 Construction of the sedimentation pond continues. There is an area where creosote pilings & rubber hose were found. That will need to be staged in the waste pile



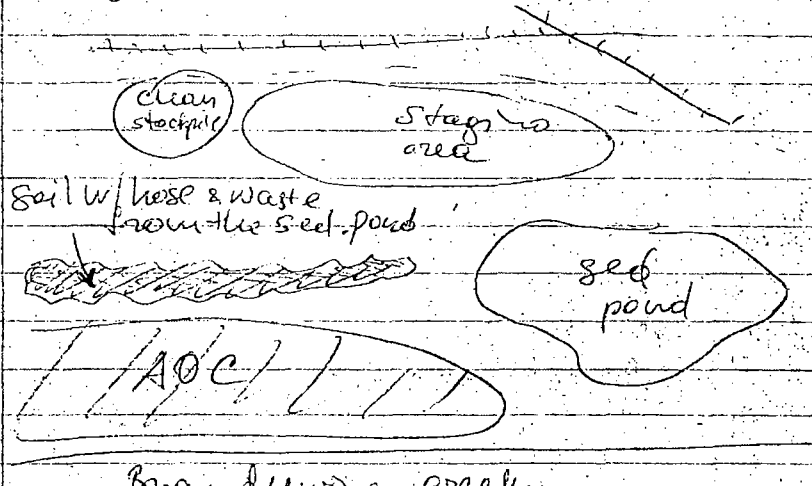
1530 SAT off site

20 June, Tuesday

0705 SATA Wilson onsite.

0800 Excavation of the sediment pond continues. The part w/waste in it (mostly rubber hose) is being removed.

1000 ERRS is shooting elevations by the fence on the north of the site. This is done in order to establish grading procedure. Excavation of the sed. pond continues. Soil + waste is being stockpiled on the city property along the area of concern.



1130 Bill Stendeville & other EPA (contracting) staff visit the site. OSC Towle briefed them on site status and current activities

1230 Excavation of the sed. pond continues. Elevations on the site are significantly higher than the seawall (8.6') — mostly about 11'.

1400 SATA Wilson onsite. Excavation continues

1530 SATA offsite.

21 June, Wednesday

705 SATA onsite

800 Electricians arrive to hook up permanent power. Excavation of the pond continues. Bulldozer is used to grade the stockpile of the soil removed from the pond location.

900 Bill Zahn arrives to discuss details of the grading plan. OSC Towle, RM Crosby, Milton Zahn & SATA Wilson take a walk on the bank & towards the northern property in order to optimize available possibilities.

1100 Bill Zahn offsite. Excavation & grading of the banks (2:1) of the sedimentation basin continues.

1230 Excavation of the sediment pond continues. OSC Towle, RM Crosby, SATA Wilson prepared and faxed their comments to Bill Zahn

1530 SATA offsite

23 June ~~Thursday~~ Friday

1200 SATA onsite. ERRS started excavating the outlet of the sediment pond. Fabric w/riprap on the top of it was extended to the existing stone on the mudflat in order to minimize erosion. Excavation will go on to 4' elevation. Stone fill (w/fabric underneath) will be at elevation 5.5'

1430 Excavation of the outlet is complete except for the small point separating the pond

	and the outlet. The outlet
	is being filled w/riprap.
1500	SATA offsite
	26 June, Monday
0810	SATA onsite
0850	Tide is high - therefore ERRS
	are not working on the sediment
	pond. The deck for the decon
	trailer was constructed.
1100	Construction of the sediment
	pond outlet continues.
1120	SATA offsite
	27 June, Tuesday
0815	SATA Wilson onsite
0830	TetraTech engineer John McCall
	is onsite. SATA Wilson showed
	him the site & briefed him
	on site activities. EPA Towle,
	TetraTech McCall, & SATA Wilson
	discussed E&S controls & smooth
	transition between Weston &
	TetraTech.
1000	Guardian continues work
	on sediment pond outlet.
1035	SATA offsite
	28 June Wednesday
1435	SATA onsite. Guardian comple-
	ted construction of the sediment
	pond and stabilized the bank.
	SATA updated tide, weather &
	cost files
1535	SATA offsite

29 June Thursday

0820 SATA onsite. ERRS are working on the construction of the deck for the decon trailer

0930 ERRS marked the berm along the eastern side of the site

1010 SATA offsite

30 June, Friday

9:25 SATA onsite

9:30 ERRS are preparing to start construction of the ~~dam~~ berm. They are waiting for the ground to dry out a little after yesterday's rain.

5 July 2000 Wednesday

0730 START members Croft & McCall onsite
meet w/ OSC Tonie to discuss/review
sheet pile requirements

1030 START collects sample from small soil pile
w/ multi-colored fragments (green, orange, etc) -
to be delivered to DNREC for metals analysis
ERRS using existing soil piles onsite to construct
berm along fence line to assist in future
grading efforts @ the site

1300 ERRS continues w/ berm ops
START reviewing site documentation

1530 EOD crew off site

BSC

12 July 2000 Wednesday

0730 START Walker Croft on site
ERRS working on setting up decon area and equipment drop area for future operations
0800 THEMI discusses site ops (past, present & future) w/ OSC:
- Guardian to likely install sheet pile instead of subcontracting
- OSC wants to begin preliminary digging next week - some air sampling/monitoring to be considered - digging only to remove surface debris that will not be part of future grading ops.
- meeting on Friday w/ DNREC, etc. to discuss future grading/cover plans
0920 THEMI updating costs & property, FOLLOW UP
0945 EPA reps on site for tour (Libby Lex, Butcher)
note: Guardian currently staging soil piles
1135 OSC, THEMI, & EPA reps on site tour
1330 OSC, Guardian, & THEMI meet to discuss ops for next week:
- Guardian to begin preliminary grading ops along top 2-3 ft. of current creek bank to pull out misc. debris (i.e. hoses, concrete, etc.)
- THEMI to begin air sampling & monitoring using Gilian pumps w/ cartridges & personal particulate monitors when equipment is available
note: Guardian has surveyors @ site today trying to identify northern property boundary which is w/in adjacent fenced area - neighboring business (Asset Recovery Inc.) still has not move some equip. - surveyors will need this moved to complete survey.

1520 THEMI emailed POLREP 09 (approved by OSC)
to RRC (Linda Marzulli)
Ann Beslin (DNREC)
faxed to Stephanie Bolden (Wilmington City Council)
George Giles (Wilmington, DEM)
1600 THEMI offsite

BSC

~~14~~ 12 July 2000 Friday

0730 START Croft & Helverson onsite

0830 START Croft & Helverson toured site, observed ERRs operations. ERRs reconfiguring backfill pile.

1000 USFWS, DelDOT, DNREC, TLEMC, & OSC, & Guardia onsite for meeting to discuss future actions @ site

- OSC gives overview of past, present, & future site ops. (i.e. property ownership issues, contaminants of concern, actions taken and future goals)
- 2 main issues:
  - type of creek bank (natural vs. sheet pile)
  - type of cover (soil vs. liner)
- DNREC concerned about leachability of As, Cr
- OSC stated that if material must be removed, he would put temporary cover over creek (interim remedy) and refer site to remedial section for further consideration
- FWS (C. Guy) suggested water sampling creek along length of waste pile to see if ambient water quality criteria are exceeded (during slack high tide) - total & dissolved metals
- all agreed w/ 3:1 slope
- all want sheet pile out @ end of cleanup
- Petraflex (concrete revetment) w/ a mixture of rocks/rip-rap - general agreement
- low permeability material @ bank - compacted to decrease water transmission between site & creek
- water sample from sedimentation pond
- 2 ft. cover over site w/ 4"-6" topsoil for vegetation

- no big issues w/ leaving sedpind - FWS requested it remain tidally connected to Brandywine Creek

1730 DNREC, DOT, offsite

OSC & THEMI personnel discussing grading & cover plan revisions

1430 scoping mtg. for next week

- "precursory" digging on city property to identify / remove & stage debris not suitable for future grading ops.
- level C ops.
- START to begin air sampling/monitoring ↑ middle of week (when lab is set up & equipment is on)
- Guardian to set up geoprobe to punch holes & obtain water samples for dissolved metals analyses
- seep samples from site into Brandywine Creek
  - 4 samples - 1 upgradient, 1 downgradient, 2 in seep areas @ slack high tide - mark locations @ low tide
    ≤ 14 day turnaround - total & dissolved metals analyses
  - 1 background sample from middle of channel
- revised engineering plans from McCall to be sent out to DNREC upon receipt
- test pitting to delineate AOC - based on visual inspection (i.e. no samples)
- point of contact while Mikes on vacation is Jack Kelly
  (215) 353-3834 cellphone
  (215) 814-3112 office phone
- five (5) soil samples to be sent to lab for TAL Metals and.

Send to Ann Berlin & Randy Greer - on file

1530 START offsite

BSC

Monday 14 July 2000

0700 START onsite
low tide - inspected creek bank to look for seeps from dump area - no significant seeps identified - will look again shortly after high tide to identify sampling locations

1030 START onsite observing site operations. ERRs scraping top 2 ft in Northern area of Site ~~Area~~ (SHH) Mostly clean soil with little debris. All Site operations being performed in Level C.

1200 ERRs break for lunch after continuing to remove debris material from top 2-3 ft of soil in North portion of Site.

1300 ERRs continue excavation of top 2-3 ft of soil in order to remove debris from soils. Operations performed in level C in the hot zone. Temps in mid 80s with winds from NW and overcast skies.

1400 ERRs continue to excavate top 2-3 ft. for debris and stockpile debris. Level C in hot zone.

1530 End of site activities

Tuesday 15 July 2000

0730 START onsite.
ERRs onsite and suiting up in Level C PPE to begin site operations.
Temp 75°, winds 1-2 mph from NW, clear and sunny. Temps to go up to 90° today.

0830 ERRs continue to search through top 2-3 ft of soil for debris. Debris is being stockpiled at NE edge of parcel, all work in Level C. excavator, loader, and dozer in use. START updates equipment log.

0930 ERRs excavating top 2-3 ft of site and removing debris from pile and stockpiling in NE area of parcel. START updating costs.

1030 ERRs excavating top 2-3 ft of soil and removing debris by hand. 1 excavator in operation, 3 laborers, and 1 loader being used in operation. Work crew is moving from North to South on site along the most elevated pile on site. Little debris encountered thus far.

1145 ERRs continue excavation activities onsite. Temps in upper 80s, winds picked up to 5-10 mph. Partly sunny. START completes site costs

1300 ERRs onsite, in hotzone in Level C performing excavation activities. ERRs encountering more debris than previously encountered & stockpiling debris to NE portion of parcel.

1420 ERRs take final break of day and prepare to continue excavation in Level C. Approximately 1/3 of site length excavated

along pile near stream. RM talking to crew during break.

1430 ERRs continue excavation of elevated area on site. Dozer grading areas previously excavated, excavator continue to remove top 2-3 ft of soil while laborers remove debris and stockpile by hand. Dozer, loader, excavator, and uniloader in use. Previously unearthed drum containing hardened rubber-like material being staged at South side of site with other staged drums of similar content on VisQueen. Temps at or above 90° and very humid.

1530 End of day. ERRs off site. START off-site

Wednesday 19 July 2000

0930 START onsite. Temps low to mid 70s, overcast. Light winds from SSE, variable. ERRs onsite suiting up in Tyvek and rubber booties, and level C masks in order to continue excavation activities onside along North to South running berm near Brandywine Creek. ERRs have generator and submersed pump emptying staging area east of pond due to some rain through the night. START preparing equipment retrieved on 19 July '00 for air sampling/monitoring activities to be performed Friday. Also, START has equipment to perform sampling of seepage along Brandywine banks and pond, awaiting lab. for this sampling to begin. ERRs using excavator, loader, and dozer for excavation activities.

0900 ERRs excavating on site and grading areas previously excavated. Little debris being found, mostly clean top soil. Some tubes and metal pieces being unearthed, but little more than that.

0945 ERRs take break as rain begins. Light winds, temps in mid 70s.

1100 Rains continue. ERRs continue excavation of top 3-4 ft of site along Brandywine, but inland 15-20 ft. Not much debris being found. Any debris found is being moved over to NE end of site for stockpiling. Debris includes rubber hoses and metal strips and small metal sheets. START continues to work on EPA and START cost sheets from 30 June '00,

to present.

1200 START observes site ops. ERRs continue excavation of to 3-4 ft of high ground on-site. Very little debris unearthed, but, what is unearthed, is being stockpiled in NE area of parcel. Rain is heavy at times, temps remain in low 70s.

1330 START ~~recieves~~ RHH recieves new P-level values, and completes Estimated costs for START to date. CAT D-5 demobed on 7-14-00 at no cost to EPA (per guardian accountant). ERRs continue excavating high ground onsite. Debris being removed from soil by hand. Grading of areas already excavated continues with dozer.

1405 START updated equipment log for ERRs. Excavation continues onsite. Rain heavy, pond getting very high (1½ ft below weir).

1500 Excavation discontinued, laborers out of hot zone. Dozer continues grading site where excavation occurred. Rain is continuously heavy, winds have picked up to 5-10 mph from eastnorth east.

1530 ERRs complete grading and finish activities for today. All personnel out of hot zone. START off site.

20 July 2000, Thursday

0730 START onsite. ERRs onside suiting up for today's site operations. Excavation will continue along high ground that parallels Brandywine Creek. All debris in the soil will be removed by hand and stockpiled. Excavation will go to no deeper than 4 ft. Approximately ½ of the high elevated area has already been excavated since Monday.

0745 ERRs filling gas tanks of equipment and hosing down any ~~sediment~~ RHH soil that dropped off equipment on gravel road onside. START walked the mudflat and placed 3 additional markers out for sampling. Each of these sample points will be sampled for total metals. A total of 4 samples will be taken along the banks at slack high tide (per USF&W). Additional samples will be in the pond and in the middle of the Brandywine as a background sample.

0945 ERRs continue ~~sampling~~ RHH excavation and debris separation activities onside in Level C. Some rubber hosing and metal pieces have been removed from the soils, but Not much debris.

1100 ERRs continue excavation and begin to unearth more debris, including rubber hoses, metal, and plant matter, including large stumps and roots.

1245 ERRs excavate along same line of excavation since Monday. More debris being discovered, removed and stockpiled as operation moves South on site.

1330 Ann Breslin stopped in at 1215 and left over flights and DNREC sample results for area of sight closest to buildings (North). ERRs continue excavation operations. Large stumps and roots showing operation slightly. Soils being graded after excavation occurs. Case dozer being utilized for grading. Excavator and loader being used for debris removal activity. Operations in Level C. Temps. mid 70s, SUNNY, light winds (1-2mph) from NW.

1510 ERRs finishes excavation activities for today. Grading of area being completed by dozer. ERRs have excavated from 1+25 to 3+75 since Monday. Excavation will continue tomorrow. ERRs are breaking down equipment and locking up materials for the night.

1530 End of day. START off site.

[signature]

21 July 2000 Friday

0700 START onsite
calibrating air sampling equipment - begun
using Gilian pumps & PDRs for personnel
monitoring during excavation activities
- 1 PDR & pump on excavator; 1 PDR & pump on
laborer; 1 PDR & pump @ north end of site;
1 PDR & pump @ decon area

0800 Guardian begins excavation activities along
creek bank

0930 Guardian continues excavation activities
along creek bank - continue to sift through
& remove debris for staging
note: contractor reps are onsite this morning to
meet w/ Guardian to discuss sheet pile
installation

1015 pre-bid meeting for sheet piling
- RM explained scope of work
- questions raised:
• level of protection - level D, but
personnel need OSHA training
• permits required - none that we know of
• DBA rates
- touring / inspecting creek bank
note: crew on break

1130 Guardian continues excavation - no significant
debris found yet

1315 Guardian continues excavation
note: START changed out two personal Gilian pump filters
to help prevent clogging

1530 ERRs complete excavation for the day. START
collected Gillians and pDRs.

1555 START completes air sampling for day.
Offsite [signature]

24 July 2000, Monday

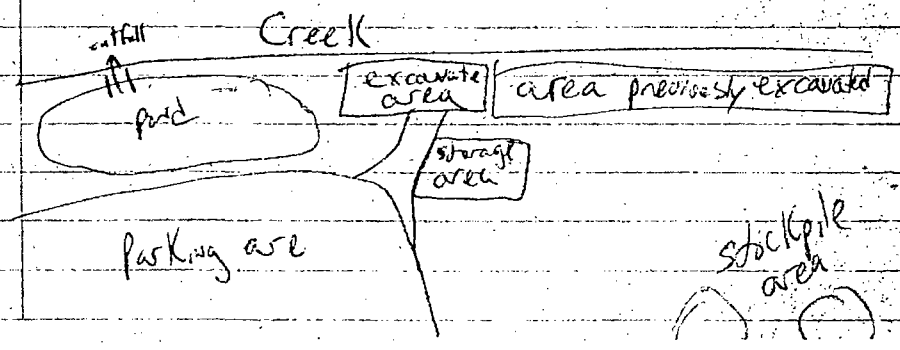
0730 START onsite, OSC Tonie and Guardian onsite. ERRS (Guardian) begin to suit-up in level C for today's excavation activity. Today's excavation will begin at STA 3+75, and will continue South. No air sampling will be performed today due to the likelihood of rain.

0800 Excavation begins at STA 3+75. ERRS will excavate top 3-4 ft. of soil. 1 operator on excavator, 1 on dozer and loader, and 2 laborers. All in Tyvek, rubber booties, full face APR and hard hat. Temp in upper 60s and overcast, looks like rain very soon. Raining in PA as of 0650.

0900 ERRS continue excavation operations. START completes air sample data sheets for sampling performed on 7/21/00. START updates equipment log. Chances of rain diminishing. Air sampling may be performed this afternoon.

1015 ERRs continue excavation south of 3+75 Station. Some debris including hosing, metal, plant matter, plastics being unearthed. Mostly dark, rich soils and little debris and waste. All work in level C. Excavator, dozer, loader and 4 ERRs in operation.

1115 ERRS continue excavation from North to South.



1145 ERRS continue excavations South of 3+75 Station line.
START offsite to go to office to ship air samples, acquire additional personnel for surface water sampling event this week, and acquire laptop to continue maintaining site files.

Robert H Weber

25 July 2000, Tuesday

0730 START onsite. ERRS onsite and preparing to begin operations. Temp in middle upper 60s and overcast, ground very wet.

0745 START begins air monitoring and sampling operations with pDRs and Gillian pumps on operator, laborer, upwind and downwind locations. Upwind is located near storage box next to work bench area. Downwind is on South fence next to pond. ERRS operations beginning with movement of hardened rubber drummed material which has been at surface and covered with poly sheeting. This is being broken up and relocated to stockpile area.

0810 Excavator being fueled at pump. ~~Operation along bermed area adjacent to Blandwine complete, excavation of test pit east of pond is to begin next.~~ Operations along bank, but 10 ft inland, continues. No disturbance of the bank will occur until proper controls are in place (ie. steel sheeting).

0850 Excavation pit dug West of decon area. Pit is 10 ft wide, 15 ft long, and 4 ft. deep. All debris is being removed from soil and being placed in loader for movement to scrap piles.

0930 ERRS continue excavation. Rubber hosing and plant matter mixed with soil in ~~most~~ some of excavated material. Most of the soil has very little debris in it. EPA FAS James Wright onsite.

0940 Norfolk Southern representative onside discussing pipe drain from their spur which may have been compromised/cut off by building

of lot next to building north of property.

0950 Spoke to EPA Wright about EPA cost sheets. All onsite hours for Wright will be totalled and added to EPA costs as a lump sum to date. After this, he will be added regularly as an EPA direct cost.

1000 Discussion with Norfolk Southern rep. about drainage pipe for spur on East side of property and west of 12th St. DSC offered to install drain pipe, but a very minimal effort, in order to avoid future excavation/operations on the soils of the site. NS must get their engineers involved with specifications, and additional options for draining their tracks which flood and hold water after rainfall.

1015 ERRS continue excavation operations.

1130 Photo #8 taken of site operations (excav. of high ground area near pond, adj. to stream). Photo #7 taken of previously excavated areas.

1215 START collected morning round of air samples from operator and laborer. TWA for operator for morning shift was .11, for laborer .07.

1300 ERRS continue excavation. A larger quantity of debris found in soil at this area, the south end of the elevated ground. START will sample surface water in the morning, 6 samples to be taken (6 total metals, 6 dissolved). START updating equipment log at cost sheets.

1400 ERRS continue excavation. Some drum debris unearthed (metal drum material), and rubber hoses and scrap metal, and plant matter. START working on POREP #10.

1530 All air sampling equip retrieved and recorded. Sample shipment will include tomorrows samples. START offsite.

26 July '00, Wednesday

0730 START, EPA, ERRS on site.

0800 ERRS put boat in water for START sampling of streambank. B-SW-01 taken along streambank at 0846. BSW02 taken along bank at 0849. BSW03 taken along streambank at 0853. BSW04 taken (stream bank) at 0858. BR-SW-01 taken at center of Brandywine at 0900. P1 taken at pond at 0905.

0930 START returns to office to package label, and tag samples for shipment to laboratory for analysis.

1000 ERRS have 2 laborers onsite performing site maintenance, such as stocking supplies, cleaning work areas, etc. due to rainy weather and waterlogged site conditions.

LATE NOTE

At 0900 ERRS observed a sheen building up on the sediment pond. Oil sorbent material was placed at the area the sheen originated and at the weir inside (on the pond).

1300 START returns to site after preparing samples (SW, air, soil) for shipment.

1430 START gives POLREP#10 draft to OSC for review.

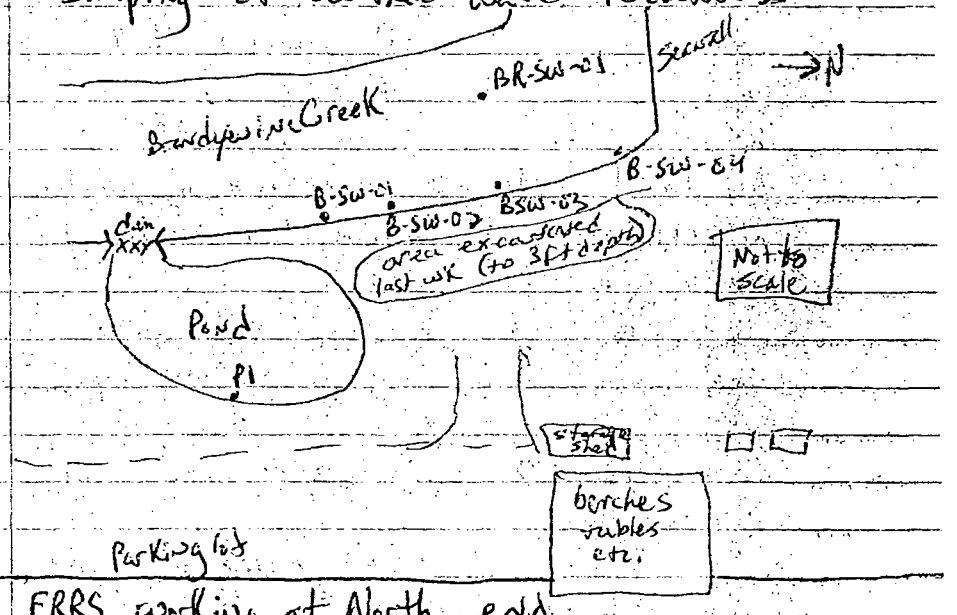
1545 START returns to office to complete preparation of air, water, and soil samples for shipment. START offsite.

27 July 2000, Thursday

0745 START onsite. ERRS at north end of site in low lying area reconfiguring stockpiles of rubber hosing. Site is very wet with standing water in the middle (low area).

Late Note:

Sampling of surface water locations



0900 ERRS working at North end of site. Waste piles are begin to amass and are now being organized by ERRS (ie. seperating hosing, metal debris, crushed drum walls, roots, stumps, etc). ERRS have a submersed pump in the flooded central area of the site, and the water is being pumped over to the retention pond in an effort to speed up drainage onsite.

1030 START completes corrections on POLREP #16 and emails to GGiles Ann Breslin and Linda Marzulli at RRC.

Also, faxes of PolREP # 10 sent to P. Welsh and S Bolden + Wilmington Council.

1130 ERRS continue to work at North end of Site, ERRS are reconfiguring soil in the area with the dozer, and seperating the debris from the soil in the stockpiling area.

Late Note

Samples from test pits have been identified as follows:

T1TP04 was sampled on 6/30/00 and label identified as trench 1, TP-04 sampled by Mike Towle.
TP-08 and TP-09 are sampled from test pit 08 and Test pit 09.
TP-WP-07 is a sample from Test pit 07 with white and pink materials in it.
TPG07 is also from Test pit 07 and had green material in it.

1200 START returns vehicle to office for use in GR preparation. ERRS on lunch break.

1330 ERRS continue reconfiguring soil near North end of Site, and condense waste piles in the area.

1430 ERRS using excavator to open up drainage path (½ foot deep, 1 ft wide) in middle of site, so water will drain to retention pond area. ERRS deconning loader, and, in general, getting very dirty today in the mud.

Weather today

Overcast, rain till 0830, then just overcast.

	Temps in 70s.
1530	START updates equipment log and EPA & START cost sheets.
1545	START offsite

28 July 2000, Friday

0730 START, ERRS onsite. Temps 70s, mostly clear skies, winds 1-2 mph from N.W. Ground still very wet from rains in the past few days. START callibrates and prepares for air sampling. Laborer and operator samples begun at 0800. Downwind sample begun at 0811.

0800 ERRS suiting up for today's activities, which will include digging test pits in parking lot area North of Site. A backhoe was mobed today to perform these duties.

0830 ERRS gassing up equipment for operations today.

0945 ERRS cleared area of fencing running parallel to ~~stream~~ RHH Brandywine Creek with backhoe, and moved backhoe onto storage lot north of Site.

1000 ERRS complete excavation of test pit dug for extent of contamination to the North. The pit was dug to a depth of 6 ft and no signs of waste disposal was visually evident. The pit was then refilled and tamped down with backhoe. Photos 6, 5, and 4 show before excavation, the pit excavated, and the area after excavation. Photo #3 was taken of the retention pond, with sorbent pads placed inside the weir, and at the point of release of small amount of oil. ERRS also continue to gather large concrete pieces onsite in order to grade for capping.

1230 ERRS excavated second pit beyond fence to north of Site, (on State property). Although

the soil was clearly not virgin material, very little waste was discovered (some glass one piece of rubber hosing). Due to high tide, and saturated subsoils, the pit was refilled due to the walls caving in. Depth of pit was approximately 7ft. and composed of fill materials.

1320 Test pit 3 was excavated in middle of storage yard, just south of North property line (and concrete pads). This pit was dug to approximately 2½-3 ft depth and was composed of layers of ash and other non-virgin materials. At 2½-3ft was virgin clay layers.

1340 DNREC onsite to meet with OSC. START updates equipment log, completes sampling plan for surface water. ERRS have 'tamp' moved to site and in use today.

1400 ERRS continue grading operations with dozer, and test pit excavation beyond fenceline. DNREC offsite. START updates cost sheet for START and EPA.

1420 ERRS complete test pit excavations. GRADING continues onsite. START completes updates cost sheets.

Note

First round of air sampling data shows nondetect for all samples (U1, D1, O-1A, O1B, L-1A, L-1B).

1425 ERRS prepare for excavation near retention pond. Location is between pond and

streambank area, where suspected oily soil and/or drum of oil may be located (due to oil sheen released on pond 7/26/00.)

1500 ERRS have unearthed at least one drum that is suspected cause of oil release on pond. START took air monitoring readings with MultRAE and got VOC reading of 25.4 ppm as high reading. During excavation, pond bank caved in, and water backfilled excavation area. The pit is now being refilled with clean soil stockpiled outside.

1515 START collects perimeter sampling/monitoring equipment. OSC extended today's schedule so ERRS can do a good, proper job to the excavated area. ERRS collected oil sorbent sheets, and put new sheets out on water of pond.

1545 START collects Oper. and lab. monitors and simple pumps and prepares samples for shipment. ERRS complete site ops

1600 START offsite

31 July 2000, Monday

0730 ERRS, START onsite. Weather, temp in high 70s – low 80s, very humid, just stopped raining, looks like more rain soon. No air monitoring/sampling today. Winds 1-2 mph from NW.

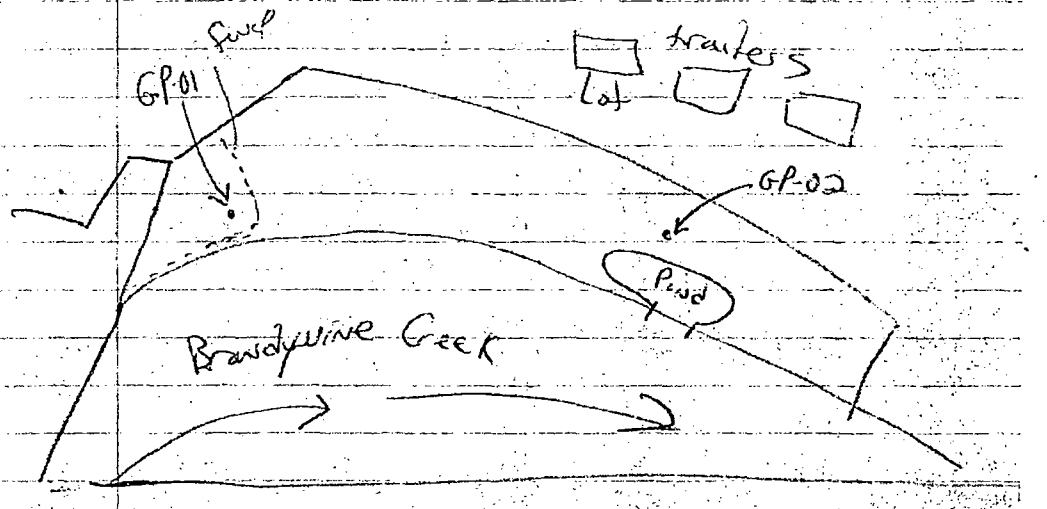
0900 START returns from observing site operations. Guardian doing maintenance of 850D Case dozer. ERRS removing chain link fence along Creek at property N of site for access to tidal flats. ERRS will begin removing rocks, and large debris on flats in order to install sheet piling (bids due today, also).

1000 Geoprobe arrived onsite at 0900, begun with property north of site, in parking lot. A layer of white and green material was observed in the soil's extracted. GP-01 was hole 1, and a water sample was taken. GP-02 was dug at 0940 to the east of the retention pond, this hole was dry down to the clay layer. No unusual, noxious soils observed in the borings.

Note Low tide today was at approximately 0800 hours.

1200 Geoprobing onsite continues. A total of 6 probes will be performed, with 6 groundwater samples to be collected, and analyzed by Guardian for dissolved metals.

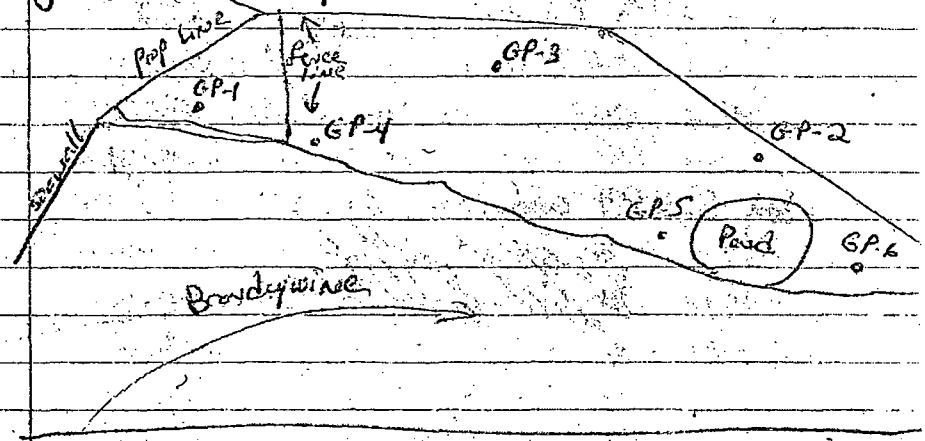
1400 Geoprobing complete. Samples to be shipped out this week. ERRS burying large concrete slabs near north end of site (south of fence line).



1530 START offsite

1 August 2000, Tuesday

0730 START onsite. ERRS setting up for today's site operations. Temp. 80s, winds 2-3 mph from SW. Sky clearing, ground still very wet.
Late Note The following figure shows the locations of the 31 July 00 geoprobing event, which was performed in order to collect 6 groundwater samples.



GeoProbe Locations

0810 OSC Kelly on site, ERRS begins preliminary activities on streambank in preparation for sheet piling installation.

0830 ERRS received sheet piling bids yesterday, an will award the contract soon.

0930 START observes site operations. ERRS clearing a line in the tidal flat of Brandywine Creek (by hand) at low tide to prepare for sheet piling installation. Photo #2. Photo #1 taken of stockpiles in north area of site.

1100 Due to rising tide, ERRS move back up onto site and conclude activities in tidal flat. ERRS grading area with dozer, and

burying large concrete slabs in north area, so these materials will not affect grading and capping activities.

1300 ERRS continue preparing surface of site for capping by burying large concrete pieces, grading areas, stockpiling debris to be disposed, etc.

1330 START walks site and observes some sheen/oil bubbling up from various areas of pond. Winds from South pushing all surface materials to north end of pond, but, little sheen in all. Sheen may be natural, from breakdown of marsh vegetation ~~[illegible]~~ now under the pond's water. Much algae growing in pond now. Tide is very high today (½ foot below dam).

1530 ERRS finish site operations which included grading site, burying concrete slabs, and condensing stockpiles. START off site.

2 August 2000, Wednesday

0730 START, ERRS onsite. ERRS will begin operations in tidal flat area, removing any raked debris at the surface which might impede installation of the sheet piling.

0800 START deploys 4 gillions (up, RT, upwind, downwind) and 3 pDMs vessel monitors (up, RT, downwind).
Temp and Weather 80's, sunny, humid, ground still damp from rains, winds 1-2 mph from South.
ERRS going up equipment, setting up, etc.

0930 START completes sampling plan for soils and SW and files in admin. files for EPA.
START completes POLREP #11 draft corrections and emails to Abrestin @ DNREC, G. Giles, and Wilm. Council and Paul Walsh are faxed the POLREP 11.

1130 ERRS complete today's work on tidal flat, where they removed materials such as rocks, concrete blocks, wood, etc., which will impede sheet piling installation. Also, this debris was relocated to the north end of site where debris is being stock-piled.

1430 ERRS at north end of Side. Activities include grading, and excavation to bury large concrete fragments. First noticeable amounts of dust kicking up into the air in a number of weeks. ERRS in Level C.

1530 ERRS complete site activities.
START offsite.

3 August 2000, Thursday

0730 START, ERRS onsite. ERRS begin site operations at North end of site. Excavation and segregation of materials from soil is primary operation this morning. START updates Equipment log.

0900 ERRS continue to work in North portion of site, grading and segregating materials/debris from surface soils. The debris piles are getting quite large (5-6 ft high). RM informed START that yesterday, ERRS dug up ~~pile~~ area where mostly rubber hosing was being unearthed (more than soils). Bucket-loads were being excavated.

Weather: Winds 2-3 from West, overcast and wet, temps in 70s. Ground is very wet from last night's rain.

1100 ERRS continue activities in same area of site (Northern section). Excavation, segregation and grading being performed in Level C. No air sampling/monitoring will be performed today due to possible rains, and wet ground which keeps the dust particulate levels to a minimum (if any).

1130 START updates START cost sheet, creates an air sampling summary.

1400 ERRS continue excavation in area of site @ North end. Debris is being removed, segregated and stockpiled, and soil is being refilled into excavation areas with dozer. Rain begins at

approximate 1350. Light rain, light winds
80s. ERRS in Level C. DNREC rep
A. Breslin onsite.

BSC

Monday 7 August 2000

0730 START, ERRS onsite - ERRS/Guardian to continue excavation & segregation activities

note: weather is overcast w/ rain light to heavy - significant rain received overnight - no air sampling to be conducted due to wet conditions

0815 ERRS taxing grapple trucks off Michigan loader

0830 ERRS also starting pump in sed. pond to help aerate water & reduce algae growth

0845 ERRS continue excavation/segregation activities in north central portion of site

1100 excavation/segregation ops continue in north/central portion of site

1210 START offsite

BSC

Tuesday 8 August 2000

0710 START, ERRS onsite
Guardian to continue segregation & excavation activities
weather: partly sunny - temps in 70s - high forecasted in low 90s - hot & humid w/ possible showers - no air sampling in morning due to wet/moist conditions

0745 Guardian continues w/ excavation ops
note: RM informed START that surveyor is due onsite today to photo document seawall, building, etc in order to verify effects of driving sheet piling on surrounding structures - will also be placing seismographs (≈ 3) for future monitoring

0830 START & RM on boat tour along Broadywine Cr. to inspect creek bank & sea wall

0945 Guardian continues excavation/segregation ops - very little debris being unearthed in central portion of site

1100 Crew continues excavation ops.

1230 Schnabel Engineering rep onsite to document existing conditions prior to installation of sheet pile

1315 Guardian continues excavation ops in north central area - uncovered additional buried hoses, debris - being staged
note: also using dozer to grade "berm" for crane access to install sheet pile

1430 START offsite

BSC

Wednesday 9 August 2000

0730 START, ERES onsite
crew to continue excavation/segregation ops
weather: rain overnight, currently overcast w/ temps ≈ 80 - forecast for hot & humid w/ chance of showers all day - no air samples to be collected this morning
0830 Guardian continues excavation ops
START updating cost sheets for EPA & SWRT
0915 START updating equipment inventory
0945 START drafting PCREP #12
1030 Guardian continues excavation ops - currently working in southwest portion of site near rip-rap access road in order to clear this area for the crane access (sheet pile)
1300 OSC Teale onsite
DelDOT rep. onsite to meet w/ OSC
1315 Guardian continues excavation ops near rip-rap access road
regarding property issue @ site - dropped off revised access agreement for their parcel
1400 PCREP #12 approved by OSC - will be emailed & faxed to appropriate agencies tomorrow upon return of site computer
1530 end of ops - personnel offsite

BSC

Thursday, 10 August 2000

0730 ERRS, START, CPA onsite. ERRS begin site operations. Temp 80s, winds ±2 from SW, sunny.

0815 ERRS ~~excavating~~ EHW excavating upper 2-3 ft of site to remove, segregate, and stockpile debris prior to capping operations.
Note Crane due to mobilize to site this morning.

0830 Crane moved to site. Assembly of crane begins immediately. ERRS assisting with loader. Also ERRS continue excavation just north of pond (15 yds n), and are finding much waste debris.

1000 RM and START talk to Asset Recovery, Inc, North of site about fence removal, and relocation of their equipment for crane activities during sheet pile installation. Asset Rec. rep said they will take care of fence today, and Guardian can help them move the one piece of equip that needs to be relocated.

1130 Crane assembly and ERRS excavation ops continue. START emailed POCREP 12 to DNREC, ~~Wilm. Council, and faxed~~ RHH G Giles, and faxed to Wilm. Council, and Paul Welsh.

1400 ERRS continue excavation. Also, ERRS compacting and grading berm in prep for crane which continues to be assembled by George & Lynch, Inc. (G&L)

1530 START offsite.

Friday, 11 August 2000

0730 START onsite. START prepares Gillian pumps and aerosol monitors for today's operations. Laborer and operator will water pump and monitor today.
Crane is assembled, but the cable has to be fed through. G&L will be onsite Monday (Not today) to complete assembly and begin driving sheetpiling

0815 ERRS begin excavation of area just west of storage trailer. Also, new ERRS RT onside.
Note First shipment of sheetpiling moved to the site yesterday.
Weather 80s hot and humid, hazy and some overcast, winds from east (very strong odor from solid waste sites across I495) at 2-3 mph.

0840 G&L foreman onside to scope out situation for Monday's operations.
ERRS continue excavation activities and, also, grading of site.

0930 ERRS continue excavation activities in middle of Site. START emailed POLREPs 9, 10, 11, and 12 to Linda Marzulli at EPA.

1030 G&L unload additional materials for sheet piling activities which will begin Monday
ERRS assist with unloading of G&L equipment/materials.
ERRS continue excavation of center of Site.

1130 Asset Recovery, Inc is moving their equipment off of the City's Property

after a conversation took place between the two this morning. ERRS are continuing to excavate and remove debris from surface soil to a 2-4 ft depth.

1230 START collects sampling/monitoring equipment from this morning due to likelihood of rain soon.

1235 Weather Downpour begins. Although much dust was airborne for morning air sampling event, the Site is now very wet. Only 2 samples collected today, OSA and L-SA.

Late Note ① START completes updating Equipment Inventory, and START Costs. ② OSC, RM, and START walk Site and discuss plans for sheet piling activities. In order to be prepared for G&R to begin operations, ERRS may work over weekend to prepare Site (primary Site area North of fenceline, which will be removed soon).

1400 ERRS excavating and removing debris from top 2-3 ft of site. ERRS grading area after excavation activities.

1500 ERRS removing fence from Asset Recovery Systems area.

1520 DMREC onsite. ERRS finishing up site activities for today. Next week, 10 hr workdays, Sheet piling installation.

1580 START off-site.

Monday, August 14, 2000

0700 START, ERRS, & ~~Georgia Lynch~~ (sheet pile subcontractor) onsite
George & Lynch (New Castle, DE)
personnel setting up equip - last touches on crane, etc - also reviewing site H&S plan
weather: overcast, temps in 70s - forecast for showers all day, heavy @ times - note - rained overnight

0810 ERRS & GL continue to prepare equipment for sheet pile installation - includes offloading & staging steel

0830 Schnabel Engineering rep onsite to place seismographs for monitoring of effects of potential vibrations during sheet pile installation on surrounding areas

0845 Guardian using dozer to clear small debris @ Asset Recovery portion of site for crane access - Asset Recovery is moving last of their equipment from area for crane access

0905 George & Lynch reps hooking up ~~set of large BSC~~ BSC ~~grappling hooks to~~ crane equipment

0930 FAS Wright onsite to review financial files
note: OSCs Toole & Kelly onsite

0940 Guardian continues to stage lengths of sheet pile @ north end of site near sea wall

1030 rain begins - heavy @ times

1130 still rain w/ some lightning - crew waiting for storm to pass - concerns over attracting lightning w/ mast on crane

1230 rain not letting up - crew to end day and try again tomorrow.

1400 START offsite — SSC

Tuesday 15 August 2000

0700 ERRS, START onsite
- preparing for sheet pile installation
- weather: mostly sunny, temps in 70s; forecast for mostly sunny today

0745 G&L/ERRS unloading truckload of steel sheet pile - also moving compressor & crane equip into place

note: OSC Taole onsite

0850 G&L/Guardian begin driving 1st length of sheet pile at north end of site abutting seawall - photos taken of operation

0915 1st sheet in place - G&L bolting to sea wall & applying caulk to seal edge between sheet pile & sea wall

note: Schabel Engineering rep onsite for seismograph monitoring - readings were all below the site ~~requirement~~ limit of 2" per second - highest rdg. was on seismograph adjacent to sheet installed along sea wall (0.019 in/second)

0930 FAS Wright onsite
ERRS cleaning off excavator tracks - being changed out today

1055 G&L continues installing sheet pile - ≈ 5 sheets in place so far

1200 lunch break
- only minor problems w/ sheet pile installation - some sheets sliding in as new ones are installed (tight joints)

1330 ERRS/G&L continue installing sheet pile

1400 START updating costs and drafting POLREP #13

next page

BSC

1620 G&L finished 18 "pairs" of sheet piling - now going back & levelling each off according to grade shot from sea wall

note: all seismograph readings were w/in parameters

1720 crew cleaning up for EOD

1730 personnel offside

Wednesday 16 August 2006

0700 ERS START onsite
preparing for sheet pile installation

0810 G&L continue installing sheet pile -
20 ~~sheets~~ pairs total so far

0915 POLREP #13 finalized & emailed to
RRC (L. Marzulli), Wilmington Corp (G. Giles),
DNREC (A. Breslin), Del DOT (P. Welsh),
and Wilmington City Council (S. Balder)

1035 G&L/ERS continue sheet pile
installation ops - currently moving
their work platform trying to find
a decently level spot to set it in
the Creek

1040 START updating costs & equipment log

1315 G&L/Guardian continue sheet pile ops -
currently using Guardian boat to
locate string line - buried by
incoming tide

1520 G&L continues sheet pile ops.
Guardian consolidating debris piles onsite
- tomorrow, they will be loading out
accumulated debris for transportation
to local landfill for disposal

1705 crew wrapping up for day
total of 21 pairs installed today
(~80 feet of creek bank covered)

1730 personnel offsite

BS

Thursday 17 August 2000

0700 ERRS, START onsite
weather: mostly sunny, temp ≈ 65; forecast for mostly sunny, high near 80

0715 G&L/Guardian staging sheets of steel for today's ops - also offloading new truckload of steel delivered this morning

0745 Guardian brought flatbed grapple truck onsite to begin loading out debris piles for TAD
G&L continues to set up for piledriving ops - using 1 sheet of steel flat in creek bank to provide base for their work platform

0830 START updating costs & equipment log
G&L begins piledriving ops

0950 G&L continues sheet pile ops - crane currently set up on top of berm

1100 Guardian brought in rolloff/dumptruck to load out debris piles - 2 man crew to begin using grapplers to shove out dirt & loose material prior to loading for TAD - level C ops. START to collect air samples in afternoon to allow sufficient pump time for analytical

1130 G&L continues piledriving ops.

1245 Guardian resumes loading out debris piles for TAD - START initiated air sampling & 4 sets of monitors placed: 1 on operator, 1 on laborer, 1 @ decon area (approx upwind location), and 1 @ north tree line (approx downwind location)

1300 G&L continues piledriving ops - currently working on 13th pair of the day

note: ~~since dec~~ air sampling of debris load out being conducted as representative of

more significant potential contamination @ the site - i.e. Guardian using grapple hooks to shake dirt from debris pile to loading onto roll off/dumptrucks

1335 G&L continues pile driving ops
Guardian continues loading out debris, primarily tree stumps & wood debris @ this time

1430 G&L & Guardian continue ops
START Crew off site due to emergency response

Monday 21 August 2000

0700 START Henderson onside. G&L and Guardian onsite. START finishes data forms for air sampling completed on ~~Fri~~ RHH Thursday, 17 Aug 00. ERRS and G&L preparing to continue sheet pile installation. Delivery of sheets in and being unloaded as of 0700 hrs. Weather: Sunny, 70s, light winds 1-2 mph from NW. Report for weather today says it won't break 80, and will remain sunny.

0800 Sheet piling still being unloaded. G&L & ERRS continue installing sheet piling along bank. All is going smoothly, with no major obstacles to installation.

0815 Note Need to contact J. McCall about design of cap for site. Need to include data tables in next PQLRGP showing results for surface water and ground water.

0915 START preparing analytical data tables for surface water results. ERRS continue to assist

1030 RM Crosby mowing the grass around the trailers, Guardian delivering a roll-off (20cy), sheet piling installation continues. START left message with John McCall TTEMI engineer about cap design, called M. Biswas (TTEMI Eng.) who will be onsite 21 Aug 00 to assist with prelim. design planning and meeting with OSC Towle

1130 ERRS and G&L continue installation of sheet piling. START continues to make

tables and diagrams of analytical results.

1230 ERRS, G&L, GEA, START lunch break. Prior to break, ERRS were loading rolloff with rubber hosing from stockpile at north area of site. Also, sheet pile install. continued till lunch break. START to office to acquire vehicle, timesheet, and pick up processed photos from K-MART.

1400 START onsite, ERRS continue sheet pile installation along creek. Approximately 60% of length completed thus far.

1500 START completes analytical tables for surface water, geoprobe groundwater samples, and DNREC test pit results (DNREC screening lab).

1600 ERRS performed a gross decontamination of rubberhosing, ~~plant debris, and~~ RHH brushes and tree "debris", and loading out on a 20 cy rolloff, twice (i.e. two loads west of site today). This material was sent to a Title D landfill for disposal.

1626 ERRS continue to assist G&L with sheet pile installation. Estimated completion of installation is Wednesday, 23 Aug '00.

1700 ERRS finishing up today activities, which included load out of hosing and plant debris, and sheet piling installation.

1730 End of day. START offsite.

Tuesday, 22 August 2000

0700 START, ERRS, G&L onsite. Sheet pile installation begins, and first sheet installed has hit an obstruction which has slowed up the progress. One shipment of sheet pilings has arrived and is being unloaded presently.

Weather: Sunny, no clouds, light winds from the Northwest @ 1-2 mph, high 60s - low 70s is temperature, supposed to reach 82 today.

0715 START begins today's air sampling with up and downwind monitors and sample pumps/cassettes at decon area, and north fence near Asset Recovery Systems.

0815 ERRS continue to assist G&L with sheet piling installation. Also, ERRS are grading area between the pond and creek in order for the crane to gain access.

0830 TtEMI engineer Mrinal Biswas onsite to discuss design of cap to be installed onsite.

1000 OSC, RM, START return to trailer after site tour with Biswas to discuss pertinent capping issues, which include tying in the bank material to be used with the existing seawall, retention pond requirements, drain pipe at north of site, and overall drainage issues that may be of concern in the future.

Lake Note START begins personal air monitoring of operator and RT at 0815 and 0817, respectively.

1100 START working on PolRCP #14 for week

end 8/18/00. ERRS continue assisting G&L with sheet piling installation.

1230 START ~~offsite~~ RHH Helverson offsite. START Biswas onsite discussing engineering operations for capping.

[signature]

Wednesday, 23 August 2000

0700 START onsite, ERRS & G&L onsite.

0715 Installation of sheet piling continues. Expected completion by COB today. START completes paper work for yesterday's air sampling activities.

Note Representatives from Norfolk and Southern will be onsite today at 0900 to discuss installation of drainage pipe by GPI.

Weather Sunny, 70s up to 80s today, light winds from ~~NW~~ SE South 3-5 mph, chance of rain today.

0810 L-8A and O-8A air samples begun.

0815 D8 and U8 samples begun.

0820 Norfolk Southern rep onsite (John Keys). Mechanical problems with crane has slowed progress temporarily.

0900 Norfolk & Southern reps onsite (engineers) for meeting with OSC Towle. OSC explains situation and what EPA needs to install drain pipe for N&S tracks drainage. N&S has no survey info, and will use our maps to design pipe.

0915 N&S, OSC, START, RM walk site and tracks.

0930 Norfolk & Southern (N&S) discussing option of putting pipe under tracks to move water over to side that is draining. Discussion about piping versus drainage ditch. Type of pipe used is an issue of concern; N&S uses corrugated metal pipe but for protection from infiltration of landfill contaminant, RM suggested HDPE, or other non-jointed piping. N&S cannot make recommendation for pipes not normally used by them. N&S will get additional info. from Stephens Environ-

	mental CADD files.
	N&S representatives
	- Jack McClain (lead Engineer).
	- Jeff Page
	- Ron Scalf
	- John Keys (local)
1015	OSC offsite. N&S walks tracks again, ERRS continue installation of sheet piling.
1100	ERRS assisting G&L with sheet piling installation. Also, ERRS begin removing vegetation along streambank starting at north end of site.
1300	Installation of sheet piling complete. G&L begin demobe - moving equipment over to parking lot, etc. ERRS stockpiling vegetation removed from streambank.
1330	START completes corrections to POLREP #14. START collects air monitoring/sampling equipment. Skies are now overcast, rain expected later today.
1420	G&L stages crane to north end of parking lot. ERRS continue removing vegetation from streambank. Also, ERRS putting warning lights out along the sheet piling.
1545	START emails POLREP 14 to Ann Breslin, George Giles, and Linda Mazzulli. Fax machine not functioning properly, the faxes will be sent tomorrow.
1700	Rain
1715	START offsite to office to meet air samples. ERRS continue to remove vegetation from bank. RHA

Thursday 24 August 2000

0700 ERRS, START onsite.
Weather foggy, 60s, light winds from SW 1-2 mph, becoming NW 5-10. Forecast to 80s today 30% PCP.
Late Note Sent PolPEP14 by fax to Paul Welsh of DelDOT, and Stephanie Bolden @ Wilm. City Council

0800 ERRS set up 3 inch diameter pump to drain water contained behind sheet piling. Pump is operating and the water is being pumped into the retention pond at the north end. This water is clear and not very muddy.

0810 4-inch diesel pump delivered to site in order to pump out the water.
ERRS will continue today with removing vegetation along the streambank.
G&L onsite to caulk any possible leaks found in the sheet piling.

0830 START updated cost for START up to 8/23/00. START updates Guardian equipment inventory.

0900 START deploys air monitors at decon area, north fence, operator, and response tech/laborer.

1000 OSC offsite. ERRS removing vegetation along streambank with excavator and offroad dump. Also, ERRS have a 3 inch and a 4 inch pump in use to drain water between sheet piling and streambank into the retention/sedimentation pond.

1100 ERRS and G&L caulking sheet piling seams on outside (creekside) to about 6 ft elevation.
ERRS continue clearing vegetation.

1200 ERRS go on break.

1300 ERRS continue clearing streambank and berm of vegetation in preparation for segregation of debris from soil followed by grading of site.

1500 START labelling photos for photo log, ERRS clearing shrubs and concrete along streambank. Also, ERRS and G&L caulking sheet piling seams. RM plans to leave pump on overnight in order to protect caulking from pressure forcing caulk out.

1515 START collects air monitors and pumps and prepares samples for shipment.

1600 ERRS continue caulking sheet pile seams but tide is beginning to come in soon. Skies overcast, possible rain.

1730 End of day. START offsite.

RM

Friday, 25 August 2000

0700 START onsite. START preparing monitors and pumps for today air monitoring/sampling activities.

0740 L-10A, and O-10A pumps begun. START attends morning work/safety meeting with ERRS: work on identifying seepage in sheet piling, and continue clearing along streambank.

0950 D10 and U10 samples begun. START walks site. ERRS relocating diesel pump in order to perform clearing activities today. ERRS clearing interior of excavator due to high levels of nuisance dust produced by piles of dirt in operator's floor space.

0800 OSC Towle and B. Kelly onsite. ERRS preparing equipment for today's operations.

0930 ERRS begin marking seepage points and clearing creek bank/berm of debris.

1100 OSC Fetter onsite (1030), ERRS continue clearing debris and grading berm area near streambank. Sheet piling held up well for high tide, with a few seepage points, but not many (≈25).

1300 ERRS continue removing debris such as tree stumps, concrete blocks, etc. from the streambank area. Also, ERRS and G&L are sealing seepage points in sheet piling seams.

1400 START updates costs, equip and begins photo log in PowerPoint. ERRS continue debris segregation of berm area near bank.

1730 START offsite

Monday 28 August 2000

0700 START, EPA OSC Bob Kelly, ERRS Guardian onsite.

Weather - overcast, light winds 1-2 mph from SW, temp in 70s.

0830 START to office to repair equipment, ship samples, retrieve additional air sampling equipment, file expense report for Site.

1037 START onsite, G&L onsite demobing equipment from previous week's sheet piling installation. ERRS continue streambank/berm activities. High tide presently, and leakage in sheet piling seams is evident at a handful of locations. ERRS are filling these holes with caulking at low tide. Currently, ERRS are creating dirt barriers at intervals along length of sheet piling in order to contain the leakage in certain areas. ERRS using one 4 inch pump (gas powered) to drain water behind barrier and pumping into retention pond. Pond elevation is high, less than 8 inches below top of weir. Photos taken of Site along sheet piling, of general site from north, of retention pond, etc.

1300 ERRS purchased 4 inch PVC pipe and will install the pipe along sheet piling. This pipe will transport the water from behind the sheet piling to the retention pond via the 4 inch and 3 inch gas powered pumps. This will eliminate the hosing which is laying on the ground throughout the Site

1330 ERRS connecting PVC piping and beginning to put in place.

1500 ERRS complete PVC pipe construction and put in place. 1 RT out picking up submersible pumps for drainage. ERRS also grading site.

1730 End of day. START offsite

RHH

Tuesday, 29 August 2000

0700 START, ERRS OSC B. Kelly onsite.
Weather: overcast, 70s, light winds 3-5 mph from W.

0900 John McCall (TEEMI engineer) onsite to discuss capping and streambank development.
Cost of Articulated Concrete Blocks (ACB) is an average of $3.50 for material, prefabricated mats and delivery. Need engineer to do:
1. on drawing correct existing contour to dashed lines.
2. determine stone depth and type at toe of bank.
3. Determine elevation of lowest mudflat to determine quantity of ACB to buy, and toe elevation.
4. Design tie-in for each end of ACB system along streambank.

Issues for future: type of vegetation, final design of pond, if any.

1044 START Helverson, OSC Kelly, RM and McCall return from site walk and discuss ends of ACB system, and toe-in issues. Also discuss extent of cap area.

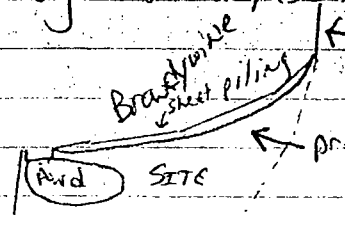
1400 ERRS excavating surface soils along streambank and grading back the area. Excavated materials being loaded onto offroad dump and being dumped at north end of site.

1730 ERRS complete operations for day.
START offsite.

RHH.

Wednesday, 30 August 2000

0700 START, ERRS, OSC R. Kelly onsite.
0740 G&L onsite to demobe crane.
0745 ERRS begin today's activities, assist G&L with crane loadout and then grading along bank.
Weather: Overcast, 70s, 1-2 mph winds from NW.
1000 ERRS on bank excavating top layers of soil and loading onto offroad dump. ERRS dumping soils along northend of site to east of elevated bank areas.
1100 ERRS submersible pumps working properly with 4 inch PVC piping. Water being drained from bank area to retention pond. ERRS continue excavation and soil relocation operations. G&L continues demobe ops by disassembling crane and transporting pieces offsite.
1200 FAS Wright onsite since earlier this morning. Also onsite 29 Aug. 2000 in afternoon. ERRS stopped activities for lunch.
1300 ERRS continue with bank activities. RM staking out excavation areas for a streambank that will eventually become a long gradual arc throughout the length of site, as shown.



1400 G&L nearly finished demobe of crane. Hosing used for streambank drainage behind sheetpiling demoked today by subcontractor, rain for Rent. ERRS assist G&L with loader. ERRS continue excavation and coarse grading of streambank.

1500. START completes POLREP 15 draft, updates costs and equipment. ERRS continue bank excavation and grading. START received results for past 4 sampling events. All results are non detect or very low (well below RBCs). These were air sampling results from DATACHEM.

1730 End of day. START offsite.

Thursday, 31 August 2000

0700 START onsite. ERRS preparing for today's activities. RM Crosby not onsite today, replacement today is Rob Thom.
Weather: Rain, 70s, light winds NW 1-3mph.

0800 ERRS excavating along streambank and transporting soil to north end of site with off road dump. Soil is then being graded with dozer.

0900 ERRS continue excavation along bank. Excavated materials being transported to north end and graded.

1000 ERRS excavating streambank from South to North.

1130 ERRS continue excavation activities.

1300 ERRS continue excavation along bank and grading excavated materials @ center of site. START completes corrections to POLREP #15 and updates equipment log.

1400 ERRS continue excavation, submersed pumps on and water draining into pond.

1430 START updates costs and emails POLREP15 to RRC Ann Breslin, and George Giles and faxes POLREP 15 to Paul Welsh and Wm. Council.

1530 ERRS Thom acquires PVC connectors and piping to be added to drainage system already in place. ERRS continues excavation activities.

1600 START offsite to office to prepare for sampling event (groundwater). [illegible]

Friday, 1 September 2000

0700 START, OSC Towle, ERRS onsite. Morning safety meeting: Be careful onside, its wet and muddy, watch equipment, take your time.
Weather Rain, 70s, winds 6-5 mph.
Supposed to rain all day.

0830 ERRS add T-shape connector to end of PVC pipe with ball value. This addition is to allow the clean water to drain off at high tide and enter the Creek after washing through the riprap at the pond mouth. At low tides and when the draining waters are cloudy, the pipe will divert the H_2O to the pond.

0832 START prepares for groundwater sampling and takes depth measures in pipe onsite which was installed during geoprobing activities last month. Top of water column was 5 feet 4 inches below top of casing. Bottom of well/pipe was at 18 ft. Water column, therefore, is 12 ft 8 inches. START cannot sample at this point because all equip. (bailer, sludge judge) too wide, and will not fit down well.

0845 START updates equipment log.

0945 ERRS break. START walks site and photodocuments PVC piping, excavation in South bank, and green/white waste material which is being excavated.

1015 ERRS begin excavation of streambank. When ERRS were excavating, they uncovered a green/white vein of waste,

approximately 6 inches high, at 5-6 foot above MSL elevation. This waste will be left covered for now.

1200 OSC Towle, ERRS, START walk site to decide what to do with this waste. This waste will be kept deep under cover after excavation from the bank. During excavation, ERRS will continue to operate in Level C, and be sure to not leave any of this waste material exposed.

1330 ERRS continue excavation activities, and have placed a poly-sheet cover over areas where the green/white material is present.

Weather - 80s, sunny winds from W @ 5-10 mph.

1430 ERRS excavating streambank at middle of Site. ERRS created a stockpile area on top of berm with poly sheets over top of pile. This pile contains the excavated green/white/pink materials encountered at elevation of 5 ft - 6 ft.

1600 ERRS excavating bank and grading excavated soils throughout Site.

1730 START offsite.

Tuesday 5 September 2000

0700 START onsite. ERRS onsite. START prepares air sampling/monitoring equipment for today's activities.

0730 START deploys sampling equip/monitors. ERRS gas up equipment and suit up.

0900 ERRS excavating streambank at north end of site. This activity includes pulling dirt/soil off bank and loading into off road dump truck, the dump is then moving the dirt to the middle of site, where the dozer is being used to grade and compact soils from the bank throughout the site.

Weather - 60s, winds from North 5-10mph, sunny, cool.

1000 ERRS excavating soils along streambank and filling this soil @ center of site.

1100 START offsite to retrieve sampling equipment and analytical data from office. Also, retrieved pictures from CVS from last month's pictures.

1430 ERRS continue excavation activities along streambank. Excavated soils being loaded and dumped and graded at middle of site.

1530 START collects monitors, and completes sampling/monitoring activities.

START offsite. RMF

Wednesday, 6 September 2000

0700 START onsite. START prepares Gillian pumps for sampling activities today. Also, PDMs callibrated (zeroed).

0735 START deploys air sampling/monitoring equipment. Weather 60s, sunny, light winds 3-5 mph from NW.

0815 ERRS performing maintenance on excavator.

0900 ERRS begin excavation and relocation of soil from the streambank

0930 START begins grand water sampling event onsite at geoProbe well # GP3 from 17 1/2 ft depth.

1000 START pulls up van to use battery.

1005 START begins purging water to obtain proper sample. 3 volumes of the water column will be purged (34.6 ft³).

1118 GP3 ~~collected~~ collected.

1130 ERRS moving white/green/pink soils/waste (excavated previously and stored under poly sheeting) over to center of site, where this material will be covered with additional streambank soils prior to capping.

1145 START offsite to office to filter and prepare sample and ship to laboratory in Westmont, NJ.

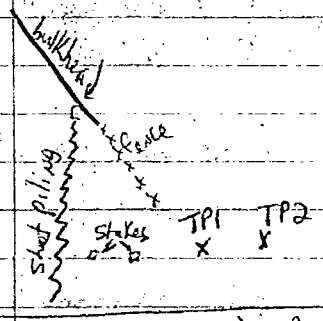
1500 START onsite. ERRS continue streambank excavation activities. Also RM Crosby surveying elevations along streambank with OSC.

1530 START collects monitors; ERRS finish activities. Offsite

Thursday, 7 September 2000

0700 START onsite.
Weather: Sunny, 60s, 0-2 mph winds from NW.

0800 ERRS preparing machinery for today's activities.
0900 START completes table for surface water results with qualified data. START updates equipment log.
1000 Return from Site walkthrough with OSC Doyle and RM Crosby. Issues at hand include: depth of streambank cut/fill, cap extent to property boundaries, elevation of ACB along streambank, fill of pond versus necessary capacity of pond during site activities.
Note: John McCall, engineer TEGMI, to be onsite tomorrow to discuss these issues.
1100 ERRS assisting RM with survey and grading along streambank.
1330 ERRS grading northend of site.
1430 ERRS dig test pits in ARS storage area, as diagrammed below:



Each test pit had rubber hose waste at 1/2 ft depth and deeper. With this discovery, it was determined by OSC that the cap will extend to

the concrete covered lot area just south of ARS building.

1540 POUREP 16 sent to G Giles, A Breslin, L Marzulli, Paul Welsh and S. Baldow.

1550 START off site to office to ship samples.

RHA

Friday, 8 September 2000

0730 START onsite. ERRS preparing for today's operations. Today, ERRS will continue subgrade activities along streambank. Also, ERRS will survey the streambank prior to subgrade in order to ensure property grading.

0930 ERRS continue streambank subgrade ops.

0935 START offsite

RHH

11 September 2000, Monday

0730 START onsite.

Weather: overcast, humid, high 70s and going up, light NW winds 1-3 mph.

0900 ERRS grading streambank utilizing dozer, excavator, and off road dump truck.

1000 ERRS grading streambank utilizing dozer, excavator, and offroad dump truck.

1100 ERRS continue streambank excavation and grading activities. Also, ERRS performing maintenance on flat bed onsite with small attached crane arm.

1115 ERRS gas up equipment and fill gas tank.

Late Note

On 7 September, 2 test pits, TP1, and TP2 were excavated in the storage area being utilized by Asset Recovery Systems. Test pit 1 (TP1) was ~~due~~ RHB excavated to a depth of approximately 4 ft. Debris found in this pit included black rubber hosing, dark black soils, and green waste material. The hosing was discovered less than 1ft below the surface, which is composed primarily of gravel. TP2 contained more rubber hoses than soils, at less than 10 inches below the surface. These waste items continue further down in the test pit and

beyond the depth excavated.
Both of these test pits were covered with uncontaminated soils and compacted to its original density.

1330 ERRS continue excavation activities along the streambank at the north end of the Site.

1415 START observes ERRS onsite activities, which include:
Excavation of Streambank
Relocation of soils excavated and transport with dump to lower elevation areas on Site
Grading of these relocated soils with dozer.

1430 START updates equip. log.

1500 ERRS offsite.

1515 START offsite.

Tuesday, 12 Sept. 2000

0700 START, ERRS onsite
Weather : 70s, overcast, 3-5 mph NW.

0900 ERRS grading bank with excavator, and using dump and dozer to distribute soil throughout site.
Note ERRS have been watering down site with sprinkler system due to windy conditions and lack of precipitation plus temps in the 80s.

1100 ERRS grading streambank with excavator, and distributing soils on site with offroad dump and grading w/ dozer.

1300 START deploys upwind and downwind PDM personal respirable aerosol monitors.

1500 ERRS continue streambank operations

1545 START, ERRS offsite.

RHH

Wednesday, 13 September 2000

0730 START onsite. ERRS preparing equipment and suiting up in PPE for today's activities.

0800 ERRS set up diesel pump near pond outfall and begin pumping pond water out of pond.

0900 ERRS grading streambank with dozer, also excavation continues on streambank, with soils being relocated onsite toward the east property line boundary.

0915 START completes air sampling data table which summarizes lab results and total respirable dust monitoring results.

1015 START updates equipment log, START costs, and EPA costs.

1100 ERRS continue to drain pond water, and excavation/grading activities along streambank.

1130 START completes draft POLREP 17 for week ending 9/8/00.

Late Note

PDM monitors results for 12 September as follows:

upwind at north fence = 0.03 mg/m³, downwind at decon = 0.00 mg/m³. Monitoring from 1200-1545.

End Late Note

1300 ERRS continue streambank excavation and soil relocation followed by grading with dozer. Also, ERRS began dust suppression activities

at 1230, using a sprinkler.

1400 ERRS continue streambank excavation and soil relocation. Also, ERRS are pumping pond water over weir onto riprap outfall in order to drain pond.

1500 ERRS continue dust suppression with sprinkler, pond draining, and streambank excavation.

1530 ERRS complete today's activities.

RHB

Thursday, 14 September 2000

0700 START, ERRS onsite. Morning safety and operations meeting. Today, ERRS will continue to drain pond and begin to fill area closest to back-side of streambank with 'clean' soils stockpiled onsite. Additionally, ERRS will continue streambank excavation/grading activities.
Weather: 70s, sunny, light winds 2-5 mph from west.

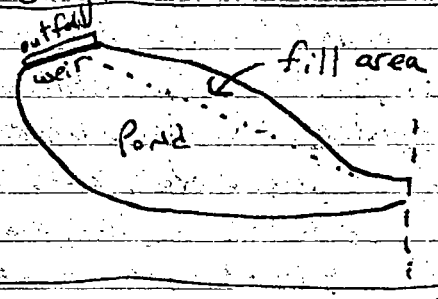
0800 ERRS grading bank with excavator and off-road dumptruck. This soil is being relocated onsite and being graded with the dozer. Also, Guardian owned 4-inch diesel pump is draining pond, and 2 submersible pumps draining water's behind sheet piling.

0840 START observes site operations. ERRS stake out area of excavation and survey a 3:1 grade and attach strings to stakes as excavation guide. Excavation continues on streambank, as does pond pumping and grading of relocated bank soils.

1000 ERRS continue streambank activities. Pumping of pond continues.

1130 Streambank excavation continues. Grading of soils onsite continues. ERRS pumping pond water in order to begin filling western section of pond with 'clean' soils.

1300 ERRS relocate diesel pump to parking lot with loader. ERRS filling 'clean' soils into west side of pond as diagrammed below:



First in pond was a number of large boulders unearthed onsite. Next to be filled is from 'clean fill pile which is located northeast of decon area.

1515 START collects PDMs from upwind and downwind locations. Results as follows:
Upwind: Serial #6311 = 0.02 mg/m³.
downwind: Serial # 5824 = 0.05 mg/m³.
ERRS finishing up site activities, which included streambank excavation and filling west side of pond with 'clean fill'.

1530 End of day. START off site.

BAH

Monday 18 September 2000

0700 START, ERRS onsite. ERRS will continue grading streambank today. They believe they may finish it up by close of business

0730 START places PDM's upstream and downstream onsite. ERRS begin to grade along the streambank using dozer. ERRS also uses an excavator to dig a hole to stage contaminated soil from the streambank. ERRS uses the excavator to load the dumptruck.

0815 START goes to trailer to work on costs, equipment list

0830 Guardian Arrives with a Roller to compact and level grade on site. EPA Towle arrives onsite @0840

Weather: cool mostly sunny temps in the 70's, slight breeze.

0900 START enters zone to monitor ops. ERRS is using excavator to grade / excavate southern end of site streambank. ERRS uses dump truck to move soil. ERRS

0930 ERRS surveys end of streambank to ensure the proper grade is met

0940 ERRS uses dozer to grade site. The roller is just a little underweight to drive it up grade. ERRS will use a cable & excavator to aid in rolling the streambank

1000 START leaves hot zone & works on admin

1130 START enters hot zone to monitor ops

~~1200 Lunch~~ ERRS continues to excavate along streambank.

PHOTO ERRS using excavator to bring streambank to grade.

ERRS also rolling site with roller to level it out.

1200 Lunch

1330 START enters hot zone to monitor ops.

ERRS continues grading/excavation of streambank near weir.

ERRS also is rolling site and spreading excavated soil.

1500 START leaves hot zone.

1530 Work is done for day START collects PDR

Final TWA	Serial #	
.02 mg/m³	6311	upwind
.04 mg/m³	5524	downwind

START offsite

Tuesday September 19, 2000

0700 START and ERRS onsite for QA meeting

0730 Rolloff arrives onsite. ERRS moves it into position. They will use the excavator to "shake off" the stumps and place in the rolloff for disposal

0900 ERRS loaded one rolloff for disposal upon its return they will reload it.

1030 2nd rolloff is loaded and leaves for dump upon its return ERRS reloads the rolloff with the stumps using to excavator and loader to load them into the rolloff. WEATHER: overcast with light rain

1150 3rd rolloff leaves after it is loaded

1200 lunch

1300 ERRS is filling the 4th rolloff

PHOTO ERRS using excavator to "shake" off stumps

PHOTO ERRS using excavator to push stumps into loader bucket

PHOTO ERRS dumping stumps into rolloff

1330 Rolloff is full and moves to dump

1430 5th rolloff is full and moves to dump

1500 Rain is becoming heavier

Total tons shipped to Delaware Recycling today is 43.51.

Final TWA	Serial #	
.00	6311	upwind
.01	5829	downwind

1530 End of day

MR

Wednesday, 20 September 2000

0730 START and ERRS onsite.
Weather: Sunny, low 70s, light 1-2mph winds from NW.

0800 ERRS preparing equipment for continuation of load-out of tree/plant debris. Site is very wet.

0803 Monitoring well water level reading was 5.75 feet below top of casing. Top of casing is 2 feet above the ground elevation.

0911 Ground water reading at 5.8 ft below top of casing.
ERRS continue work on tree/plant debris loadout. Gross decon of material prior to loading onto 20 cy rolloff which is being transported to local landfill.

1103 GW table at 5.75 below top of well casing (or 3.75 ft below surface).

1115 ERRS continue gross decon, crushing tree/plant debris and load out to landfill.

1130 START updates costs to 9/15/00. All hours for START and TetraTech not added for the following weeks were added to 9/15/00 totals: for week ending 9/10, 9/3, 7/30, 7/23, 7/16, 7/9. Also, expenses added for following ~~week ending~~ (RHH) dates: 9/5, 8/28, 8/21, 8/11, 7/27, 7/24.

1140 ERRS using following equipment thus far today: excavator, loader, 20cy rolloff & truck.

1300 ERRS continue load out of tree/plant debris. START completes draft POUREP 18. START updates GPA & START costs.

1400 ERRS compacting debris piles onsite. ERRS sent last load of tree/plant debris to landfill. Approximately 30 tons of debris was disposed of at landfill.

START measures GW, with reading of 5.75 ft below top of casing, or 3.75 ft below soil surface.

1530 ERRS completes today's activities. ERRS offsite.

1545 START completes equipment log.

1600 START offsite.

Thursday September 21, 2000

0700 ERRS on site

Weather Sunny low 70s, light winds to NW

ERRS continue Rough grading creek banks to a 3:1 slope and preparing surface for ~~then~~ fill materials, continue to remove and segregate debris continue to remove water between sheet piling, ERRS onsite 1 RM, 1 FCA, 2 operators, 1 truck driver, 1 cleanup tech

no materials off site or onsite

ERRS using today excavator, dozer, off road dump truck

1400 START on site updated by RM verified equipment and ERRS personell onsite performed site walk through

1500 START Off site

MCM

Friday 22 September 2000

0700 ERRS & START onsite for am meeting
ERRS will continue grading site and receive structural fill

0735 START begins air monitoring at upwind and downwind locations

0800 ERRS begins receiving fill. 15 trucks are ordered for the day. They will use the roller to compact the soil after grading it with the dozer.

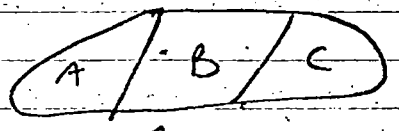
0830 OSC Towle onsite
→ late note: John McCall called re: plans will be here today but after the 1000 meeting with the state & city.
START informed the OSC about John McCall's message.

0900 ERRS uses excavator to "pull" mud off wall for dewatering.
ERRS also grades site at Northern end.
PHOTO ERRS using dozer to grade

0945 Steve Turley (Del DOT), David Wood (DelDOT) and Sidney Mattett (property owner), Regina Gray Cody (City Dana Goodman (Wedco), Paul Welsh (DelDOT) Ann Breslin (DNREC), Shawn Garvin (EPA)

1010 - Meeting begins with introductions
- Background: 3 parcels of land, site is 3x 1/4 originally expected size.
2 issues
1) What do we do with land?
2) how do we get the equipment moved to do the work?

Suggestions:
Play the "shell game" move equipment to "clean" area and do work in vacated area then continue in next area



all dirty

move equip & clean A

put equip on A clean B, etc

This solution becomes time & money consuming.

- Delaware State suggests telling tenant he has to move equipment & give or lease the land to him at a minimal cost

1040 Tony Mitlo arrives (owner of ARS)

Mr Mitlo is very concerned about the security of the items onsite. ~~the~~ He is concerned about children playing on/in and getting hurt if the storage facility is not secured.

The State is willing to attempt to find a state owned/leased storage facility.

- OSC Towle: We have <1 month to complete project (move equipment!)
- DNREC process is 5-6 months to alt land use/sale.
- State: because of trespassing, once equip is offsite it may NOT return
- DNREC: final EPA remedy may not be acceptable to DNREC/Public. Issues may include crush & run (Public dislikes), different cap, full removal.
- EPA: will put only crush & run down. This is acceptable to DelDOT. The owner/lessors/lessee will work on a deal for use/ownership. DNREC believes crush & run will not be enough (at LEAST asphalt)

1140 End of meeting

weather: warm with slight breeze sunny 75°

1200 Lunch

late note: ERRS continues to grade and receive loads of fill

JD850 dozer demobes

dozer arrives

1230 ~~1400~~ START offsite

1400 START onsite

ERRS is grading bank with dozer [PHOTO]

1430 ERRS uses the dumptruck to move soil around site (to low areas)

1500 [PHOTO] ERRS ties a cable from the Roller to the excavator to allow rolling of the bank

1530 Final PDM reading

.02 mg/m³	6311	downwind
.00 mg/m³	5827	upwind

End of Day

START offsite

Monday, 25 September 2000

0700 START, ERRS onsite.
Weather → rain, 60s, 1-3 mph winds from NW/N.

0745 ERRS continue daily safety/operations meeting. Plan today was to roll back, but, due to very wet conditions, alternative activities must be conducted.

0800 ERRS begin to prepare site heavy machinery/equipment.

0830 ERRS begin layout/surveying of swale area at center of site.

0845 TEGMI engineer McCALL delivers and discusses plans for site cover and cap activities.

0850 RM Crosby discusses plans with McCALL.
Notes on plans:
① Additional cross section through site's pond to be added.
② Minor changes to terms and labels on plans. Adjust capping soil from 24" to 20" along streambank.
③ Bulkhead elevation: 8.64 ft.
④ Seeding info. and mulching to be corrected.

0900 PolRep 18 emailed to Marzulli, Breslin, Giles, and faxed to Bolden and Welsh.

1000 ERRS working on heavy equipment, gas up dozer/excavator/dump/loader, also, grease up the joints on these articles. Surveying by RM and techs continues.

1115 ERRS continue work on equipment.

ERRS survey activity is shooting points for the swale which will be in the center of the Site running North to South, start at 11.00 ft elevation and terminate at 5.5 ft elevation (subgrade elevations). The swale will be slightly west of the plans beginning 150 ft south of northernmost swale area. This adjustment to the west will reduce the cut quantity necessary to complete the plans, while accomplishing the same objectives.

Late Note: Water depth of GP3 at 1020 was 5.75 ft below casing.

1245 ERRS begin to suit up.

1250 ERRS begin/commence streambank subgrading and rolling activities. Also, ERRS working on equipment.

1302 Rain.

1340 ERRS rolling the streambank with cable attached to roller from excavator for safety on bank. Also, grading with D5 in north area of site. This grading will go out to the west side of the center of the swale.

1430 ERRS discontinue streambank activity due to heavier rainfall. Grading

1440 Changes to Plans from TEEMI.
① Rip-rap will butt up to wall (bulkhead), not ACBs. RHH
② ACB installation detail on pg 4 needs to show 20 inches, not 2 ft. of clean fill under ACBs.
③ Contour lines need to be adjusted to show 10 ft contour very close to bulkhead.
1500 START updates equipment Inventory Log.
ERRS complete today's activities and begin breakdown of equipment.
1515 ERRS demobe for today.
1536 Spoke to J. McCall about adjustments Pg 4 of Plans. ① Note 5. Remove first sentence. ② Change top soil to 4", and clean fill to 20". ③ Adjust contour lines to show 10 ft elevation near the bulkhead as planned for construction.
1550 START offsite.

RHH

Tuesday, 26 September 2000

0730 START on site. Site very waterlogged with standing water in many areas. Swale is full and backed-up at the check dam. ERRS have not begun onsite, operations meeting continues.

0800 ERRS mobe flatbed truck w/grappler to Site, and forklift attachment for loader on flatbed.

0845 START updates costs to 22 Sept 00. ERRS have a submersible pump in swale to make drainage of Site into retention pond quicker. ERRS will not perform site activities due to wet site conditions (flooded swale).

1030 START update equipment list, begins POLREP 19. ERRS demobes for today. RM and accountant Tony remain onsite.

1215 START to Dumond STATE and lunch.

1300 START returns to Site.

1400 Brandywine begins to subside after very high tides nearly crest to outfall of the retention pond. Pond filled up due to infiltration through rip rap.

1630 End of day. START offsite

Wednesday, 27 September 2000

0700 START, ERRS onsite. Morning safety/operations meeting. ERRS will work on draining waters from Site this morning. Weather: Sunny, light variable winds 0-2 mph. Temps in low 60s.

0830 START enters zone to monitor Site ops. ERRS grading northern section of streambank with excavator; also, ERRS grading swale area with D5 dozer. Site very wet in flat areas, but water did drain off and into the retention pond, which is approximately 1ft below top of weir (full).

1015 ERRS grading bank and north end of Site with excavator and dozer.

1030 START to deliver grade and capping plans to R. Greer at DNREC.

1350 START onsite after delivery of plans to DNREC.

1420 START completes corrections to POLREP 19.

1505 START emails POLREP 19 to RRC, GGiles, ABrestin. Also POLREP 19 faxed to S. Bolden and P. Welsh.

1555 START offsite.

RHH

Thursday, 28 September 2000

0730 START onsite. ERRS in zone with RM discussing today's operations.
Weather: 60s, sunny, light winds 1-3 mph from NW.

0830 ERRS begin ops. - preparing equipment.

0850 ERRS grading soils in swale area of site. Also, moving clean fill into smaller area (reconfiguring pile). Large boulders being buried in hole dug earlier.

Late Note
START gives copy of assessment for Thermo Plastics (background file) to Mike Walsh (US EPA EOSC).

0930 AFLAC reps onsite to discuss disability insurance with ERRS.

1000 1 ERRS begins to grade with dozer.
1 ERRS RT in zone to begin site ops.

1030 2 additional ERRS begin activities in zone.

1145 START updates equipment log.

1400 TEEMI McCALL faxes info on soil and ACB quantities for capping activities.

1500 START offsite to EL

RHM