Location El Dorado Date 11/5/07

Project / Client El Paso

M. Warner, K. Jackson, D. Mick

0900 - Arrive @ the polishing pond to begins sediment sampling

0930 - Discuss H+S of sampling of banks. Due to rip rap, Polishing Pond w bank samples will have to be taken where sediment is available. See drawing pg 32.

0945 - M. Warner & K. Jackson collect Bank aliquot A,

1000 - Photo of SED-19A

1002 - Matt & Kyle push SED-19B

1020 - Photo SED-19B

1025 - Matt & Kyle collect SED-19C & deliver

1035 - Photo of SED-19C

1040 - NOTE - Bank aliquot ABC & D are all soil w/ no sediment present. Will call these sediment for COC & to keep consistent however these are soils

Location Date

Project / Client

1040 - Matt & Kyle collect Aliquot D.

1045 - Photo SED-19D

1045 - Matt & Kyle collect laboratory samples SED-19 ~~full parameters~~, DEM ~~collected~~) VOC's from Aliquot D. Collect for VOCs, METAL... as spelled out in Work plan

1100 - Decon sampling equipment.

NOTE: Weather conditions
- SUNNY & 55°
- extremely windy w/ steady 20-30 mph wind from N.
- due to extreme wind gusts may not do pond bottom sampling today for H+S concerns

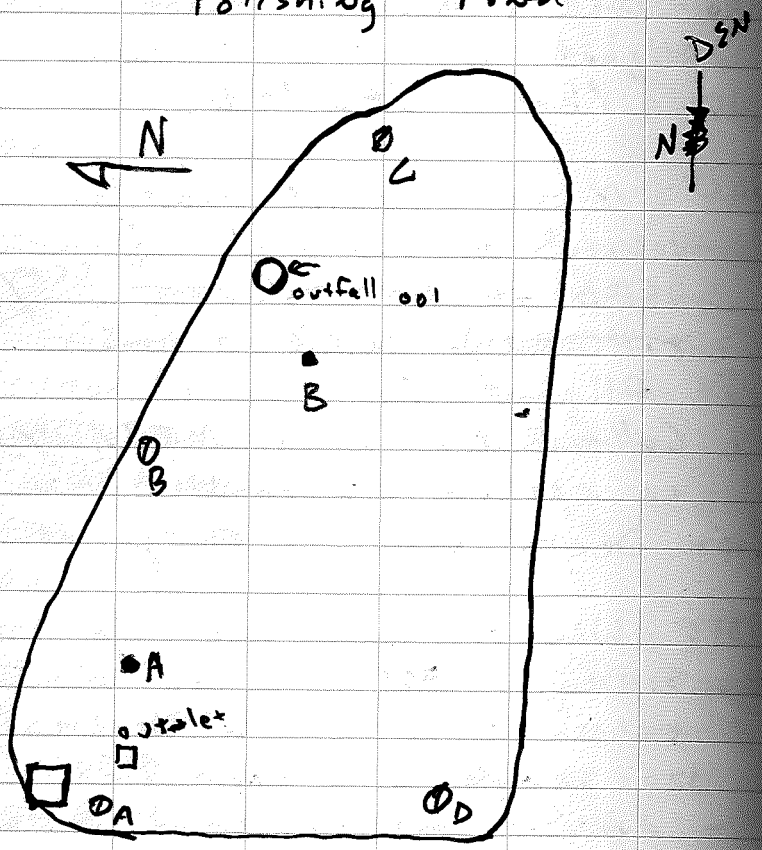
1115 - Calibrate PID

WS 11/5/07

Location _____ Date 11/5/07

Project / Client _____

Polishing Pond



pump house for fire protection

Ø = Bank sample Aliquot location

Location _____ Date _____

Project / Client _____

1130 - PID readings
SED-19A = 0.2 PPM
B = 0.2 ppm
C = 0.2 ppm
D = 1.5 ppm
1135 - Break for lunch
1215 - Return from lunch & set up @ pond S. of polish pond. - Aeration Pond #3
1230 - Matt & Kyle collect sample @ SED-21A aliquot location. See diagram fig 34.
1240 - Photo SED-21A
1245 - Kyle & Matt collect sample aliquot B
1250 - Photo of Matt & Kyle @ location SED-21B
1300 - Matt & Kyle collect Aliquot C
1320 - Photo SED-21B
1320 - Photo Matt & Kyle sampling @ SED-21D

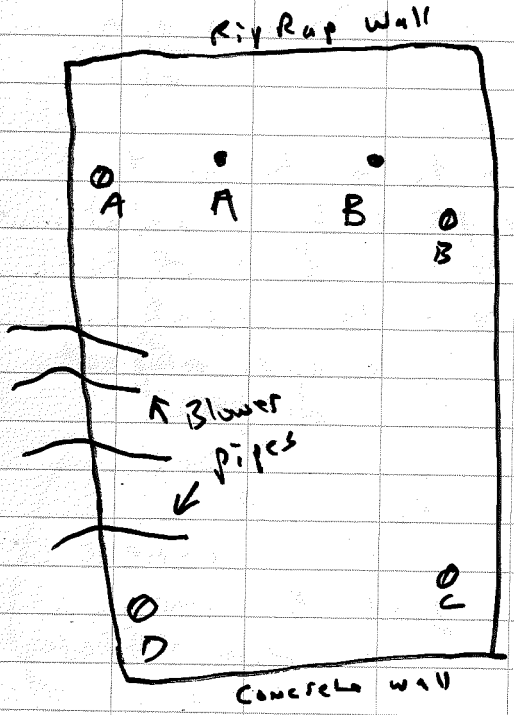
ND 11/5/07

Location _____ Date _____

Project / Client _____

Aeration Pond #3

NP



Location _____ Date _____

Project / Client _____

1330 - Photo SED-21 D

1330 - Collect laboratory samples from SED-21. VOC grab sample collected @ aliquot D.

Note: @ SED-21 (Aeration Pond #3) Bank sample locations the locations were taken from the E & W banks w/ A & D taken from W bank & B & C taken from E bank. This was done because N & S banks are comprised of Rip Rap (N bank) and concrete (S. Bank). One aliquot (D) was collected Near outlet.

1340 - Matt locates all sample aliquot locations completed today w/ Trimble.

1345 - Decon

11/5/07

Location _____ Date _____

Project / Client _____

1400 PID SED-21
A - 0.5 ppm
B - Ø
C - Ø
D - Ø

1405 - Move to location SED-23A Aeration Pond #2 bank Aliquots. See diggram pg 38.
1405 - Photo of Matt & Kyle collecting SED-23A Aliquot
1420 - Photo of SED-23A 12-22"
NOTE: All bank samples collected today appear to be soil only, no thickness of sediment @ these bank locations in Polish, Aeration #3 or Aeration #2.
1425 - Matt & Kyle deliver Aliquot B then proceed to Aliquot C.

MS2 11/5/07

Location _____ Date _____

Project / Client _____

1430 - Photo of Matt & Kyle @ SED-23C location.
1433 - Photo of SED-23B 12-20"
1445 - Photo of SED-23C 12-18".
1448 - Photo of Matt & Kyle collecting sample @ SED-23D aliquot location.

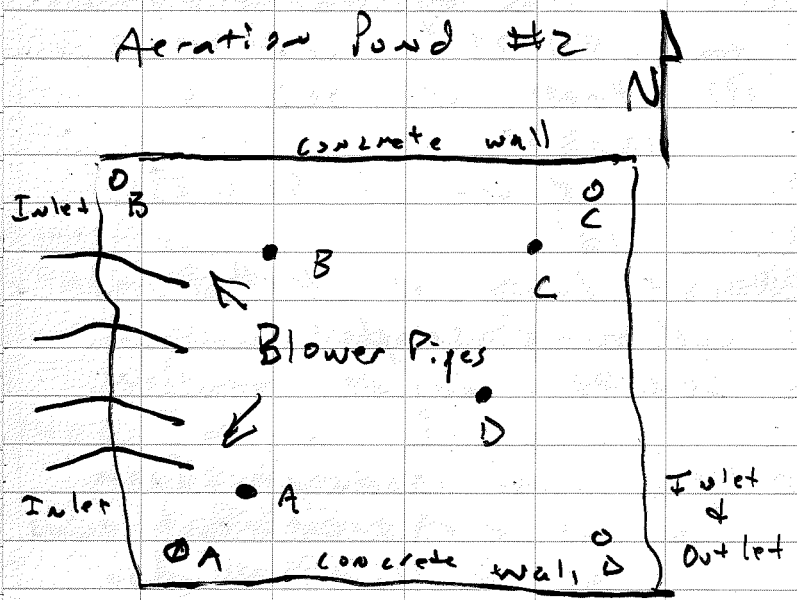
NOTE: Poor recovery from most of the treatment pond bank aliquot locations due to existing gravel & also because material is soft & it compresses in the sample sleeve. At many locations, we can push 8-12" however we only get 25-50% recovery in the sample sleeve. This is due to sample compression in sleeve.

MS2 11/5/07

Location _____ Date _____

Project / Client _____

Aeration Pond #2



NOTE: (D) pond bottom aliquot was attempted closer to SE corner but due to lack of sufficient sediment, location was moved to NW.

Location _____ Date _____

Project / Client _____

1500 - PID Readings SED-23A - Ø ppm
B = Ø ppm

1500 - Matt & Kyle drive Δ.

1500 - Matt & Kyle collect laboratory samples @ SED-23 (Aeration Pond #2).

1515 - Decon

1530 - PID readings
SED-23 C = Ø ppm
23 D = Ø ppm

1540 - Clean up & head to office

1800 - Leave site

11/5/07

Location El Dorado Date 11/6/07

Project / Client El Paso

D. Mick, M. Warner, K. Jackson

0700 - Arrive @ site
Weather observations
- sunny & cool (40° F)
- slight breeze

0705 - Office work

0815 - Matt Kyle arrive @ site.

0830 - Matt & Kyle M&B to ponds to get boat ready.

0845 - Get set up @ Polishing pond, gauge pond depth

0900 - Get samplers ready.

0905 - Launch boat & head to PBSED-18A Aliquot

0910 - Photo of Matt & Kyle collecting PBSED-18A Aliquot from pond bottom (Polish pond)

0920 - After pushing 2x @ PBSED-18A, very little recovery will collect what was collected for the composite sample & then proceed to Aliquot B

11/6/07

Location Date

Project / Client

0905 - @ PBSED-18A had following

H2O 67"

Push ~~Dem push~~ 10"

TD = 77"

0938 - Photo of sampling @ PBSED-18B

NOTE: For composites collected from Polish Pond Aliquots. The samples were logged then the sediment was placed into a bowl for compositing of aliquots & any soil was discarded. Minor amounts of soil were likely included w/ sediment lab samples as it is very difficult to remove 100% of identified soil.

0950 - Matt & Kyle deliver PBSED-18B for logging then move to PBSED-18C

PBSED-18B observations

H2O 79"

Push 5"

TD = 84"

11/6/07

Location _____ Date _____

Project / Client _____

0955- Matt / Kyle set up @ PBSED-18C

0956- Photo of sampling @ PBSED-18C

0958- Photo soil core PBSED-18B

1010- Matt / Kyle deliver PBSED-18C for logging

1013- Photo sed Core PBSED-18C

1015- PBSED-18C observ.

H_2O	81"
push	~~85~~ Dem 4"
TD	85"

1018- Launch boat for collection of PBSED-18D

1020- Photo sampling @ PBSED-18D

1025- Calibrate PID

1026- PID measurements

PBSED-18A = 0.2 ppm

PBSED-18B = 0.2

11/5/07

Location _____ Date _____

Project / Client _____

1050- Matt & Kyle make multiple pushes @ PBSED-18D to get ample sample collection for analytical requirements

1055- Photo of PBSED-18 Composit before collecting of laboratory samples

1055- PBSED-18D Observations

H_2O	74"
Push	4"
TD	= 78"

1100- Photo of SED core PBSED-18D. Note: core was pushe 2x

1105- Photo of clay rolled out PBSED-18D from approx 76-78".

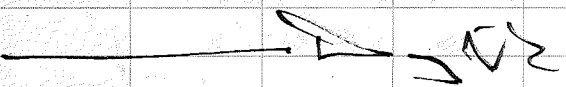
1100-1110 Collect laboratory samples @ SED-18

11/6/07

Location _____ Date _____

Project / Client _____

1115 - Decon.
1130 - Break Down
1145 - Lunch off site
1245 - Return from lunch & set up @ Aeration Pond #3
1300 - PID readings
PBSED-16C = 4.6 ppm
PBSED-18D = 0.0 ppm
1310 - Launch boat & proceed to PBSED-20A
1315 - Photo of Matt & Kyle @ PBSED-20A aliquot loc.
1335 - Matt & Kyle deliver PBSED-20A for description
H_2O ≈ 13' > PBSED-20A
Push = 12"
1345 - Photo sed core PBSED-20A
1350 Matt / Kyle set up @ PBSED-20B
1355 - Photo sampling @ PBSED-20B



4/6/07

Location _____ Date _____

Project / Client _____

1410 - Matt / Kyle deliver PBSED-20B for logging.
1415 - Matt & Kyle proceed to PB-SED-20C Aliq. loc.
1428 - Photo PB-SED-20B SED Core
1429 - Photo sampling @ PB-SED-20C
1435 - Delivery PB-SED-20C for logging
1442 - Photos of sed core PB-SED-20C
1452 - Photo sampling @ PB-SED-20D
1458 - PID readings
PB-SED-20A = 5.3 ppm
PBSED-20B = 1.1 ppm
1515 - Delivery of PB-SED-20D for Logging
1524 - Photo of PB-SED-20D sed core then laboratory sample collect
1530 - Collect laboratory samples PB-SED-20 then decon

Location _____ Date _____

Project / Client _____

1600 - PID Readings
PB SED-20C = 6.5 ppm

1625 - James Tucker w/ Magellan he will call on Wed. so he can meet us on site to locate lines. He would like site map showing our locations.

1630 - PID Readings
PB-SED-20D = 6.9 ppm

1630 - Matt Kyle leave site

1500 - Inspect S.T.F area & suspect berms. Photo of dump area & ooid-like material

1520 - Leave site for day

11/6/07

Location El Dorado Date 11/7/07

Project / Client El Paso

D. Mick, M. Warner, K. Jackson

0830 - Arrive @ site
0840 - Set up @ Aeration #2
0845 - H+S tailgate meeting
- boat safety
- Personal Protection (PPE)
- Sample handling
0900 - Prep equipment
0905 - Maneuver Boat into position @ PB-SED-22A aliquot loc.
0910 - Photo of sampling @ PB-SED-22A aliquot
0915 - Weather Observations
- Sunny & Cold @ ≈ 40°F
- Windy w/ 15-25 mph from SE
0920 - Delivery of PB-SED-22A for logging
0923 - Photo of PB-SED-22A aliquot
0930 - Photo sampling @ PB-SED-22B.
0940 - Delivery of PB-SED-22B for logging.
0945 - Photo PB-SED-22B sed core

11/7/07

Location _____ Date _____

Project / Client _____

0948 - Matt & Kyle set up @ PB-SED-22C

0950 - Photo sampling @ PB-SED-22C

0954 - Photos sampling @ PB-SED-22C

1000 - Delivery of PB-SED-22C for logging

1005 - Photo PB-SED-22C sed core
NOTE: poor retrival

1013 - Photo of sampling @ PB-SED-22D
Note: difficulty stabilizing boat due to strong gusty winds 30 MPH +. Use anchor & pole stabilizers to keep boat in place. PB-SED-22D was moved further to center of pond due to lack of sediment in SE corner near inlet/outlet.

1030 - Delivery of PB-SED-22D sed core for logging

1040 - Collect laboratory samples from PB-SED-22

MJ 10/7/02

Location _____ Date _____

Project / Client _____

1042 - Photo of PB-SED-22D
note: poor recovery & most of SED core was used (previous to photo) for collection of laboratory samples

NOTE: for VOC laboratory samples collected from PB-SED-22D, there was very little sediment present, it was fluid & did not remain in sampler tube, therefore, much of the laboratory sample collected for VOC's was made up of the clay soil & not strictly sediment material. The composit sample collected from Aliquots A, B, C & D had more sediment recovered & not same issue w/ these laboratory samples.

1116 PID Readings
SED-22A: 1.4 ppm SED-22B: 1.5 ppm
SED-22C: 3.2 ppm SED-22D: 1.5 ppm

Location _____ Date _____

Project / Client _____

1130 - Break for lunch

Note 11:20 - 11:35 D. Mick accompanied Gary Yackle of Magellan Pipeline Co. to S.T.F. to look @ their lines & to clear them Mr. Yackle advized, after looking @ sampling locations on a map, that all locations N. of Refinery Road are clear. Their line is N & W of site on other side of fence. In STF Mr. Yackle advized all their lines are abandoned & have Nitrogen purge & if we hit, will not cause ill effects. He said the main line he would not want us to hit is line that comes out of their sub station & goes West. This line is marke w/ permanent markers.

Location _____ Date _____

Project / Client _____

Mr. Yackle stated that he will talk to Bill Hocker as Bill normally does locates in this area. Bill &/or Mr. Yackle will be at site again before we start drilling on 11/12/07. He said locations @ former tanks would be ok if within ~~locat~~ footprint of old tank. Most of their lines approach the former tanks & come out of ground & are blinded off. Their lines are pretty shallow in area ≤ 2' TD. KANEB lines also present & abandoned & are not blinded off.

1230 - Return to ponds & set up @ Aeration Pond #1

NOTE: This pond has clarifyer unit on E. side & cement walls on N. & S. w/ grass/rock bank on E side @ abot 65' of shore line. Adjusted sampling to collect 2 bank aliquots only @ A & B → [illegible] 11/7/07

Location _____ Date _____

Project / Client _____

1245 - Photo sampling @ SED-25B aliquot location

1253 - Photo sampling @ SED-25A H_2O = 8"

NOTE: @ location A & B refusal was firm & felt like rock or concrete.

1306 - Photo of SED-25A SED Core

1310 - Collect laboratory samples from SED-25A for VOC's & 25A & B composites for metals & ionic volatiles

1330 - Decon & prep for Bank sampling at the equil. basin

1352 - Photo of SED Core SED-27A & also sampling @ SED-27C

1400 - Delivery of SED-27C
H_2O = 8"
Push = 12"
TD = 20"

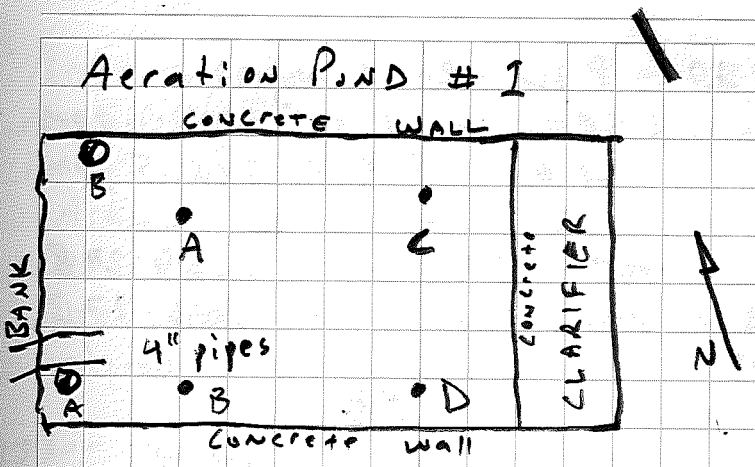
1415 - Photo sampling @ SED-27D

4/7/07

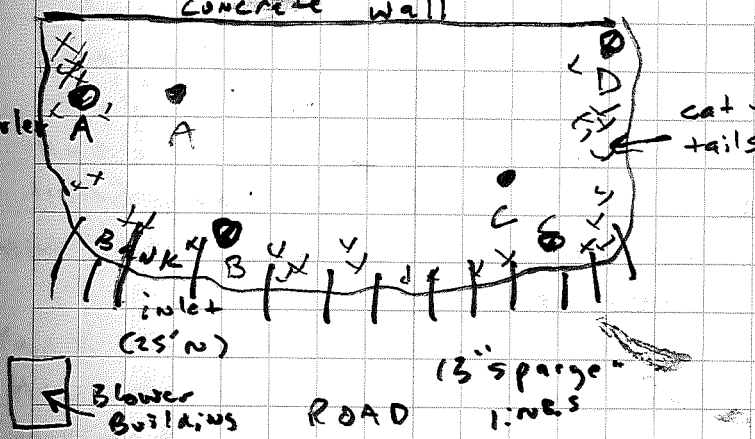
Location _____ Date _____

Project / Client _____

Aeration Pond #1



Equilization Basin



= Bank sample Aliquots

Location _____ Date _____

Project / Client _____

1420 - PID Readings
SED-25A = 0.2 ppm
SED-25B = 0.5 ppm
1430 - Photo sampling @ ~~SED-25~~ DEM SED-27B
1435 - Photo sed core SED-27B
1445 - Collect laboratory samples from SED-~~25~~ DEM 27
NOTE: VOCs from Aliquot B location
1515 - PID Readings
SED-27A = 50.0 ppm
27B = 1.8 ppm
27C = 4.7 ppm
27D = 8.6 ppm
1520 - Decon & break down
1600 - Site visitor Greg Erlett
- said he used to be maint super
- knew Ray
- wanted to look @ old maint. shop where he used to work
- escorted him in for 5-minute look

Location _____ Date _____

Project / Client _____

1605 - office work
1605 - Matt & Kyle to Wichita
1610 - Don Mills @ Geolex. Asked if we had done utility clearance. Told him we did so & will be good to drill next week.
1730 - Secure site & leave for day

11/7/02

Location El Dorado Date 11/8/07

Project / Client El Paso

D. Mick, M. Warner, K. Jackson

0735 - Arrive @ site

0800 - Matt / Kyle onsite

0830 - After loading up & brief meeting. Matt / Kyle M-L to ponds

0900 - Photo sampling PB-SED-24A Aeration Pond #1

0916 - Delivery of PB-SED-24A sed core for logging

Observ @ PB-SED-24A

H2O 152"

Push 6"

TD 158"

0924 - Photo of PB-SED-24A sed core

0924 - Matt Kyle proceed to PB-SED-24D

0933 - Photo sampling PB-SED-24D

0935 - Go to meet James Tucker w/ Magellan

NR 11/8/07

Location Date

Project / Client

0950 - James Tucker / Magellan went showed D. Mick location of their line in the S.T.F. Their pipeline starts @ NW corner of the old unloading rack & proceeds to the W/SW & is marked w/ perm. markers. Mr. Tucker said that they do not have anything on N side of Refinery road so all clear there.

0955 - Back to ponds

1005 - Matt Kyle sampling @ PB-SED-24C (photo)

1010 - Photo PB-SED-24D Sed Core

1020 - Calibrate PID

1025 - Meet w/ Alan of USA

1033 - Photo sampling PB-SED-24B

1035 - PID Readings

PB-SED-24A - 1.5 ppm

24D - 2.8 ppm

NR 11/8/07

Location _____ Date _____

Project / Client _____

1040 - Photo PB-SED-24C
Sed Log
Observations @ PB-SED-24D

H_2O	132"
Push	24"
TD	156

Observations @ PB-SED-24C

H_2O	132"
Push	24"
TD	= 156"

NOTE: Soil is very soft & compressing in liner. When sampler is pushed 24" the liner (1' liner) is about 75% full. Thus: 2" push is collected in 1' liner & logged accordingly. Recovery # represents how much recovered in the liner regardless of liner length.

11/8/07

Location _____ Date _____

Project / Client _____

1100 - Delivery of PB-SED-24B
Sed core for logging
Observations @ PB-SED-24B

H_2O =	156"
Push =	~~15.5~~ 6"
TD =	162

1100 - Photo PB-SED-24B
sed core
1105 - Collect laboratory samples @ PB-SED-24
1115 - Decon
1140 - Launch boat in equilization basin pond
1150 - PID reading ppm
PB-SED-24B - 0.5
24C - 6.5
1155 - Lunch
1220 - Status update - call w/ Bill Pickens
1300 - Back to ponds

11/8/07

Location _____ Date _____

Project / Client _____

1305 - Prep for PB-SED-26A
1315 - Photo sampling PB-SED-26A
1335 - Delivery PB-SED-26A sed core for logging observations @ PB-SED-26A Aliquot location

H2O	84"
Push	54"
TD	138

- Note used 4" liner + had 50% recovery in liner due to sample compression

1352. Photo sampling @ PB-SED-26C
1405 - Delivery of PB-SED-26C for logging.
PB-SED-26C observ.

H2O	60"
Push	30"
TD	90"

→ NE — 11/8/07 —

Location _____ Date _____

Project / Client _____

1410 - Photo PBSED-26D sampling
1410 - Photo PBSED-26C sed Core.
1420 - Delivery of PB-SED-26D
Observations @ PB-SED-26D

H2O	66"
Push	30"
TD	96"

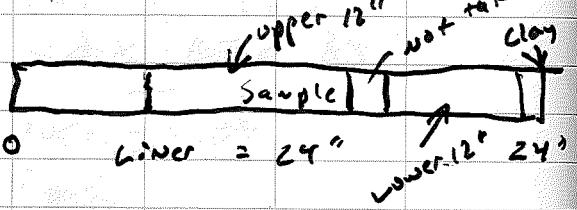
1429 - Photo sampling @ PB-SED-26B.
1435 - PID Readings (ppm)
PB-SED-26A = 28.0
26C = 22.0
1500 - Delivery of PB-SED-26B sed tag core for logging
1500 - Collect laboratory samples from PB-SED-26 w/ VOC's & TCLP's from Aliquot B.

→ NE — 11/8/07 —

Location _____ Date _____

Project / Client _____

1510 - Note - for collection of upper 12" & lower 12" of sample for PB-SED-26, the 12" interval was more likely more than 12" because the sediment compressed in the liner.



1545 - PID readings ppm

PB-SED-26A = 3.1

26B = 18.7

1600 - To office, pack samples

1645 - Leave site

11/8/07

Location El Dorado Date 11/9/07 63

Project / Client El Paso

D. Mick, M. Worner, M. Jackson

0950 - Call Maggie Wieser @ KDHE - she will do site visit on Tuesday 11/13/07. Will call before arrival & shoot for mid-morning.

1015 - Site arrival. Matt & Kyle already on site doing boat maint. & general equipment management.

1030 - Meet w/ Butler Co. Noxious Weed Dept. Les Stalwaker (316) 322-0446 & Brandon Lewis (316) 322-0445. They requested access to inspect for musk thistle in STF & N. of MPA. Let them into STF.

1035 - Arrive @ SE Pond.

1044 - Photo sampling @ PB-SED-28A

1058 - Delivery ~~of~~ DM PB-SED-28A sed core for logging.

11/9/07

Location _____ Date _____

Project / Client _____

1058 - Observations @ PB-SED-28A

H2O 66

Push 12"

TD = 78"

1100 - Launch boat for PB-SED-28B

1105 - Photo - sampling @ PB-SED-28B

1111 - Photo PB-SED-28A sed core

1121 - Photo ~~pt~~ Sampling @ PB-SED-28C

1128 - Delivery of PB-SED-28B and PB-SED-28C sed cores for logging.

1132 - Launch boat for sampling @ PB-SED-28D.

1137 Photo PB-SED-28B core

1138 - Photo sampling @ PB-SED-28D.

1155 - Collect laboratory samples from PB-SED-28 VOC, TCLP from 28D aliquot.

NJZ 11/9/07

Location _____ Date _____

Project / Client _____

1210 - Decon. & calibrate PID

1220 - PID Readings

	PPM
PB-SED-28A	= 7.3
28B	= 24.2
28C	= 26.6
28D	= 18.5

1225 - Lunch break

1330 - Back to site, discussions w/ Jerold Nordmeyer

1400 - Back to SE Pond.

1405 - Begin sample collection @ SED-29A aliquot loc.

NOTE: Bank @ 29A is very hard so had to push "jab" into 29A area several times 6-8 pushes.

1420 - Sample @ SED-29B

1423 - Photo SED-29A Sed core

1425 - Photo Kyle Sampling @ SED-29B

1426 - Kyle & Matt proceed to SED-29C

NJZ 11/9/07

Location _____ Date _____

Project / Client _____

1430 - Photo sampling @ SED-29C
1443 - Photo sampling @ SED-29D
1445 - Photo SED-29C Sed core
1445 - Jerold Nordmeyer turns on the aeration pond blowers
1500 - Photo SED-29D core
1500 - Collect laboratory samples SED-29 w/ VOC's from 29D aliquot.
1520 - Decon
1540 - PID readings

		PPM
SED-29A	—	0
29B	—	0
29C	—	0
29D	—	0

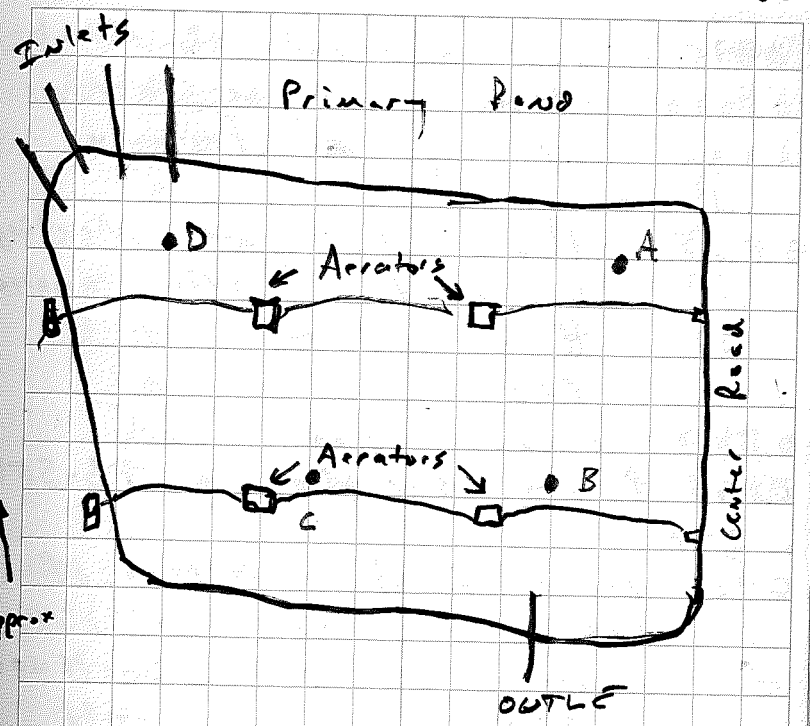
1655 - Leave site for day

11/9/02

Location El Dorado Date 11/10/02

Project / Client El Paso

D. Mick, M. Warner, K Jackson



• = Pond Bottom Aliquot locations (PB)

Location El Pasado Date 11/10/07

Project / Client El Paso

0715 · Site arrival D. Mick
0800 - Matt + Kyle arrive
0830 · Set up @ Primary Pond
0835 · H+S Tailgate Meeting
- Overhead electric awareness
- Boat safety
- PPE
0845 - Launch boat
0855 · Photo sampling @ PB-SED-39A.
0900 - Meet w/ John Alfaro of KANEB (Now "New Star") to clear old KANEB lines in STF. Has some old flags still in place + will also come out Monday + place some additional flags
0900 - 0945 - Matt + Kyle collect PB-SED-39 A, B, + C + leave cores at logging table
0945 - D. Mick return to Primary Pond

[signature] 11/10/07

Location Date

Project / Client

0950 - Observations during sampling

PB-SED-39A
H2O 60"
Push 6"
TD = 66"

PB-SED-39B
H2O 66"
Push 4.0"
TD = 70"

PB-SED-39C
H2O = 78"
Push = 4.0"
TD = ~~82~~ 82" DEM

PB-SED-39D
H2O = 78"
Push = 6"
TD = 84"

1010 - Photo PB-SED-39 B
1020 - Collect laboratory samples from PB-SED-39, VOC's from Aliquot D.
1028 - Photo PB-SED-39C sed core
1040 - Photo PB-SED-39D Sed core
1045 · Decon equipment.
1055 - PID Readings

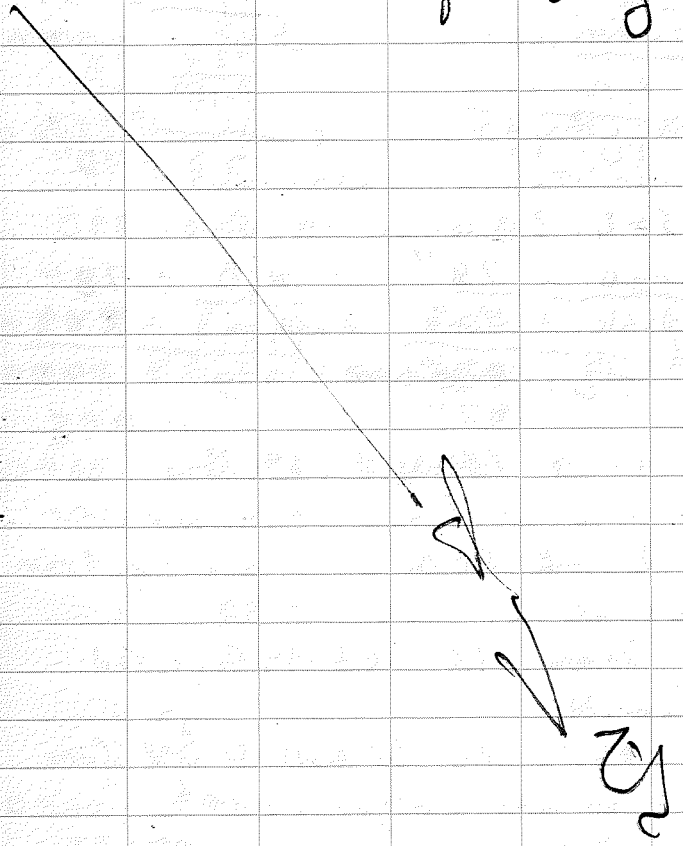
	PPM
PB-SED-39 A =	0.3
PB-SED-39 B =	0.2
39 C =	0.5
39 D =	0.7

[signature] 11/10/07

Location _____ Date _____

Project / Client _____

1110 - Back to main office
1200 - Leave site for day



11/12/07

Location El Dorado Date 11/12/07

Project / Client El Paso

D. Mick, M. Warner, K. Jackson

0800 - Arrive @ site
0815 - Orientation w/ Roy
0835 GPS locations in NW pond from Saturday 11/10/07.
0910 Began Bank collection for SED-38.
0935 Collected Aliquot A - Picture taken
Depth of water: 6" Push: 4"
0950 - D. Mick return from orient. w/ Roy Marlan
0952 - Photo SED-38B
1000 - Meet w/ Shane - Consolidated locaters. Roy Marlan meet w/ consolidated.
1005 - Photo sampling SED-38C
1010 - Photo SED-38B Sed core
1017 - Photo SED-38D sampling
1025 - Bill Hawker w/ Magellan called. Would like to meet to clear utilities. Meet Main building @ 11:30.
1025 - Photo SED-38C core
1030 - Collect laboratory samples @ SED-38

11/12/07

Location _____ Date _____

Project / Client _____

1042 - Photo SED-38D core
1050 - Decon
1115 - Lunch
1145 - Bill Horton w/ Magellan @ site to clear Magellan lines. TW-03 well & all soil boring locations are clear. TW-14 area clear. TW-07 ok except BH-22 may be close to old line, Be cautious in this area. TW-02 area clear. ⊠ TW-04 this location should be moved approx 20' to the south. TW-09 area clear. TW-06 - Move 10' to N because Magellan line is located S of TW-06 & runs EW. TW-10 move 10' South to avoid Magellan Line. All other Magellan lines in STF are clear.

NR 11.12.07

Location _____ Date _____

Project / Client _____

1300 - Return to Ponds / begin bank sampling @ the West Oxidation Pond. SED-37C
1317 - Photo sampling @ ~~SED-37C~~ DEN
1320 - Candace Fox @ TEST America called about terra core samples. Said that we must get samples to the laboratory within 48 hrs of collection so they can freeze them. Some of the samples that have been delivered were outside 48 hrs. She was not aware of the 48 hr requirement. Going forward all Samples (terra core) must be received within 48 hrs. She will send email to Bill P. & Betty regarding this matter.
1330 - Geocore onsite.
1400 - H+S w/ Geocore & got them oriented show them decon pad, unload...

NR 11/12/07

Location _____ Date _____

Project / Client _____

1405 - Back to West Oxidation Pond to log samples

NOTE:- Matt & Kyle collected laboratory samples from SED-37 @ 1345, while D. Nick was meeting w/ drillers. Volatiles from SED-37B

1408 - Photo SED-37A Sed Core.

1415 - Photo SED-37C Sed Core

1420 - Calibrate PID

1425 - PID readings

	PPM
SED-38A	0.3
38B	8.9
38C	0.8
38D ~~Dup~~	25.0

1430 - Chris Fitzgerald - discussed Terra Cores & holding times also KD discussions.

1445 - Photo SED-37B sed core

1445 - Matt & Kyle attempt sample @ SED-35A but had refusal - attempted at several locat. in area → NE 11/12/07

Location _____ Date _____

Project / Client _____

1500 - Photo sampling @ SED-35B

1510 - Collect laboratory samples from SED-35~~B~~ (B only) nothing from SED-35A (refusal)

1520 - Decon

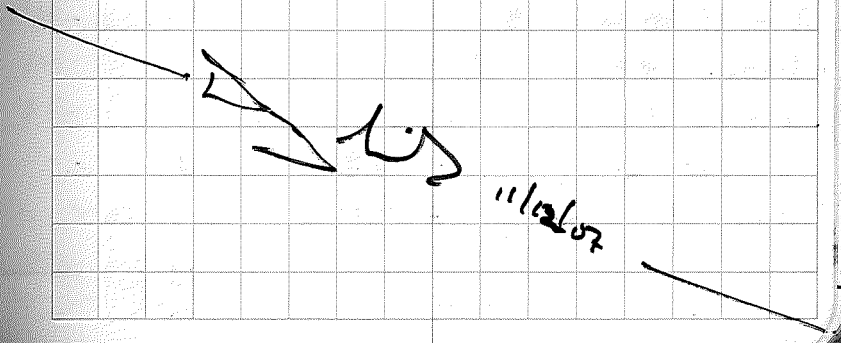
1550 - PID Readings

	PPM
SED-37A	0.5
37B	0.5
37C	0.5
SED-35B	0.3

NOTE: Background readings @ time of above PID was 0.3 PPM

1600 - Pack samples & office work

1815 - Leave site



Location El Dorado Date 11/13/07

Project / Client El Paso

D. Mick, M. Warner, K. Jackson

0830- Arrive @ site & load trucks

0845 - Mob to STF to deliver supplies to Roy Morlan. Discuss shallow refusals, well install options.

0910- Mob to ponds, SW Oxidation pond.

1000 - D. Mick go meet w/ KDHE Maggie Wieser

1000 Collected sample SED-33B.
Depth of Water: 6" Push: 10"

NOTE: Refusal @ SED-33A Rock.

1030 - D. Mick return do West Oxidation Pond

1040 - Matt & Kyle collect Aliq. SED-31B

1056 - Photo SED-33B

1100 - Collect laboratory VOC Samples from SED-31B

1115 - Photo SED-31~~B~~B. sed core

MJ2 11/13/07

Location Date

Project / Client

1120 - Decon

1130 - Locate bank aliquot loc. w/ Magellan

1150 - Matt & Kyle go to lunch

1215 - ~~Cathy~~ Calibrate PID

PID Readings PPM

SED-31B = 0.7

SED-33B = 0.3

1300 - Lunch w/ Roy Morlan & Maggie Wieser @ KDHE.

1340 - Back to ponds - Launch boat for location PB-SED-30A

1350 - Photo sampling @ PB-SED-30A

1351 - Delivery sample aliquot PB-SED-30A

1405 - Photo sed core PB-SED-30A
Photo sampling @ PB-SED-30C

1420 - Photo sed core PB-SED-30C

1426 - Photo sampling @ PB-SED-30B

1447 - Photo Sampling @ PB-SED-30D

1500 - PID Readings PPM

PB-SED-30A - 41.0

30B - 57.4

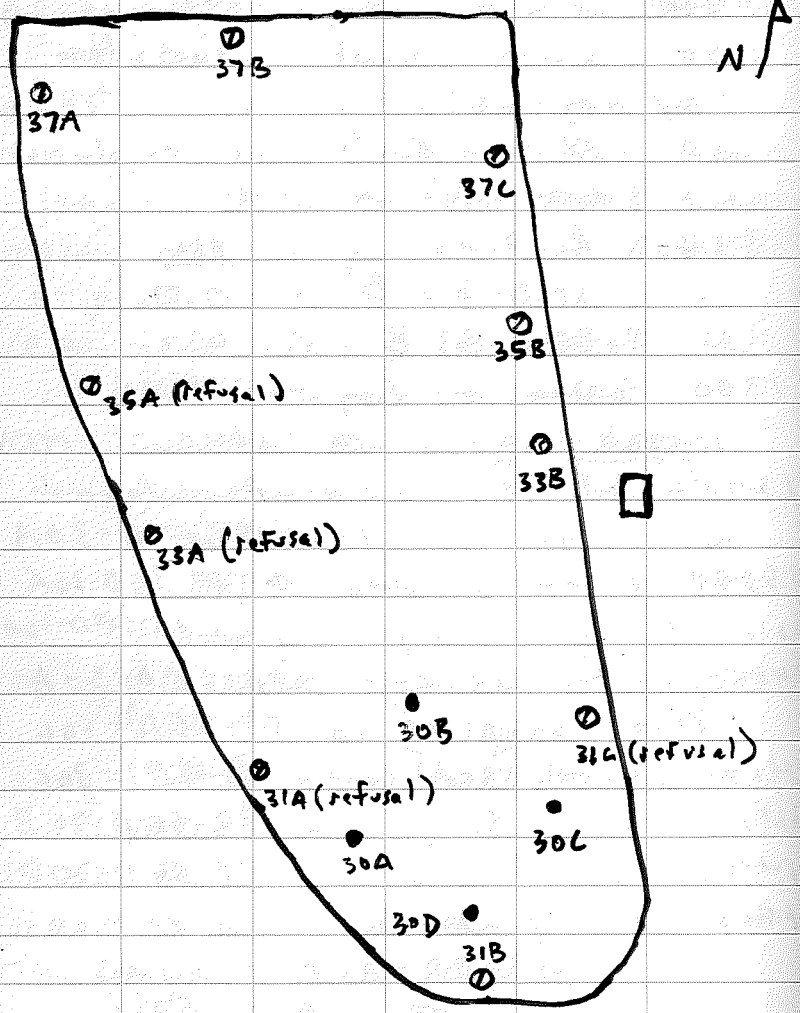
30C - 85.0

MJ2 11/13/07

Location _____ Date _____

Project / Client _____

WEST OXIDATION POND



⊙ = Bank Sample Locations

● = Pond Bottom Locations

Location _____ Date _____

Project / Client _____

1502 - Matt + Kyle return from Aliquot D location.

1505 - Photo of composite

NOTE: Sample collection time noted at 1500 + for Duplicate 1530 hrs.

1520 - Roy picked up MADEP jars.

1550 - PID Reading @

PB-SED-30 D — PPM 22.5

1600 - Decon

1630 - Pack samples

1730 - Leave for day

11/1/02

Location El Dorado Date 11/15/07

Project / Client El Paso

D. Mick, M. Warner, K. Jackson
R. Morlan

0931 - Arrive @ site

0940 - Visit drill site and Roy Morlan - Photo of Drilling @ TW-02. Discuss Rock drilling w/ Dave (Geocore) driller. Discuss well screen placement w/ Roy & Bill Pickens (phone conv.). Bill will call Jean Underwood @ KDHE for discussion on well screen placement as it appears water is somewhat confined in SW area & the transmissivity zone is lower than pot. surface. Bill will call later w/ clarif.

1000 - Inspect creek near OW-12. Also look @ placement of Delineation wells near fence line. OW-12 measured @ 40' W. of fence line. Photos taken of proposed Delineation wells

Location Date

Project / Client

1045 - Arrive @ West Oxidation pond to continue sampling. Matt & Kyle prep for sampling.

1056 - Photo sampling @ PB-SED-32A.

1118 - Photo Sampling @ PB-SED-32B

1126 - Photo SED Core PB-SED-32A

NOTE: At location PB-SED-32A, did no see clay @ base of sample. Matt indicated he had "definite" refusal @ 90". May have lost clay out of shoe.

1134 - Photo sampling @ PB-SED-32C.

1148 - Photo Sed Core PB-SED-32B

1150 - Photo sampling @ PB-SED-32D

1200 - Collect laboratory samples from PB-SED-32 w/ QC's collected from Duplicate

11/15/07

Location _____ Date _____

Project / Client _____

1210 - Photo sed core PB-SED-32C
1230 - Decon equip.
1232 - Photo PB-SED-32D core
1240 - Matt & Kyle go to lunch
1250 - Call from Landace Fox @ TEST America. Samples arriving in good shape, no breakage. Keep MADEPS coming to Buffalo. TEST is closed on Thanksgiving. Expect results beginning 11/19/07.
1255 - Calibrate PID
1258 - PID readings

	PPM
SED-32A	~~444.0~~ 82.0
32B	444.0
32C	186.0
32D	78.3

1345 - Back to PONDS
1350 - Call Maggie Wieser @ KDHE RE: well screen Discussed screen interval @ wells in STF & in general. Told Maggie

Location _____ Date _____

Project / Client _____

→ that we are using rock bit on occassion & not able to collect split spoons but will do PID & sample desc. from augers & if grossly contaminated (≥2000 PPM) will collect laboratory sample. Also, will have to use 15' of screen on some wells because we have "confined" water & transmissive zone is @ 15-20' but water is rising to 5' or so. For most wells we will use 15' screen to screen potent. water table across screen. Some have been & will be screened in transmissive zone only so water may be above top of screen in the well. Gave Maggie brief progress update & discussed next week geoprobe & LNAPL delineation plan. Maggie was ok w/ all above

[illegible] 11/15/07

Location _____ Date _____

Project / Client _____

1405 - Photo sampling @ PB-SED-34D

1415 - Sample collection PB-SED-34 VOC's, MADEP, TCLP from 34D aliquot.

1440 - Photo sampling @ PB-SED-34C

1454 - Photo sed core PB-SED-34C

1500 - Photo sampling @ PB-SED-34A

1508 - PID Reading ppm
PB-SED-34-D = 50.8

1510 - Photo sampling @ PB-SED-34B

1515 - Collect laboratory samples @ PB-SED-34 (Composite)

1518 - Photo PB-SED-34A sed core

1531 - Photo PB-SED-34B sed core

1531 - Decon

1540 - ~~Ph~~ Mob to PB-SED-36A

1545 - Photo @ PB-SED-36A

1546 - PID ~~@~~ PB-SED-34C = 6.5ppm

1559 - Photo sampling @ PB-SED 36B

1618 - Photo PB-SED-36A Core

1623 - Photo sampling @ PB-SED-36D

MJ 11/15/07

Location _____ Date _____

Project / Client _____

1626 - Photo PB-SED36B core

1638 - PID Readings ppm
PB-SED-34A = 5.0
34B = 23.8

1645 - Photo PB-SED-36C core

NOTE: 1640 Sample collected for laboratory analysis from PB-SED-36 w/ VOC's from 36-D aliquot,

1700 - Decon

1730 - PID Readings ppm
PB-SED-36A 163.0
36B 87.7
36C 29.9
36D 75.5

1800 - Leave site

MJ 11/15/07

Location El Dorado Date 11/19/07

Project / Client El Paso

D. Mick, M. Warner

0840 - Arrive @ site / approve work

0900 - Call KDITE, Maggie Wieser RE: Background locations. Told Maggie some of our background locations N. of Refinery road had to be moved because original locations were off site. Told Maggie new locations will be in same soil series & will lie N. & parallell to refinery road. She approved this change. Gave her update of last week. Told her we would shut down for Holidays ON Wednesday.

0950 - BGS onsite, Doug Freund & Brian Cullen. H+S meeting w/ BGS.

1015 - Arrive @ OW-12 & review LNAPL delineation wells w/ BGS BGS OK H+S with well loc.

NR 11/19/07

Location Date

Project / Client

1020 - SETUP @ Location TW-18

1028 - Photo BGS sampling @ TW-18 w/ Geoprobe.

1030 - Collect sample TW-18-0-2

1045 - BGS Begins using 9-gens @ TW-18.

1107 - Photos of TW-18 11-13' interval

1130 - BGS Sets Well TW-18 Screen @ 14'-8" → 6'-8" (8' screen) Sand to 5'-8" Bent to surface

1140 PID Readings

NOTE: PID Calibrated @ begin of day.

	ppm
TW-18-0-2'	0
-4-6'	0
-6-8'	0
-8-10'	0
-10-12'	0
-12-13'	0

NR 11/19/07

Location _____ Date _____

Project / Client _____

1210 - Break for lunch

1310 - BGS return from lunch

1330 - Set up & begin drilling @ TW-72. NOTE: BGS brought enough drill Augers that they were able to continue w/clean augers w/out having to decon.

1415 - BGS augering @ TW-72 NOTE: Visible sheen in the soil (fractured Limestone) @ 12.5 - 13' BGS. TD w/ HSA = 14.25'

1430 - PID Readings

TW-72 -	PPM
0-2'	= Ø
2-4'	= Ø
5-7'	= Ø
7-9'	= 1.1
9-11	= 209
11-12.5	= 245
12.5-13	= 457

1450 - Photo BGS setting TW-73

1500 - BGS Begin sampling @ TW-73

MR 11/17/07

Location _____ Date _____

Project / Client _____

1515 - TW-73 soil samples collected for laboratory analysis.

1600 - BGS complete well TW-73

1610 - PID readings

TW-73 -		PPM
	0-2'	Ø
	2-4'	Ø
	4-6'	Ø
11.5 - 12.5 = 4.0 ppm	6-8'	Ø
	8-10'	Ø
	10-11.5	43.5
	11.5-12.5	4.0

1615 - BGS done w/ TW-73 break down to decon

1630 - Back to field office to pack samples & prep for sample shipment.

1700 - Matt, Roy, Brad pack samples

1800 - Leave site for day

MR 11/19/07

Location _____ Date 11/20/07

Project / Client El Dorado - El Paso

D. Mick, M. Warner

0645 - Safety arrival

0700 - Recon SB-01 area

0700 - George arrive & heads to STF

0700 - Roy arrive & proceed to STF

0800 - H&S tailgate meeting w/ BGS

0815 - Set up @ SB-01

0830 - Begin probing @ SB-01

0832 - Calibrate PID

0833 - Photo sampling SB-01

0840 - Collect SB-01 laboratory sample

0900 - BGS moves to BH-061

0915 - BGS set up on BH-059

0920 - PID Readings

		ppm
SB-01	0-2'	0.5
	2-4'	91.3
too Rocky to get lab sample →	4-6'	445
	6-8	110
" " "	8-10'	334

0930 - BGS Sets up on BH-60

D. Mick 11/20/07

Location _____ Date _____

Project / Client _____

0931 - Joe Green call, Re: cattle in STF.

0935 - Let Joe Green into STF to look for his cow.

0955 - BGS sample @ BH-060

0958 - Photo BH-060

1005 - BGS moves to SB-03

1015 - PID Readings

BH-59	0-2'	0.3
BH-60	0-2'	0.5
BH-61	0-2'	5.2

1030 - Call from Dave B. Regarding CMI-9179

1045 - Enterprise Re: Need to phone them about truck rental (316) 689-0010

1110 - PID's

		ppm
SB-03	0-2'	2.5
	2-4'	4.2
	4-6'	134
	6-8'	476
	8-10'	112
	10-12'	313

D. Mick 11/20/07

Location _____ Date _____

Project / Client _____

1115 - BGS collect BH-066

1120 - BGS move to BH-064

1138 - BGS collect BH-064

NOTE: PID background steady @ 0.5 ppm all morning

1140 - PID readings ppm

BH-65 - 0-2' = 22.9

BH-66 - 0-2' = 178

1200 - Lunch

1300 - Back @ BH Locations

1315 - BGS sets up 4 samples @ BH-062

1320 - PID BH-64 - 0-2' = 0.3 ppm

1320 - BGS Deliver BH-62 core

1335 - Photos BGS sampling @ BH-063 also photos of SB TW-03 location

1340 - BGS had to push BH-063 2x because so soft + had little recovery w/ 1st push.

1341 - BGS deliver BH-063 core

1345 - BGS decon then move to BH-~~067~~ 067

ND — 11/20/07 —

Location _____ Date _____

Project / Client _____

1400 - Meet w/ Don Nikkila of Gerone

1426 - BGS samples @ SB-05

1500 - PID Readings ppm

BH-062	0-2'	0.3
BH-063	0-2'	260
BH-067	0-2'	1.7
SB-05	0-2'	0.4
"	2-4	1.1
"	4-6	1.1
	6-8	172
	8-10	288
	10-12	519

1530 - BGS off site

1600 - Matt + Brad package samples.

1630 - Measure (Gauge) well

TW-018

STATIC Water = 10.87' Below TOC

TD of well = 16.85'

Stick-up = 3.00' ft.

TW-073

STATIC Water = ~~Dry~~ 12.86' Below TOC

TD of well = 15.00'

Stick-up = 2.00'

Location _____ Date _____

Project / Client _____

1635. Continue garging New well.
TW-072
Static Water = 12.38 below T.O.C.
Well TD = 17.12' " "
Stickup = 2.50'
NOTE: Having trouble w/the Solinst interface probe & product does not seem to be registering
1715. Leave site for day

11/20/07

Location El Dorado Date 11/21/07

Project / Client El Paso

0745- Arrive @ site & meet w/ George & Brad Grim. They are in process of developing wells.
0930 - Gauge wells
TW-11 - 9.8' > to water
TW-02 - 17.56' > from TOC
0945- TW-07 12.79' " "
TW-05 11.40
1000- Back to field office to work on misc. organication.
1200- Leave site for day

11/21/07

Location El Dorado Date 11/26/02

Project / Client El Paso

0845 - Site arrival
0850 - M. Warner & D. Bollenbach arrive @ site.
0910 - BGS - Craig Heaines & Brian Cullen arrive @ site.
0915 - Brief BGS on project
0930 - B. Grim & R. Harrington arrive @ site.
1015 - Geocore arrives on site
1115 - Roy Morelan on site
1200 - Lunch
1245 - Visit drill rig @ TW-21.
1255 - Gauge wells

	H_2O (below TOC)	LNAPL Depth (below TOC)
TW-18	10.73'	
TW-72	11.36'	
TW-73	11.96'	
OW-12	10.68	

1315 - Visual of possible LNAPL from TW-18 (None visible)
TW-72 (Possible very light skim)
TW-73 (None visible) used new poly bailers to get visual.

11/26/02

Location Date

Project / Client

1320 - Photos of visual observations @ TW-18, TW-72 & TW-73
1325 - Photo of visual @ OW-12. Sheen obvious
1330 - Back to office
1700 - Field crews back to office to pack sample coolers.
1800 - Leave site for day

11/26/02

Location El Dorado Date 11/27/07

Project / Client El Paso

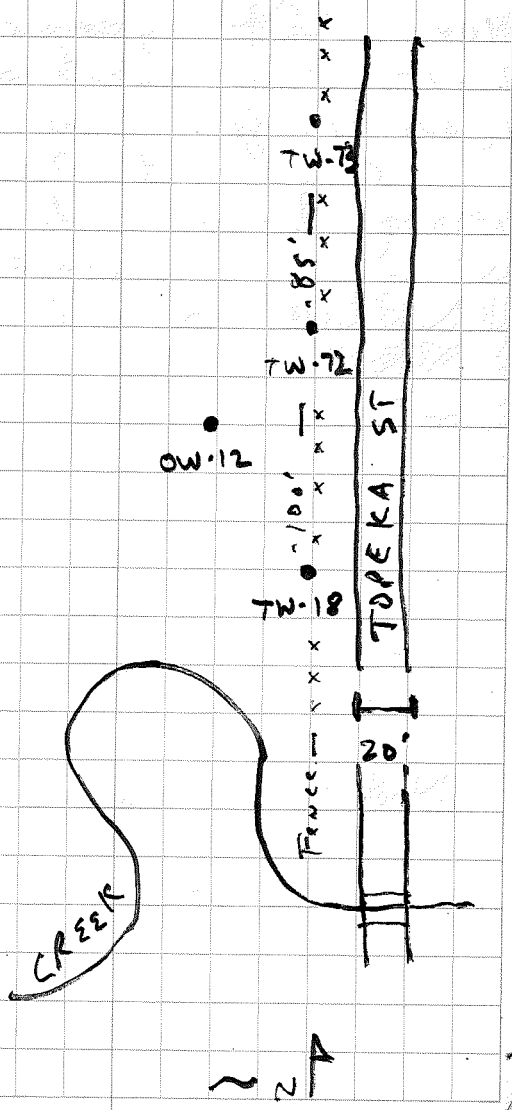
0645 - Arrive @ site
0700 - Roy Moreland arrive @ site + George arrive @ site.
0730 - Dave Bollenbach, Matt Warner + BGS onsite.
0820 - BGS begin @ SB-09
1000 - Field visit @ SB-09 + discuss sampling protocol beneath GW table!
Gauge nearby well + bore GW table on measured GW depth. Samples collected from depths beneath GW table for DRO + GRO only.
1200 - Lunch
1230 - Drill rig visit @ TW-24
Roy thought might have product @ TW-24.
1245 - Lock S. gate
1250 - Measure TW-18, 72 + 73

11/27/07

Location Date 11/27/07

Project / Client

Layout of LNAPL Wells



Location

Date 11/27/07

Project / Client

1300- Office work
1400- Visit geoprobe crew
1500- Visit drill crew
1600- Hefp park lab
sampler in cooler
1730- Leave site for day

11/27/07

Location El Dorado

Date 11/28/07

Project / Client El Paso

0650- Arrive @ site
0900- Discussion with
Dave Bollenbach & M.
Warren regarding SB
sample collection.
0930- Discuss w/ C. Fitzgerald
Driller situation
0940- Candace Fox @ TEST.
Ordered 20 sets of MADER,
20 Trip blanks, discussed
MADEP LABELS.
1015- Visit driller @ TW-26
they bent their center bit
& will have to shut down
while ~~tool~~ to make repair.
1200- Lunch
1330- Office
1600- Visit geoprobe & drill
crews
1800- Leave site for day

11/28/07

Location El Dorado Date 11/29/07

Project / Client

0630- Site arrival
0700- Everyone onsite
0715- John Hill (Geocore) can't work Friday he has to go to funeral.
0900- Visit geoprobe crew
0915- Visit AHA & review location.
0920- Visit trench road & inspect new road & gate fence. Found back gate unlocked so locked it.
1000- Visit driller @ TW-050
1030- Locate additional LNAPL delineation wells on TOPEKA & Potential wells located in front of 1210 & 1220 TOPEKA
1200- Lunch
1230- Office work & organize equipment
1700- Leave site

11/29/07

Location El Dorado Date 11/30/07

Project / Client El Paso

1300- Annie @ site & held brief team meeting w/all MWH crew. Distilled plan for next week & reviewed sample procedures
1300-1315- Called TEST america (Candace Fox) & ordered add. Terra Core kits. Requested 6 coolers full for - Sat, Sun, Tues & Wed delivery. Total of 24 coolers requested.
1400- Met w/ Scott Richard City of El Dorado Eng. Reviewed plan to drill 5 wells on Topeka St. He said he will discuss w/ Road dept & he will e-mail letter of approval ASAP.
1500- Pack several coolers for Sat. Delivery to TEST
1720- Leave site

11/30/07

Location El Dorado Date 12/3/07

Project / Client El Paso

1115 - Arrive @ site
1130 - Unlock gates in back
1200 - Meet w/crew, new arrival, Scott Hansen to begin work today.
1215 - Lunch
1230 - Photo - geocore drilling @ TW-43. Having difficulty getting deeper than 20' but looks like it will make water.
1300 - Go to town to get freezer
1320 - Visit Geoprobe crew @ SB-38.
1500 - Pack coolers
1800 - Leave site for day

12/3/07

Location El Dorado Date 12/4/07

Project / Client El Paso

0700 - Arrive @ site
0705 - Geocore onsite
0845 - One call to clean Topeka St. Wells. They will be clear on Friday 12/7/07.
1000 - Visit geoprobe crew in MAA doing BH locations.
1030 - Office
1200 - Lunch
1230 - Visit drill crew STF
1700 - Pack coolers
1715 - leave site for day

12/4/07

Location El Dorado Date 12/5/07

Project / Client El Paso

10:30 - Arrive @ site

11:00 - Visit Georgetta crew in MA MPA where they are doing BH locations. Review sampling procedures & provide oversight

11:15 - Visit Roy @ Southern Star Natural gas pipeline facility in MPA.

12:00 - Office

13:15 - Lunch

14:05 - Open STF gate for BG so they can develop LNAPL wells.

14:10 - Visit drill crew @ TW-40

19:00 - Leave site

12/5/07

Location El Dorado Date 12/6/07

Project / Client El Paso

~~0~~ 0645 - Arrive @ site

0710 - Discuss schedule w/ team H&S discussion RE: ice cold weather slip / trip...

1000 - Office work

1115 - Weston onsite to read meter

1200 - Lunch

1245 - Meet w/ Team RE: schedule for next week.

1330 - Hogabom @ site to pump septic.

1435 - Back office to discuss tomorrow's work.

1440 - Study / Review traffic control manual.
Work on TCC plan.

1500 - NES Traffic Safety (316) 945-3400 to deliver tomorrow work & order signage for project.
Sean (316) 253-3889.

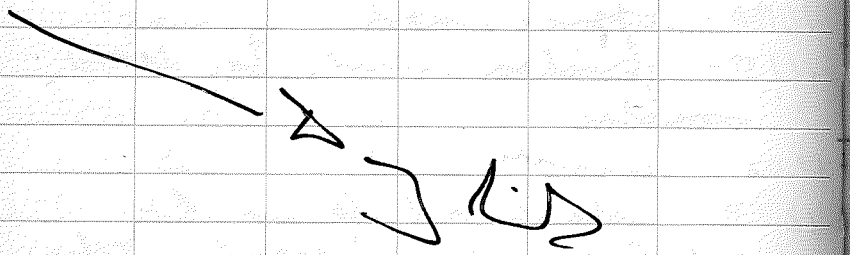
12/6/07

Location _____ Date 12/6/07

Project / Client _____

1515 - Visit to geoprobe crew in MPA

1800 - Leave site



12/6/07

Location El Dorado Date 12/7/07

Project / Client El Paso

0645 - Site arrival, BGS @ Gate

0650 - Unlock back gate

0700 - Work on TCP

0710 - Meet w/ Sean of NES traffic safety. Proceed to work zone on Topeka St. & place signage w/ Scott Hansen

0740 - H&S meeting w/ crew. Topics discussed
- traffic awareness
- utilities
- visibility
- slips/trips
- PPE
- pedestrian traffic ...

0800 - BGS setting up @ TW-74

0900 - Bill V. to drill analytical parameters

1030 - Dirt pile from TW-74 to just S. of Landfarm

12/07/07

Location _____ Date 12/7/02

Project / Client _____

1030 - Candace Fox STL - trip blanks found by resident
William McMillan
(316) 321-1118

1045 - Met Mr. McMillan @ Dillon & received trip blanks from him

1100 - Assisted "house keeping" w/ crew to assure no more equipment is Coiled

1130 - Jeff Glover - Resident @ 720 W. 10th. (316) 320-6000, (316) 323-3553 inquired about project.

1135 - Soil piles from TW-75 transported to LF. area (just S of LF).

1215 - Lunch

1300 - Relieve Scott Hansen @ Flagman. Scott leaves site.

1345 - BGS continues work @ TW-77

Location _____ Date _____

Project / Client _____

1400 - Continue drill wells @ Topeka st.

1420 - Brad Grim comes to assist.

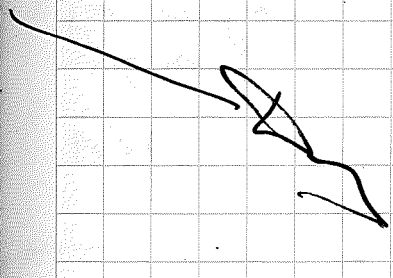
1500 - Office work

1600 - Visit crew @ Topeka street. Transport Soil to LF area

1700 - Assist w/ clean up

1720 - Remove road sign.

1830 - Leave site



12/7/02

Location El Dorado Date 12/10/07

Project / Client El Paso

11:30 - Arrive @ site
12:00 Renew one-call ticket
1230 - Go to AHA look @ locations
1300 - MWH Staff arrived, David M, Matt W, Kevin W., Scott H.
1330 Meet Steve w/ consolidated so he can clean Weston gas line near the AHA.
1340 - Kevin & DM to AHA to look @ locations
1345 - Roy informs that Geroux rig broke down. They may have to bring another rig to site.
1400 - Bill P. regarding AHA tomorrow.
1700 - Team meeting to discuss weather, locations.
1800 - Leave site for day

12/11/07

Location El Dorado Date 12/12/07

Project / Client El Paso

0650 - Arrive @ site
0700 - Conference call w/ field team
0725 - USA on site to begin prepping equipment.
0800 - Meet w/ team members discuss days activities.
0900 - H&S tailgate meeting @ BH-029
0905 - Had trouble accessing BH-029 nearly got stuck so moved to BH-31 to begin
0910 - BGS (Doug Freund) begins probing @ BH-31
0920 - Collect laboratory samples BH-31-0.5-1.5, BTEX, GRO DRO, METALS.
0930 Move to location of BH-034
0935 - Decon equipment, calibrate PID
0940 - BGS kept hitting refusal @ 6-7' @ BH-034 so moved 5' straight South to try again
0944 - PID @ BH-31-0-2' = 0.5 ppm

12/12/07

Location _____ Date 12/12/07

Project / Client _____

0915- BGS had to collect 0-1' @ BH-034 due to shallow rock & shallow refusal. Did 4 3-foot pushes to obtain adequate amount of soil

0945- Collect analytical samples from BH-034 BTEX, DRO, GRO Metals

1010- BGS begins @ BH-032

1012- BGS had to push BH-032 4x to get enough soil for analysis. Had rock @ 1' bgs.

1020- Collect BH-032-0.5-1.0 Could not get 0.5-1.5 due to Rock @ 1' Bgs.

1025- PID @ BH-032 0-2' = 0.8 ppm

1040- PID BH-~~30~~ 34-02' = 1.2 ppm

1042- BGS @ BH-037

1050- Collect lab samples @ BH-037 BTEX, DRO, GRO, MET composite NON VOC's in bowl target bottom 0.5-1.5 for VOC grab w/terra core

MS- 12/12/07

Location _____ Date _____

Project / Client _____

1053- Note @ BH-037-0.5-1.5 had a tarry-like substance @ 0.5' depth

1054- BGS @ ~~BH-36~~ DEM BH-036

1110- Collect lab samples @ BH-036-0.5-1.5 BTEX, DRO, GRO, Metals

NOTE: Catalyst carriers balls present @ BH-036 @ 0-6"

1110- BGS heads to BH-035

1120- BGS gets stuck while trying to reach BH-035. Had to off-set BH-035 5' South & 5' east of original location.

1135- PID @ BH-036 (0-2') 1.6 ppm

1145- USA attempts to pull BGS from where they are stuck @ BH-035.

1200- Collect lab samples BH-035-0.5-1.5 BTEX, DRO, GRO, Met.

1230- Office to call Towing services Cooks

1235- Roy Lemen Site

MS 12/12/07

Location _____ Date 12/12/07

Project / Client _____

1300 - Lunch

1330 - Finish UCA w/ decon of bucket

1400 - BGS ready to go head back to STF setup @ BH-058

1425 - Collect laboratory samples @ BH-058 BTEX, DRO, GRO, Met

1440 - Collect lab samples @ BH-057 BTEX, DRO, GRO, Metals

1445 - Collect BH-056 w/ hand auger place into bowl collect VOCs first then mix. composit

1450 - Collect lab samples @ BH-056. Sample collected w/ Hand auger then placed into stainless steel bowl. VOC's collected first from approx 0.5 - 1.5' then remaining soil mixed for composit for NON VOC's

BTEX, DRO, ORO, Metals

12/12/07

Location _____ Date _____

Project / Client _____

1505 - Set up @ BH-053

1515 - Collect ~~lab~~ lab. samples @ BH-053

1517 - BGS sets up @ BH-055

1530 - Collect lab samples from BH-055, BTEX, DRO, GRO, Met.

1535 - BGS sets up @ BH-054 Photos of BGS @ BH-054

1540 - Collect lab samples @ BH-054' BTEX, DRO, GRO for metals

NOTE: Chris Fitzgerald visit while @ BH-054

1600 - Attempt to mob to BH-

1700 - Package samples for shipping

1800 - PID Readings

	PID
BH-35	0.4
BH-37	0.5
BH-53	0.9
BH-54	2.5
BH-56	0.9
BH-57	6.1
BH-58	0.9

1815 - Leave site

12/12/07

Location El Dorado Date 12/13/07

Project / Client El Paso

0650 - Arrive @ site
0700 - Meeting w/ Bill Pickens
0900 - SAH (Scott Hansen) + Doug Freund onsite.
BH ~~291~~ 133 DLM 0.5 - 1.5
0915 - BH-~~01~~ 133 soil descript
- Black silty clay w abundant sand + gravel. strong odor, dry
0915 - BGS - drill @ BH-132 on concrete foundation 3" thick
BH-132 soil descript.
0925 - Surface = 3" concrete, 6" of fine to medium sand, black silty clay from 6" to 2' TD. moist, mild odor
0930 - Collect lab sample @ BH-132
BTEX, DRO, GRO, Metals
0935 - BGS @ BH-131
BH-131 soil description
gravel @ surface, 0-2' light brown silty clay w/ abundant gravel

D NR 12/13/07

Location Date

Project / Client

0950 - Lab sample for BH-131
BTEX, DRO, GRO, Metals
Bill Pickens visit @ BH-131
1000 - BGS @ BH-130
Soil description: BH-130
Surface gravel followed by 0-2' of brown silty clay, abundant limestone gravel, dry, odor present TD = 2'
1015 - Laboratory sample @ BH-130
BTEX, DRO, GRO, Metals
1015 - BGS @ BH-129
1018 - BH-129 soil description:
Surface = gravel, 0-2' =
Light brown silty clay w/ abundant limestone gravel from 0-1',
1-2' is black silty clay w/ strong odor, dry red brick material @ 1.5'
1020 - Lab sample @ BH-129
1050 - Set up @ BH-135

D NR 12/13/07

Location _____ Date _____

Project / Client _____

1050 - Soil description @ BH-135:
Surface - gravel
0-2' - Black silty clay w/ black shards @ 6". Slightly moist mild oder, dry
Collect MS/MSD + duplicate @ BH-135

1055 - Lab sample collected including MS/MSD + Dup all from BH-135 - 0.5-1.5'

1120 - BGS @ BH-137
Description BH-137:
Surface - gravel
0-2' - gray to black fill material, "coke" like glass shards dry, abundant gravel

1140 - Collect lab samples @ BH-137, BTEX, DRO, GRO metals

1145 - BGS @ BH-136

1150 - Collect lab samples @ BH-136
Soil description BH-136
surface - gravel
0-2' - polocrized limestone w/ minor clay

12/13/03

Location _____ Date _____

Project / Client _____

1150 - Decon, break for lunch

SAH ~~1258~~ BGS @ BH 134
1315 Soil Description BH 134 0-2'
Light brown silty/clay 0-1.5'
dark matter "coke fines" 1.5-2.0'
Some oder.

1335 BGS @ BH 138
Soil Descriptio
Light Brown Silty Clay 0-1.5' nonplastic
gravely silt clay 1.5-2.0 dry
medium oder

1405 BGS @ BH 142 new position 5' Sout + 5' west
Description BH 142
Lt brown to dark black silty clay at 0-1.5'
medium plasticity, Some oder
SAH ~~High~~ "coke" matterial mixed in throughout.

1415 BGS @ BH 141
Description:
Black ~~dry~~ SAH silt clay w/ some gravel
Has oder, low platicity

1430 BGS @ BH 139
Description: Lt brown Sandy Silty Clay
no. oder, medium plasticity

Location _____ Date _____

Project / Client _____

1440 BGS @ BH 140 Hand Augered 0.5'-1.5
Description: Lt brown to dark brown
High moisture, silty clay, medium
plasticity, no oder.

1530 BGS @ BH 16
Description: Grey, silty, Clay
High moisture, low plasticity.
No oder

1550 BGS @ BH 18
Description:
0-0.5 sandy clay, Lt brown
high moisture, low plastic
0.5-2.0 silty Clay, dark brown
low plastic, medium moisture.

1630 Pack coolers for lab.

1720 Return Log Book to
Doug Mick

1730 - Assist w/ packing samples

1735 - PID readings

#	PPM	#	PPM	#	PPM
BH-016	0.9	BH-132	5.7	BH-138	0.7
BH-018	1.3	BH-133	475	BH-139	7.3
BH-129	795	BH-134	20.8	BH-140	1.3
BH-130	117	BH-135	2.8	BH-141	9.6
BH-131	1.4	BH-136	91.9	BH-142	4.8
		BH-137	1.7		

[signature] 12/18/07

Location El Dorado Date 12/18/07

Project / Client _____

1330 - Arrive @ site

1345 - Discuss well completion w/ driller. Can't do any today don't have well cover.

1400 - Look @ remaining TW locations & take photos.

1600 - Leave site

[signature] 12/18/07

Location El Dorado Date 12/20/07

Project / Client El Paso

0700 - Arrive @ site

0715 - Discussion w/ Dave B. & George regarding H&S & Christmas schedule.

0720 - Assist Dave w/ prep for day.

0900 - Visit driller @ TW-63

1000 - Look @ several remaining TW Locations for access

1005 - Instruct drillers to move TW-50 because they encountered rubble @ 3' deep. They will move 10' N & try again.

1010 - Review locations

TW-71 - only way to access (due to wet weather) is to remove berm on W. side of scan & access from West. If berm is removed should be OK to access photo Taken.

TW-70 - May be able to back up to tank scan near BH-122 & place well just E of BH-122 This would move from original

12/20/07

Location Date

Project / Client

- location about 45-50' South of original location. Alternative would be to back in from W as far as possible but would still be 45-50' West of original location.

TW-57 - This location is probably accessible from the back gate located near gas-sat-station. Will have to get key to open gate. Will have to discuss w/ driller to make sure they are ok w/ location.

TW-59 - Not accessible @ this time. May be accessible after soil dries however there is a lot of surface sand & rig might get stuck even after soil dries up. May need to do this one on road located to E of original location.

1030 - Dave B. called, having difficulty @ TW-50. Also Mike Gallegos @ the site

12/20/07

Location _____ Date 12/20/07

Project / Client _____

1125- Interview H+S w/ Mike Gamjea.
1145- Visit driller + Dave w/ Mike Gamjea to review H+S
1200- Lunch
1300- Return from lunch
1305- Drill rig broke down mast cylinder broke will lower mast + remove from site to make repairs.
1320- Driller fold-down mast safely + begin to break down equipment.
1400- Back to office
1500- Office work + Dave park cooler
1600- USA onsite go + look @ TW-10 + back gate.
1630- Office work
1800- Leave Site

JR 12/20/07

Location _____ Date _____

Project / Client _____

Location N/A Date N/A

Project / Client N/A

N/A

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Location El Dorado Refinery Date 1/7/08

Project / Client EPC Phase III Sed. Inv.

47° Overcast, Breeze out of S.

0900 Arrived on-site and calibrated PID

0925 Left for SED-05

0930 Arrived at SED-05A and set up tape.

1000 Collected sample SED-05A.

1010 Collected sample SED-05B.

1020 Collected sample SED-05C.

1045 Arrived at location SED-11

1115 Collected sample SED-11.

1145 Break for lunch

1215 Arrive back on-site

1225 Arrive at location SED-10.

1250 Collect sample SED-10.

1300 Arrived at location SED-12.

1330 Collected samples SED-12, SED-12-MS SED-12-MSD.

1400 Collected duplicate SED-12-50.

1410 Arrived at location TW-01(0-2)

1440 Collected sample TW-01(0-2).

1530 Cleaned up & packed samples

1645 Left site for the day.

END OF PAGE

1/7/08

END OF DAY

Location El Dorado Refinery Date 1/8/08

Project / Client El Paso / Phase III Inv.

33° Overcast 25-40 mph winds

0730 Arrived on-site (M. Warner, D. Bollenbock K. Jackson)
0745 H+S tailgate meeting.
0800 Loaded truck and left for SED-17
0805 Arrived at SED-17.
0850 Collected sample SED-17.
0900 Arrived at location SED-38D
0910 collected sample SED-38D.
0915 Arrived at location SED-37B.
0930 Collected sample SED-37B.
0935 Arrived at location SED-35B.
0950 Collected sample SED-35B.
0955 Arrived at location SED-21D.
1015 Collected sample SED-21D.
1020 Arrived at location ~~1~~ SED-23D.
1030 Collected sample SED-23D.
1035 Arrived at location SED-29D.
1050 Collected sample SED-29D.
1052 Trimble GPS location SED-29D.
1055 Arrived at location SED-25B.
1110 Collected sample SED-25B.
1130 Break for lunch.
1200 Arrived back on-site
1245 Phone call w/ Doug about

Location El Dorado Refinery Date 1/8/08

Project / Client El Paso / Phase III Inv.

35° Overcast 25-40 mph winds

collecting PB sample on 1/9/08 if weather is good.
1300 Packed samples.
1400 Left site for the day.

END OF DAY

Mark Warner
1/8/08

END OF PAGE

Location El Dorado Refinery Date 1/9/08

Project / Client El Paso / Phase III Inv.

35° Sunny 10-15 mph wind out of S.

0745	Health and Safety tailgate meeting.
0800	Arrived at Aeration Pond.
0830	Located spot for PB-SED-24B
0850	Collected sample PB-SED-24B-156-162
0900	Moved boat to Polishing Pond
0910	Located spot for PB-SED-18D.
0930	Collected sample PB-SED-18D-74-78.
0940	Loaded boat into truck and moved over to the Marley Pond.
1005	Located spot for PB-SED-16D
1015	Collected sample PB-SED-16D-47-59
1030	Moved boat back over to Blowers.
1100	Cleaned up Sediment Sampling equipment.

Location El Dorado Date 5/29/08

Project / Client El Paso

0800 - Arrive @ site & meet w/ Asplundh crew to begin mowing.

0805 - H & S briefing including H+S tailgate meeting. Asplund crew includes:
Randy Martin
Kew Reh
Roman Loerh

0810 - Review areas to be mowed & / or weedeat.

0840 - Randy Martin leaves site & other crew members off-load equip.

0850 - Ray Harrington arrives on site.

0930 - Asplundh begin mowing.

1045 - Meet w/ Jeff Lutz

1100 - Check in mowers & brief site Review

1215 - Leave Site

5/29/08

Location El Dorado Date 10/27/08

Project / Client El Paso

1200 - Arrive @ site & inspect boat

1300 - Prep boat, inspect spray pond for access

1400 - PES Animal Jason. Auenheimer & Troy Ruskamp

1410 - H&S tailgate meeting

1430 - Set up boat & get prepped for PSB-01 in S. portion of Marley Pond

1445 - Assist w/ stabilizing the sampling platform. Wind is causing difficulty w/ keeping sampling tools aligned.

1515 - Retrieve soil core from PSB-01 & leave on boat.

1600 - Continue efforts to collect PSB-01 using dual tube system.

1630 - Difficulty pulling & rods out.

1800 - Leave site for day

10/27/08

Location Date 10/28/08

Project / Client

0215 - Arrive @ site

0800 - Meet MWH crew Matt & Brad B., PES crew, Jason & Troy, & Also Savage (lex)

0830 - Savage pulls rods 2-3' then PES finish pulling & plugging through rods @ PSB-01

0930 - Add 4, 55-gallon drums (clean) to bottom of boat for buoyancy. PSB-02 much easier.

1400 - Lunch

1600 - leave site

10/28/08

Location El Dorado Date 10/31/08

Project / Client

1200- Arrive @ site & inspect landfarm. Remove rock & metal debris from piles.

1315- Eric Fraizer of RSC & Doug arrive @ site.

1330- Discuss the TW soil @ the landfarm.

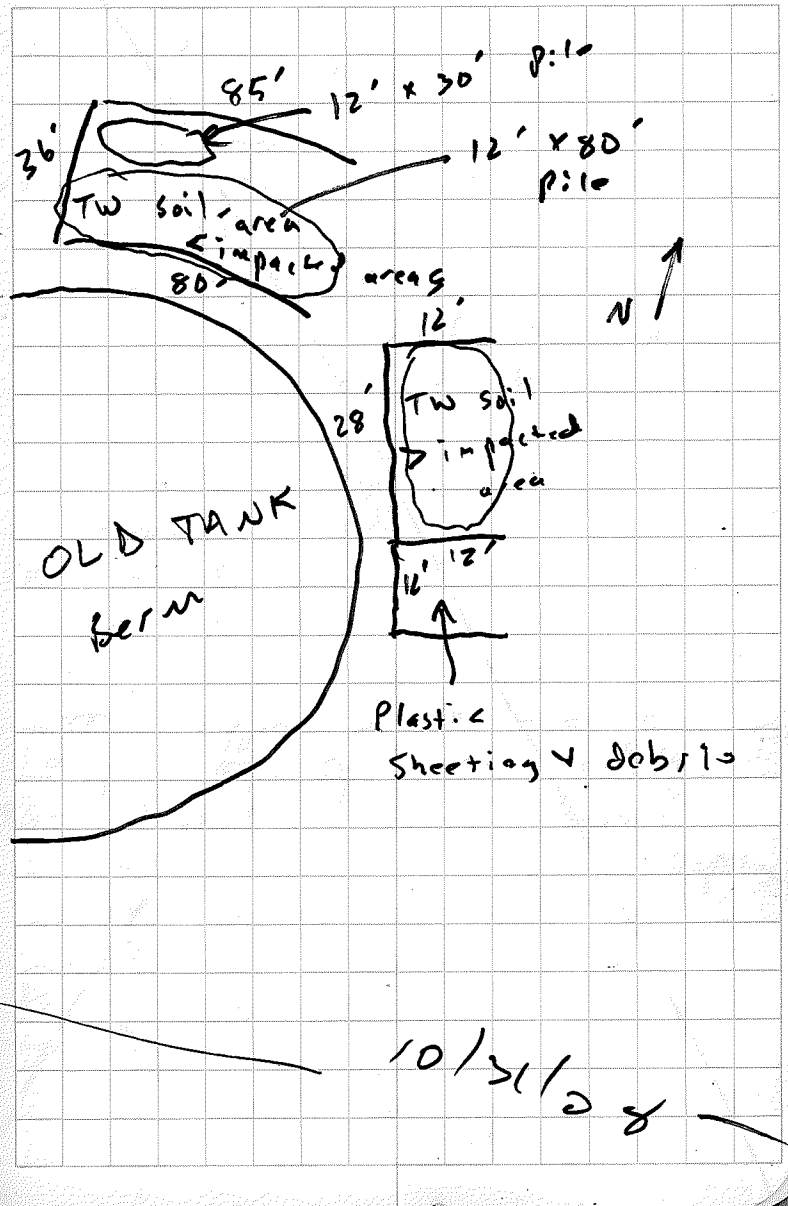
1430- Berm tractor & disk.

1500- Back to landfarm to inspect & take measurements.

1700- off site

Location Date

Project / Client



10/31/08

Location

Date

Project / Client

Location El Dorado Date 11/6/08

Project / Client Supp. 3RD Phase

1030 - Arrive @ site to meet w/ Bill Hanker of Magellan.

1100 - Bill H. looked over all of the STF (southern) proposed borings & cleared all of them. He said Magellan does not have anything ~~in~~ on N. portion of STF or in any area N. of Refinery Road.

1130 - Visit w/ field crew. Told them to keep eye on wind & stop work if it becomes too difficult to ~~wo~~ tie off properly & work safely.

1145 - Insert 11 hag. drums. All appear in good shape. Note label accumulation date of 8/12/08.

1230 - Leave Site

[signature] 11/6/08

Location El Dorado Date 11/11/08

Project / Client Supp. Invest.

0645- Arrive @ site
0745- Matt W. & Brad B. arrive @ site
0800- Matt work on boat getting it out of spray pond. Brad get sampling prepped.
0900- PES, Jason Arenheimer onsite
0900- Tailgate H&S meeting
0930- Set up @ STF Pit Soil boring location.
~~STF-PTSB~~ STFPSB-02
1000- Meet w/ Enterprise (Map Co) to locate their pipelines. According to Enterprise all of their lines were in S. portion of STF & are abandoned. They should be 3-4 ft bgs. Enterprise looked at map showing Supp. Wells & said we were OK.

Location Date

Project / Client

1040 - Go to STF to meet w/ MW, BB & PES (JA).
1145- Lunch
1300 - Back to site to the STF.
1400 - Meet w/ Bill P & go over some of the drilling locations for the Supplemental Investigation
1530 - Secure site.

11/11/08

Location El Dorado Date 11/17/08

Project / Client El Paso

1245 - Arrive @ site
1300 - Unload equipment.
1350 - H+S Tailgate meeting w/ Brads.
1400 - AEI (Drillers) arrive @ site: Chuck Clark
Butch Hearns
1410 - AEI unloads equipment from trailer
1430 - AEI leaves site to go get their drill rig.
1500 - Look over some of the drill locations in the MPA
1500 - Call Maggie Weiser of KDHC to discuss drill & sample plan. OK to begin drilling @ MTBE locations E. of Topeka St. She may be @ site next Tuesday (11/25/08) to split samples.
1700 - Office work.
1730 - Off site

11/17/08

Location El Dorado Refinery Date 11/18/08

Project / Client

0930 Calibrated YSI-556
pH: 10.00: 9.98 → 10.00
4.00: 3.97 → 4.00
7.00: 7.01 → 7.00
Sp. Cond.: 1.409: 1.430 → 1.409
1300 Arrived at TW-111 for development
DTW: 7.12'
TD: 23.01'
Column: 15.89 Vol.: 51 gals
1340 Began Pumping
1535 Completed Development
1600 Began Sampling well TW-111
DTW: 10.30'
Flow Rate: 500 ml/min
1630 Collected Sample TW-111

11/18/08

Well	Time	Temp	Sp. Cond.	DO	pH	ORP	Turb.
TW-111	1605	14.69	1729	7.50	7.12	-34.5	f. Clear
	1608	14.72	1730	6.57	7.11	-37.6	f. Clear
	1611	14.75	1729	6.18	7.09	-38.1	f. Clear
	1614	14.65	1728	6.27	7.09	-38.5	f. Clear
	1617	14.72	1727	6.20	7.10	-39.7	f. Clear
	1620	14.72	1728	6.21	7.11	-39.8	f. Clear
	1623	14.71	1728	6.22	7.10	-39.8	f. Clear
TW-112	0840	13.63	1485	3.30	6.87	-77.6	f. Clear
	0843	13.73	1486	2.42	6.86	-84.0	Clear
	0846	13.86	1491	2.17	6.85	-84.2	Clear
	0849	14.00	1495	2.33	6.84	-87.8	Clear
	0852	14.00	1495	2.33	6.83	-87.7	Clear
	0855	14.01	1496	2.32	6.84	-87.8	Clear
TW-89	1000	14.84	731	13.01	7.43	-38.1	f. Cloudy
	1003	15.04	741	8.73	7.33	-30.9	f. cloudy
	1006	15.09	746	8.15	7.25	-24.1	f. Cloudy
	1009	15.06	760	7.66	7.18	-17.6	f. Clear
	1012	15.08	751	7.72	7.13	-12.8	f. Clear
	1015	15.09	752	7.70	7.13	-12.9	f. Clear
	1018	15.08	752	7.72	7.12	-12.6	Clear
	1021	15.08	752	7.70	7.12	-12.7	Clear
TW-90	1120	15.53	965	3.52	7.06	8.4	f. Cloudy
	1123	15.71	943	2.76	7.10	-12.4	f. Cloudy
	1126	15.61	915	2.30	7.04	-21.6	f. Cloudy
	1129	15.79	910	2.25	7.02	-29.0	f. cloudy
	1132	15.78	902	2.12	7.01	-32.8	f. clear
	1135	15.94	895	2.05	7.02	-38.4	f. Clear
	1138	15.92	894	2.03	7.01	-38.5	clear
	1141	15:91	895	2.02	7.00	-38.7	Clear
	1144	15.92	894	2.03	7.00	-38.9	Clear
TW-91	1333	16.14	1071	4.58	7.19	-39.0	f. Clear
	1336	16.16	1086	4.11	7.16	-41.9	f. Clear
	1339	16.12	1105	3.83	7.13	-44.4	Clear
	1342	16.19	1129	3.51	7.08	-45.7	Clear
	1345	16.20	1138	3.38	7.08	-47.0	Clear
	1348	16.20	1140	3.39	7.09	-47.3	Clear
	1351	16.20	1142	2.63	7.03	-45.7	Clear
	1354	16.18	1146	2.57	7.04	-46.1	Clear
	1357	16.12	1147	2.40	7.01	-44.8	Clear
	1400	16.12	1147	2.39	7.01	-44.9	Clear
	1403	16.13	1148	2.40	7.01	-44.9	Clear
	1406	16.12	1147	2.40	7.01	-44.9	Clear

Location El Dorado Refinery Date 11/19/08

Project / Client

0800	Calibrated YSI-556
	pH: 10.00 : 10.04 → 10.00 ; 7.00 : 7.06 → 7.00
	Sp. cond. : 1.409 : 1.422 → 1.409
0810	Arrived at TW-112
	DTW: 5.60'
	Flow Rate: 500 ml/min
	Draw Down: 0.20'
0900	Collected sample TW-112.
0935	Arrived at well TW-89
	DTW: 19.52 Flow Rate: 400 ml/min Draw Down: 0.12'
1025	Collected sample TW-89.
1055	Arrived at Well TW-90
	DTW: 13.71 Flow Rate: 500 ml/min
	Draw Down: 0.16'
1145	Collected sample TW-90.
1310	Arrived at well TW-91
	DTW: 9.35 Flow Rate: 500 ml/min
	Draw Down: 0.21'
1410	Collected sample TW-91.

11/19/08

The manufacturers of "Rite in the Rain" all-weather writing products are grateful to the numerous environmental experts who have contributed to the development of this book. Should you have any additions, improvements or corrections for future publications of this field book or have suggestions for other environmental field book formats, we welcome your input.

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Common Field Data Error Codes

Error codes are used to explain common mistakes and are written above or close to the mistake.
Commonly used error codes include:

RE	Recording Error
CE	Calculation Error
TE	Transcription Error
SE	Spelling Error
CL	Changed for Clarity
DC	Original Sample Description Changed After Further Evaluation
WO	Write Over
NI	Not Initialed and Dated at Time of Entry
OB	Not Recorded at the Time of Initial Observation

Note: Error code should be circled, dated, and initialed when recorded.

Hazard Classifications

Class 1 Explosives
Class 2 Gas
Class 3 Flammable Liquid
Class 4 Flammable Solids (Potential spontaneous combustion, or emission of flammable gases when in contact with water)
Class 5 Oxidizing Substances and Organic Peroxides
Class 6 Toxic (poisonous) and infectious substances
Class 7 Radioactive material
Class 8 Corrosives
Class 9 Miscellaneous dangerous goods

Container type abbreviations (for sampling guidelines)

BR - Boston Round • ABR - Amber Boston Round • AJ - Amber Jug • AWM - Amber Wide Mouth • Poly - Polyethylene Bottles • BOD - Bottle • CWM - Clear Wide Mouth

12/3/08

the AHA stock pile sampling
- Christina Brueckman, Matt Warner, & Wesley the operator.

started ~ 9:00 AM

TR-13 ; 0-1' Approx. 7' height

Silty GRAVEL (GM) w/ sand, 45% gravel, 30% sand, ~25% fines. fine to coarse gravel, fine to coarse sand. coarse fraction sub-Rounded, a few larger clumps of material stuck together w/ asphalt material, Road base odor, Gravel is hard, fines are low to medium plasticity, low to medium dry strength, low toughness, Brown to Blackish color, dry to slightly moist, some organic material near top. (stock pile of Road base & dirt):

TR-13, 1-2'

increase in black-tar material, Asphalt larger "clumps", stronger odor, no more organic material.

TR-13, 2-3'

not as many "clump", Blacker color fines more plastic from oil material / Road material.

TR-13, 3-4'

a couple cobbles/, more chunk of oil slag material in gravel/ cement chunks - 9:45 pm

PID Readings @ 9:50 am

TR-13, 0-1'	0.0 ppm
1-2'	14.8 ppm
2-3'	10.2 ppm
3-4'	23.4 ppm

sampled collected @ 9:30 AM for:

TPH - GRO
TPH - DRO
8260 VOC
skinner metals
SVOCs

TR-12, 0-1' Approx. 7' height. 10:15 AM

silty GRAVEL (GM) w/ Large chunks of asphalt material, 50% chunks of asphalt, 25% gravel, 15-20% sand, 5-10% fines, fine to coarse gravel, fine to coarse sand, sub-round to subangular gravel; max asphalt chunk ~ 1 ft, max gravel ~ 1", Gravel is hard, low to med. plasticity of fines, low toughness, dark brown color, Black asphalt/oil material, some road base odor, dry, (stockpile of dirt & asphalt & oil material mixed together) (minor amounts of Rootlets)

TR-12, 1-2'

increased moisture, increased fines (10-15%) increased odor from asphalt, no organic material / no Rootlets.

TR-12, 2-3'

Larger chunks of asphalt/oil chunks, still a Road-base odor, increased amount of asphalt chunks (60-65%)

TR-12, 3-4'

increased amount of asphalt/oil material (~75%), asphalt chunks pretty much just covered w/ soil material rather than being mixed in w/ soil. -10:45 AM

Sampled full suit @ 10:36

		PID Readings
TR-12,	0-1'	5.2 ppm
	1-2'	10.1 ppm
	2-3'	23.6 ppm
	3-4'	36.2 ppm

TR-11, 0-1' Approx. 8' height 12:30pm

silty GRAVEL (GM) with sand, 80% asphalt/oil material, 10% gravel, 5-8% sand, ~~3~~ 3-5% fines, coarse fraction subrounded, fine to coarse gravel, fine to coarse sand, max '½' gravel, max 1½' asphalt material w/ some slag material, gravel material is hard, fine material low plasticity, low-medium dry strength, low toughness, Brown-dark brown color, asphalt material black, strong asphalt/oil odor, moist

(~~Dirt~~ Soil, asphalt, and oil material waste pile)

~~0~~ 1-2'

increased asphalt/oil material (85-90%) increased odor. limestone chunks in asphalt

2-3'

~85% asphalt/oil material w/ an ash material (possibly pot ash?) ~ 2%

3-4'

increased ash material (3-5%), metal debris, ash & asphalt odor

4-5'

increased limestone grains in asphalt, more oil in matrix (very goopy in consistancy), 3-5% ash, ~85% asphalt

-1:00pm

Sampled full suit @ 12:50pm

	PID Readings
TR-11, 0-1'	161 ppm
1-2'	88.3 ppm
2-3'	307 ppm
3-4'	264 ppm
4-5'	311 ppm

TR-10, 0-1' Approx. 5' height 1:30 pm

silty GRAVEL (GM) w/ sand., 80-85% asphalt/oil material, 10% gravel, 5% sand ~5% fines, fine to coarse gravel, fine to coarse sand, subangular to subround, max 1' gravel, 6" - 1' oil clumps/asphalt, gravel - hard, some slag particles, non-plastic fines, low-toughness, dark brown, black for oil/asphalt, moist, strong oil/asphalt odor. (asphalt/oil waste pile w/ a little soil mixed in) (some Rootlets)

1-2'

Blacker color, larger oil/asphalt chunks, (a few larger diameter Rootlets)

2-3'

increased oil/asphalt material (85-90%) darker black color, more dense (stays in a large "mass" in bucket) (no Rootlets) - 1:55 pm

full suit collected @ 1:50 pm

PID Readings

TR-10,	0-1'	3.9 ppm
	1-2'	10.7 ppm
	2-3'	13.6 ppm

TR-15, 0-1' Approx. 5' height 2:20 pm

silty GRAVEL (GM) with sand; 80% oil/asphalt material with Limestone grain; 10% Gravel, 5% sand, 5% fines, subangular gravel, fine to coarse gravel, fine to coarse sand, non-plastic fines, max 1" gravel, 1' chunks of oil/asphalt chunks (when track hoe dumped the sample, it all stayed in one large mass & he broke it apart, so the oil is keeping it all together), coarse fraction does have some limestone grains, gravel is hard, low-med toughness, dark brown color, Black for oil/asphalt, odor of oil/asphalt material, moist (soil, asphalt, & oil waste piles) (some Rootlets)

1-2'

~~still~~ a little less oil material, asphalt is in smaller chunks, rather than one large mass sticking together, ~~to~~ more limestone grains in gravel

2-3

75% oil/asphalt material, more gravel (15%), less oil, it is more broken up and not one large mass as 0-1' sample, little less of an odor -3:10 pm

Sample suit collected @ 3:00 pm

PID Readings

TR-15, 0-1'	11.1 ppm
1-2'	44.4 ppm
2-3'	60.6 ppm

- TR-16, 0-1' Approx. 5' height 3:30 pm

Sandy SILT (ML) with gravel & cobbles, 5% cobbles, 10% gravel, 20% - 25% sand, 60-65% fines, fine to coarse gravel, fine to coarse sand, subangular to subrounded particles, max 6" cobble, Large grains are Limestone, some shale of a gray color, Larger grains friable to mod. hard, Low plasticity, low dry strength, low toughness, light brown color, no odors, strong reaction w/ HCl (soil stockpile) (no organic/rootlets)

1-2' slightly moist

2-3'

Cobble size piece of slag/oil/asphalt mixture, & one boulder size rock

- 3:55pm

Full suit of samples collected @ 3:40 pm

PID Readings

TR-16,	0-1'	5.1 ppm
	1-2'	8.9 ppm
	2-3'	9.0 ppm

12/4/08

El Dorado ~~12/4/08~~ 2/5/09

0830 - H+S tailgate meeting

0900 - Set up @ AHA to collect soil samples. First location today TR-14. Est. pile height 7'.

TR-14 0-1'

Dark brown (7.5YR-3/2) silty clay w abundant gravel & some sand (minor). Gravel is limestone & ranges from small to large rock - size fragments 6-8" diameter. Angular broken fragments of limestone throughout entire pile. Black staining throughout w/ abundant black staining & asphaltic-like material, some black strands of material present.

Matrix includes: 5% cobbles, 10% gravel, 15% - 20% sand, 65-75% fines. Fine to coarse sand, angular to sub rounded grains

- Cobbles react strongly w/ acid. No odor present. Material is moist & moderately plastic.

1-2' - Similar to 0-1' w/ decreasing moisture & less abundance of limestone cobbles >5%. Increasing black asphaltic-like material. No odor Brown/ 7.5YR-4/2, DRY

DRY 1-2' continued

Some minor debris including black gasket - 3" diameter

2-3' Brown (7.5YR-4/2) silty clay, slightly moist, abundant ~~fine~~ sand and gravel. Minor organic matter. Minor debris including metal wire. Fine to coarse sand, Rounded to angular. Fine to medium gravel. Limestone gravel. Some large sand is quartz sand.

0930 - Collect Sample 3-4' @ TR-14

3-4' - Brown (7.5YR - 5/2)
silty clay w/abundant sand & gravel. Black staining & asphaltic material throughout. Some debris including plastic. Gravel fine to cobble size. Very reactive w/HCL (limestone) Fines ~ 50%, Sand ~ 30% gravel ~ 20%. Moist, sl. plastic, no odor. Sand angular to sub rounded.

PID Readings @ TR-14

		PPM
0-1	-	7.7
1-2	-	10.2
2-3	-	10.9
3-4	-	11.1

1000- USA decon bucket before moving to TR-21.

1005- Note: weather, cloudy & cool @ ~35° F. Slight wind from N @ ~ 10-15 MPH.

1015- Matt W. prep sample jars to TR-21.

TR-21 - Estimate pile height @ 5.0' above grade. Plan to collect samples for logging @ 0-1, 1-2, 2-3 w/ lab. sample @ 2-3'.

TR-21 0-1' - Dark brown, silty gravel. Abundant sand, gravel, and black asphaltic material. Large chunks of asphaltic material cohesive ~~at large~~ forming mass of asphalt-like rocks ~ up to 1.5' diameter. Asphalt material has limestone sand and gravel (angular) in matrix. Large asphaltic masses are hard, fracturing w/ the strike of hammer into concoidal like fractures. Silt is dry & non-cohesive. Gravel at, fine to coarse @ ~ 50%, sand ~ 25%, fines 25%. Abundant plant matter @ surface. Minor quartz ~~gravel~~, large grained sand, sub rounded. No odor

1020 - Collect TR-21 @ ~~3-4'~~ DUP 2-3'.

TR-21 - 2-2'. Dark Brown (7.5YR 3/2) sandy silt. Dry, soft, no odor. Abundant lime stone sand, fine to coarse, angular to sub rounded, reactive w/ HCL. Some massive asphalt chunks up to 8" diameter. Asphalt masses are have abundant limestone sand and gravel embedded. Fine to coarse sand & fine grains embedded in asphalt mass. This sand and gravel is limestone & highly reactive to HCL. Minor organic matter including root material. Gravel ~ 5%. Sand ~ 30-40% ang to sub r. Fines ~ 50-60%. Minor (one chunk) of cement-like cobble size debris. Asphalt masses fairly hard w/ strong w/hammer fracture across limestone gravel.

TR-21 2-3' Dark brown 7.5YR-3/3) gravelly silt. Dry, soft silt, no odor. Minor organic including root material. Abundant asphalt mass w/ limestone in matrix. Some masses are ~ 75-80% asphalt w/ ~ 20-25% limestone sand & gravel other asphalt masses are 75-80% limestone w/ asphalt @ 20-25%. Sub. angular limestone cobbles present on well.

PID	PPM
0-1	5.2
1-2	7.6
2-3	7.6

1045 - USA plastic material back into pile then decon bucket before moving onto TR-22

1050- Photos of USA collecting TR-22 (0-1') interval

TR-22-0-1'- Brown (7.5YR-4/3) gravely silt w/ abundant sand. Sand is fine to coarse grained, angular to sub Rounded. Sand is 95% limestone w/ minor sub rounded quartz sand, med to large grains. Abundant organic matter incl. root fragments and grass material. Asphaltic material are present measuring up to 8" diameter. Fine to coarse gravel, limey ∀ reaction w/ HCL. ~~Sub~~ Angular to sub Rounded. Asphaltic ~~matrix~~ have minor gravel ~~adhered~~ mixed in. Gravel is reactive w/ HCL. Asphalt is fractured easily when struck w/ hammer. Concoidal fractures / interior luster, Black.

Silt is soft dry w/ no odor.

TR-22-1-2'- Similar to above w/ increasing asphalt matter. Dry, no odor. Decreasing organic matter.

TR22-2-3'- Dark brown gravely silt. Abundant fine to coarse, angular to sub rounded sand. Abundant organic matter including root material. Strong brown (7.5YR 4/6) oxidized material is minor present. Abundant lime gravel, fine to coarse (1" largest) present, angular to sub rounded. Dry, non-cohesive, no odor. This interval has abundant asphaltic matter. Matrix make up ~ 75% of this interval. Asphalt matrix composed of limey sand and gravel. Fractures easily when struck w/ hammer. Organic matter (grass like) noted within matrix of asphalt when

- fractured: Asphalt mass matrix approx - 80% asphalt, 10-20% gravel, minor sand minor <5% organic matter.

		PPM
PID	0-1	3.5
	1-2	7.2
	2-3	7.9

1110 - Collect sample TR-22 (2-3')
1120 - USA place material back to original pile.
1130 - USA decon
1145 - Lunch
1300 - Return from lunch & begin @ TR-26

TR-26 (0-1') Dark brown YR (7.5YR-3/2) silt w/ abundant sand, gravel, & asphaltic material throughout. Organic material present w/ grass & root fragments near surface. Interval composed of ~ 25% asphaltic massive material; ~10-15% sand & gravel ~ 60-70% fines. Fine to coarse grained, angular to subrounded, limestone sand. Fine to coarse gravel, angular to sub rounded, largest pieces of limestone gravel 4" (cobble size). Dry throughout w/ no odor. Black staining throughout. Asphaltic masses have limestone sand & gravel throughout. 50/50 asphalt & sand/gravel mix. Asphalt masses fracture easily w/ strike of hammer. Minor organic matter within asphalt mass < 5%. Concavidal fracture. Some glassy luster some dull. Black.

TR-26 (1-2') Brown (7.5YR-4/4) silt w/ abundant sand & gravel. Similar to above. Dry, soft minor organic. Fines ≈ 80% sand ≈ 10-15% gravel = ~10% asphalt masses ~10-15%.

2-3' - Brown silt same as above w/ slightly more asphaltic mass - ≈ 0.25%

3-4' Dark brown silty clay (7.5YR 3/3), slightly moist, moderately plastic, no odor. Abundant ~~silty~~ silt, sand & gravel throughout. Black staining & asphaltic material throughout. Metal strip present (~ ½" x 12" long). Light Gray, fibrous, "paper", material present. Breaks easily ~~& ap~~ DSM. Asphaltic masses @ 25-30% of interval. Asphalt mass has limestone gravel in matrix. Asphalt mass breaks easily when struck w/ hammer. Concoidal fracture, vitreous luster. Minor organics within asphalt mass < 5% of mass.

- Clay described above is sl. cohesive.

TR-26 PID

		PPM
0-1	—	3.8
1-2	—	4.7
2-3	—	6.6
3-4	—	11.0

1320 - Collect TR-26 (3-4')

1350 - USA move material back to TR-26 Then decon bucket.

1400 - USA move to TR-20 -

0-1' - Brown silt (7.5YR ~~3/4~~ 4/3) w/ abundant sand & gravel. Dry, soft, no odor, abundant organics including root frags & grass. Asphalt masses @ ~ 20%. Fines = 60-70% Sand - 20%, gravel - 10% Concrete mass hard several strikes w/ hammer before fracture. Moderate odor upon breakage. Vitreous luster. Other masses break easily w/ no odor. Matrix w/ minor limestone sand &

TR-20:

1-2' - Same as above w/ decreasing organic matter.

2-3' Dark gray (7.5 YR 4/1) clayey silt w/ abundant sand, gravel & asphalt material. Sl. moist. Asphalt material intermixed (bound) w/ brown clay & organic (straw-like) material. Slight odor upon breaking asphalt material. ~~Does not stain~~ Somewhat malleable like material, no concoidal fracture as w/ most of the other asphalt matter noted prior pits. Straw like material is yellow-green & fibrous < 1/4" diameter. Minor quartz sand, large, sub-rounded ~~3-4'~~ present < 5%.

3-4'. Same as above w/ increase in asphalt material & limited cobbles. Some plant matter including small twigs.

4-5' Very dark gray (7.5 YR 3/1) silty clay w/ abundant sand, gravel, and asphalt material. Slightly moist, slightly plastic, soft. Sand is limey, sub rounded to angular. Fines ~ 40%, Asphalt matter ~ 40% sand < 20%, gravel < 5%. No odor.

PID @ ~~TW-7~~ TR-20

	PPM
0-1'	0.0
1-2'	0.0
2-3'	1.1
3-4'	2.1
4-5'	0.8

1425 - collect TR-20 (4-5')

1430 - USA more material back to pile, decon go to TR-19

1500 - Begin @ TR-19

Note: weather colder - 30°F cloudy

TR-19 (0-1') Dark brown 7.5YR 3/2, silt w/ abundant sand, gravel + asphalt material + bedrock. Sand is fine to coarse, angular to sub rounded + reactive w/ HCl, Gravel fine to coarse w/ some small limestone cobbles, which are very pale brown 10YR - 8/3. Dry, soft, non cohesive except asphalt matrix. Asphalt matrix moderately hard + fractures w/ strike of hammer concoidal. Asphalt material mixed w/ main gravel + plant debris. No odor.

1-2' - Same as above w/ increasing asphalt material. Asphalt matrix more limiting @ 50% lime 50% black asphalt. Breaks easily when struck w/ hammer.

TR-19 (2-3') Same as above Asphalt matrix = 30% of interval.

3-4' Dark brown (7.5YR 3/4) silty clay w/ abundant sand + gravel. Sand is fine to coarse rounded to angular. Fine living gravel. Asphalt material is massive + mixed w/ sand + gravel. Asphalt material 30-40%. Asphalt material matrix composed of 40-50% fine grained, rounded to sub-angular quartz gravel w/ some limestone gravel as well. Concoidal fracture w/ struck w/ hammer. No odor.

4-5' - Dark Brown (7.5YR 3/2) silty clay w/ abundant sand, gravel + asphalt. Asphalt material ~ 50% of interval. Slightly moist, mod. plastic, cohesive, minor organic matter. Sand is fine to [illegible]

← w/ minor large, rounded gravel.
Asphalt masses composed of black asphalt material & minor quantity of limestone small gravel. Some masses are hard & concrete fragments & some masses are soft almost malleable & break easily. Slightly moist clay material.

TR-19 PID's

	PPM
0-1	0.0
1-2	0.0
2-3	1.1
3-4	0.4
4-5	0.1

1520 Collect Sample @ TR-19 4-5'
1530. USA move material back to pile.
1630 - Pack Sampler
1745 - Leave Site

12/4/08

12/5/08 AHA SAMPLING

0800 ONSITE - HOLD H&S MEETING 35°F SUNNY

0830 USA SET-UP BRUNA IN TRACK HOE

0845 TR-18 EST. HEIGHT FT ABOVE GRADE

TR-18 PID

	PPM	
0-1	0.4	3-4' SAMPLED @ 0900
1-2	1.2	
2-3	2.1	
3-4	6.2	

0-1' DARK BROWN 7.5YR 3/2 SILTY CLAY ABUNDANT ASPHALT MASSES WITH SOME LIMESTONE COARSE TO FINE SAND ABUNDANT ORGANIC MATERIALS GRASS & ROOTS, ONE BRICK 7.5YR 8/4 CLAY IS SLIGHTLY MOIST - NON PLASTIC, NO ODOR
30% ASPHALT MASSES
60-70% FINE GRAIN SILT & CLAYS
<5% SAND / NO VISIBLE GRAVEL
BRICK STAMPED COLUMBIA MO STANDARD
ASPHALT MASSES COMPRISED OF 90% ASPHALT <5% GRAVEL <5% ORGANIC MATERIAL FRACTURES EASILY WHEN STRUCK WITH HAMMER

1'-2' DARK BROWN SILTY CLAY 7.5YR 3/3
ABUNDANT ASPHALT MASSES SOME
FINE TO COARSE SAND, SOME GRAVEL
ABUNDANT ORGANIC MATERIAL, >5% Cobble
Cobbles ARE LIMESTONE
CLAY IS SLIGHTLY MOIST - NONPLASTIC - NO ODOR
50% Asphalt MASSES
40% FINE GRAIN SILT
10% SANDS / GRAVEL
ASPHALT FRACTURES EASILY WITH HAMMER
90% ASPHALT
5% ORGANIC MATTER
5% LIMESTONE GRAVEL

2'-3 DARK BROWN SILTY CLAY SAME AS ABOVE
ABUNDANT ASPHALT MASSES WITH ORGANIC
MATERIAL. ABUNDANT ORGANIC MATERIAL
IN ASPHALT MASSES 75% Asphalt ~~25% ORGANIC~~
25% STRAW
SOIL SLIGHTLY MOIST - NON-PLASTIC NO ODOR
40% Asphalt masses
Asphalt is pliable
50% SILTY CLAY
10% ORGANIC MATERIAL

3'-4' DARK BROWN MOIST CLAYEY SILT
7.5YR 3/2 NO ODOR - SOME COARSE SAND
ABUNDANT ORGANIC MATERIAL, ROOTS
AND LEAVES
ABUNDANT ASPHALT MASSES, pliable
COMPOSED OF: 90% Asphalt
<5% ORGANIC MATERIAL (ROOTS LEAVES
>5% GRAVEL
80% Asphalt MASSES
40% Clayey SILT / SOME SAND
10% ORGANIC MATERIAL
0930 USA MOVE MATERIAL BACK TO PILE
0940 MOVE TO TR-17

TR-17 ESTIMATED HEIGHT 8' ABOVE GRADE

0-1' DARK BROWN SILTY CLAY 7.5YR 3/3
ABUNDANT ASPHALT MASSES
ABUNDANT ORGANIC MATERIAL, GRASS, ROOTS
70% SOIL - SILTY CLAY, SLIGHTLY MOIST
NON-PLASTIC
20% Asphalt CHUNCKS
10% ORGANIC MATERIAL

Asphalt masses composed of
80% Asphalt
10% Grass organic matter
>10% sub angular gravel
Fractures easily with a hammer

1'-2' Large Asphalt masses
Silty Clay 7.5YR 3/3 slightly moist
With some fine grain sand
Abundant organic material
Some debris - one 3' piece of rebar
80% silty soil
15% Asphalt masses
5% organic material (roots, sticks)
Asphalt masses composed of:
90% Asphalt
<5% subangular gravel
<5% organic material

2'-3' Soil same as above with coarse sand
slightly moist non-plastic
60% soil
30% Asphalt masses
<5% Organic material
>5% limestone cobbles

Debris in pile as well, Gasket
Tin or Aluminum (2ft x 2ft crumpled)
Large Asphalt Chunks
comprised of
80% Asphalt
10% organic material
10% sub angular gravel
fractures easily with hammer

3-4' Soil Silty Clay 7.5YR 3/4
Dark Brown fine to coarse sands
slightly moist - non plastic
Abundant Asphalt masses
Some large masses
75% soil
20% Asphalt masses
<5% organic material
Asphalt masses comprised of
75% Asphalt
10% limestone chunks sub angular
<5% light colored tan clay
5% organic material
5% sub angular gravel

Asphalt fractures easily with hammer

4-5' Brown silty clay soil 7.5 YR 3/4 to silt with sands fine and coarse some dark brown stiff clay
50% soil
45% Asphalt chunks
5% organic matter small roots
some large masses of asphalt (1.5ft x 1.5ft)
masses composed of
75% Asphalt
10% limestone angular gravel
10% organic material, (roots)
5% soil, dark clay & moist light colored clay
some asphalt masses fractured easily with hammer
some were pliable with angular fractures

TR-17	PID ppm
0-1'	0.0
1-2'	0.0
2-3'	0.0
3-4'	2.0
4-5'	2.1

Sampled 4-5' @ 1000

1045 USA moving material back to pile
1105 ~~TR-24~~ TR-24

0-1' Brown silty sand dry 7.5 YR 3/4
small gravel and bits of organic material, small chunks of asphalt
NO ODOR
Abundant Asphalt masses
Abundant organic material (roots, grasses)
Asphalt masses composed of
75% Asphalt
10% limestone gravel and other sub angular small gravel

5% organic material
5% COARSE SAND

1-2' Soil same as above
MORE ABUNDANT Asphalt masses, LARGER
~~Some~~ ABUNDANT LIMESTONE GRAVEL

ASPHALT MASSES COMPRISED OF
70% ASPHALT
25% LIMESTONE GRAVEL (Subangular)
<5% fine sand and ROUNDED GRAVEL

2-3' BROWN SILT, VERY SLIGHTLY MOIST 7.5 YR 3/4
ABUNDANT GRAVEL, SOME DARK BROWN CLAYEY CHUNCKS
ABUNDANT ASPHALT MASSES COMPRISED OF
75% Asphalt
20% LIMESTONE SUB ANGULAR GRAVEL
<5% fine grain sands

3-4' BROWN SILTY SAND, VERY SLIGHTLY MOIST
NO ODOR, ABUNDANT COARSE GRAVEL
AND GRAVEL - Subangular MINIMAL organic
material, just a few tiny ROOTLETS

LARGE Asphalt masses composed
of
75% Asphalt
20% soil
5% COARSE SAND
FRACTURED EASILY WHEN STRUCK WITH HAMMER

TR-24 PID

	ppm	
0-1'	0.5	SAMPLED 3-4' @ 1130
1-2'	0.9	
2-3'	1.1	
3-4'	0.9	

1200 WRAP-UP SAMPLING FOR THE DAY - CLEAN-UP AREA
HEAD TO OFFICE BUILDING TO PACK SAMPLES.

1220 OFF SITE

12/5/08

12/9/08

0800 SIGN IN, H&S MEETING, Derek M
MATT W., MIKE D AND Brad G, AND
WES (USA)

0825 SET UP FOR TR-32, TRACK HOE HYDRAULICS
NOT WORKING, WES CALL MECHANIC
TR-32 Approx. 9' ABOVE GRADE

	PID ppm
0-1'	
1-2'	
2-3'	
3-4'	
4-5'	

0930 TRACK HOE MECHANIC NEEDED.
DONE WITH H&S FOR THE DAY

12/9/08

12/8/08 El Dorado Supp.
3RD Phase Invest. AHA
Sampling.
0830 - Site arrival & H&S
tailgate meeting w/ M. Warner
& Wes from USA
0845 - Set up @ TR-23
0850 - USA deliver TR-23 0.1'
TR-23 est pile height = 7.0' AGS

TR-23 0-1' Dark Brown
(7.5 YR 3/2) silty clay
w/ abundant organic matter
including root frags & grass.
Asphalt masses present @
~ 20% of interval. Silty clay
is slightly moist, non-
plastic w/ minor amount <5%
of fine to medium grained
angular limestone sand.
Asphalt masses are black.
w/ minor organics in matrix.
Asphalt masses fracture easily
when struck w/ hammer & is
glass-like & light weight (S.G.)
No odors noted.

Weather, cloudy, windy (15-25 MPH
from S.) mild = 40°s F.

TR-23 - 1-2' Same as above
w/ increasing asphalt masses
@ ~ 40% of interval & slight
increase in moisture. Also piece
~~TR-23 2-3'~~ of metal 2" x 3" x 1/4" present.
0910 - Sample collected for
laboratory analysis @
TR-23 3-4'

TR-23 2-3' Dark brown
(7.5YR 3/2) silty clay w/
abundant fine to medium
angular to sub-rounded sand.
Limestone & quartz sand are
both present. Minor ~~fine~~
fine to coarse gravel & one
chunk of concrete (cobble-
size). Interval composition
includes: fine grained silt &
clay @ ~50%, sand ~~& gravel~~
@ ~20%, gravel < 5%
soft asphalt masses @ ~40%

TR-23 3-4' Similar to above interval w/ increasing fine to coarse limestone gravel. Asphalt masses appear to have more abundant organic matter (straw-like) @ this depth.

0925 - USA please material back to origin.

TR-23 PID Readings

	PPM
0-1	1.2
1-2	1.4
2-3	2.1
3-4	2.6

0930 - USA Begin @ TR-25
Est. pile height @ 5' AGS
So final sample @ 2-3'

TR-25 0-1 Dark brown silty clay w/ abundant organics including roots & grass. Abundant asphalt massive material black. Asphalt material comprises 70% - 80% of interval w/ fines @ 20-30%. Minor fine to coarse ~~gravel, lim~~ limestone gravel. < 5%. Asphalt mass range from fairly soft & pliable to compact & the compact asphalt masses fracture easily when stricke w hammer. Concoidal fracture w/ asphalt mass matrix of 95% black asphalt material & < 5% organics & fine to med, angular sand. Silty clay noted above is ~~[illegible]~~ dry & non plastic. Small piece (1/2" x 3" x 1/8") "window" glass.

TR-25 1-2' Brown (7.5YR 4/3) Silty clay w/ trace fine

To course rounded to angular sand. Slightly moist, slightly cohesive, non-plastic, minor organics & moderate asphaltic masses. Fine to coarse grained gravel also present (limestone) reacts w/ HCL. Slight odor of hydrocarbons.
Interval comprised of approx. 80-90% fines
5-10% asphalt masses
<5% sand
<5% gravel
Asphalt masses are light w/ low S.G. & concoidal fracture when struck w/ hammer. Asphalt mass matrix comprised of 90-95% asphalt w/ trace organics & sand.

TR-25 - 2-3' Black (7.5YR 2.5/1) silty clay, slightly moist, pungent odor, some clay is stiff some is soft, non plastic, abundant organics & black asphalt material. Interval comprised of ≈ 70-80% fine grained silt & clay 20-30% asphalt masses, <5% sand & <5% gravel. Asphalt mass comprised of lightweight black massive material w/ minor limestone fine-coarse gravel, and moderate abundance of root & other organic matters including tree-roots which are ≈ 1/4" diameter. Strong odor
Same w/ concoidal fracture some pegable.
1000 - Sample for Lab @ TR-25 2-3'

1020 - USA place material

back into pile of origin.

PID Readings @ TR-25

	PPM
0-1	2.5
1-2	2.7
2-3	13.8

1025- USA decon bucket then move onto TR-28. USA decons between each ~~pile~~ pile w/ scoper + bunch.

1040- USA begins @ TR-28 est. pile height @ 5' AGS. A.G.S. = Above Ground Surface

1048- USA delivers TW 28 0-1'

TR-28 0-1' Brown (7.5YR 4/3) clayey silt, w/ abundant fine to coarse, ~~sub-rounded~~ ~~to~~ angular to sub-rounded sand and fine to medium sub rounded to angular gravel.

Abundant organic material including grass + roots. Abundant asphalt massive material. ~~Top~~ Interval comprised of:

~~Fine silt + sand and clay~~

Fine grained (silt + clay) ~70-80%
Fine to coarse sand ~10-15%
Asphalt masses ~10-15%
Gravel - fine <5%

Clayey sand is dry w/ no odor noted, not plastic, moderately cohesive. One piece of metal wire ~1/4" X 18" noted.

Asphalt masses are range from some w/ almost entirely asphalt material w/ + rare organic + fine to med, angular to sub rounded sand, to some masses 50% small limestone gravel + 50% asphalt. Former is hard fracture w/ several blows from hammer + latter breaks early when struck.

TR-28 1-2' Similar to above w/ increasing asphalt masses @ 40-50% of interval. Also increasing fine to course gravel. Metal wire - 1/8" x 8" noted. Asphalt masses are more glass-like w/ concoidal fracture when struck. These asphalt masses are 90-100% black asphalt & very light weight. When struck w/ hammer they shatter & give off hydrocarbon odor.

TR-28 2-3' Brown dry clayey silt, 7.5YR 4/3 w/ abundant fine - no large, angular to sub rounded sand & gravel. Abundant plant matter incl. roots. Abundant asphalt material, most of which is broken up. Some of the asphalt is plyable

and some is hard & fractured w/ struck w/ hammer. One large asphalt mass - 1' x 2' which is fairly hard & breaks when struck several x w/ hammer. This mass comprised of 70-80% asphalt material w/ 20-30% fine to course gravel & minor sand & argillaceous < 5%.
Clayey silt noted above is dry & non plastic.

1100 - Sample collected for lab @ TR-28 - 2-3'.

1115 USA place material back into piles of origin.

PID's @ TW-28

	PPM
0-1	0.8
1-2	422
2-3	2.9

1120 - Set up @ TR-27 est height @ 6.0' AGS.

1130 - USA deliver TR-27 0-1'

TR-27 0-1' Brown 7.5YR 4/3
clayey silt w/ abundant fine to coarse, angular to sub rounded sand and fine to coarse limestone gravel. Moderate amount of organic material including roots & grass. Abundant asphalt & asphalt masses. ~~Ato~~ Interval comprised of
50-60% fines
5-10% fine-coarse gravel
5-10% sand
40-50% asphalt mass.
Clayey silt is dry, non plastic & non cohesive.
Minor debris present includ. piece of 1" x 6" long firhouse gasket, plywood material & metal "washer 3/4" x 4.25" diameter

TR-27 1-2' Similar to above interval w/ minor increase in moisture & less organic matter. Debris including metal strap 1/2" x 12". Asphalt masses for both intervals composed of ~~90~~ 80-90% black asphalt material & minor fine to med gravel. & minor organic material. Breaks after several strikes.

TR-27 - 2-3'
- Similar to above w/ very fine grained black sand noted within some of the asphalt masses.

TR-27 3-4' Dark Brown (7.5YR 3/2) Silt w/ abundant sand & gravel. Dry, non cohesive, non plastic, slight hydrocarbon odor. Minor small limestone cobbles are also present.

Abundant amount of strong brown (7.5YR 4/6) plastic material present. Asphalt comprise ≈ 30-40% of interval & most is soft & pliable. Asphalt masses contain abundant fibrous material & have slight hydrocarbon odor when broken apart by hand.

1140 - Collect lab sample TR-27 3-4

1200 - USA place material back to pile of origin.

TR-27 PID Readings

	PPM
0-1	0.6
1-2	0.7
2-3	0.6
3-4	20.4

1215 - Lunch off site.

1300 - Return from lunch go to STF to look @ TW-95.

1550 - AHA area TW-29 pile height ~~10'~~ 9.0' DEM AGS.

TW-29 0-1' Brown (7.5YR 5/3) silty clay w/ minor fine to coarse ~~medium~~ grained, subrounded sand and fine to coarse gravel. Minor limestone cobbles. Dry, soft, slightly cohesive, non plastic, abundant organic including grass & roots. Asphalt masses are present @ about 10-15% of interval. Asphalt mass breaks easily w/ one blow from hammer. Composed of 90-95% asphalt material w/ minor < 5% fine - med quartz sand.

2-3' Same as previous interval w/ less organic

3-4' - Similar to above interval w/ more abundant asphalt masses. Asphalt mass - 40-50% of interval

Asphalt mass breaks easily w/ hammer strike. Vesicular w/ 90-95% asphalt material & minor <5% limestone fine to coarse gravel & ~~minor~~ moderate 10-20% organic straw-like material. Also one plastic strap noted.

4-5 Similar to above interval w/ more abundant asphalt massive material @ 50-60% of interval

1400 - Lab sample collected TR-29 4-5'

1405 - USA place material back to origin.

1415 - USA Decon

TR-29 PID Readings

	PPM		PPM
0-1	1.3	4-5	0.5
1-2	0.8		
2-3	3.2		
3-4	0.7		

1435 - USA decon bucket then setup @ TR-30

1450 - USA deliver TR-30 0-1

TR-30 0-1' Dark brown (7.5 YR 3/2) clayey silt, dry, non cohesive non plastic w/ abundant fine to coarse angular sand (limestone). Abundant asphalt material when present.

Fines = 70-80%
Sand = <5%
Gravel <5%
Asphalt = 20-30%

Minor pieces of tin. Minor limestone cobbles. Minor organics including grass & root material.

1-2' - Similar to above w/ slight increase in asphalt material. Asphalt masses are somewhat soft breaking easily when struck w/

hammer. Asphalt masses appear to be mixture of dark brown soil & black asphalt w/ limestone sand & gravel throughout. Tyrek silt also noted

2-3' Similar to above w/ slight increase in moisture. Small piece of grind-stone like material + 1/2" x 1/2". No odor.

1450 - Lab sample collected @ TR-30 - 2-3'

PID readings @ TR-30

	PPM
0-1	0.1
1-2	1.4
2-3	1.8

1500 - USA place material back to pile of origin. Their decon before moving onto TR-31.

1515 - USA deliver TR-31 0-1'.

TR-31 0-1' - dark brown 7.5YR 3/2 clayey silt. w/ abundant organic material including grass & roots. Slightly moist, slightly cohesive, non-plastic. One red brick & as well as plastic & other debris. One "shim" 1.5" L x 1.75" diameter x 1/4" thick. Several of these metallic "shims" are piled on ground to E. of TR-31 location. No odor. Moderate amount of asphalt material @ 30-40% of interval. Asph. material is fairly hard w/ fine to med grained sand in matrix. One piece of pipe 3/4" x 12" & minor plywood also present.

TR-31

1-2' - Similar to above w/ less moisture (dry). Metal straps & metal ring 6" diameter x 3/8" x wire also present. Minor asphalt. Asphalt noted @ 40-50% of interval.

2-3' - Black (7.5YR 2.5/1) silty clay w/ abundant fine to coarse sand & gravel angular to sub rounded. Asphalt noted more abundant @ 60-70% of interval. Asphalt is more pervade. Debris also present including plastic. Minor organics.

1530: Collect lab sample @ TR-31 2-3'

1535 - USA move westward back to origin.

1538: PID Readings @ TW-31

	PPM
0-1	0.4
1-2	0.6
2-3	1.1

2/6/04

~~tot~~ El Dorado 12/10/08

1015 - Doug Mills + Brand arrive @ site

1030 - H&S tailgate mat.

1045 - Set up @ AHA + R-32

1046 - USA deliver AHA TR-32 0-1'

1050 - Calibrate YID W/ isobutylene

1055 - Begin logging. Est pile height of 9' ABS

TR-32 0-1' Brown (7.5YR 4/2) Silty clay w/ abundant roots + grass. Dry, slightly coherent, non-plastic, no odor. Minor fine to coarse angular sand, Minor asphalt material @ <10% of interval

TR-32 1-2' Similar to above w/ increasing asphalt + asphalt massive material @ 10-15% of interval, Less abundant organics

TR-32 2-3 Similar to above w/ increase in moisture, slightly moist and increasing asphalt material @ 30-40% of interval

2-3 Continued
Asphalt masses are soft, pliable ~~to~~ w/ hydrocarbon odor when broken. Can tear w/ hand. Also contain moderate amount of limestone ~~sno~~ fine to coarse gravel & moderate organics.

3-4 Similar to above

4-5 - Dark Brown (7.5YR 3/2) silty clay, slightly moist, slightly cohesive, non plastic. No odor. Abundant limestone sand & gravel fine to coarse, angular, minor organics. Abundant asphalt massive materials comprising 40-50% of interval. Asphalt masses are pliable & break easily at by hand.

1049 - Collect TR-32 (4-5') also collected MS/MSD's & Duplicate @ this interval labeled TR-75 collected @ same time as others but noted ~~NA~~ 11:20 ~~on sample time~~ for DUPLICATE only. MS/MSD have same time as sample.

TR-32 PID Readings

	PPM
0-1	0.0
1-2	0.0
2-3	0.0
3-4	0.0
4-5	0.2

1115 - USA Place material back to pile of origin.

1120 - USA onto TR-33. Then delineate TR-33 0-1'. Est. pile height @ 4' ABS.

TR-33 0-1' Dark brown (7.5YR 3/2) silty clay, slightly cohesive, slightly moist, non plastic, no odor. Abundant plant matter incl grass & roots. Two earth worms present. Minor sand & gravel. Fine gravel is angular to sub rounded & limestone. Moderate amount of asphalt material @ <10% of interval.

1-2' - Similar to above w/ decrease in organic material and increase in asphalt material. Asphalt masses comprise ≈ 30-40% of interval & are massive, break w/ concoidal fracture when struck 2X w/ hammer. No odor. ~~Concrete~~ Asphalt masses are 90% asphalt material w/ minor limestone gravel (fine). One chunk plywood present 3" x 6" x 3/4".

3-4' Similar to above w/ increase in asphalt massive material @ ~ 40-50% of interval. Asphalt masses vary from pliable to hard w/ concoidal fracture. Some limey material present in large masses of asphalt. The limey material is very pale brown (10YR 8/3) w/ dark brown fine to medium sub rounded sand @ 50%. Looks like iron nodules.

1150- Collect TR-33 2-3'. Same suite @ all TPH-DRO, TPH-GRO, Skinner Metals, SVOC's BTEX.

1155- USA place material back to origin.

1200

TR-33 PID Readings

	PPM
0-1	0.0
1-2	0.0
2-3	0.0

1205 - USA place material back into pile.
1210 - Lunch off site.
1310 - Return to AHA
USA decon bucket.
then set up @ TR-34

1315 - USA delivers TR-34 0-11
Est. Pile height @ TR-34 5' AGS

TR-34 0-1' - Dark Brown (7.5YR 3/2) Silty clay, slightly moist, slightly coherent, non plastic, moderate root fragments, minor <5% sand & gravel (limestone) and minor <10% asphalt material. No odor

1-2 - Similar to above w/ decreasing organics & increase in asphaltic material @ 20-30% of interval. Asphaltic mass varies from soft & pliable to hard w/ concoidal fracture when struck w/ hammer. Asphalt mass has minor organics, fine to med grained limestone gravel & minor <5% sand.

2-3' Similar to above w/ increase in asphalt material @ 40-50% of interval.

1325 - Collect lab sample TR-34 2-3'

1335 - USA place material back to origin.

1345 - PIDs @ TR-34

	PPM
0-1'	1.2
1-2	2.4
2-3	1.8

1350 - USA proceed to TR-35 pile height of 5.0' AGS

TR-35 0-1' Brown (7.5YR 4/2) silty clay, slightly cohesive, slightly moist, non plastic, no odor. Abundant fine to course, angular to sub rounded sand. Abundant fine to course limestone gravel. Moderate amount of organics matter including root fragments & grass. Fines silt & clay = 70-80%. Sand - 10-15%. Gravel - <10%. Asphalt material 10-25%. Asphalt material composed of 80%. black asphalt mixed w/ fine to course limestone gravel & minor fine to course sand.

Brown sandy clay 1-2 - ~~Similar to above~~ DEM w/ increasing asphalt @ 40-50%. Minor wood chunks noted.

1-2 continued. Fine to course grained sand, Rounded to angular also more abundant this interval. Minor organics. No odor. Slightly moist.

2-3' Similar to above w/ increase of asphalt material @ 70-80%. Asphalt mixed fairly hard breaking after struck 2x w/ hammer. Asphalt composed of ~95% black angular & fine to course sand, ~~not~~ angular to sub Rounded sand.

1550 - Lab samples collected @ TR-35 2-3

1400 - USA place material back to origin

1405 - PID @ TR-35

	PPM
0-1'	2.1
1-2	1.2
2-3	1.7

1425 - USA pace material back into pile of origin.

1430 - USA delivers TR-36-0-1'

TR36-0-1' Brown, (7.5YR 4/3) clayey silt, dry, non calcareous, non plastic, no odor. Abundant fine to coarse, angular to sub-rounded sand. Abundant fine to coarse limestone gravel w/ minor amount of limestone cobbles. Occ red brick also present. Black asphaltic concrete material abundant @ 20-30%. Minor asphaltic material

are hand breaking only after striking several x w/ hammer. Asphaltic mass made up of 95% black asphaltic material & < 5% limestone gravel (base).

1-2' Similar to above w/ increase in limestone cobbles & small boulder (8" x 12"). Boulder is vesicular limestone w/ openings 1-2" diameter similar to surface limestone in area. One respiratory, pink, brick present.

2-3' Similar to above w/ more rubble including red brick pieces & respiratory brick pieces, also minor plastic (both hard & soft)

3-4 Black (7.5 YR 2.5/1)
silty gravel, w/ abundant
fine to course sand.
Gravel is fine grained
w/ most ≈ .75" diameter.
sub angular to sub rounded
When broken open, gravel
is pale yellow (2.5Y 7/3)
in color. Dry, No odor
Asphalt masses are gravely.

Gravel - 50-60%
Asphalt 40-50%
Fine - 10-20%

1450 Lab sample collected
@ TR-36-3-4'

1500 - TR-36 PID Readings

	PPM
0-1'	1.3
1-2'	0.6
2-3'	0.8
3-4'	2.6

1505 - USA place material
back into pile of origin

1510 - MWH clean up AHA
sample area.

1530 - To admin building
to pack samples.

1615 - To STP to check on
drilling. Assist w/ mud
trucks to get to
location TW-84.

1700 - Leave site

12/10/08