APPENDIX A

FIELD NOTES
(COMPACT DISK)

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~~[illegible]~~

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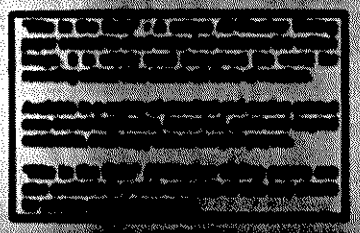

"Rite in the Rain"®

ALL-WEATHER
LEVEL
N[illegible] 311

YERINGTON
PROJECT AREA
SONIC [illegible] LOG
BO[illegible]

WDC 1
GROUNDW[illegible]

10/22/04

Begin Sonic core drilling on vertical groundwater locations
Drillers: Jesse, Steve
Brent not on site, getting 40 hr training

PA-GW7

- Begin drilling, 7:30 am
- Encounter moist soil at 29' but not saturated. Tried bailer to collect sample but no water. Kept drilling
- Harder rock at 38', slow drilling

10/25/04

6:15 AM Penny Bassett & Tom Cox arrive on site. Already on site are Raymond Lawster, Mike Weeks the backhoe operator, and Jesse, Steve, Brent from WDC.

9:00 AM safety meeting

9:10 Started drilling

16:45 Stopped drilling for the day.

10/21/04

8:00 Penny Bassett and Tina Cox arrive on site. Already on site are Raymond Lawsler, Mike Weeks, Jesse, Brent, & Steve (WDC). WDC started clearing hole.

9:30 Drillers are advancing hole. DTW = 123 ft.

12:30 Depth at 127 ft. Soil is very moist. Sent bailer down to collect water.

13:00 took Samples GW-7

14:00 Started to put bentonite in hole

uR area = 15 uR/hr
uR Cores = 15 uR/hr

11/1/04

7:30 Tina Cox arrived on site. Already on site are Raymond Lawsler, Mike Weeks (backhoe), Jesse & Brent (WDC). 8:00 Penny Bassett arrived.

17:00 left for the day.

11/2/04

7:40 Penny Bassett & Tina Cox arrive on site. Already on site are Raymond Lawsler, Mike Weeks, Jesse, Brent, & Steve (WDC)
Water around 127' drilled to 134'
9:50 Collected Sample. GW-8
pH = 7.24 uR area = 16uR/hr
Temp = 65.5°F uR Cores = 17uR/hr
Cond = 430 uS/cm
13:00 Started drilling GW-4
17:00 left for the day

11/3/04

8:00 Penny Bassett and Tina Cox arrive on site. Already on site are Raymond Lauster, Mike Weeks (backhoe), Jesse, Brent, Steve (WDC).

17:00 left for the day.

Water was added to advance the casing from 20-80 feet.

uR area = 18 uR/hr
uR Cores = 16 uR/hr.

11/4/04

8:00 Tina Cox & Penny Bassett arrive on site. Already on site is Raymond Lauster, Mike Weeks (backhoe), Steve, Jesse Brent (WDC).
8:15 Dan Ferriter and Mark Brockus (ARCO) arrive on site.

Drilled to 154 feet. Hole is collapsing to 124 feet. Using hydropunch to retrieve sample.

9:30 Brian Bass arrives on site.

DT = 0.014 mg/m^3
run time 1hr. 20 min.

12:15 Collected sample from GW-4. Water at 125'.
pH = 7.80 Temp = 65.8 Cond=

15:00 left for the day.

11/5/04

8:15 Penny Bassett and Tina Cox arrive on site. Already on site are Raymond Lawson, Mike Weeks, Jesse, Steve and Brent (NDC).

GW-10 started.

Jesse reported lots of large cobbles in the area. Added water from 20-40 feet for casing advancement. Seal for drill head was replaced yesterday afternoon.

2:30 Jesse & Steve leave the site. Total depth for GW-10 thus far is 86 feet.

2:00 left for the day.

11/8/04

8:15 Tina Cox & Penny Bassett arrive. Already on site are Raymond Lawson, Mike Weeks, Steve, Jesse, & Brent (NDC).

PA-GW10
Collected Sample: 12:30
Total Depth: 135'
Depth to water: 120'
Field pH: 7.58
" Conductivity: 1200
Purged? No Volume? —
Sampler: 4" Bailer
Filtered: No, Metals kept unpreserved *
DT: 0.010 mg/m³ .27 mcn.
uR area: 18 uR/hr
uR Cores: 17 uR/hr

* to be filtered tomorrow when pump arrives.

16:00 started PA-GW11

11/9/04

8:15 Penny Bassett & Tina Cox arrive on ~~site~~.

Continued drilling PA-GW11 Drilled from 40 feet to approximately 100 feet. Core barrel broke in the morning. Barrell cracked. Replaced immediately.

17:00 left for the day.

11/10/04

8:15 Penny Bassett & Tina Cox arrive Margaret & Doug (Tetratech) are visiting.

PA-GW11
Sample time: 16:30
Stand by time: 8 hrs?
Total Depth:
DTW: 115'
pH: * 7.49
Temp: * NA
Cond: * 1298
purged? NO volume: →
Sampler: 4" Bailer, & 3/4" Bailer
Filtered: 500ml poly / Metals Dissolved
DT: 0.04 20 min.
uR area: 10 uR/hr
uR Cores: 16 uR/hr

Drilled to 120'. Water was not being recovered in bailer. Used hydropunch to get sample. Hydropunch was used, but bailer kept coming up

* measured 11/12/04. Meter needed battery.

11/10/04

without water. Re drilled hole to 135' then Sampled with a 4" Bailer Started sampling with hydropunch at 13:00. Finished Sampling at 16:30.

11/11/04

8:00 Penny Bassett & Tina Cox arrive on site.

WDC started PA-GW 17

16:00 left for the day

11/12/04

Continued drilling PA-GW17.
Sample time: 5:00 PM
pH = 6.60
Temp = 72.1
Cond = 542 uS/cm
Depth = 130 ft.
DTW = 118 ft.
used bailer 3/4" and hydropunch to collect sample.
uRarea = 17 uR/hr
uRcores = 18 uR/hr

11/15/04

Started drilling PA-GW24
total depth 160 feet.

11/16/04

Continued drilling PA-GW24

PA-GW24
Sample time: 16:30
Depth of boring: 130 feet
Depth to water: 126 feet
pH:
Temp:
Cond:
purged? No volume
Samply equip.: 4" bailer
Filtered: 500ml poly for dissolved metals
uRaea = 18 uR/hr
uRcore = 18 uR/hr.

11/17/04

Started drilling PA-GW16

11/18/04

Continued drilling PA-GW16

PA-GW16
Sample time: 10:50
Total Depth: 144 ft
Hole collapsed to 138 ft
Water Depth = 135 ft.
pH: 6.59
Temp: 69.3 °F
Cond: 232 us/cm
purged? no
Sampled with 4" bailer
filtered: 500 ml poly
took duplicate sample.
Labeled duplicate as
PA-GW16b and
original as PA-GW16a

Started drilling PA-GW15
uRaea = 21 uR/hr uRcore = 20 uR/hr

11-19-04

Continued drilling PA-GW15

PA-GW15
Sample time: 16:00
Depth = 138
Depth to water = 135.5
purged? no
Sampled by 4" Bailer
filtered 500ml poly
for dissolved metals
uRarea = 20 uR/hr
uRcore = 18 uR/hr.

11-20-04

Started drilling PA-GW5

11-21-04

PA-GW5
Sample time: 12:15
Depth = 138 ft.
Water = 133 ft
pH: 7.40
Temp: 71.4 °F
Cond: 1154
filtered:
purged: no
Sampled by 4" Bailer.
uRarea = 18 uR/hr
uRcore = 16 uR/hr

11/22/04

PA-GW22
Sample time: 15:15
Depth: 109'
Collapsed to 99'
DTW: 96' uRaw = 15 uR/h
pH 6.92 uRcor = 17 uR/h
EC: 1995
Used 4" Bailer to Sample.
No purging.
filtered: 500ml poly (dissolved metals)

Trip blank sent in cooler and labeled PA-GW22g.

11/23/04

Started drilling PA-GW21

11/24/04

PA-GW21
Sample time: 9:00
11:00 finish
Depth = 97'
DTW = 81'
Used hydropunch & 3/4" Bailer
No purging.
filtered 500ml poly & 1/2 gal plastic

pH: 6.57
Cond: 2630

Trip blank in cooler labeled PA-GW21g.

uRaw = 15 uR/hr
uRcor = 17 uR/hr.

11/29/04

Moved equipment to the next borehole location. Snow caused delay in drilling.

11/30/04

Started drilling PA-GW20

12/1/04

PA-GW20
Sample time: 12:20
Total Depth: 110 ft
DTW: 98 ft.
used hydropunch to sample. Bladder pump & 3/4" bailer were used to collect sample. filtered: 500ml poly, 2 1/2 gal MS/MSD collected for 1L Amber (NET) & 1/2 gal (Energy)
pH: 6.14
Cond: 3540 uS/cm
uR area: 16 uR/hr
uR core: 18 uR/hr.
started PA-GW23

12/2/04

Continued drilling PA-GW23. Drill rod got stuck in ground at about 60 feet.

12/3/04

Continued PA-GW23

12/4/04

PA-GW23
Total Depth = 119 ft Sample time: 9:00
DTW = 104 ft.
used hydropunch & stainless steel bailer to sample.
pH: 5.03
Cond: 3580 uS/cm
uR area: 16 uR/hr
uR core: 17 uR/hr.
Field blank collected at 8:00 and labeled PA-GW23f.
Equipment blank collected and labeled PA-GW23e (16:00). Equipment blank is from stainless steel bailer.

~~12/5/04~~ 12/5/04

Started drilling PA-GW19.
Drilled to 99 feet.

12/6/04

PA-GW19
Sample time: 9:45
finished sample by 10:00.
Total Depth = 117 ft.
DTW = 112 ft.
used 4" Bailer to sample.
pH : 6.41
Cond : 2900 uS/cm
uR area: 28 uR/hr
uR core: 28 uR/hr
Trip blank sent; labeled PA-GW19g

Started drilling PA-GW25
ended day at 40 feet.

12/7/04

PA-GW25
Sample time: 13:30
end time: 16:00
tetratech end: 17:30
Depth to water = 96 ft.
Drilled to 116 ft.
Drove hydropunch to 119 ft.
Sampled using both stainless steel & 3/4" disposable bailers.
pH : 6.86
Cond: 2190 uS/cm
filtered: 500 ml poly & 1/2 gal.
uR area = 20 uR/hr core = 19 uR/hr.

12/8/04

Collected duon water.
Sample & labeled it as PA-DW1 (10:00)

12/13/04

Started drilling PA-GW26

12/14/04

PA-GW26
Sample time: 13:20
duration: 1 hr 15 min.
Borehole depth: 115 ft.
Depth to water: 105 ft.
Method: borehole Collapsed so hydropunch to 119 ft. & used S.S. bailer.
pH: 7.06
Cond: 1618 uS/cm
uR area: 15 uR/hr
uR core: 17 uR/hr
filtered: 500 ml metals & ½ gal rad.

Also collected duplicate except for 2 (1L) Ambers for Sequoia.
Dup labeled PA-GW26b (14:00)

12/15/04

PA-GW18
uR area = 21 uR/hr
uR core = 78 uR/hr
[redacted]
Drill rod kept breaking from hard ground.

12/16/04

Put casing down to 130 ft and installed a temporary well. (PA-GW18)

12/17/04

Started drilling PA-GW12
drilled to about 40 ft.

12/18/04

PA-GW12
Sample time: 14:15
duration: 1 hour
depth: bored to 99ft.
hydropunched to 109ft.
DTW: 98.5ft.
pH: 7.16
Cond: 1620 uS/cm
used st. st. bailer to sample.
uR area: 17
uR core: 17

12/19/04

Drill rig has been taken in for repair & a large oil leak.

1/3/05

Set up on PA-GW27

1/4/05

PA-GW27
Sample time: 11:15
duration: ~1 hr.
Total Depth: 109ft
DTW: 106ft.
used 4" Bailer to sample
disposable
filtered: 500ml metals / 1/2gal Rad.
uR area: 16
uR core: 17
pH: 7.56
EC [redacted]: 1472 uS/cm

Started PA-GW16
Drilled to ~90ft.