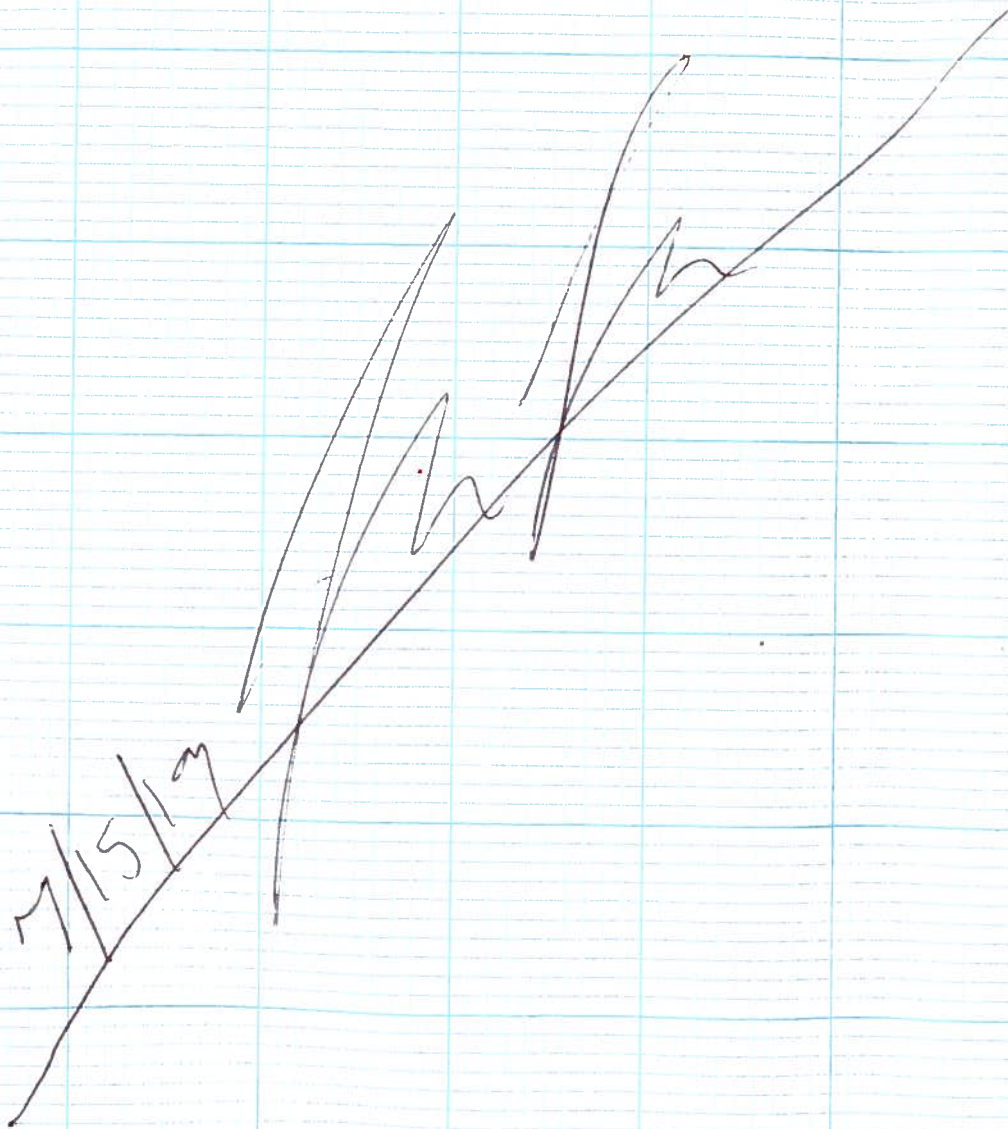


(126)

RHMW2254-01

7/15/17

- 1000 head up to RHMW15 to drop off smartroll & turbidimeter w/ Caitlin Ellis.
- 1030 dropped off equipment, head up to IDW staging area and add ~2.5 gal to drum DM094
- 1050 depart Red Hill, proceed to warehouse.
- 1110 @ warehouse, end field day



7/29/2019

RHMW14 LTM GW Sampling

(127)

- 0530 BM & EB at warehouse to calibrate equipment (see cal logs for details). TV at warehouse loading equipment
- 0600 BL arrives at warehouse to help load.
- 0700 TV conduct H&S tailgate. (see sign-in sheet for details). (late entry)
- 0630 Depart warehouse for site.
- 0650 Arrive at HCF. Mobilize to RHMW14 & Setup.
- Purpose: Complete pressure profile at RHMW14. Sample RHMW14 zone #4
- Personnel: AECOM - BM, TV, EB, BL
- Weather: 82°, partly cloudy, 90% humidity
- 0815 Begin pressure profile with 500 PSI sampling probe. - SNS285
MAG-I 2537 - Open well head. PID = 00
- 0845 ~~ERM 881~~ ~~ERM 881~~ ~~Z4~~ → Z4 → ZB. (was originally Z3)
- 0959 send sample canisters down for first aliquot for physical parameters
sample canisters have been purged w/ Nitrogen. Smartroll TPD too hot to collect parameters ~~immediately~~
ERM 880 begin sampling. Collect primary ~~parameters~~ Z4. Setup for Z4. collect NAP (250 mL polys + H₂SO₄ pres. VOA). Start collecting geochemistry, PATE.
- 1235 send sample canisters down for second aliquot for physical parameters. Sample canisters have been purged w/ Nitrogen.
- 1301 continue sampling ERM 880, PATE, TAP-D, TPH-o, H₂O₂, TPH-g, VOCs, and remaining analytes.
- 1344 TV says "It is a safety concern to not have a portable onsite"
- 1345 Note - takes about 5 minutes to fill sample canisters during each run.
- 1548 finish sampling ERM 880
- 1556 send sample canisters down for third and final aliquot for physical parameters. Sample canisters have been purged with Nitrogen
- 1627 collect final parameter readings. Complete sampling RHMW14 Z4. Decon sample canisters and connectors. Break down site.
- 1659 Check out/sign out at HCF gate. Head to warehouse, TV to IDW.
- 1715 Arrive at warehouse. Unload equipment.
- 1745 End of field day.

Minion

7/29/17

- 0530 BM + ER arrive at warehouse to calibrate equipment. TV already at warehouse loading trucks. (see cal logs for details).
- 0600 BL arrives on site to help loads
- 0626 Depart warehouse for site.
- 0647 Arrive at HCF. Check in at gate. Mobilize to RHMW14 and setup for sampling.

Purpose: Sample RHMW14 Zone 3 (primary, MS/MSO, duplicate)

Personnel: AECOM - BM, BL, TV, ER

Weather: 55°, sunny, 85% humidity, windy/gusty

MAG # 2537 SN 2585, ~~SN 84~~

- 0715 TV conducts HHS tailgate (see log for details).
- 0735 Open well head. PB=0.0 send sample canisters down for first aliquot. Canisters have been purged w/ nitrogen.
- 0745 Collected ERH 879 TB (previously TB for RHMW14 Zone 3)
- 0815 Begin sampling ERH882 (primary + MS/MSO) + ERH 883
Takes about 3 minutes to fill sample canisters (duplicate) during each run.
- 0900 BM call MP to inform MP that we forgot to filter 2 H₂SO₄ VOA's from RHMW14 Zone 4 (ERH 881). MP informs BM that the 2 H₂SO₄ VOA's would need to be collected with a different ERH#.
- 1128 Send sample canisters down for ~~first~~ ^(BM) second aliquots (canisters have been purged with nitrogen).
- 1154 Continue sampling ERH882 + ERH883
- 1250 BM calls MP to inform her that the sample rate (25-30 in/1L) might not allow for completing the entire sample. MP advises to prioritize poly's and VOA's and then to fill as many Ambers as possible.
- 1446 Arm snapped off in well. Replaced arm (did not retrieve broken arm). Continue sampling.
- 1609 Collect last sample. Decide to send last run down for parameters bc generator almost out of gas.
- 1647 Send third sample canister down for aliquot. Canisters have been purged with nitrogen.
TV says "it's a safety hazard to not have a porta potty onsite."

- 1652 TV to IDW staging area with water.
- The remaining samples were not collected / bottle counts:
- 1 - 1L Amber ERH883 - PAHs
- 1 - 800 mL Amber ERH882 MS/MSO - TPH L/G
- 1 - 500 mL Amber ERH882 - SVOCs
- 3 - 500 mL Ambers ERH882 MS/MSO - SVOCs
- 1 - 500 mL Ambers ERH883 - SVOCs
- 1722 Collect last aliquot + 30 Demab sites
- 1745 Depart site. Sign out at HCF.
- 1808 Arrive at warehouse. unload equipment. ~~note~~ ^(BM)
- 1845 Depart warehouse. ~~end~~ End of field day.

3/30/19

[Handwritten signature]

(130)

RHMW14 LTM sampling 7/31/19

0550 BM at warehouse. MG, SM, TV already at warehouse, loading & calibrating (see cal log for details).

0635 TV departs warehouse for Airgas.

~~Decon sample canisters and connectors. (SM)~~

0630 Depart warehouse for site. TV calls fm to say that he has purchased Nitrogen.

0700 Arrive at HCF. Sign in at gate. Mobilize to RHMW14 and setup.

Purpose: Collect 2 filtered H_2SO_4 VOAs from zone 4 and sample zone 5 (of RHMW14).

Personnel: BM, GM, TV, MG

Weather: 85° partly cloudy 90% humidity, ~~PM~~ intermittent showers

0715 TV conducts tailgate. see log for details

0730 Decon sample canisters from 7/30/19.

0811 Open well lead. PID=0.0. send sample canisters down for

aliquot in zone 4. canisters have been purged with Nitrogen.

0834 send down canisters to sample zone 4.

0845 Collect ERH890 zone 4 H_2SO_4 filtered VOAs

0927 Decon sample canisters.

0935 send sample canisters down for first aliquot in zone 5. canisters have been purged with nitrogen.

0952 send down canisters to sample zones. Takes about 4 ~~min~~ minutes to fill canisters.

0940 collect ERH871 (VB) (lake entry)

1010 collect ERH872 (primary)

1124 send sample canisters down for second aliquot in zone 5. canisters have been purged with Nitrogen.

1155 send down canisters to continue sampling zone 5.

*Change ERH #s. ERH871 (originally ERH871) + ERH872 (originally ERH871)

1305 send down final sample canisters.

1332 send canisters down for third aliquot in zone 5. canisters have been purged with Nitrogen.

RHMW14 LTM sampling

7/31/19

(130)

1353 collect last aliquot

1355 Decon site. Decon sample canisters GM to IDW.

1425 Depart site. Sign off at HCF

1450 Arrive at warehouse. Unload equipment and prep for tomorrow.

1540 Depart warehouse. End of field log

7/31/19
Primary

(132)

RHMW11 LGM Sampling 8/11/19

0550 BM arrives at warehouse, TV loading, GM SM calibrating (see log for details).

0630 Depart warehouse for site.

0645 Arrive at HCF. Mobilize & RHMW11 setup.

0715 TV conducts H&S Tailgate. See log for details.

0728 ~~Decom~~ sample canisters. Purpose: Sample RHMW11 zones and conduct a RHMW11 pressure profile. MAC1-5243 Sampling Probe-5285

Personnel: AECOM - BM, GM, TV, SM

Weather: 85°, sunny, very windy, intermittent showers

0800 ~~41~~ Open well head PID=0.0, send first set of canisters down to collect aliquots. Canisters have been purged with Nitrogen.

0845 collect ERH877 (7B)

0900 send sample canisters down to begin collecting sample.

0920 collect ERH878 (N)

1018 send sample canisters down for second aliquot. Canisters have been purged with Nitrogen.

1051 send sample canisters down to continue collecting ERH878.

1148 large explosion at the quarry. Can smell explosives and residue at RHMW11

1210 complete sampling ERH878.

1215 send final third sample canisters down to ~~continue~~ collect ~~at~~ aliquots. Canisters purged with Nitrogen.

1228 Begin pressure profile. Decom sample canisters. Decontam. site.

1258 GM forward ~~to~~ and then to warehouse to bring samples in for shipping.

1328 complete pressure profile.

1345 SM + BM to IDW and sign out at HCF

(133)

RHMW11 LGM Sampling 8/11/19

1305 Depart for warehouse.

1430 Arrive at warehouse. Unload vehicles.

1500 Depart warehouse. End of field day.

8/11/19

Thomson

134

RHMW11 UCMS sampling

8/15/19

0530 BM at warehouse to calibrate equipment. Treatware house loading. see cal log for details.

0600 GM + BM at warehouse to help load.

0630 Depart warehouse for site.

0645 Arrive at HCF. Sign in at gate. Mob to RHMW11 to setup.

0700 TV conducts H&S tailgate. See log for details.

Purpose: Sample RHMW11 Z7 collect EB+FB

Weather: 85°, sunny, 90% humidity

Personnel: AECOM - BM, TV, GM, MH

0758 open wellhead. PID=0.0. send first set of 4 canisters down for aliquot. ~~Some~~ canisters have been purged with Nitrogen. MAG-II-5243 Sample probe 5285

0824 send canisters down to begin sampling ERH874(W)

0830 sample ERH873(LTB) for ERH874

0855 sample ERH874(W) - takes about 9-10 minutes to fill sample canisters

0930 sample ERH868 (TB) for EB+FB

0950 collect ERH865 (FB)

1031 send sample canisters down to collect second aliquot. canisters have been purged with Nitrogen.

1054 send sample canisters down to continue sampling ERH874(W).

1258 complete sampling ERH874(W)

1250 send third set of sample canisters down to collect aliquot. canisters have been purged with Nitrogen

1301 DECON canisters.

1320 collect ERH870 (EB)

1330 Demob site.

1415 EH + GM to IDW. TV + BM to RHMW12

1425 Depth to water at RHMW12 = 183.92' below 5" casing with N-1

1435 Depart HCF for warehouse. See Signout.

1500 Arrive at warehouse. Demob. End of field day.

Brian [Signature] 8/15/19

135

RHMW14 Sampling

8/16/19

0530 BM at warehouse with MH, TV loading equipment. BM + MH calibrate equipment. see cal log for details.

0600 GM at warehouse. Continue loading.

0630 Depart warehouse for site.

0645 Arrive at HCF. Sign in at gate. Mob to RHMW14 to setup.

0650 MH conducts H&S tailgate. See log for details.

Purpose: Sample RHMW14 Zone 7.

Weather: 85°F, sunny, 90% humidity.

Personnel: AECOM - BM, GM, TV, MH

0715 open wellhead. PID=0.0. MAG-I = ~~5243~~ sample probe = 5285

0735 send 1st aliquot canisters down. canisters filled with Nitrogen.

0740 ERH875(TB) collected

0800 ERH876(N) → begin sampling. Takes 6-7 minutes to fill canisters.

0917 send 2nd aliquot canisters down. canisters have been purged with Nitrogen.

0931 send canisters down to continue sampling.

1116 send 3rd aliquot canister down. canisters have been purged with Nitrogen.

1130 DECON sample canisters. Setup & install transducers.

1200 Begin installing transducers. See log for details. Install transducers in zones 1 through 7. ~~Zones 2 through 7~~ Shift transducers down from last install (zones 2 through 8).

1340 complete transducer install. Pack up/demob site.

1405 MH + GM to IDW. TV + BM to RHMW12 to measure DTW.

1409 DTW at RHMW12: 183.92' with N-1 meter.

1415 Download data from RHMW12.

1440 Depart HCF signout. Head to warehouse.

1454 Arrive at warehouse in park. end of field day.

[Signature]

136

RHMWII MX string 8/7/19

0540 MH, TV, BL @ warehouse to load equipment
0550 SM @ warehouse.

Objective: Open pumping port zone 5, install
MX probes in zones 5 through 8 (rental
probes + magi)

Personnel: AECOM (Mark Higley, Brandt Landers, Sidney
Maharaj, Tim Vernon)

Weather: ~~Mostly~~ Partly cloudy, 89°, 80% humidity, variable
wind

0615 conduct H&S tailgate and discuss plan.

0630 depart warehouse

0645 @ HCF, sign in and proceed to RHMWII.

0650 @ RHMWII, set up, add 5.5 gallons DI
water to WD center tube to bring WL
inside up to ~195 ~~ft~~ ft bgs so
that P_{inside} @ zone 5 is ~10 psi less
than P_{outside}.

0710 pressurize sample canisters to ~295 psi
(P_{inside} + 250 psi)

0740 close pumping port zone 5 (see pumping port
operation for details)

0750 Pumping port closed.

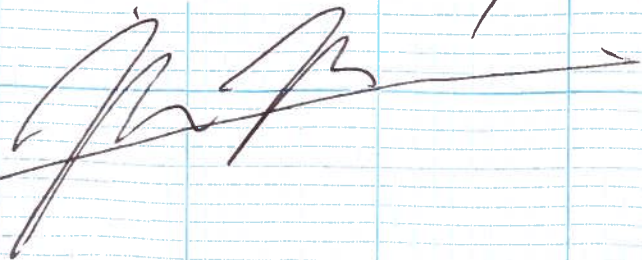
0800 Program rental probes into Mlog.
see mos day intall sheet for details

0830 begin installing MX probes.

0917 probes installed, set to log every
10 minutes, clean up site.

0950 depart HCF

1015 @ warehouse end field day

8/7/19 

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Location Red Hill Bulk Fuel Facility Date 07/22/19

Project / Client LTM Groundwater (July 2019)

- 0600 KL & DH arrive at warehouse. Assist GM, TV, EB, CE in prep.
- 0615 Breather Packs checked & OK.
- #1 - Breather # 17060450
- #5 - Breather # 12071665
- #2 - Breather # 17060444
- 0650 Tailgate safety meeting KL, DH, CE, GM, EB, TV present
- 0700 KL, DH, CE depart for site
- 0715 KL & DH arrive at Adit 3. Begin to load equipment into Adit.
- 0725 M. Muraoka Arrives. (NAVFAC) OEM
- 0730 CE arrives after getting more Alcohol (150).
- 0745 Enter tunnel through Adit 3. Ambient 20.9% O₂, 0- CO, VOCs, H₂S, LEL. Outside ~80°F, 67% humidity
- 0750 DH off site to get fall protection boards and stick. KL & CE complete set up on RHMW2254-01.
- 0825 DH returns with fall protection mid rails and stick. Finish set up at RHMW2254-01.
- Equipment used for Tunnel wells:
- AECOM N-1 Solinst 101 & Heron oil water interface #3222
- Multirae ^{KL 7/22/19} #6228, Smartroll #512753, QED MP50-1446
- MD120099 Q8

Location Red Hill Bulk Fuel Facility Date 07/22/19

Project / Client LTM Groundwater (July 2019) (cont.)

- 0847 Begin Purge at RHMW2254-01
- 0900 Trip Blank taken for RHMW2254-01 [ERH837]
- 0908 Sample started for RHMW2254-01 [ERH838] N/m/s/m
- [ERH839] Dup
- 1121 Finish sample for RHMW2254-01.
- 1140 Exit Adit 3. KL, CE ran samples to Outside team at RHMW07. Drop vehicle at Adit 6. DH remains at Adit 3.
- 1150 KL, CE return to Adit 3. Lunch.
- 1205 Enter tunnel for RHMW05.
- 1248 KL, CE, DH arrive at RHMW05. begin set up.
- 1304 Begin purge of RHMW05.
- 1310 Trip blank taken for RHMW05 [ERH852]
- 1328 Begin sample for RHMW05 [ERH853]
- 1405 Finish sample for RHMW05. Pull pump.
- 1415 Move to RHMW03.
- 1430 Arrive and set up on RHMW03.
- 1506 Begin purge at RHMW03
- 1457 Trip blank taken for RHMW03 [ERH848]
- 1526 Begin sample for RHMW03 [ERH849]
- 1555 end sample for RHMW03.
- 1615 KL, CE, DH exit tunnel from Adit 6.
- 1625 GM & EB take IDW to IDW area.
- 1635 KL, CE, DH depart site for warehouse.
- 1700 KL, CE, DH arrive at warehouse. Unload. ~~Final check~~
- K 07/22/19

Location Red Hill Bulk Fuel Facility Date 07/23/19
 Project / Client LTM Groundwater (July 2019)

- 0600 KL & DH arrive at warehouse, help prep. w/ GM, TV, EB, CE. Same breather packs used #4, #2, #5.
- 0645 Tailgate safety meeting KL, DH, CE, GM, EB, TV present.
- 0700 KL, DH, CE ~~present~~ ^{KL 07/23/19} depart for site.
- 0725 KL arrives on site. Joins DH & CE. Issue with MultiRAE. HER enroute to site with replacement.
- 0815 HER arrives at gate with replacement MultiRAE. KL calibrates new MultiRAE. See cal logs.
- 0825 KL, CE, DH enter tunnel through Adit 6. Outside weather Sunny ~80°F Humidity ~85%. Ambient - O₂-20.9%, β-CO, LEL, PID, H₂S.
- Equipment used for day:
 AECOM N-1 solnist 101, Hevon o/w interface #31242
 MultiRAE mo12098307, smartrod #512733, QED #450-1446
- 0840 KL, DH, CE arrive at RHMW02. begin set up.
- 0915 Trip blank for RHMW02 taken ERH845
- 0922 Start purge for RHMW02
- 0950 well stable. Begin sample for RHMW02 ERH846(N) & ERH847(Dip)
- 1049 End sample for RHMW02. Clean up. Pull pump.

Location Red Hill Bulk Fuel Facility Date 07/23/2019
 Project / Client LTM Groundwater (July 2019)

- 1105 Pull pump from RHMW03.
- 1130 Exit Adit 6 w/ samples from RHMW02 for runner. lunch
- 1150 Enter Adit 6 for RHMW01
- 1219 Arrive at RHMW01. set up on well.
- 1230 Trip blank taken for RHMW01 ERH843
- 1249 Begin purge at RHMW01 (see logs)
- 1515 Begin sample for RHMW01 ERH844
- 1720 End sample for RHMW01. Clean up
- 1745 KL, CE, DH exit tunnel at Adit 6
- 1755 KL, CE, DH depart site.
- 1820 KL, CE, DH arrive at warehouse. unload
- 1830 End field work.

07/23/19

Location Red Hill Bulk Fuel Facility Date 07/24/19

Project / Client LTM Groundwater (July 2019)

0550 KL & DH arrive at warehouse. Join GM, TV, DH, CE, PS in loading equipment. DH & GM calibrating

0645 KL, DH, CE depart for site

0700 KL, DH, CE arrive at site. Move to OWDFMW01

0705 Tailgate safety meeting by CE. KL, DH present.
~80°F sunny ~65% humidity

Equipment used for day:

Aerom N-1 Solhist101 → Herson O/W interface probe #31242

MultiRAE M017098307, SmartPoll #512733, QED MPS0-1446

0800 Begin purging OWDFMW01. See Purge log.

0755 Trip blank taken for OWDFMW01 ERH864

0850 Well stabilized. Begin sampling ERH865 OWDFMW01

1027 End sampling at OWDFMW01 clean up.

~~KL 07/24/19 1027~~ ~~1200 pulled pump at OWDFMW01.~~

LATE ENTRY 0945 CE offsite to retrieve treble hook.

1027 CE back onsite.

1100 try fishing guide rail out of OWDFMW01.

1210 Guide rail recovered with pump. Pump pulled at OWDFMW01.

1300 KL, CE, DH pull pump from RHMW07.

1330 KL, CE, DH pull pump from RHMW06.

1345 KL meets GM at road on top of RHMW16 to assist with flat tire and transfer supplies.

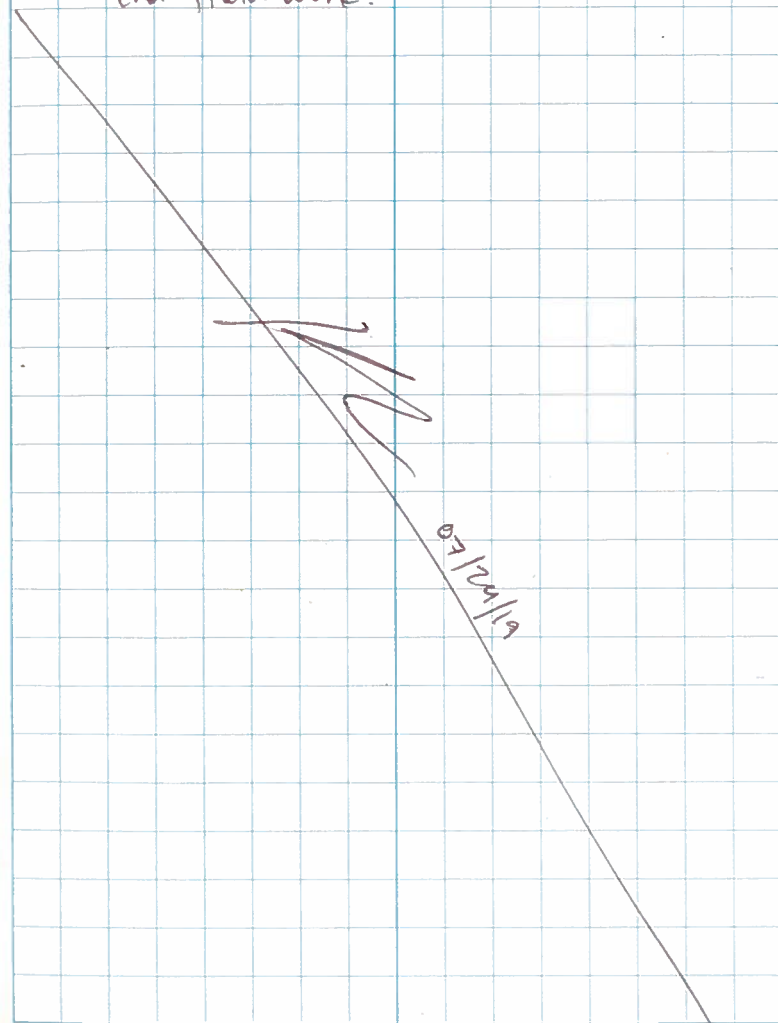
~~KL 07/24/19 1420~~ ~~KL departs site DH & CE depart site~~

Location Red Hill Bulk Fuel Facility Date 07/24/19

Project / Client LTM Groundwater (July 2019) cont.

~~#1420~~ KL departs site.

1505 KL joins CE, DH at warehouse. Unload.
End field work.



Location Red Hill Bulk Fuel Facility Date 07/25/2019Project / Client LTM Groundwater (July 2019)

- 0600 KL & DH arrive at warehouse. help RS, TV & MH load equipment.
- 0630 Joint tailgate by MH. KL, TV, DH, RS present.
- 0635 KL & RS depart for site.
- 0700 KL & RS arrive at Site. Move to pull RHMW04. Mostly sunny ~80°F ~76% humidity.
- 0710 KL & RS begin pulling pump at RHMW04.
- 0730 KL & RS finish pulling pump at RHMW04.
- 0800 KL & RS arrive at RHMW09 to pull pump.
- 0910 KL & RS finish pulling pump at RHMW09.
- 0930 KL & RS inspect hill up to IDW area for metal wire (to avoid spare tires.)
- 1030 KL & RS meet with MH, TV, DH to pull samples.
- 1050 KL & RS depart site for warehouse with samples.
- 1120 KL & RS arrive at warehouse with samples. pick up spool for RHMW08 ~~return~~ to site. KL 07/25/19
- 1200 KL & RS depart for site.
- 1220 KL & RS arrive at RHMW08. Meet MH, TV, DH. help pull pump
- 1250 KL & RS depart site.
- 1310 KL & RS return to warehouse. Unload. End field work.

KL 07/25/19

Location Red Hill Bulk Fuel Facility Date 08/01/19Project / Client LTM Groundwater (July 2019)


- 0600 KL & DH arrive at warehouse. Join RS, TV, MH, BM, SM GM in loading equipment.
- 0645 KL, DH, RS depart for site
- 0905 KL, DH, RS arrive at site main gate
- 0710 KL, DH, RS arrive at RHMW08. Tail gate safety meeting ~80°F 58% humidity. Begin set up at RHMW08. MH assists setup.
- Equipment used for the day:
AECOM N-1 Solinst 101 & ~~Mini~~ Mini PAK 3000 #592-71065
Insitu Smartroll #512733
- 0810 Begin purging RHMW08. See log for details.
- 0910 RHMW08 stable. Begin sampling. ERH 857(N)
- 0930 RHMW08 trip blank taken ERH 858
- 0935 RHMW08 stopped discharging water. Pulled pump to troubleshoot.
- 1255 Unable to produce more water from well. start cleanup. Sample incomplete and cancelled.
- 1340 KL & DH dump IDW at IDW area. RS off site to warehouse.
- 1400 KL & DH to warehouse.
- 1425 KL & DH arrive at warehouse. Unload. End field work.

08/01/19

Rite in the Rain

Location Reed Hill Bulk Fuel Facility Date 08/07/19Project / Client LTM Groundwater (July 2019)

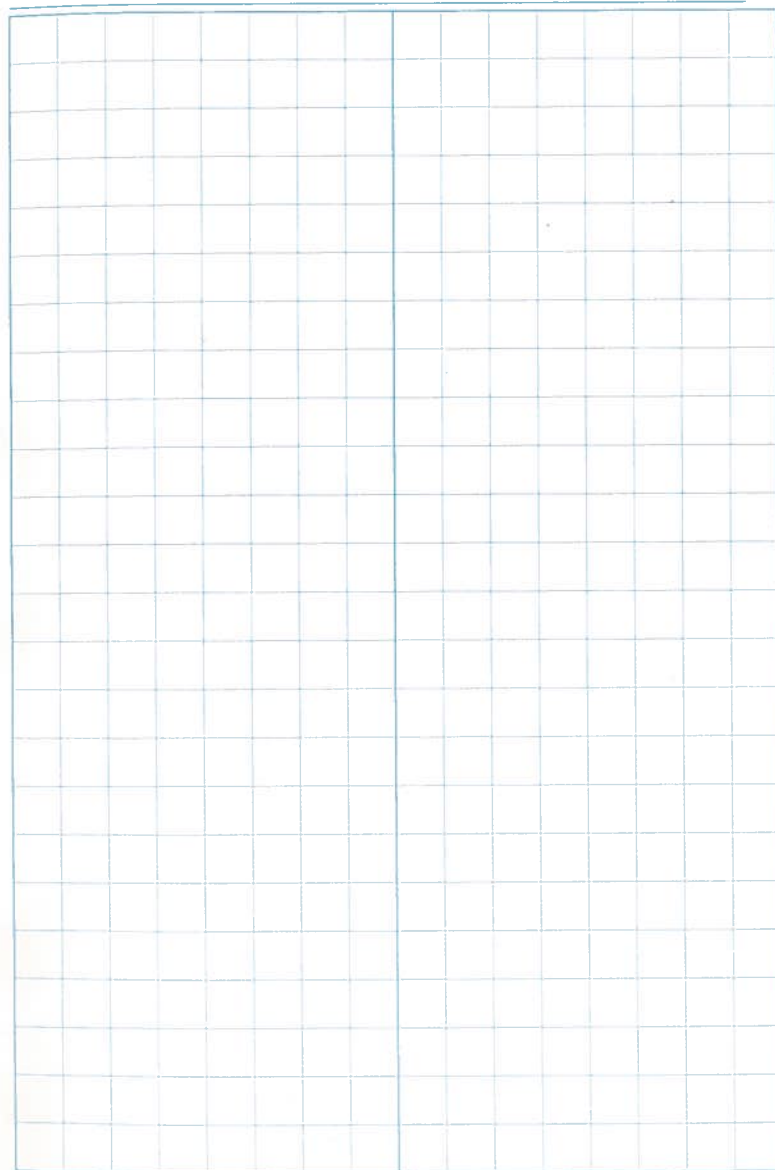
- 01 0715 KL & CE arrive at warehouse. begin cal and prep of pump.
- 01 0730 RS arrives at warehouse. joins loading up.
- 01 0830 KL, RS, CE depart for site.
- 01 0855 KL, RS, CE arrive at front gate.
- 01 0900 Tailgate safety meeting 88°F 76% humidity
- 01 Mostly sunny.
- 01 0905 Set up at RHMWOB.
- 01 0935 Attempted to use rental pump. pump not producing water. MH called. Trouble shoot.
- 01 0955 MH onsite.
- 10 1230 changed to dedicated pump for RHMWOB.
- 10 1248 begin purge of RHMWOB
- 10 1300 Trip blank for RHMWOB taken ERH858
- 10 equipment used for well: Solinst WLM-AECom N-2, Heron 01-5801, Minipac 3000 592-902229, Insite Smartroll 646770, HF scientific PPF-15CE turbidimeter
- 10 1335 start sample at RHMWOB ERH859 MH offsite.
- 12 1424 end sample at RHMWOB. Clean up.
- 12 1510 CE offsite RS & KL dump 10W at 10W area.
- 12 1530 KL & RS offsite.
- 12 1605 KL & RS arrive at warehouse. Help CE unload. end field work.
- 13

 08/07/19

Location _____

Date _____

Project / Client _____



2

Rate in the Rain

CONTENTS

PAGE	REFERENCE	DATE

Location LTM July Sampling Event

Date 07/22/19

Project / Client Red Hill

Book # 15

0600 Arrive at warehouse. GM and EB calibrate equipment. TV, KL, DH, and CE pack all vehicles w/ days equipment and supplies.

0643 CE conducts Tailgate safety meeting. See log for details. Tunnel Team departs to site.

0716. Team departs to site (TV, GM, and EB) Check in main entry gate and head to RHMW07. Pesticides all around RHMW07 on the ground.

0805 Set up at RHMW07. Dropped off extra sample bottles w/ tunnel team.

objective: Collect samples for the July LTM from RHMW07, RHMW06, and RHMW04.

weather: prt. cloudy, 83°, 82% humidity, no rain

personnel: AECOM (TV, GM, and EB)

0817 Started pumping water. No silicone tubing to start collecting water quality parameters. MH heads to well to drop it off.

0948 Water at surface. Started measuring water quality parameters.

1038 Water quality parameters stabilized.

Collected TB = ERH856 @ 10:35

1040 started collecting RHMW07 sample: ERH857

@ 10:40. GM left site to get additional sample ice for packing.

Location LTM July Sampling Event Cont. Date 07/22/19
 Project / Client Red Hill Book # 15

- 11:55 Finished collecting RHMW07 sample. RS heads to site to pick up samples. KL drops tunnel samples at RHMW07. GM returned to site w/ ice.
- 12:06 RS arrives onsite to collect samples. RS departs for warehouse. Team packs up at RHMW07.
- 12:30 Set up at RHMW06. Started pumping water.
- ~~12:00~~ 13:17 Water at the surface. Started measuring water quality parameters.
- ~~14:00~~ 13:45 Collected TB = ERH854
- 14:15 Started collecting RHMW06 sample = ERH855.
- 15:20 Finished collecting RHMW06 sample at 1520. Started packing up equipment.
- ~~15:35~~ 15:55 Finished packing up at RHMW06. TV headed to warehouse. GM and EB went to drop IDW at IDW storage area in DWM DM095. Check in w/ MH.
- 16:42 Arrive at warehouse. Finish unpacking samples and equipment. Discussed plans for tomorrow work.
- 17:28 Team finishes for the day.
 End of Field Day

Jan M
 07/22/19

Location LTM July Sampling Event Date 07/23/19
 Project / Client Red Hill Book # 15

- 0530 GM and EB arrive at warehouse. Calibrated all equipment (PID, gas meter, water quality meter, turbidity meter). See calibration log for details.
- 0600 KL, CE, and DH (tunnel team) arrives to help pack all field vehicles.
- 0635 Could not calibrate LEL in 4-gas meter. Called HER to have them deliver a replacement to KL in the field. KL conducted Tailgate safety meeting. See log for details.
- 0703 Teams leaves warehouse to head to site.
- 0735 Arrive onsite. Let security guards know to open gate to shooting range / RHMW04.
- 0753 Guards arrive at gate to let us into RHMW04 area. Set up at RHMW04.
- 0802 Set up at RHMW04 to pump. Got to consistent flow rate. ≈ 275 gal/min w/ QED settings at 135 PSI, Fill 45 Sec. / Discharge 30 Sec.
- 0838 Water at surface at RHMW04. Started measuring water quality meter parameters.
- 0930 Collected TB = ERH850 @ 9:30.
- 0940 Started collecting RHMW04 sample = ERH851 @ 9:40.
- 1028 Finished collecting RHMW04 sample.
- 1047 started packing away equipment and

Rite in the Rain

Location LTM July Sampling Event Cont. Date 07/23/19Project / Client Red Hill Book # 15

cleaned up at RHMW04.

11:25 Finished cleaning up at RHMW04 and headed up hill to RHMW09.

objective: Sample RHMW04, and 09. Attempt to also sample RHMW08 if time is available.

weather: 82°, 63% humidity, sunny, light winds

personnel: AECOM (GM, EB, and TV)

12:03 Set up at RHMW09. Sent EB to warehouse to deliver samples. When trying to take initial water level w/ rental oil water interface, the interface probe got tangled. Had to untangle o/w interface before re-deploying. Recalibrated DO during purge.

13:01 started pumping at RHMW09.

13:13 Water at surface. Set flowrate to approx. TB collected at 14:35 = ERH860

14:40 Started collecting sample ERH861 at 14:40 from RHMW09.

15:48 Finished collecting RHMW09 sample.

16:15 Packed up all equipment and supplies at RHMW09. GM heads to IDW storage area to drop off IDW at Draw 095. TV and EB head to warehouse.

16:56 GM arrives at warehouse. Finish unpacking and prep for tomorrow's work.

17:15 End of Field Day

07/23/19

Location LTM July Sampling Event Cont Date 07/24/19Project / Client Red Hill Book # 15

0540 GM arrives at warehouse. DH, KL, and CE arrive at warehouse to help TV load equipment. RS arrives at warehouse. GM and DH calibrate equipment.

See calibration log for details.

0648 Teens finish packing vehicles and head to site for the day.

0723 Arrive at ~~warehouse~~ ^{site on} ~~warehouse~~. Stopped to fill up. *11 teams lines at gas station on way to site.

0752 Set up at RHMW08. Got a call from KL that they had dropped a piece of w/L meter into OWDF well. Sent RS back to warehouse to get well logs and fishing hooks. GM and TV finished setting up.

0842 RS arrives back onsite. Open up well, take measurement and get water pumping.

objective: Sample RHMW08 and RHMW10 and start to pull outside pumps.

weather: Sunny, 82°, 63% humidity, light winds.

personnel: AECOM (GM, RS, and TV)

0923 Water at surface at RHMW08.

0935 Ran out of nitrogen during purge. Switched tank and resumed pumping. No water flow or bubbles. Had to pull pump from RHMW08 to look at pump bladder. Changed bladder.

Rite in the Rain

Location LTM July Sampling Event cont. Date 07/24/19Project / Client Red HillBook # 15

10:50 Finished deploying pump into well. Resurged pump.

10:58 Water at surface again. Continued pumping but could not get water to the surface and no bubbles during discharge. Reset controller but still no flow. Finally adjusted pressure slightly higher to restart flow.

11:02 Flow resumed took several readings and then flow completely stopped. Called MH to troubleshoot but no luck. Packed up at RHMW08 and headed to RHMW10.

12:24 Had to wait for guards to open gate to RHMW10.

12:53 Set up all equipment for sampling at RHMW10.

13:32 Water at surface at lower pressure than settings from last weeks test. Water discharged unusually for 1 minute straight and then sprayed out air. Stopped pump and preped to pull RHMW10 pump.

14:27 Took spent RHMW08 pump and bladder had slide off clips and ~~was~~ was slightly collapsed.

15:15 Reset pump in well and resumed pumping.

Location LTM July Sampling Event cont. Date 07/24/19Project / Client Red HillBook # 15

15:43 Water at surface again. Started collecting water quality readings. Had to stop to spot check DO readings that were unusually high.

- Late Entry: 13:03: when driving up RHMW10 road the #11 Tacoma front right tire was punctured w/ a fencing bracket. Replaced tire w/ spare and parked on side of the road. GM, KL, and MH changed tire and then returned to RHMW10.

15:52 Collected TB = ERH862 at 15:30

16:50 Water quality parameters stabilized. Preped bottles for sampling.

17:00 Started collecting RHMW10 sample = ERH863

17:15 RS and GM leave site for day to drop off #11 Tacoma for tire repair.

MH + TV continue sampling.

18:07 end sampling, clean up site.

18:40 MH + TV depart site.

19:10 @ warehouse, offload equipment, end field day

7/24/19 *[Signature]*

0515 MH @ warehouse to calibrate
 PID s/N 592-908165, Smartroll
 s/N 5899 (s/n faded & barely legible),
 & turbidimeter (no s/n), see cal
 logs for more details. TV loading
 equipment.

0600 Danielle Huang, Ryan Shimoto,
 Kevin Lee @ warehouse to help
 load.

weather; partly cloudy, 89°, light trade wind, 70%
 humidity.

Objective: GW sample HDMW 2253-03
 & RHMW 08

Personnel: AECOM sample team (Mark Higley,
 Danielle Huang, Tim Vernon),
 AECOM pump pull team (Kevin Lee,
 Ryan Shimoto), see log book
 #14 for pump pull team.

0625 conduct H&S tailgate (see sign in
 sheet for details)

0640 depart warehouse

0700 @ HCF lot. wait for Patrick
 Casey (CUSTOM)

0720 PC onsite mob to Halawa
 deep.

0730 @ Halawa deep. open well.
 VOC's = 0.0 ppm.

0746 Tag DTW @ 206.32' btoe w/
 O/w interface probe Heron
 s/n 01-5881

0750 deploy pump

0804 DTW w/ N2 = 206.25' btoe
 (uncorr.)

0807 begin purge.

0810 collect ~~IB ERH 866~~

0937 collect primary ~~ERH 867~~

1024 end sampling, clean up.

1057 depart HDMW 2253-03
 & proceed to Red Hill
 RHMW 08.

1107 @ RHMW 08, give samples
 from Halawa Deep to KL
 & RS to deliver to warehouse.

1118 DTW w/ Heron O/w int. is
 291.43 ft below gray plate.

1125 DTW w/ solinst N2 is 291.34'
 below gray plate.

1135 start purge, Note RHMW 08
 was attempted the previous

Location July LTM Sampling Date 7/25/19

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shift on 7/24/19. No sample was collected due to pump not working. Bladder was changed and still not working. attempt to sample first w/out pulling pump.

* IB ERH 858 was collected on 7/24/19 @ 0945 hrs.

IB stayed w/ ERH 859

1049 water @ surface.


1200 no more water, continue adjusting settings.

1230 KL returns to site w/ equipment to pull pump. end purge attempts.

1240 pull pump to find bladder was collapsed, end sampling + clean up

1300 KL, RS, DH, TV depart site, MH takes IDW and adds to DM 095 (75% full)

1330 MH departs site, end field day

7/25/19 

Location _____

Date _____

Project / Client _____

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