Final

Travis Air Force Base
Environmental Restoration Program
Restoration Program Manager's
Teleconference Minutes

17 June 2015, 1200 Hours

Mr. Lonnie Duke, of the Air Force Civil Engineer Center (AFCEC) Restoration Installation Support Team (IST), conducted the Restoration Program Manager's (RPM) teleconference, on 17 June 2015 at 1200 hours, in Building 248 at Travis AFB, California. Attendees included:

• Glenn Anderson	AFCEC/CZOW
• Lonnie Duke	AFCEC/CZOW
• 1st Lt Alexi Fong	Travis AFB 60 AMW/JA
• Merrie Schilter-Lowe	Travis AFB FSS/PA
• Dezso Linbrunner	USACE-Omaha
• William Hall	AFCEC/CZRW
• Adriana Constantinescu (via telephone)	California Regional Water Quality Control Board (RWQCB)
• John Hart (via telephone)	California Department of Toxic Substances Control (DTSC)
• Nadia Hollan Burke (via telephone)	United States Environmental Protection Agency (USEPA)
• Mike Wray	CH2M HILL

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Handouts distributed at the meeting, discussions and presentations included:

• Attachment 1	Meeting Agenda
• Attachment 2	Master Meeting and Document Schedule
• Attachment 3	SBBGWTP Monthly Data Sheet (May 2015)
• Attachment 4	CGWTP Monthly Data Sheet (May 2015)
• Attachment 5	ST018 Monthly Data Sheet (May 2015)
• Attachment 6	Presentation: Program Update: Activities Completed, In Progress and Upcoming

1. ADMINISTRATIVE

A. Previous Meeting Minutes

The 27 May 2015 RPM meeting minutes were approved and finalized as written.

B. Action Item Review.

Action items from May were reviewed.

Action item 1 will remain open: AFCEC's Travis Restoration Support Team and Travis AFB will continue to pursue opportunities for the beneficial reuse of treated water. Due date will remain TBD to ensure this action item remains visible. 17 June 2015: No update.

Action item 2 is open: Mr. Smith to provide updates on PFOS and PFOA as he becomes aware of them. 17 June 2015: No update.

Action item 3 is open: Ms. Constantinescu to provide information about the water quality data that must be provided and met in order to allow the use of treated water during EVO injection. 17 June 2015: The RWQCB agrees with re-injecting treated water for enhancing remediation at site FT005. Ms. Constantinescu said that the normal procedure is for the RWQCB to write up a site specific waste discharge order, but this does not apply to federal facilities. Travis AFB will need to write a technical memorandum to include the following information; describe the work being conducted, volume of treated water planned to re-inject, the concentrations levels from the effluent, and one paragraph description of the site. The RWQCB will review the technical memorandum and if approved will write a letter of approval. Ms. Burke requested that all regulators are copied.

Action item 4 is closed: Mr. Smith to consult with RAB members to determine if the RAB meeting will be rescheduled. 17 June 2015: Mr. Smith contacted the RAB members and all agreed that the RAB meeting will be rescheduled to 5 November 2015.

C. Master Meeting and Document Schedule Review (see Attachment 2)

The Travis AFB Master Meeting and Document Schedule (MMDS) was discussed during this meeting (see Attachment 2).

Travis AFB Annual Meeting and Teleconference Schedule

The next RPM meeting will be a teleconference held on Wednesday, 15 July 2015 2015 at 1300 to 1500.

The regulators suggested that the 22 October 2015 RPM date be changed to coincide with the RAB meeting held on 5 November 2015. All agreed.

Travis AFB Master Document Schedule

— Community Involvement Plan: No change to the schedule.

— Site DP039 Remedial Design/Remedial Action Work Plan: The response to comments (RTC) meeting was changed to 1 July 2015, the rest of the dates were changed

accordingly. Travis AFB responded to EPA comments. The RTC date was changed to allow EPA time to review.

— Amendment to the NEWIOU Soil, Sediment, and Surface Water Record of Decision: Draft to agencies date was changed to 23 July 2015, the rest of the dates were changed accordingly.

— Amendment to the Soil Record of Decision for the WABOU: Draft to agencies date was changed to 23 July 2015, the rest of the dates were changed accordingly.

— Potrero Hills Annex (FS, PP, and ROD): No change to the schedule. The RWQCB approved the revised work plan (WP) submitted by the responsible parties. The continuing remedial investigation is tentatively scheduled to start in June or July.

— Site SS014 POCO Technology Demonstration Work Plan: No change was made to the schedule.

— Old Skeet Range PAH Delineation Report: RTC meeting was changed to 25 May 2015 and the final due was changed to 9 June 2015 to reflect the actual dates.

— Site CG508 Site Investigation/Site Closure Request Report: RTC due date and final due date were changed to 28 May 2015 to reflect the actual dates.

— Site ST028 POCO Work Plan: The RTC date and final due date were changed to 9 July 2015.

— Quarterly Newsletter (July 2015): No change to the schedule.

— 2014 Annual CAMU Monitoring Report: RTC due date and final due date were changed to 1 July 2015. Travis AFB is working on comments from DTSC.

— 2014 Annual GRISR: Draft to agencies and RAB was changed to 10 June 2015 to reflect the actual date.

— Site SD031 Technology Demonstration Construction Completion Report: No change to the schedule. EPA requested additional review time.

— Sites SD036 and SD037 Remedial Action Construction Completion Report: All new dates.

— Site ST018 POCO Construction Completion Report: All new dates.

— Site SS016 Groundwater Remedial Action Construction Completion Report: All new dates.

— Site SS015 Remedial Action Construction Completion Report: All new dates.

— Site SD036 Remedial Design/Remedial Action Work Plan: Moved to history.

— Site SS016 GW Remedial Design/Remedial Action Work Plan: Moved to history.

— Site SS015 GW Remedial Design/Remedial Action Work Plan: Moved to history.

— Site FT005 Technology Demonstration Work Plan: Moved to history.

— POCO Site ST032 Soil Excavation Work Plan: Moved to history.

2. CURRENT PROJECTS

Treatment Plant Operation and Maintenance Update

South Base Boundary Groundwater Treatment Plant, May 2015 (see Attachment 3)

The South Base Boundary Groundwater Treatment Plant (SBBGWTP) performed at 100% uptime, and 3.13 million gallons of groundwater were extracted and treated during the month of May 2015. All of the treated water was discharged to Union Creek. The average flow rate for the SBBGWTP was 78.01 gallons per minute (gpm). Electrical power usage was 8,440 kWh, and approximately 11,563 pounds of CO_2 were created (based on DOE calculation). Approximately 1.11 pounds of volatile organic compounds (VOCs) were removed in May. The total mass of VOCs removed since startup of the system is 460.4 pounds.

Optimization Activities: No optimization activities are reported for the month of May.

Central Groundwater Treatment Plant, May 2015 (see Attachment 4)

The Central Groundwater Treatment Plant (CGWTP) performed at 100% uptime with approximately 1.51 million gallons of groundwater extracted and treated during the month of May 2015. All treated water was discharged to the storm drain. The average flow rate for the CGWTP was 29.9 gpm. Electrical power usage was 3,097 kWh for all equipment connected to the Central Plant, and approximately 4,243 pounds of CO_2 were generated. Approximately 3.42 pounds of VOCs were removed from groundwater by the treatment plant in May. The total mass of VOCs removed since the startup of the system is 11,406 pounds.

Optimization Activities for CGWTP: No optimization activities are reported for the month of May.

LF007C Groundwater Treatment Plant, May 2015

The LF007C Groundwater Treatment Plant was offline as of 2 December 2014, in accordance with the Biological Opinion from the US Fish and Wildlife Service, due to the presence of standing water in the vernal pools. Because the extraction system remains off, waiting for the vernal pool to dry, a monthly report was not prepared.

Site ST018 Groundwater (MTBE) Treatment Plant, May 2015 (see Attachment 5)

The Site ST018 (MTBE) Treatment Plant (ST018 GWTP) performed at 70% uptime with approximately 78,200 gallons of groundwater extracted and treated during the month of May 2015. All treated water was diverted to the sanitary sewer. The average flow rate for the ST018 GWTP was 3.09 gpm. Electrical power usage for the month was 49 kWh for all equipment connected to the ST018 GWTP, which equates to the creation of approximately 67 pounds of CO_2. Approximately 0.04 pound of BTEX, MTBE and TPH was removed from groundwater in May by the treatment plant. Approximately 0.02 pound of MTBE was removed from groundwater. The total BTEX, MTBE and TPH mass removed since the startup of the system is 31.3 pounds, and the total MTBE mass removed since startup of the system is 7.0 pounds.

Note: Electrical power use at the ST018 GWTP is only for the alarm system and a pump that pushes water through the GAC vessels for treatment. The extraction pumps in the system are all solar powered.

Optimization Activities for ST018: A new extraction well EW2333x18 was installed in mid-March 2015; optimization activities in May 2015 included installing the vault and tying the new extraction well into the existing system. Trenching for the piping and electrical connections occurred from 4 May 2015, and the solar control panel and electrical connections were completed on 19 May 2015. Extraction EW2333x18 will be brought online in June 2015.

Program Update: Activities Completed, In Progress and Upcoming (see Attachment 6)

Mr. Wray reported on the status of field work and documents which are completed, in progress, and upcoming. Updates from the briefing this month included:

Newly Completed Documents: 2014 Annual CAMU Monitoring Report, Old Skeet Range PAH Delineation Report.

Newly Completed Field Work: SS016 EVO Injection, TA500 Data Gaps Investigation, 2015 Annual GRIP Sampling, SD037 EVO Injection.

In-Progress Documents (CERCLA): SD031 Technology Demonstration Construction Completion Report, DP039 GW RD/RA Work Plan, 2014 Annual GRISR.

In-Progress Documents (POCO): CG508 Site Investigation/Site Closure Request Report, SS014 POCO Technology Demonstration Work Plan, ST028 POCO Work Plan.

In-Progress Field Work: Oil Water Separators Site Investigation, SD034 Data Gaps Investigation, FT005 Injection Well Installation, SS015 EVO Injection.

Upcoming Documents (CERCLA): Community Involvement Plan (July), Sites SD036 and SD037 Remedial Action Construction Completion Report (July), ROD Amendment for

NEWIOU Soil Sediment, and Surface Water ROD (July), ROD Amendment for WABOU Soil ROD (July), SS016 Groundwater Remedial Action Construction Completion Report (August), SS015 Remedial Action Construction Completion Report (August).

Upcoming Documents (POCO): ST018 POCO Construction Completion Report (August).

Field Work Planned (CERCLA): FT004 Well Installation (June), DP039 Well Installation (June), SS030 Trench/Conveyance/Power Installation (June), FT004 Trench/Conveyance/Power Installation (July), FT005 Trench Installation (August), FT004 EVO Injection (August), FT005 EVO Injection (August), DP039 Infiltration Trench Installation (August), DP039 EVO Injection (September).

Field Work Planned (POCO): SS014 Bioreactor Installation (July).

4. New Action Item Review

New Action Item 4 was added for Mr. Wray to contact Ms. Constantinescu to schedule a site inspection visit of all the oil water separator sites (OWS). Ms. Constantinescu provided the following dates that she is available for a site visit: 22 June 2015, 25 June 2015, 26 June 2015, 1 July 2015, and 2 July 2015.

5. PROGRAM/ISSUES/UPDATE

None

6. Action Items

Item #	Responsible	Action Item Description	Due Date	Status
1.	Travis AFB	AFCEC's Travis Restoration Team and Travis AFB will continue to pursue opportunities for the beneficial reuse of treated water. Current possibilities include: Rerouting treated water from the central plant to the duck pond or as irrigation as an energy reduction project with the intent of reducing on-base water usage. Due	TBD	Open

		date will remain TBD to ensure this action item remains visible. Update: Mr. Duke informed the group that Travis AFB is considering the use of treated water during EVO injection at Site FT005 as opposed to potable water. New Action Item 5 added as a follow-up.		
2.	Mark Smith	Mr. Smith to provide updates on PFOS and PFOA as he becomes aware of them. Update: Mr. Smith stated that he has received the final preliminary assessment report from AFCEC. Direction from AFCEC for follow on steps has not yet been provided.	TDB	Open
3.	Adriana Constantinescu	Ms. Constantinescu to provide information about the water quality data that must be provided and met in order to allow the use of treated water during EVO injection.	10 June 2015	Open
4.	Mike Wray	Mr. Wray to contact Ms. Constantinescu to schedule a site inspection visit of all the oil water separator sites (OWS). Ms. Constantinescu provided the following dates that she is available for a site visit: 22 June 2015, 25 June 2015, 26 June 2015, 1 July 2015, and 2 July 2015.	17 June 2015.	Open

TRAVIS AFB RPM TELECONFERENCE AGENDA
17 June 2015, 12:00 P.M. (PDT)

To:	EPA	Nadia Burke
	DTSC	John Hart
	RWQCB	Adriana Constantinescu
	CH2M Hill	Mike Wray
	AFCEC	William Hall
	USACE	Dezso Linbrunner

The RPM teleconference is scheduled for noon PDT on 17 June 2015. **The call-in number is 1-866-203-7023. Enter the Participation code 5978-75-9736 then enter #.**

Topics for the teleconference include:

- Previous Meeting Minutes (All)
- Action Item Review (All)
- Master Meeting and Document Schedule Review (Glenn, Lonnie)
- Treatment Plant Operation and Maintenance Update (Lonnie)
- Program Update (Mike)
- New Action Item Review (All)

Participants:

TRAVIS	ERP Staff	(707) 424-3062
DTSC	John Hart	(916) 255-3571
RWQCB	Adriana Constantinescu	(510) 622-2353
EPA	Nadia Burke	(415) 972-3187
USACE	Dezso Linbrunner	(402) 238-8846
CH2M HILL	Mike Wray	(916) 715-0949
AFCEC	William Hall	(210) 259-3252

NOTES: AFTER THE RPM TELECONFERENCE, BASED ON THE DISCUSSION DURING THE REVIEW OF THE MASTER MEETING AND DOCUMENT SCHEDULE, WE ALLOW TIME TO HOLD A SEPARATE TELECONFERENCE TO DISCUSS THE RESPONSES TO AGENCY COMMENTS ON THOSE DOCUMENTS THAT ARE IN PROGRESS, IF NEEDED. ALL PARTICIPANTS ARE WELCOME TO PARTICIPATE.

(2015)
Annual Meeting and Teleconference Schedule

Monthly RPM Meeting[1] (Begins at 9:30 a.m.)	RPM Teleconference (Begins at 9:30 a.m.)	Restoration Advisory Board Meeting (Begins at 7:00 p.m.) (Poster Session at 6:30 p.m.)
01-21-15	—	—
02-18-15	—	—
—	03-18-15	—
04-23-15 (Thursday 2:00 PM)	—	04-23-15
—	05-27-15	—
	06-17-15 (start at 12:00)	—
—	07-15-15 (1:00 to 3:00)	—
08-19-15 (1:00 to 3:00)	—	—
—	09-16-15	—
10-22-15 (Thursday 2:00 PM)	—	11-05-15
—	11-18-15	—
—	—	—

[1] Note: Meetings will be held the third Wednesday of each month unless otherwise noted.

Travis AFB Master Meeting and Document Schedule

PRIMARY DOCUMENTS				
Life Cycle	**Community Involvement Plan Travis AFB, Mark Smith CH2M HILL, Tricia Carter**	**Site DP039 Remedial Design/Remedial Action Work Plan Travis AFB, Glenn Anderson CH2M HILL, Leslie Royer**	**Record of Decision Amendment to the NEWIOU Soil, Sediment, and Surface Water Record of Decision Travis AFB, Glenn Anderson CH2M HILL, Loren Krook**	**Record of Decision Amendment to the Soil Record of Decision for the WABOU Travis AFB, Glenn Anderson CH2M HILL, Loren Krook**
Scoping Meeting	**NA**	**NA**	**TBD**	**TBD**
Predraft to AF/Service Center	NA	01-15-14	05-18-15	05-18-15
AF/Service Center Comments Due	NA	01-29-15	06-18-15	06-18-15
Draft to Agencies	07-29-15	03-03-15	07-23-15	07-23-15
Draft to RAB	07-29-15	03-03-15	07-23-15	07-23-15
Agency Comments Due	08-28-15	04-02-15	09-22-15	09-22-15
Response to Comments Meeting	**09-16-15**	**05-27-15**	**10-22-15**	**10-22-15**
Agency Concurrence with Remedy	NA	NA	NA	NA
Public Comment Period	NA	NA	NA	NA
Public Meeting	**NA**	**NA**	**NA**	**NA**
Response to Comments Due	09-30-15	07-01-15	10-21-15	10-21-15
Draft Final Due	09-30-15	07-01-15	10-21-15	10-21-15
Final Due	11-03-15	07-31-15	11-20-15	11-20-15

Travis AFB Master Meeting and Document Schedule

PRIMARY DOCUMENTS			
	Potrero Hills Annex Travis, Glenn Anderson		
Life Cycle	**FS**	**Proposed Plan**	**ROD**
Scoping Meeting	**180 days after Water Board Order Rescinded**	**+470 days**	**+735 days**
Predraft to AF/Service Center	+ 270 days	+530 days	+ 915 days
AF/Service Center Comments Due	+ 300 days	+560 days	+ 975 days
Draft to Agencies	+330 days	+590 days	+ 1035 days
Draft to RAB	+ 330 days	+590 days	+ 1035 days
Agency Comments Due	+390 days	+650 days	+ 1095 days
Response to Comments Meeting	**+ 405 days**	**+665 days**	**+ 1110 days**
Agency Concurrence with Remedy	NA	NA	+ 1130 days
Public Comment Period	NA	+735 to 765 days	NA
Public Meeting	**NA**	**+745 days**	**NA**
Response to Comments Due	+430 days	+695days	+ 1190 days
Draft Final Due	+430 days	+695 days	+ 1190 days
Final Due	+460 days	+725 days	+ 1250 days

Travis AFB Master Meeting and Document Schedule

SECONDARY DOCUMENTS				
Life Cycle	**Site SS014 POCO Technology Demonstration Work Plan** **Travis AFB, Lonnie Duke** **CH2M HILL, Leslie Royer**	**Old Skeet Range PAH Delineation Report** **Travis AFB, Glenn Anderson** **Bay West, Steve Thornton**	**Site CG508 POCO Site Investigation/Site Closure Request Report** **Travis AFB, Lonnie Duke** **CH2M HILL, Ashley Shaddy**	**POCO Site ST028 Data Gap Investigation Work Plan** **Travis AFB, Lonnie Duke** **CH2M HILL, Doug Berwick**
Scoping Meeting	**NA**	**NA**	**NA**	**NA**
Predraft to AF/Service Center	12-05-14	11-24-14	03-25-15	03-18-15
AF/Service Center Comments Due	12-19-14	12-02-14	04-08-15	04-01-15
Draft to Agencies	02-04-15	01-13-15	04-22-15	04-22-15
Draft to RAB	02-04-15	01-13-15	04-22-15	04-22-15
Agency Comments Due	03-06-15	02-12-15	05-22-15	05-22-15
Response to Comments Meeting	**03-18-15**	**02-18-15**	**05-27-15**	**05-27-15**
Response to Comments Due	05-27-15	05-25-15	05-28-15	07-09-15
Draft Final Due	NA	NA	NA	NA
Final Due	05-27-15	06-09-15	05-28-15	07-09-15
Public Comment Period	NA	NA	NA	NA
Public Meeting	**NA**	**NA**	**NA**	**NA**

Travis AFB Master Meeting and Document Schedule

INFORMATIONAL DOCUMENTS				
Life Cycle	**Quarterly Newsletters (July 2015) Travis, Glenn Anderson**	**2014 Annual CAMU Monitoring Report Travis AFB, Lonnie Duke CH2M HILL, Ashley Shaddy**	**2014 Annual GRISR Travis AFB, Lonnie Duke CH2M HILL, Leslie Royer**	**Site SD031 Technology Demonstration Construction Completion Report Travis AFB, Lonnie Duke CH2M HILL, Ashley Shaddy**
Scoping Meeting	**NA**	**NA**	**NA**	**NA**
Predraft to AF/Service Center	NA	03-17-15	04-24-15	04-23-15
AF/Service Center Comments Due	NA	03-31-15	05-22-15	05-07-15
Draft to Agencies	07-08-15	04-15-15	06-10-15	05-21-15
Draft to RAB	NA	04-15-15	06-10-15	05-21-15
Agency Comments Due	07-22-15	05-15-15	08-10-15	06-22-15
Response to Comments Meeting	**TBD**	**05-27-15**	**08-19-15**	**07-15-15**
Response to Comments Due	07-24-15	07-01-15	09-02-15	07-29-15
Draft Final Due	NA	NA	NA	NA
Final Due	07-29-15	07-01-15	09-02-15	07-29-15
Public Comment Period	NA	NA	NA	NA
Public Meeting	**NA**	**NA**	**NA**	**NA**

Travis AFB Master Meeting and Document Schedule

INFORMATIONAL DOCUMENTS				
Life Cycle	Sites SD036 and SD037 Remedial Action Construction Completion Report Travis AFB, Glenn Anderson CH2M HILL, Ashley Shaddy	Site ST018 POCO Construction Completion Report Travis AFB, Lonnie Duke CH2M HILL, Ashley Shaddy	Site SS016 Groundwater Remedial Action Construction Completion Report Travis AFB, Glenn Anderson CH2M HILL, Ashley Shaddy	Site SS015 Remedial Action Construction Completion Report Travis AFB, Glenn Anderson CH2M HILL, Ashley Shaddy
Scoping Meeting	**NA**	**NA**	**NA**	**NA**
Predraft to AF/Service Center	06-24-15	07-07-15	07-14-15	07-23-15
AF/Service Center Comments Due	07-08-15	07-21-15	07-28-15	08-06-15
Draft to Agencies	07-22-15	08-04-15	08-11-15	08-20-15
Draft to RAB	07-22-15	08-04-15	08-11-15	08-20-15
Agency Comments Due	08-21-15	09-03-15	09-10-15	09-21-15
Response to Comments Meeting	**09-16-15**	**09-16-15**	**09-16-15**	**10-22-15**
Response to Comments Due	09-30-15	10-06-15	10-08-15	11-05-15
Draft Final Due	NA	NA	NA	NA
Final Due	09-30-15	10-06-15	10-08-15	11-05-15
Public Comment Period	NA	NA	NA	NA
Public Meeting	**NA**	**NA**	**NA**	**NA**

Travis AFB Master Meeting and Document Schedule

HISTORY			
Life Cycle	**Site SD036 Remedial Design/Remedial Action Work Plan Travis AFB, Glenn Anderson CH2M HILL, Leslie Royer**	**Site SS016 GW Remedial Design/Remedial Action Work Plan Travis AFB, Glenn Anderson CH2M HILL, Leslie Royer**	**Site SS015 GW Remedial Design/Remedial Action Work Plan Travis AFB, Glenn Anderson CH2M HILL, Leslie Royer**
Scoping Meeting	NA	**NA**	**NA**
Predraft to AF/Service Center	08-23-14	10-31-14	11-20-14
AF/Service Center Comments Due	09-05-14	11-17-14	12-08-14
Draft to Agencies	01-16-15	12-03-14	01-20-15
Draft to RAB	01-16-15	12-03-14	01-20-15
Agency Comments Due	02-16-15	01-08-15	02-20-15
Response to Comments Meeting	**02-18-15**	**01-21-15**	**02-26-15**
Agency Concurrence with Remedy	NA	NA	NA
Public Comment Period	NA	NA	NA
Public Meeting	**NA**	**NA**	**NA**
Response to Comments Due	04-20-15	03-20-15	04-16-15
Draft Final Due	04-20-15	03-20-15	04-16-15
Final Due	05-20-15	05-08-15	05-19-15

Travis AFB Master Meeting and Document Schedule

HISTORY		
Life Cycle	**Site FT005 Technology Demonstration Work Plan Travis AFB, Glenn Anderson CH2M HILL, Leslie Royer**	**POCO Site ST032 Soil Excavation Work Plan Travis AFB, Lonnie Duke CH2M HILL, Doug Berwick**
Scoping Meeting	**NA**	**NA**
Predraft to AF/Service Center	02-19-15	02-03-15
AF/Service Center Comments Due	03-05-15	02-17-15
Draft to Agencies	03-17-15	03-12-15
Draft to RAB	03-17-15	03-12-15
Agency Comments Due	04-16-15	04-13-15
Response to Comments Meeting	**04-23-15**	**04-23-15**
Response to Comments Due	05-26-15	05-07-15
Draft Final Due	NA	NA
Final Due	05-26-15	05-07-15
Public Comment Period	NA	NA
Public Meeting	**NA**	**NA**

South Base Boundary Groundwater Treatment Plant Monthly Data Sheet

Report Number: 177 **Reporting Period: 1 May 2015 – 29 May 2015** **Date Submitted: 16 June 2015**

This monthly data sheet presents information regarding the South Base Boundary Groundwater Treatment Plant (SBBGWTP) and associated remedial process optimization (RPO) activities.

System Metrics

Table 1 presents operational data from the May 2015 reporting period.

Table 1 – Operations Summary – May 2015

Initial Data Collection:	05/01/2015 16:00	**Final Data Collection:**	05/29/2015 12:15
Operating Time:		Percent Uptime:	
SBBGWTP:	668 hours	**SBBGWTP:**	100%
Electrical Power Usage:			
SBBGWTP:	8,440 kWh[a] (11,563 lbs CO_2 generated[b])		
Gallons Treated: **3.13 million gallons**		Gallons Treated Since July 1998: **893 million gallons**	
Volume Discharged to Union Creek: **3.13 million gallons**			
VOC Mass Removed: **1.11 lbs**[c]		VOC Mass Removed Since July 1998: **460.4 lbs**	
Rolling 12-Month Cost per Pound of Mass Removed: $2,755[d]			
Monthly Cost per Pound of Mass Removed: $3,155			

lbs = pounds

[a] Power use estimated from previous usage due to unreliable readings in May 2015.

[b] Based on Department of Energy estimate that 1 kilowatt hour generated produces 1.37 pounds of GHG.

[c] Calculated using May 2015 EPA Method SW8260B analytical results.

[d] Costs include operations and maintenance, reporting, analytical laboratory, project management, and utility costs related to operation of the system.

Table 2 presents individual extraction well flow rates along with the average system flow during the monthly reporting period.

Table 2 – SBBGWTP Average Flow Rate (gpm)[a,b]

FT005[b]				SS029		SS030	
EW01x05	Offline[c]	EW736x05	Offline	EW01x29	1.6	EW01x30	11.6
EW02x05	0.3	EW737x05	Offline	EW02x29	2.9	EW02x30	1.0
EW03x05	Offline	EW742x05	Offline	EW03x29	2.1	EW03x30	2.9
EW731x05	Offline	EW743x05	Offline	EW04x29	9.0	EW04x30	12.1
EW732x05	Offline	EW744x05	Offline	EW05x29	3.6	EW05x30	2.1
EW733x05	Offline	EW745x05	Offline	EW06x29	4.9	EW06x30	Dry
EW734x05	Offline[c]	EW746x05	Offline	EW07x29	2.5	EW711x30	2.4
EW735x05	1.3						
FT005 Total:	**1.6**			**SS029 Total:**	**26.6**	**SS030 Total:**	**32.1**

SBBGWTP Average Monthly Flow[d]: 78.01 gpm

[a] Flow rates are estimated based on readings collected in April 2015.
[b] Most extraction wells at FT005 were taken offline in accordance with the *2008 Annual Remedial Process Optimization Report for the Central Groundwater Treatment Plant, North Groundwater Treatment Plant, and South Base Boundary Groundwater Treatment Plant.*
[c] These extraction wells are offline due to pump or other malfunction.
[d] The average SBBGWTP groundwater flow rate was calculated using the Union Creek Discharge Totalizer and dividing it by the total time in the reporting period.
gpm – gallons per minute
SBBGWTP – South Base Boundary Groundwater Treatment Plant

Table 3 presents a summary of system shutdowns during the monthly reporting period.

Table 3 – Summary of System Shutdowns

Location	Shutdown[a]		Restart[a]		Cause
	Date	Time	Date	Time	
SBBGWTP	NA	--			

-- = Time not recorded
[a] Shutdown and restart times estimated based on field notes.
NA = not applicable
SBBGWTP = South Base Boundary Groundwater Treatment Plant

Summary of O&M Activities

Analytical data from the 11 May 2015 sampling event are presented in Table 4. The total VOC concentration (42.4 µg/L) in the influent sample decreased from the April 2015 sample results (49.5 µg/L). 1,2-DCA (0.32 J µg/L), cis-1,2-DCE (2.5 µg/L) and TCE (39.6 µg/L) were detected at the influent sampling location. No contaminants were detected at the midpoint or effluent sampling locations.

Figure 1 presents a plot of influent concentrations and average flow at the SBBGWTP over the past twelve (12) months. The average flow rate at the SBBGWTP increased in May 2015 to 78.01 gpm from the April 2015 flowrate of 62.7 gpm, due to no downtime and increased gallons treated in May 2015.

There were operational issues at many of the SBBGWTP extractions wells and pumps in May 2015. Wells EW01x05 and EW734x05 were off line for most of April and May 2015 due to a repeatedly tripped circuit breaker for those extraction well pumps. The breaker was switched out at EW734x05 in March 2015, but has continued to trip. Additional troubleshooting at EW734x05 revealed heavy corrosion and damage to the pump effluent hose barb. This hose barb will be replaced, and the pump will be brought back on line in June 2015.

Optimization Activities

No optimization activities were performed in May 2015.

Sustainability

Travis AFB is committed to decreasing the amount of GHG produced directly (waste streams discharging GHG) or indirectly (GHG produced as related to electrical energy consumption) from all systems across Travis AFB. Travis AFB continues to optimize each treatment plant to reduce the amount of electrical energy consumed, and to implement sustainable treatment plant optimization programs, such as taking extraction pumps off line that are no longer necessary for contaminant plume capture.

Figure 2 presents the historical GHG production from the SBBGWTP. The SBBGWTP produced approximately 18,495 pounds of GHG during May 2015. This amount is much higher than the April 2015 amount of 2,795 pounds of GHG, which is due in part to the increased runtime.

TABLE 4
Summary of Groundwater Analytical Data For May 2015 – South Base Boundary Groundwater Treatment Plant

Constituent	N/C	11 May 2015 (µg/L)

	Instantaneous Maximum* (µg/L)	Detection Limit (µg/L)		Influent	Midpoint	Effluent
Halogenated Volatile Organics						
Carbon Tetrachloride	0.5	0.14	0	ND	ND	ND
Chloroform	5.0	0.16	0	ND	ND	ND
1,1-Dichloroethane	5.0	0.50	0	ND	ND	ND
1,2-Dichloroethane	0.5	0.15	0	0.32 J	ND	ND
1,1-Dichloroethene	5.0	0.19	0	ND	ND	ND
cis-1,2-Dichloroethene	5.0	0.19	0	2.5	ND	ND
trans-1,2-Dichloroethene	5.0	0.33	0	ND	ND	ND
Methylene Chloride	5.0	0.66	0	ND	ND	ND
Tetrachloroethene	5.0	0.21	0	ND	ND	ND
1,1,1-Trichloroethane	5.0	0.14	0	ND	ND	ND
1,1,2-Trichloroethane	5.0	0.20	0	ND	ND	ND
Trichloroethene	5.0	0.19	0	39.6	ND	ND
Vinyl Chloride	0.5	0.18	0	ND	ND	ND
Non-Halogenated Volatile Organics						
Benzene	1.0	0.17	0	ND	ND	ND
Ethylbenzene	5.0	0.22	0	ND	ND	ND
Toluene	5.0	0.14	0	ND	ND	ND
Xylenes	5.0	0.23 – 0.5	0	ND	ND	ND
Other						
Total Petroleum Hydrocarbons – Gasoline	50	8.5	0	NM	NM	ND
Total Petroleum Hydrocarbons – Diesel	50	50	0	NM	NM	ND
Total Suspended Solids (mg/L)	NE	1.0	0	7 J	NM	NM

* In accordance with Appendix B of the Travis AFB South Base Boundary Groundwater Treatment Plant Operations and Maintenance Manual (CH2M HILL, 2004).

Notes:

J = analyte concentration is considered an estimated value due to a detected concentration value between the reporting limit and method detection limit for the contaminant
mg/L = milligrams per liter
N/C = number of samples out of compliance with discharge limits
ND = not detected
NE = not established
NM = not measured
µg/L = micrograms per liter

Figure 1
SBBGWTP Total VOC Influent Concentrations and Average Flowrate
Twelve Month History
Travis Air Force Base, California

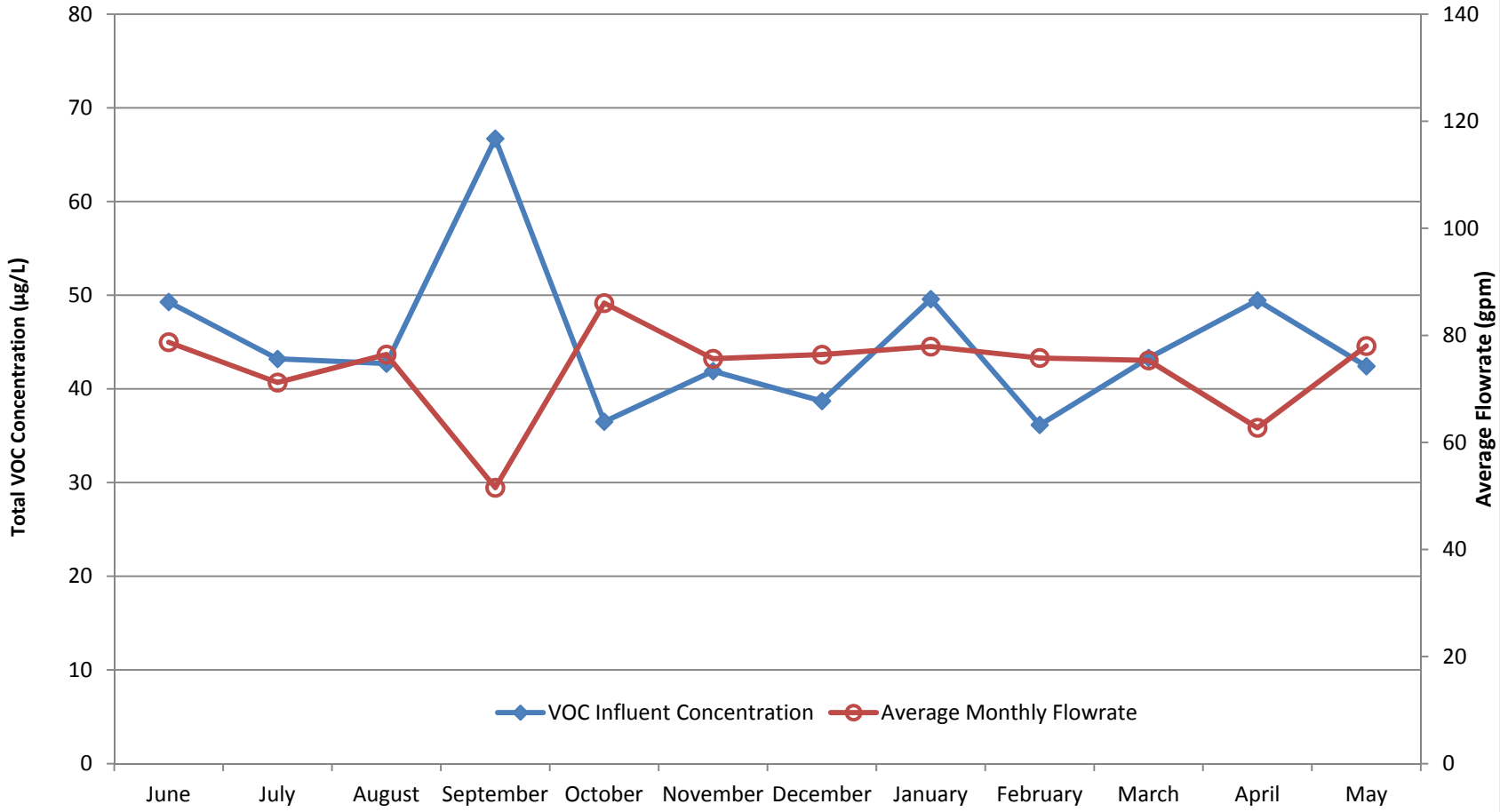
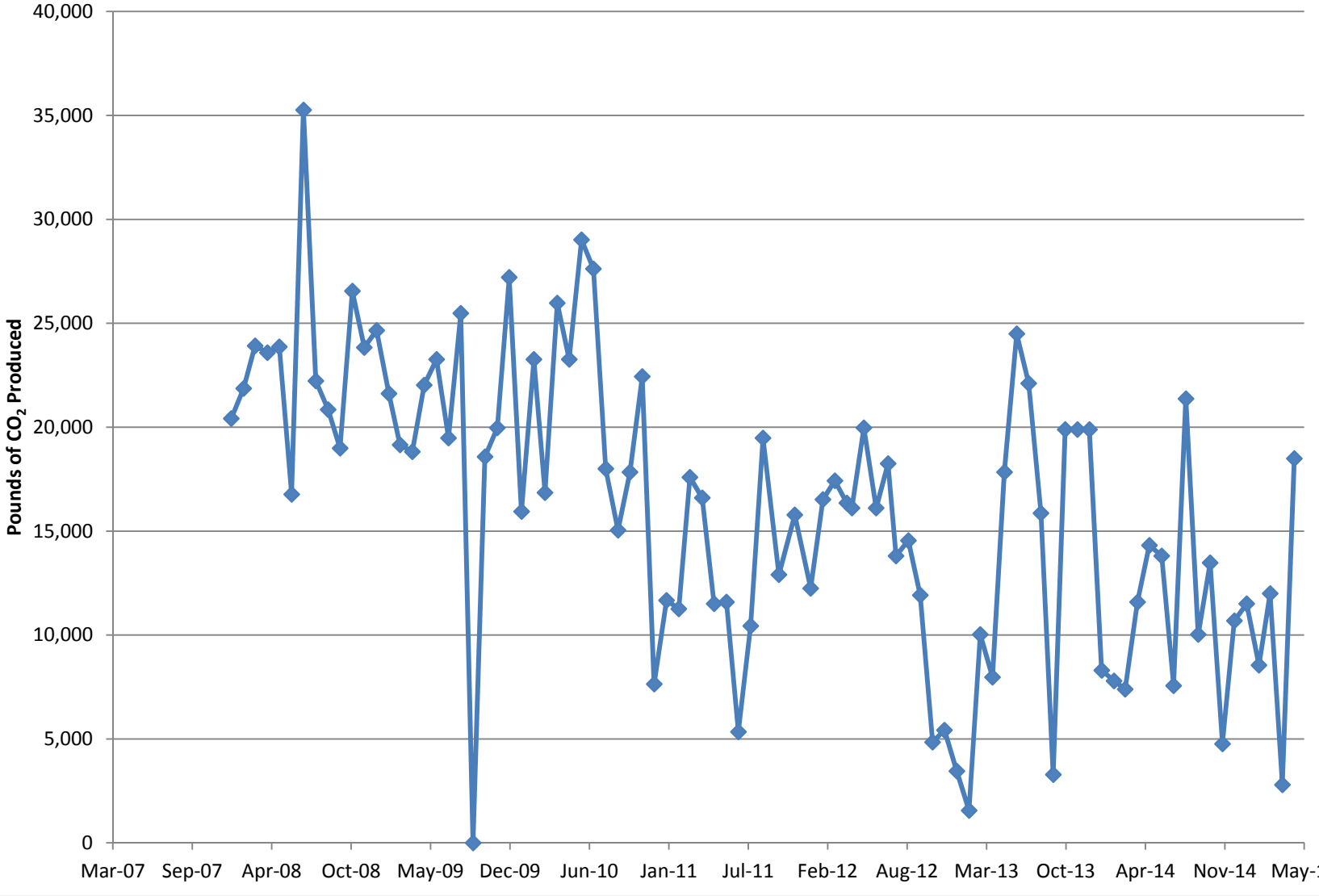


Figure 2

Equivalent Pounds of CO_2 Produced by the South Base Boundary Groundwater Treatment Plant



Central Groundwater Treatment Plant Monthly Data Sheet

Report Number: 190 **Reporting Period: 24 April 2015 – 29 May 2015** **Date Submitted: 16 June 2015**

This monthly data sheet presents information regarding the Central Groundwater Treatment Plant (CGWTP) and its associated technology demonstrations. The ongoing technology demonstrations related to the CGWTP include various emulsified vegetable oil (EVO) injections and two (2) bioreactor treatability studies.

System Metrics

Table 1 presents operational data from the May 2015 reporting period.

Table 1 – Operations Summary – May 2015

Initial Data Collection:	04/24/2015 13:36	**Final Data Collection:**	05/29/2015 13:00

Operating Time:	Percent Uptime:	Electrical Power Usage:
CGWTP: 839 hours	**CGWTP:** 100%	**CGWTP:** 3,097 kWh (4,243 lbs CO_2 generated[a])

Gallons Treated: **1.51 million gallons**

Gallons Treated Since January 1996: **511 million gallons**

VOC Mass Removed from groundwater:

3.42 lbs[b]

VOC Mass Removed Since January 1996:

2,720 lbs from groundwater

8,686 lbs from vapor

Rolling 12-Month Cost per Pound of Mass Removed: $830[c]

Monthly Cost per Pound of Mass Removed: $807

[a] Based on Department of Energy estimate that 1 kilowatt hour generated produces 1.37 pounds of GHG.
[b] Calculated using May 2015 EPA Method SW8260B analytical results.
[c] Costs include operations and maintenance, reporting, analytical laboratory, project management, and utility costs related to operation of the CGWTP and are reported based on the calendar month.

Table 2 presents individual extraction well flow rates during the monthly reporting period.

Table 2 – CGWTP Average Flow Rates[a]

Location	Average Flow Rate Groundwater (gpm)
EW01x16	16.9[b]
EW02x16	7.0[b]
EW03x16	1.0
EW605x16	6.8
EW610x16	2.8[b]
CGWTP	29.9

[a] Flow rates calculated by dividing total gallons processed by system operating time for the month.
[b] Flow rate based on instantaneous, beginning of the month reading for May 2015.

gpm = gallons per minute
-- = not applicable/not available
scfm = standard cubic feet per minute

Table 3 presents a summary of shutdowns during the monthly reporting period.

Table 3 – Summary of System Shutdowns

Location	Shutdown[a]		Restart[a]		Cause
	Date	Time	Date	Time	
CGWTP					
	NA	--			

-- = Time not recorded
[a] Shutdown and restart times estimated based on field notes
CGWTP = Central Groundwater Treatment Plant
NA = not applicable

Summary of O&M Activities

Monthly groundwater samples were collected at the CGWTP on 11 May 2015. Sample results are presented in Table 4. The total VOC concentration (272.3 µg/L) in the May 2015 influent sample has greatly decreased since the April 2015 sample (328.49 µg/L) was collected. Concentrations of cis-1,2-DCE (57.2 µg/L), trans-1,2-DCE (2.8 µg/L), 1,1-DCE (0.54 µg/L), and TCE (210 µg/L) were detected at the influent sampling location along with trace amounts of 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and vinyl chloride. Vinyl chloride was detected at a concentration of 0.36 J µg/L after the first carbon vessel, and 0.58 J µg/L after the second carbon vessel, but no detections were observed at the effluent sampling location.

Figure 1 presents a plot of influent concentrations (total VOCs) and the influent flow rate at the CGWTP versus time for the past twelve (12) months. The average flow rate through the treatment remained consistent, decreasing slightly, in May 2015 with the flowrate measured in April 2015 (from 30.06 gpm to 29.93 gpm).

The Site DP039 bioreactor continues to operate in a "pulsed mode" in order to improve the rate of remediation and to preserve the amount of total organic carbon being produced within the bioreactor. The "pulsed mode" operation continued on a two (2) week transition schedule in May 2015, and was brought back on line from 8 May to 22 May 2015, then turned off again. The bioreactor pump is scheduled to be brought back online on 5 June 2015.

Optimization Activities

No optimization activities occurred at the CGWTP in May 2015.

Sustainability

Travis AFB is committed to decreasing the amount of GHG produced directly (waste streams discharging GHG) or indirectly (GHG produced as related to electrical energy consumption) from all systems across Travis AFB. Travis AFB continues to optimize each treatment plant to reduce the amount of electrical energy consumed, and to implement sustainable treatment plant optimization programs, such as bioreactors and EVO injection well networks.

Figure 2 presents the historical GHG production from the systems associated with the CGWTP. The CGWTP produced approximately 4,243 pounds of GHG during May 2015. This is an increase from the amount produced in April 2015 (approximately 2,766 pounds), which is the consistent with a much longer observation time.

TABLE 4
Summary of Groundwater Analytical Data for May 2015 – Central Groundwater Treatment Plant

Constituent	Instantaneous Maximum* (µg/L)	Detection Limit (µg/L)	N/C	11 May 2015 (µg/L)			
				Influent	After Carbon 1 Effluent	After Carbon 2 Effluent	System Effluent
Halogenated Volatile Organics							
Carbon Tetrachloride	0.5	0.14	0	ND	ND	ND	ND
Chloroform	5.0	0.16	0	ND	ND	ND	ND
cis-1,2-Dichloroethene	5.0	0.19	0	57.2	ND	ND	ND
1,1-Dichloroethane	5.0	0.5	0	ND	ND	ND	ND
1,2-Dichloroethane	0.5	0.15	0	ND	ND	ND	ND
1,1-Dichloroethene	5.0	0.19	0	0.54	ND	ND	ND
Methylene Chloride	5.0	0.66	0	ND	ND	ND	ND
MTBE	1.0	0.5	0	ND	ND	ND	ND
Tetrachloroethene	5.0	0.21	0	0.57	ND	ND	ND
1,1,1-Trichloroethane	5.0	0.14	0	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	0.2	0	ND	ND	ND	ND
Trichloroethene	5.0	0.19	0	210	ND	ND	ND
trans-1,2-Dichloroethene	5.0	0.33	0	2.8	ND	ND	ND
Vinyl Chloride	0.5	0.18	0	0.27 J	0.36 J	0.58 J	ND
Non-Halogenated Volatile Organics							
Benzene	1.0	0.17	0	ND	ND	ND	ND
Ethylbenzene	5.0	0.22	0	ND	ND	ND	ND
Toluene	5.0	0.14	0	ND	ND	ND	ND
Total Xylenes	5.0	0.23 – 0.5	0	ND	ND	ND	ND
Other							
Total Suspended Solids (mg/L)	NA	10	0	ND	NM	NM	NM

* In accordance with Appendix G of the T*ravis AFB Central Groundwater Treatment Plant Operations and Maintenance Manual* (URS Group, Inc., 2002).

Notes:

J = analyte concentration is considered an estimated value due to a detected concentration value between the reporting limit and method detection limit for the contaminant

N/C = number of samples out of compliance with discharge limits

ND = not detected

NM = not measured

µg/L = micrograms per liter

mg/L = milligrams per liter

Table 5 presents a twelve month summary of the Site DP039 bioreactor recirculation well pulsing dates.

Table 5 – Summary of DP039 Bioreactor "Pulsed Mode" Operations

Location	Pulse On Start Date	Pulse Off Start Date
MW750x39	22 April 2014	28 April 2014
	12 May 2014	12 May 2014
	6 June 2014	20 June 2014
	3 July 2014	24 July 2014
	01 August 2014	15 August 2014
	01 September 2014	12 September 2014
	26 September 2014	30 September 2014[a]
	24 October 2014	7 November 2014
	21 November 2014	4 December 2014
	19 December 2014	January 2, 2015
	16 January 2015	29 January 2015
	13 February 2015	27 March 2015
	10 April 2015	24 April 2015
	8 May 2015	22 May 2015

[a] = DP039 Bioreactor turned off on 30 September 2014 to replace hose.
CGWTP = Central Groundwater Treatment Plant
MW = Monitoring Well

Figure 1
CGWTP Total VOC Influent Concentrations and Average Flowrate
Twelve Month History
Travis Air Force Base, California

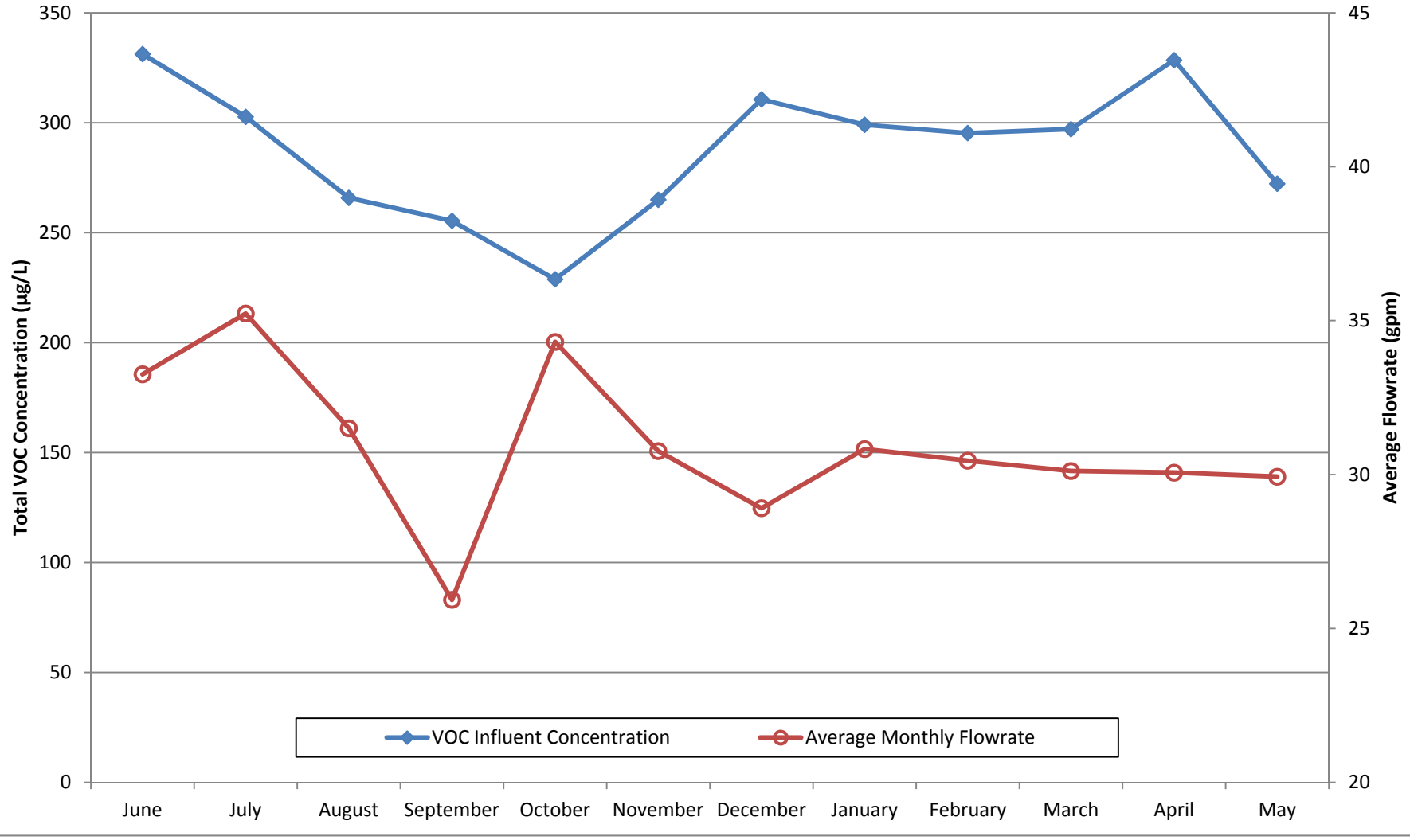
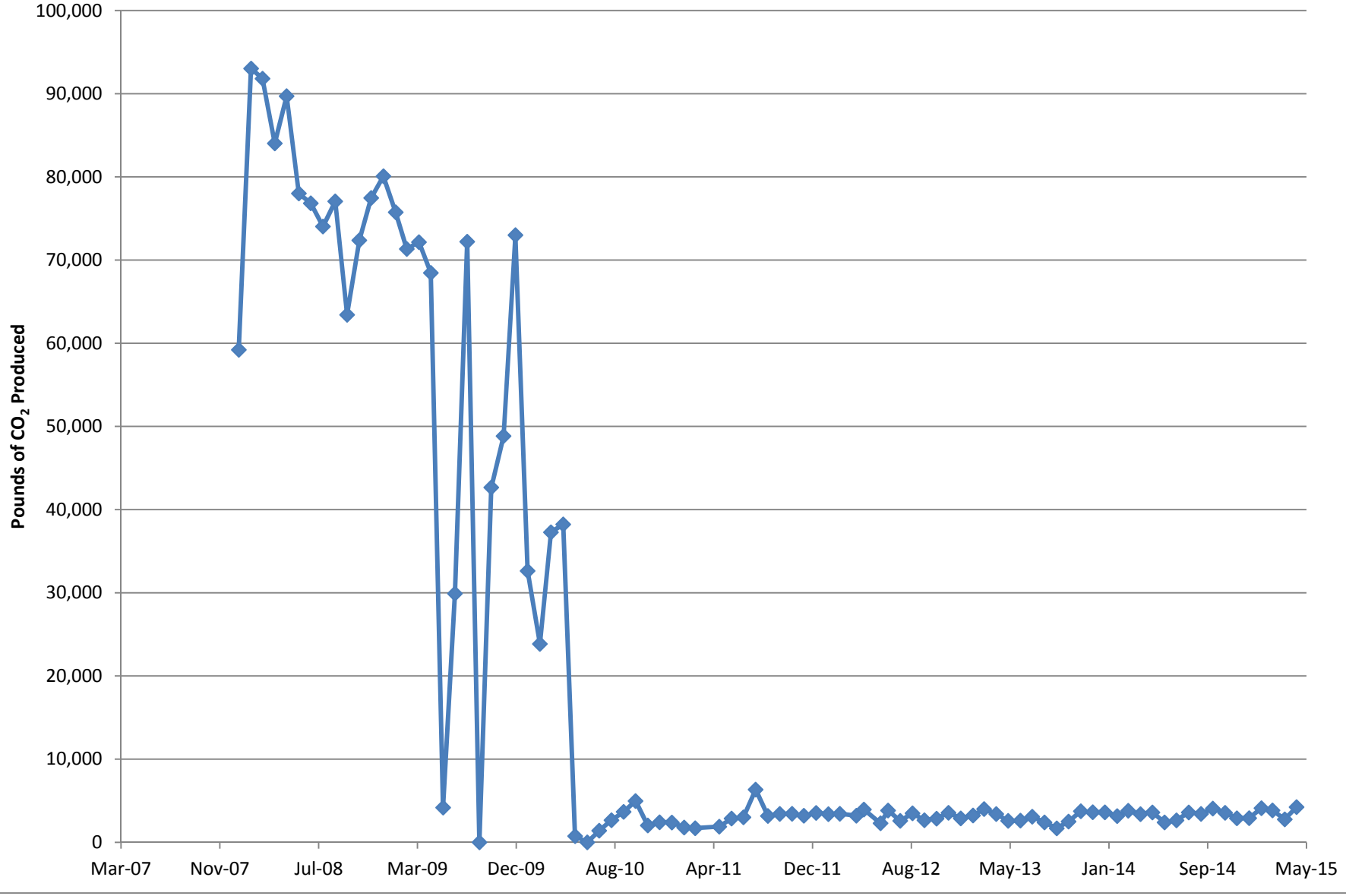


Figure 2

Equivalent Pounds of CO2 Produced by the Central Groundwater Treatment Plant



Site ST018 Groundwater Treatment Plant Monthly Data Sheet

Report Number: 051 **Reporting Period: 04 May 2015 – 29 May 2015** **Date Submitted: 16 June 2015**

This monthly data sheet presents information regarding the Site ST018 Groundwater Treatment Plant (ST018GWTP).

System Metrics

Table 1 presents operation data from the May 2015 reporting period.

Table 1 – Operations Summary – May 2015

Initial Data Collection:	05/04/2015 14:20	**Final Data Collection:**	05/29/2015 09:00
Operating Time:		Percent Uptime:	Electrical Power Usage:
ST018GWTP: 422 hours		**ST018GWTP:** 70%	**ST018GWTP:** 49 kWh (67 lbs CO_2 generated[a])
Gallons Treated: **78,200 gallons**		Gallons Treated Since March 2011: **7.5 million gallons**	
Volume Discharged to Sanitary Sewer: **78,200 gallons**		Final Totalizer Reading: **7,387,700 gallons**	
Cumulative Volume Discharged to Sanitary Sewer since 1 November 2014: **1,004,615 gallons**			
BTEX, MTBE, TPH Mass Removed: **0.04 lbs**[b]		BTEX, MTBE, TPH Mass Removed Since March 2011: **31.3 lbs**	
MTBE (Only) Removed: **0.02 lbs**[b]		MTBE (Only) Mass Removed Since March 2011: **7.0 lbs**	
Rolling 12-Month Cost per Total Pounds of Mass Removed: $12,244[c]			
Monthly Cost per Pound of Mass Removed: $66,057[d]			

[a] Based on Department of Energy estimate that 1 kilowatt hour generated produces 1.37 pounds of GHG.

[b] Calculated using May 2015 effluent EPA Method SW8260B analytical results.

[c] Costs include operations and maintenance, reporting, analytical laboratory, project management, and utility costs related to operation of the system.

[d] Value inflated due to small influent concentration in the denominator when determining the cost per pound of mass removed.

lbs = pounds

Table 2 presents individual extraction well flow rates along with the average system flow during the monthly reporting period.

Table 2 – ST018GWTP Average Flow Rates

Location	Average Flow Rate Groundwater (gpm)[a]	Hours of Operation
EW2014x18	0.20[b]	252
EW2016x18	1.48	252
EW2019x18	1.50	245
Site ST018 GWTP	3.09	422

[a] Flow rates calculated by dividing total gallons processed by the hours of operation, from the totalizer and hour meter at each location.
[b] Flow rate decreased at EW2014x18 in May due to clogging with silt.
gpm = gallons per minute
ST018GWTP = Site ST018 Groundwater Treatment Plant

Table 3 presents a summary of shutdowns during the monthly reporting period.

Table 3 – Summary of System Shutdowns

Location	Shutdown[a]		Restart[a]		Cause
	Date	Time	Date	Time	
ST018GWTP	5 May 2015	14:45	12 May 2015	15:15	System offline due to construction activities related to new extraction well (EW2333x18) and subsequent piping/conveyance tie-in to ST018 system.
ST018GWTP	28 May 2015	07:40	28 May 2015	10:00	System offline due to flooding in the sump pad area; last GAC vessel air release valve was broken off and caused the vessel to overflow into the secondary containment pad.

[a] Shutdown and restart times estimated based on field notes
-- = time not known
ST018GWTP = Site ST018 Groundwater Treatment Plant

Summary of O&M Activities

Monthly groundwater treatment samples were collected at the ST018GWTP on 13 May 2015. Results are presented in Table 4. The complete May 2015 laboratory data report is available upon request.

The influent concentration for MTBE during the May 2015 sampling was 30.9 µg/L, which is a decrease from the April 2015 sample (33.8 µg/L). Benzene (9.3 µg/L), ethylbenzene (7.6 µg/L), and m,p-xylene (10.2 µg/L) were also detected in the influent sample. Trace amounts of o-xylene and toluene were also detected at the influent sampling location. TPH-d was also detected after the first carbon vessel. No contaminants were detected at the effluent sample location in May 2015.

Figure 1 presents plots of flow rate and influent total contaminant (TPH-g, TPH-d, MTBE, and BTEX) and MTBE concentrations at the ST018GWTP versus time.

The ST018GWTP system was taken offline on 5 May 2015, due to construction activities related to new extraction well EW2333x18, and subsequent piping/conveyance tie-in to the ST018GWTP system. The system was restarted on 12 May with no issues. Extraction well EW2333x18 will be brought online in June 2015. On 28

May 2015, the system was taken offline due to flooding in the sump pad area. The lag GAC vessel air release valve was broken off due to corrosion, which caused the vessel to overflow into the secondary containment pad; the water in the pad was pumped into the influent tank and the ST018GWTP system was operated bypassing the lag GAC vessel.

As shown on Figure 1, the average flow rate through the ST018GWTP has been seasonally variable with a slight increasing trend since the battery upgrade in 2013. May 2015 represents a decreased amount of groundwater treated and discharged by the ST018GWTP from April 2015. This decrease is due to inconsistent and decreased run-time throughout the month.

Optimization Activities

In order to decrease the time needed to meet the MTBE cleanup goal of the ST018GWTP, the system is being optimized by the installation of an additional extraction well in the central portion of the plume, where MTBE concentrations remain elevated. Extraction well EW2333x18 was installed in mid-March 2015; optimization activities in May 2015 included installing the vault and tying the new extraction well into the existing system. Trenching for the piping and electrical connections occurred from 4 May through 11 May 2015 and the solar control panel and electrical connections were completed on 19 May 2015. Extraction well EW2333x18 will be brought online in June 2015.

Sustainability

Travis AFB is committed to decreasing the amount of GHG produced directly (waste streams discharging GHG) or indirectly (GHG produced as related to electrical energy consumption) from all systems across Travis AFB. Travis AFB continues to optimize each treatment plant to reduce the amount of electrical energy consumed, and to implement sustainable treatment plant optimization programs, such as the solar arrays employed to power the ST018GWTP system.

The ST018GWTP produced 67 pounds of GHG during May 2015, which was a large decrease of GHG produced in April 2015 (207 pounds). The amount of water treated in May 2015 (78,200 gallons) was less than a third of the April 2015 treatment (256,870 gallons) due to the ST018GWTP system being offline. The amount of GHG produced during May was representative of typical values observed during decreased operation (70 percent runtime in May 2015). Figure 2 presents the historical GHG production from the ST018GWTP. The overall GHG generation has been decreasing since a 2014 peak in March, and remains considerably lower than traditional GWTPs since the system is predominantly powered by solar arrays. The previous increasing GHG production reflected an inverse relationship between solar exposure in the fall and winter relative to GHG production.

TABLE 4

Summary Of Groundwater Analytical Data for May 2015 – Site ST018 Groundwater Treatment Plant

Constituent	Instantaneous Maximum* (µg/L)	Detection Limit (µg/L)	N/C	13 May 2015 (µg/L)			
				Influent	After Carbon 1	After Carbon 2	System Effluent
Fuel Related Constituents							
MTBE	5	0.5	0	30.9	NM	ND	ND
Benzene	5	0.17	0	9.3	NM	ND	ND
Ethylbenzene	5	0.22	0	7.6	NM	ND	ND
Toluene	5	0.14	0	0.39 J	NM	ND	ND
Total Xylenes	5	0.23 – 0.5	0	10.98	NM	ND	ND
Total Petroleum Hydrocarbons – Gasoline	50	8.5	0	ND	ND	NM	ND
Total Petroleum Hydrocarbons – Diesel	50	50	0	82 J-	92 J-	NM	ND
Total Petroleum Hydrocarbons – Motor Oil	--	160	--	ND	ND	NM	ND

* In accordance with the National Pollutant Discharge Elimination System (NPDES) Effluent Limitations

Laboratory data available on request.

µg/L = micrograms per liter
J = analyte concentration is considered an estimated value due to a detected concentration value between the reporting limit and method detection limit for the contaminant
J- = is considered a J-flagged value that is below the reporting limit for the contaminant (a low estimate)
N/C = number of samples out of compliance with discharge limits
ND = not detected above method detection limit
NM = not measured this month

Figure 1
ST18GWTP Total VOC and MTBE Influent Concentrations
Quarterly History
Travis Air Force Base, California

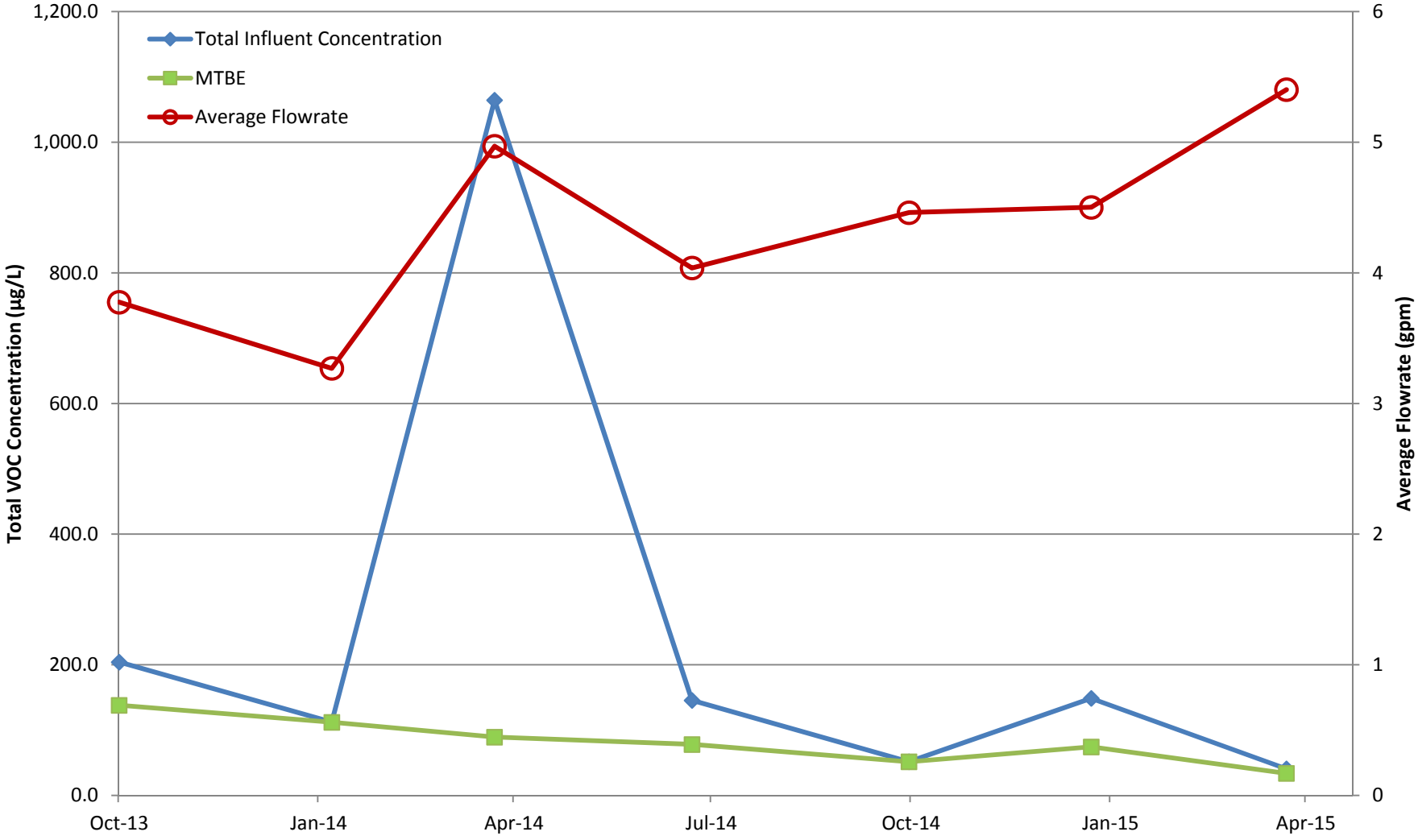
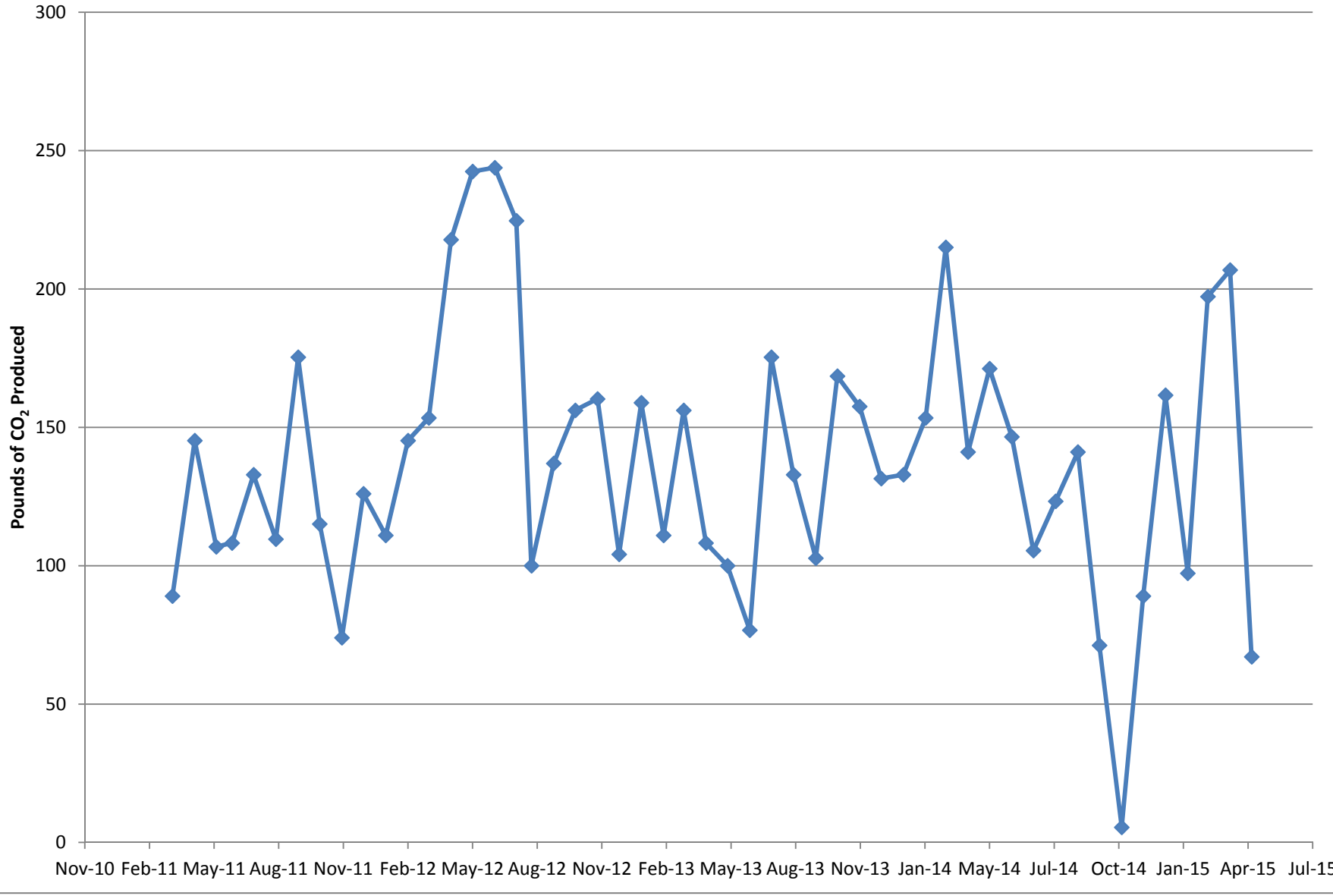


Figure 2

Equivalent Pounds of CO2 Produced by the Site ST018 Groundwater Treatment Plant



Travis AFB
Restoration Program

Program Overview

RPM Meeting

June 17, 2015

Completed Documents

- Vapor Intrusion Assessment Update Technical Memorandum
- 2012 CAMU Annual Report
- Old Skeet Range Action Memorandum
- 3rd Five-Year Review
- 2012 Annual Groundwater Remediation Implementation Status Report (GRISR)
- Subarea LF007C and Site SS030 Remedial Process Optimization Work Plan
- Pre-Design Site Characterization of SS029 Report
- Old Skeet Range Removal Action Work Plan
- 2013 CAMU Inspection Annual Report
- Groundwater Record of Decision (ROD)
- CG508 POCO Work Plan
- 2013 Annual GRISR
- FT004 Technology Demonstration Work Plan
- Kinder Morgan LF044 Land Use Control Report
- SD031 Technology Demonstration Work Plan
- TA500 Data Gap Investigation Work Plan
- ST018 POCO Work Plan Addendum
- SD037 GW RD/RA Work Plan
- Travis AFB UFP-QAPP
- DP039 Lead Excavation Technical Memo

Completed Documents (cont'd)

- Proposed Plan for ROD Amendment to WABOU Soil ROD
- Proposed Plan for ROD Amendment to NEWIOU Soil, Sediment, & Surface Water ROD
- SD034 Data Gap Investigation Work Plan
- POCO Investigation Work Plan for Oil-Water Separators
- ST032 POCO Soil Excavation Work Plan
- SD036 GW RD/RA Work Plan
- SS016 GW RD/RA Work Plan
- SS015 GW RD/RA Work Plan
- FT005 Technology Demonstration Work Plan
- ***2014 Annual CAMU Monitoring Report***
- ***Old Skeet Range PAH Delineation Report***

Completed Field Work

- Replace battery banks at ST018 Groundwater Treatment Plant
- Annual Groundwater Remediation Implementation Program (GRIP) Sampling event
- Well Decommissioning (9 Wells)
- Electrical repairs to FT005 extraction system (well EW01x05)
- Electrical repairs to Site SS029 extraction system
- Site ST018 carbon vessels upgrade
- 2014 GRIP Semiannual Sampling Event
- Pump repairs to Site SS016 well (EW610x16)
- Subsite LF007C optimization upgrades
- 2014 Annual GRIP Sampling Event
- Biological Resource Assessment
- Site CG508 Site Investigation
- Old Skeet Range Characterization Sampling
- 4Q Semiannual GRIP Sampling Event
- SD031 Technology Demonstration Well Installation
- SD037 Well Installation
- SD031 Trench/Conveyance/Power Installation
- SD031 EVO Injection
- ST018 Well Installation
- SS015 Well Installation
- SS016 Well Installation
- Well Development (SD036, SD037)
- ST018 Trench/Conveyance/Power Installation
- SD036 EVO Injection
- Well Development (SS015, SS016)
- Baseline Sampling (SS015, SS016)
- SS014 Data Gap Investigation
- ***SS016 EVO Injection***
- ***TA500 Data Gaps Investigation***

Completed Field Work

- ***2015 Annual GRIP Sampling***
- ***SD037 EVO Injection***

Documents In-Progress

CERCLA

- SD031 Technology Demonstration Construction Completion Report
- DP039 GW RD/RA Work Plan
- ***2014 Annual GRISR***

Documents In-Progress

POCO

- CG508 Site Investigation/Site Closure Request Report
- SS014 POCO Technology Demonstration Work Plan
- ST028 POCO Work Plan

Field Work In-Progress

- Oil Water Separators Site Investigation
- SD034 Data Gaps Investigation
- ***FT005 Injection Well Installation***
- ***SS015 EVO Injection***

Documents Planned

CERCLA

- Community Involvement Plan — Jul
- Sites SD036 and SD037 Remedial Action Construction Completion Report — Jul
- ROD Amendment for NEWIOU Soil, Sediment, and Surface Water ROD — Jul
- ROD Amendment for WABOU Soil ROD — Jul
- Site SS016 Groundwater Remedial Action Construction Completion Report — Aug
- Site SS015 Groundwater Remedial Action Construction Completion Report — Aug

Documents Planned

POCO

- ST018 POCO Construction Completion Report Aug

Field Work Planned

CERCLA

• FT004 Injection Wells	Jun*
• DP039 Well Installation	Jul
• SS030 Trench/Conveyance/Power Installation	Jul
• FT004 Trench/Conveyance/Power Installation	Jul
• FT005 Trench Installation	Jul
• FT004 EVO Injection	Aug
• FT005 EVO Injection	Aug
• DP039 Infiltration Trench Installation	Aug
• DP039 EVO Injection	Sep

* May be delayed due to dig permit

Note: Contact Lonnie Duke if you would like to observe planned field work events

Field Work Planned

POCO

- SS014 Bioreactor Installation Jul

Note: Contact Lonnie Duke if you would like to observe planned field work events

Completed Documents (Historical1)

- Basewide Health & Safety Plan (HSP)
- Action Plan
- 2007/2008 GSAP Annual Report
- LF007C RPO Work Plan
- LF008 Rebound Study Work Plan
- SS014 Tier 1 POCO Evaluation Work Plan
- ST027B Site Characterization Work Plan
- SS030 RPO Work Plan
- ST032 POCO Technical Memo
- DP039 Bioreactor Work Plan
- 2008 Annual GWTP RPO Report
- Passive Diffusion Bag (PDB) Technical Memo
- RD/RA QAPP Update
- ST032 Tier 1 POCO Evaluation Work Plan
- Phytostabilization Demonstration Technical Memo
- Model QAPP
- LF008 Rebound Test Technical Memo
- Comprehensive Site Evaluation Phase II Work Plan
- Field Sampling Plan (FSP)
- SS016 RPO Work Plan
- ST018 POCO RA Work Plan
- Vapor Intrusion Assessment Report
- GSAP 2008/2009 Annual Report
- FT005 Data Gap Work Plan
- First, Second, & Third Site DP039 Sustainable Bioreactor Demonstration Progress Reports
- DP039 RPO Work Plan
- SD036/SD037 RPO Work Plan
- ST027B Site Characterization Report
- 2009 GWTP RPO Annual Report Natural Attenuation Assessment Report (NAAR)
- Union Creek Sites SD001 & SD033 Remedial Action Report
- CAMU 2008-2009 Monitoring Annual Report

Completed Documents (Historical 2)

- Phytostabilization Study Report
- 2009/2010 Annual GSAP Report
- SS015 Remedy Optimization Field Implementation Plan
- Sites SS014 and ST032 Tier 1 POCO Evaluation Report
- SD036 Remedy Optimization Field Implementation Plan
- 2010 Annual CAMU Inspection Report
- Site ST018 POCO Baseline Implementation Report
- FT005 Data Gaps Investigation Report
- Comprehensive Site Evaluation Phase II Report
- 2010 Groundwater RPO Annual Report
- Focused Feasibility Study (FFS)
- Site ST027-Area B Human Health Risk Assessment
- Site ST027-Area B Ecological Risk Assessment
- Work Plan for Assessment of Aerobic Chlorinated Cometabolism Enzymes
- 2010/2011 Annual GSAP Report
- Baseline Implementation Report (Sites SS015, SS016, SD036, SD037, and DP039)
- 2011 CAMU Annual Report
- Technical and Economic Feasibility Analysis (TEFA)
- Work Plan for RPO of Sites SS016 and SS029
- Site LF007C Data Gaps Investigation Technical Memorandum
- Technical Memorandum for Assessment of Aerobic Chlorinated Cometabolism Enzymes
- Old Skeet Range Engineering Evaluation/Cost Analysis
- 2011 Groundwater Treatment RPO Annual Report
- Groundwater Proposed Plan (PP)
- FT005 Remedial Action Completion Report
- 2012 GSAP Technical Memorandum

Completed Field Work (Historical1)

- ST027B Gore Sorber Survey–Phase 1
- ST027B Field Sampling – Phase 2
- GSAP 2008 Semi-annual Event
- ST027B Installation of Wells – Phase 3
- SS014 Site Characterization
- LF008 Rebound Study
- GSAP Annual Sampling Event - 2009
- SS030 Site Characterization–Phase 1
- ST027 Site Characterization -Phase 3
- ST014 Monitor Well Install - Subsite 3
- SD001/SD033 Sediment RA
- SS016 Site Characterization (OSA source area)
- ST018 Site Characterization
- SS030 Site Characterization (Off-base VOC Plume)
- DP039 Site Characterization (for Biobarrier Placement)
- SS014 & ST032 Q1 2010 MNA Sampling (2nd of 4 quarterly events)
- SD036 Additional Site Characterization (north & east)
- Therm/Ox System Removal
- SS016 Monitoring Well Installation
- SD037 EVO Injection Well Installation
- DP039 Monitoring Well & Injection Well Installation
- DP039 EVO Injection
- SD037 Monitoring Well Installation
- GSAP 2010 Annual Sampling Event
- SD037 EVO Injection
- SS015 Site Characterization
- South Plant GAC Change-out
- FT005 Data Gap Investigation
- SS016 Position Survey of EW03
- SS016 Bioreactor Installation
- SS016 Bioreactor Baseline Sampling
- DP039 Biobarrier Quarterly Performance Sampling

Completed Field Work (Historical 2)

- DP039 Bioreactor Quarterly Performance Sampling
- SD037 EVO Quarterly Performance Sampling
- SS015 EVO Baseline Sampling
- SD036 EVO Baseline Sampling
- SS016 Bioreactor Startup
- SD036 Injection Wells Installation
- SS015 Injection Wells Installation
- ST018 GETS Installation
- SD036 EVO Injection
- 2010 Semiannual GSAP
- SS015 EVO Injection
- Quarterly RPO Performance Monitoring (Feb 2011)
- ST018 GETS Startup
- Quarterly RPO Performance Monitoring (May 2011)
- 2011 Annual GSAP Sampling
- SS029 GET Shutdown Test (System Optimization analysis)
- Quarterly RPO Performance Monitoring (Aug 2011)
- Quarterly RPO Performance Monitoring (Nov 2011)
- 2011 Semiannual GSAP Sampling
- LF007C Site Characterization (Wetlands)
- FT005 Soil Remedial Action
- Performance Monitoring SS015 (4^{th} Quarterly event)
- Sampling for Assessment of Aerobic Chlorinated Cometabolism Enzymes (Feb 21-22)
- 2012 Annual GSAP Sampling
- CAMU Lysimeter Removal
- LF007C GET System Optimization
- SS029/SS016 System Optimization Analysis
- GSAP Semiannual Sampling Event
- Replace electrical wiring for well field at Site SS030