

## AFCEE Galena Triad Meeting No. 4

ATTENDEES: See Attached  
FROM: CH2M HILL  
DATE: August 2, 2011

The Galena Triad teleconference was participated in by members of the Air Force, ADEC, ADOT, CH2M HILL, and Booz Allen Hamilton. Please see the attached **Galena Triad Team Contact List** for attendees.

The meeting followed the standard agenda setup for the Galena Triad calls.

Agenda:

1. Safety moment
2. Status update for field work activities
3. Review of action items and conclusions from previous Triad meeting. Approval of minutes
4. Discussion of new site data and evaluating progress toward Work Plan objectives
5. Identifying additional work needed and/or concurrence that Work Plan objectives have been met
6. Open discussion of other items
7. Schedule update for upcoming activities

### Safety Moment

Ronny Fields/CH2M HILL briefly discussed ergonomics, using proper lift techniques (keep back straight, lift with legs); ergonomics important for office work also.

### Status Update of Field Work Activities

Ronny presented an update on recent field work activities:

- DPT nighttime drilling effort with the Geoprobe rig was completed this past week at SS015, UST1428, the PADS area, and B400. The concludes nighttime drilling at this time, will start back on day shift later today.
- Will start back on SS014, SS017, and SS021 sampling for TO294.
- Daytime drilling effort at MGH associated wells, installed MW002 and 003; MW013 and 014; started MW011, will complete today. MW012 was drilled to depth at 95 feet.
- MW006, 009, and 010 are remaining currently permitted locations.
- TO259 two wells are on hold until the excavation work is completed
- Some Phase 1 wells still need FAA/ADOT approvals. Four wells are on the runway shutdown permit.

[Later during the call, Paul Bernheisel and Amanda gave the following updates]

- Status of IRA: Excavating around utilidor, removing clean soil. Wilderness Hall excavation. Completing laydown of liner at Campion. Contaminated soil excavation hasn't started yet.
- Water filter installations: Buckets stopped by ADEC and talked with Amanda. He will not let the water filter be installed until he knows how long it will be on there. Donna said It will be removed when the Air Force has data showing his well is not at risk. Donna said his request for a water softener has been forwarded to AFRPA for approval.
- Paul Bernheisel/AFCEE said to go ahead and install Ms. Thurmond's GAC system. He will talk with Buckets and determine if the GAC system can be installed next week.

## Review of Action Items, Approval of Minutes

These action items are going to be deferred to another Triad call, 10:00 a.m. Wednesday, August 10:

- SS016
- Excavation screening methods

Minutes of the previous Triad meeting are in review with the Air Force; Donna Kozak/Booz Allen Hamilton said to distribute to ADEC and ADOT today.

## New Site Data and Evaluating Progress toward Work Plan Objectives

The following sites were discussed:

- UST1770
- Storage Yard 1850
- OAP GoreSorber results
- Revised proposed sampling depths for CG001 (MGH)

Fred Vreeman/ADEC joined the call. He asked whether there would be any decisions on locations made during this meeting. Win Westervelt and Kate O'Connor/CH2M HILL said there were a couple of borings outside S1850 and discussing where to put soil borings to confirm GoreSorber results. Fred said that Amanda Loomis/ADEC would handle those items.

Fred asked about well locations near the location that we already have extent of. Phase 2, upgradient and downgradient monitoring wells; the team had talked about putting a monitoring well near the Dining Hall.

Win said the Groundwater Contaminant Characterization Work Plan is going to the Air Force for review and that, in the interim, for the HSA, we want to put in vapor monitoring points (11 locations) in the Optimization Work Plan that went to ADEC for review July 27. Two high-priority items to keep the drilling moving are the Optimization Work Plan and the ST005 Field Sampling Plan. Air Force would like to receive partial or full concurrence for drilling at these sites the week of August 8<sup>th</sup>.

Fred left the call at this point.

Kate said that a new presentation method is being tried for the large datasets, not displaying all of the annotations – especially if they're green – and asked for feedback from the team.

**UST1770**

Kate presented a figure on UST1770 SVOC sampling results; in 2010, had exceedances down to 10 feet. Had three stepouts down to 41 feet, and there were no exceedances.

Amanda asked Kate whether GP006 and GP007 were supposed to be groundwater grab samples also. We do have groundwater data but it was not available to present today.

**CH2M HILL will follow up with ADEC on groundwater results.**

- A Triad decision that no additional soil stepout sampling will be required at this site was proposed. Because Fred is no longer on the call, will ask for his concurrence when the minutes are sent to him (and the groundwater figure will be sent with the minutes also).

Note: follow-up on the groundwater sampling results for GP006 and GP007 indicated that there were no detectable analytes above screening levels. Figures with detected concentrations of hydrocarbons, VOCs, and SVOCs are submitted with the meeting minutes.

**S1850**

Kate next presented a figure showing offsite lab data for S1850.

- After discussion, two proposed stepouts (GP008 and 009) were moved to approximately 10 feet outside of the fenced area to the west and south, and a grab groundwater sample was added to GP008 (as long as the water table is higher than 35 feet below ground surface, which is the top of the screen interval of the existing monitoring well south of the storage yard). If groundwater is deeper than 35 feet, will not collect the grab groundwater sample. Analytes for soil and groundwater are VOCs only.

**OAP Gore Sorber Results in Eastern Airfield**

Kate presented GoreSorber results. GoreSorbers are passive soil gas samplers, which were in the ground 5 days. On the contour figures, gray = lowest concentration; yellow and pink = highest concentrations. Seven soil boring locations were proposed to confirm the GoreSorber results, five of which are in the runway shutdown area. We can currently collect from GP007 and GP023, which are new since the FSP was written. Amanda said that borings cannot be moved from where they were stated to be in the FSP (at all pipeline elbows).

Colette said that the permits for the runway shutdown may not occur; there is a manpower issue with the FAA. Donna said that, if the FAA has issues with the shutdown, the Air Force would like to talk with them. There was extensive further discussion about the impact of the FAA's position. Donna asked whether hand augering at these locations would be acceptable? Colette said there's a part of the OAP where drilling may be able to occur, but would require shutdown of the ski strip; a NOTAM would be required.

- The proposed stepout locations are agreeable to ADEC. Retain all soil boring locations at pipeline bends as proposed in the original FSP.

**CG001 (MGH)**

Some relocations of borings were proposed because of field observations of site access issues (sloped areas, etc.). Kate reviewed the survey figure with revise locations. Amanda

acknowledged these were changes due to site access issues that were confirmed during the surveying, and ADEC was ok with the new locations. The changes are listed here for reference:

1. CG001\_GP003: moved 10 feet southeast (moved off slope)
2. CG001\_GP004: moved 30 feet north (moved to WNW of the western corner of the building due to rig accessibility and avoidance of underground electrical)
3. CG001\_GP008: moved 20 feet west (moved off slope)
4. CG001\_GP009: moved 20 feet north (moved off slope)
5. CG001\_GP012: moved 20 feet south (moved outside tank retention basin)
6. CG001\_GP016: moved 10 feet east (moved out of dense brush)
7. CG001\_GP019: moved 20 feet west (moved off slope)
8. CG001\_GP023: moved 30 feet west (moved off steep slope and swamp at the base of the slope).
9. CG001\_GP024: moved 20 feet west (moved off slope)

➤ ADEC approved the relocations following subsequent review to confirm none of the new locations were located within the zone of influence of the existing bioventing systems.

A table was presented that showed estimated surface elevations and actual elevations and the differences between them. (The FSP originally had the contours in meters, which were found to be inaccurate; the locations were resurveyed with elevations in feet).

➤ ADEC will review this table today and send an email with approval or requested changes for soil boring sampling depths.

## **Additional Work Needed and/or Concurrence that Work Plan Objectives Have Been Met**

None noted.

## **Open Discussion for Other Items**

Will send 2010 data (boring logs, data warehouse, Triad figures, field logs) tomorrow and will try posting to SharePoint.

The Air Force is reviewing the Data Quality Evaluation Report for 2010 data, and it is scheduled to go to ADEC the week of August 15.

Also the week of August 15, will send the first submittal of what has been completed for 2011 (boring logs, field forms, lab reports); every 60 days (October 17, December 15) after that, will send another package.

The Data Quality Evaluation report will be sent as one report for each field season as previously agreed.

Donna Kozak/Booz Allen Hamilton said that Fred Vreeman was looking for documentation that data validation had occurred. Berney Kidd/CH2M HILL said the process was described in the QAPP work plan; a semi-automated tool is used for internal purposes, and a printout would be extremely bulky. CH2M HILL does have a status report of where every data package is in the validation process. Earl is familiar with the semi-automated tool. Amanda will check with Earl if he supports waiting for the final DQE report.

Also being sent to ADEC this week: Response to comments to TU001, second response on ST020, and draft red-lined FSP. ST005 FSP also was submitted this week.

Donna said that next week we will discuss SS006, SS019, and SS016 FSPs. Donna asked that ADEC look again at SS019 as it appears to be a fuel site, not TCE. The TCE within the southern boundary of the site appears to be related to SS006 and samples near the dry well did not contain elevated TCE. May want to consider adjusting the site boundary to exclude contamination associated with SS006.

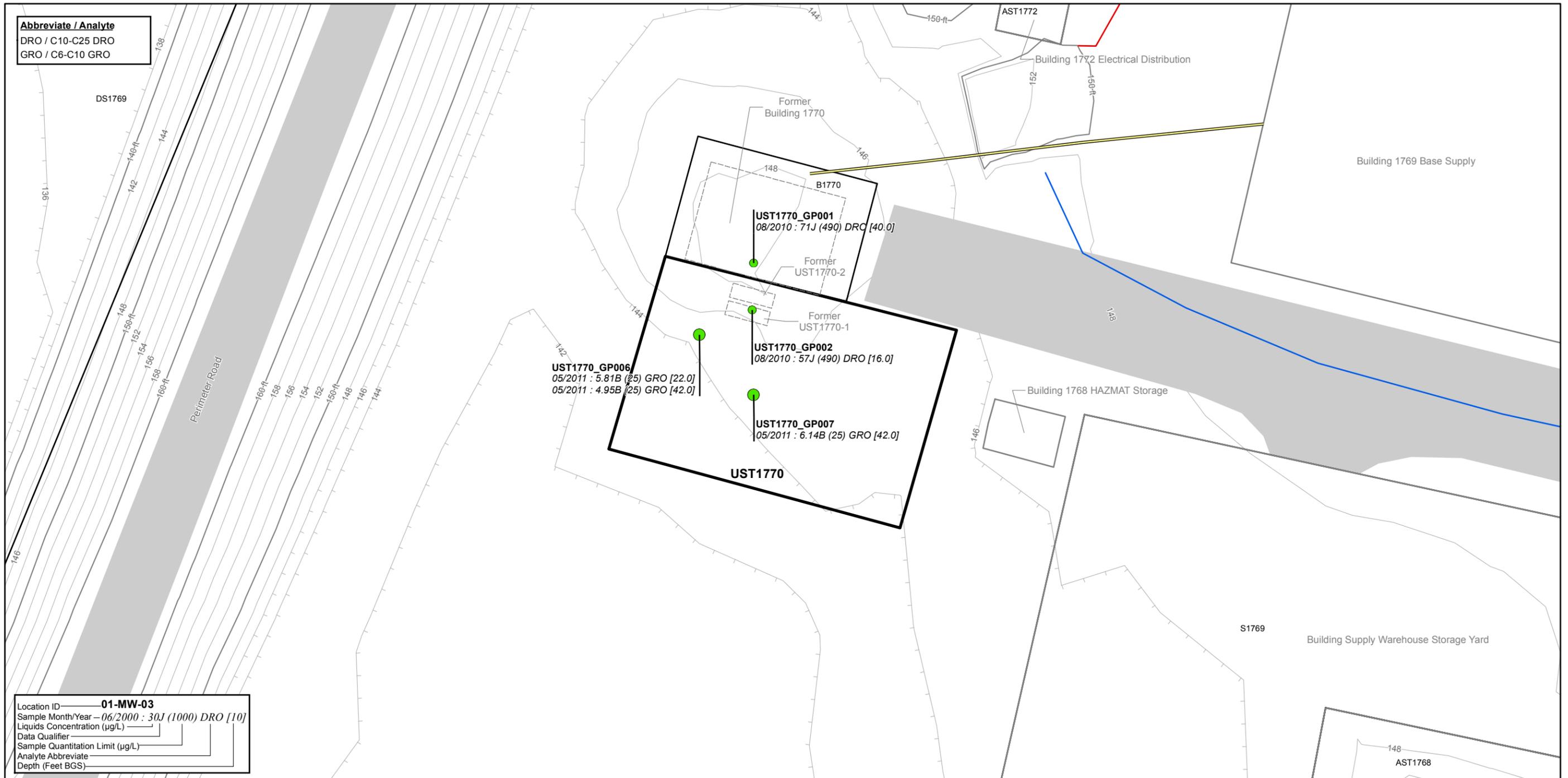
For August 16, we will have results for AOC23, OWS1833, ST009, and UST1769.

Affected by FAA shutdown constraints: FT001, OAP soil borings in the airfield, B408 (transformer site), AST2000, ST010.

### **Schedule Update for Upcoming Activities**

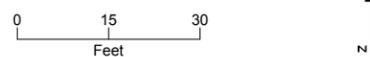
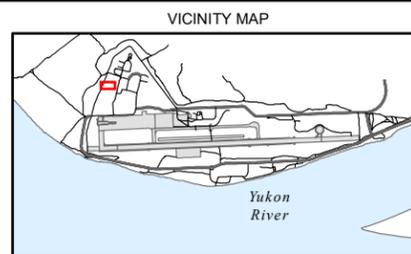
The next Triad meeting is scheduled for Wednesday, August 10, 10:00 a.m. to noon Alaska time and will be a discussion of SS016 and RTCs to SS006 and SS019. These are the last two site FSP RTCs that have not been discussed by the team.

Attachments: Galena TO 294 Triad Team Contact List  
UST1770 Groundwater Figure



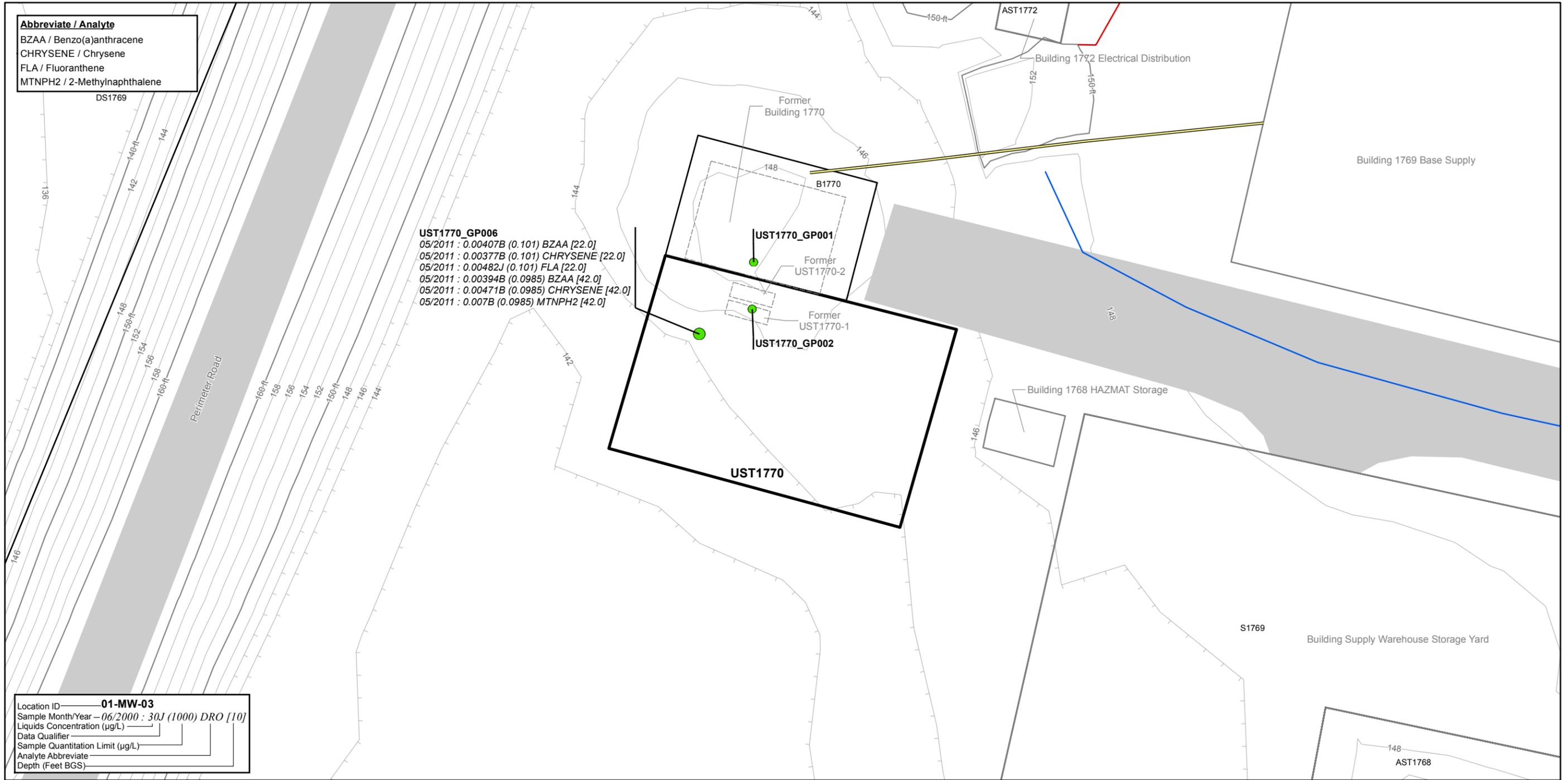
**LEGEND**

- UST1770
- Adjacent Site
- Approximate Location of Former Feature
- Structure
- Road
- Underground Utility Locates - 2010**
- Electrical Line
- Potable Water Main
- Fuel/Gas Line
- Sample Does Not Exceed Screening Level
- Historical Sample Does Not Exceed Screening Level



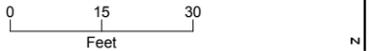
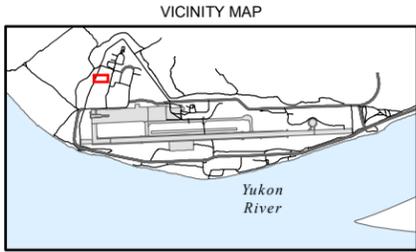
- Notes:**
1. B - The analyte was detected in the associated method and/or calibration blank.
  2. Only detects are shown.
  3. Screening levels are presented in units of mg/kg for SO (soil) samples.
  4. SL = Screening Level
  5. Depth shown is the TOP depth of the sample.
  6. 2010 utilities shown are underground only.

**Site Name: UST1770**  
**Investigation Type: SC**  
**Analytes: Petroleum Hydrocarbons**  
**Media: Groundwater**  
**SLs: Groundwater Project SLs**  
**Data Range: 2010 and 2011**



**LEGEND**

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- Notes:
1. B - The analyte was detected in the associated method and/or calibration blank.
  - J - The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
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**Site Name: UST1770**  
**Investigation Type: SC**  
**Analytes: Semi-Volatile Organic Compounds**  
**Media: Groundwater**  
**SLs: Groundwater Project SLs**  
**Data Range: 2010 and 2011**

Abbreviate / Analyte
ACETONE / Acetone
CDS / Carbon Disulfide
CLME / Chloromethane
METHCL / Methylene Chloride
NAPH / Naphthalene
TOLUENE / Toluene

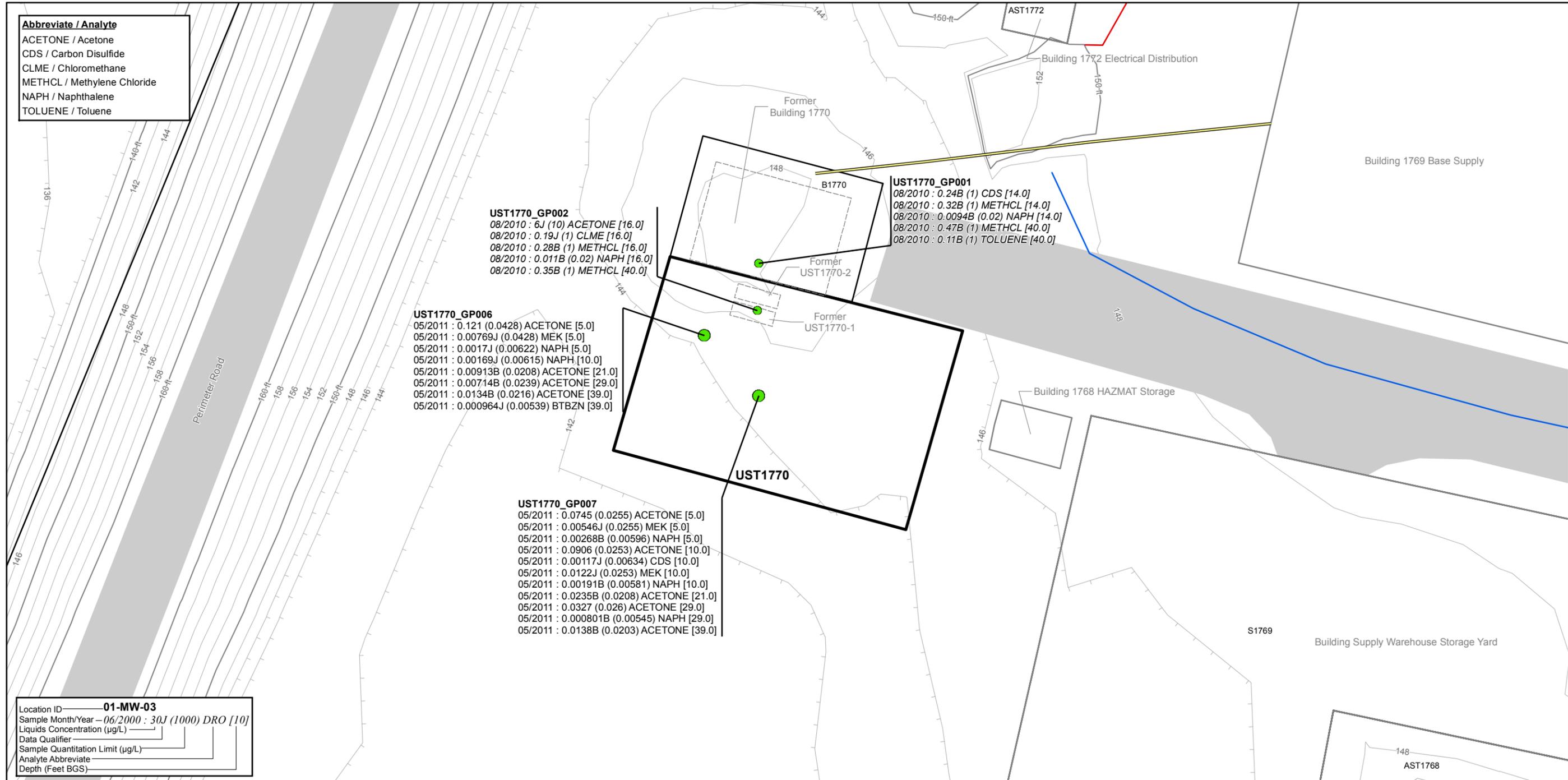
Location ID	01-MW-03
Sample Month/Year	06/2010 : 30J (1000) DRO [10]
Liquids Concentration (µg/L)	
Data Qualifier	
Sample Quantitation Limit (µg/L)	
Analyte Abbreviate	
Depth (Feet BGS)	

**UST1770\_GP002**  
 08/2010 : 6J (10) ACETONE [16.0]  
 08/2010 : 0.19J (1) CLME [16.0]  
 08/2010 : 0.28B (1) METHCL [16.0]  
 08/2010 : 0.011B (0.02) NAPH [16.0]  
 08/2010 : 0.35B (1) METHCL [40.0]

**UST1770\_GP001**  
 08/2010 : 0.24B (1) CDS [14.0]  
 08/2010 : 0.32B (1) METHCL [14.0]  
 08/2010 : 0.0094B (0.02) NAPH [14.0]  
 08/2010 : 0.47B (1) METHCL [40.0]  
 08/2010 : 0.11B (1) TOLUENE [40.0]

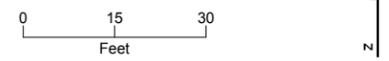
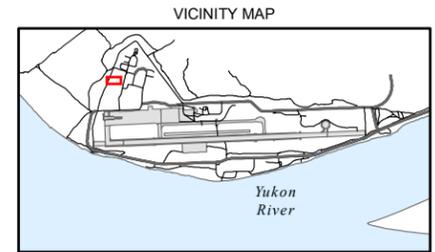
**UST1770\_GP006**  
 05/2011 : 0.121 (0.0428) ACETONE [5.0]  
 05/2011 : 0.00769J (0.0428) MEK [5.0]  
 05/2011 : 0.0017J (0.00622) NAPH [5.0]  
 05/2011 : 0.00169J (0.00615) NAPH [10.0]  
 05/2011 : 0.00913B (0.0208) ACETONE [21.0]  
 05/2011 : 0.00714B (0.0239) ACETONE [29.0]  
 05/2011 : 0.0134B (0.0216) ACETONE [39.0]  
 05/2011 : 0.000964J (0.00539) BTBZN [39.0]

**UST1770\_GP007**  
 05/2011 : 0.0745 (0.0255) ACETONE [5.0]  
 05/2011 : 0.00546J (0.0255) MEK [5.0]  
 05/2011 : 0.00268B (0.00596) NAPH [5.0]  
 05/2011 : 0.0906 (0.0253) ACETONE [10.0]  
 05/2011 : 0.00117J (0.00634) CDS [10.0]  
 05/2011 : 0.0122J (0.0253) MEK [10.0]  
 05/2011 : 0.00191B (0.00581) NAPH [10.0]  
 05/2011 : 0.0235B (0.0208) ACETONE [21.0]  
 05/2011 : 0.0327 (0.026) ACETONE [29.0]  
 05/2011 : 0.000801B (0.00545) NAPH [29.0]  
 05/2011 : 0.0138B (0.0203) ACETONE [39.0]



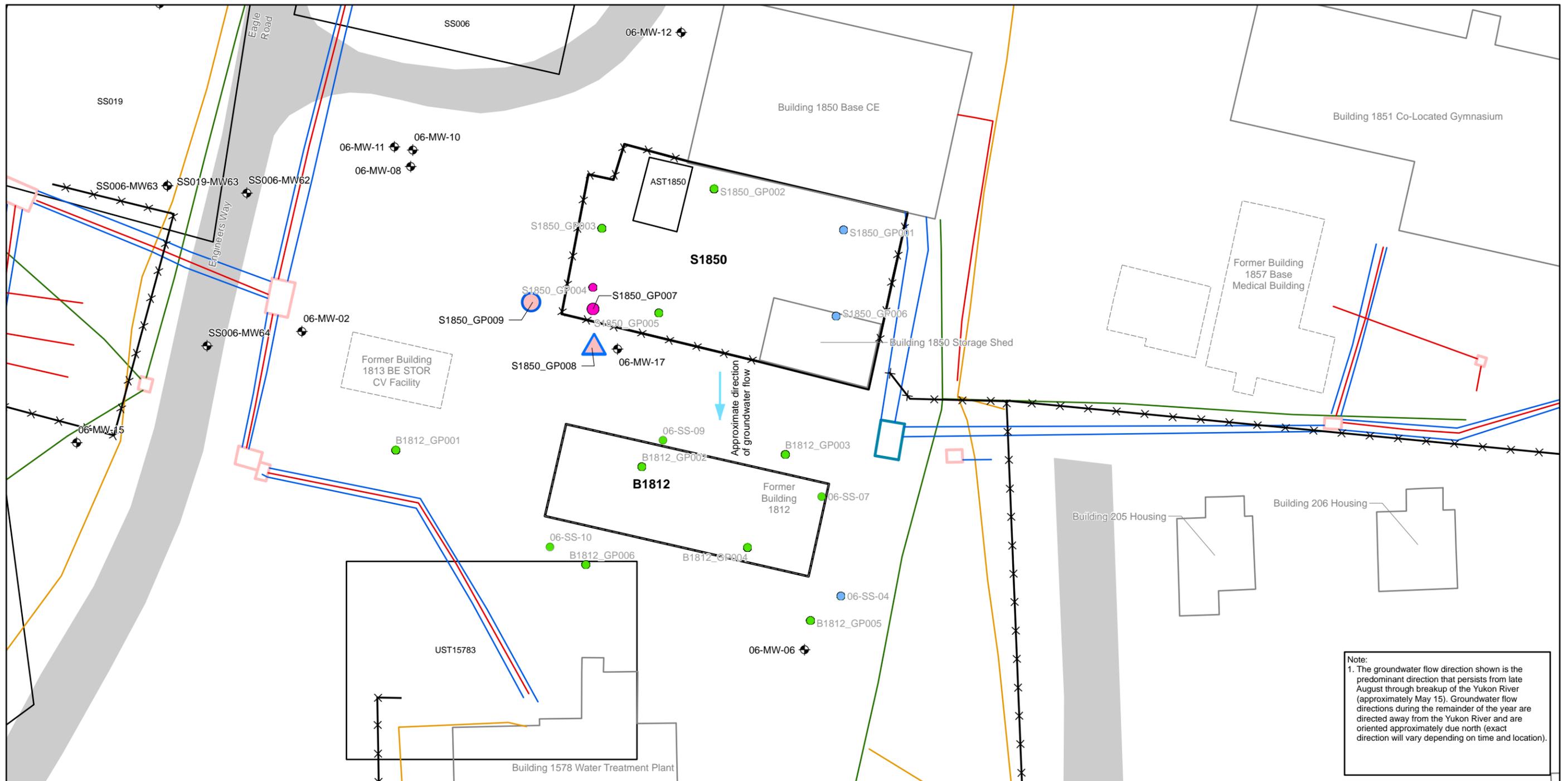
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- Underground Utility Locates - 2010**
- Electrical Line
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- Sample Does Not Exceed Screening Level
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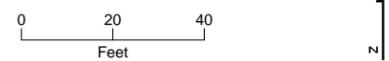
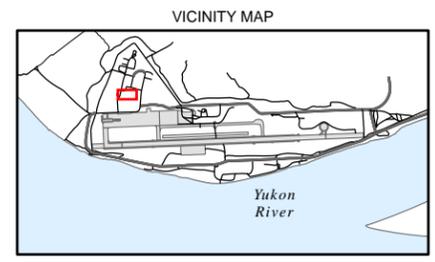
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**Site Name: UST1770**  
**Investigation Type: SC**  
**Analytes: Volatile Organic Compounds**  
**Media: Groundwater**  
**SLs: Groundwater Project SLs**  
**Data Range: 2010 AND 2011**

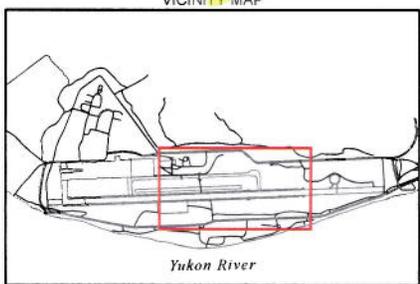
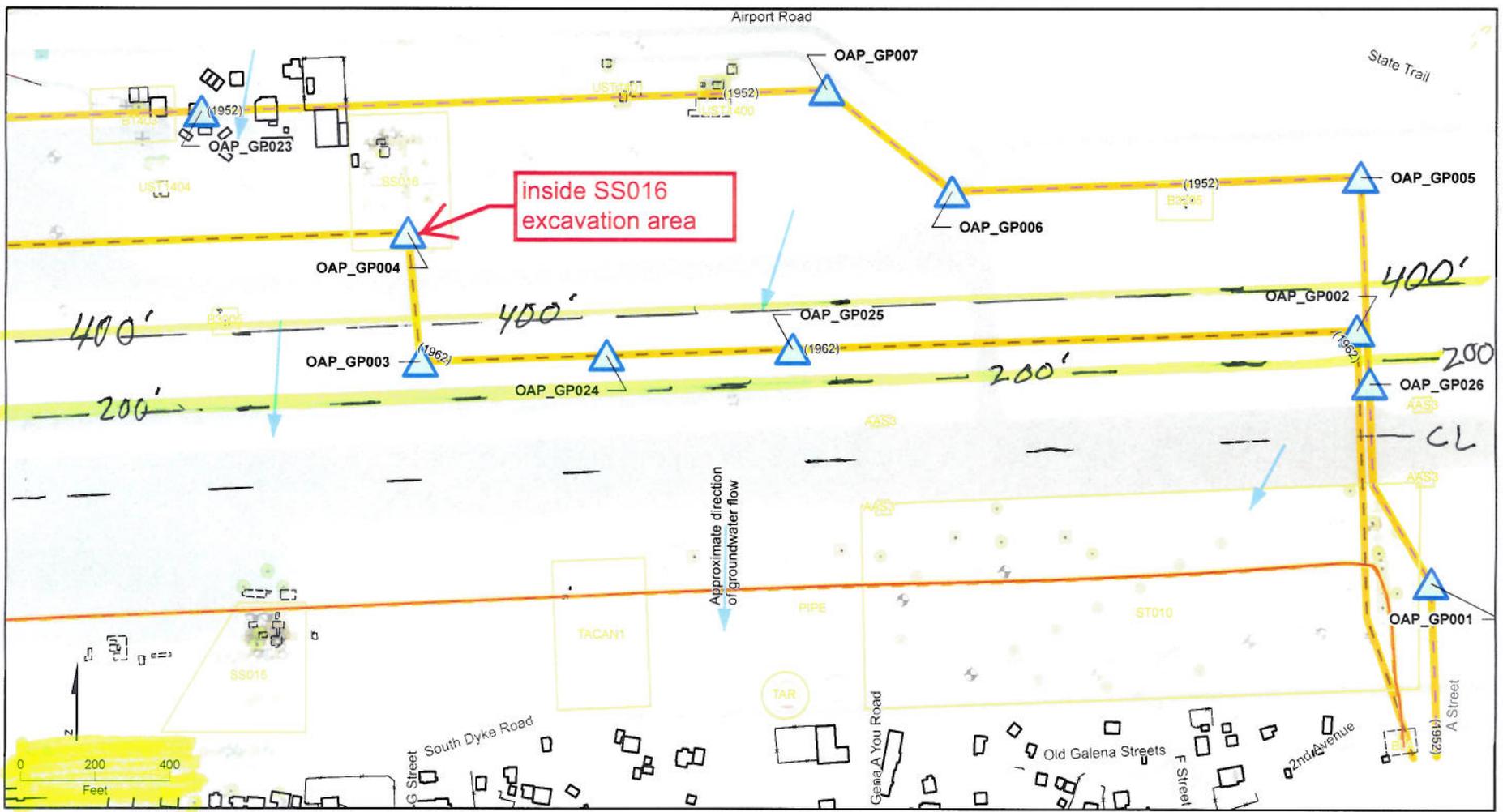


**LEGEND**

- |  |                               |   |   |
|--|-------------------------------|---|---|
| S1850 / B1812                          | <b>Utility Locates - 2010</b> | Monitoring Well   | <b>Proposed Sample Location - Step Out #2</b> |
| Adjacent Site                          | Electrical Line               | Sample Exceeds Screening Level (Greater than 10X analyte SL)            | Proposed Soil Sample                          |
| Road                                   | Communications Line           | Historical Sample Exceeds Screening Level (Greater than 10X analyte SL) | Proposed Soil/Groundwater Sample              |
| Approximate Location of Former Feature | Sanitary Sewer Main           | Historical Sample Exceeds Screening Level (1 to 10X analyte SL)         |   |
| Structure                              | Potable Water Main            | Historical Sample Does Not Exceed Screening Level                       |   |
| Fence                                  | Utility Vault                 |   |   |
| Approximate Groundwater Flow Direction | Concrete Pad                  |   |   |



**Step-Out Samples**  
**Site Name: S1850**  
**Investigation Type: RI**  
**Analytes: All Exceedences (excludes Metals)**  
**Media: Soil**  
**SLs: Soil Extent**  
**Data Range: Historical and 2010**



**LEGEND**

OAP	Abandoned Fuel Line (1962)	Historical Sample Location	Hydro Punch	Soil Vapor Sample
Adjacent Site	Main Fuel Line	Excavation Sample	Monitoring Well	Vapor Monitoring Point
Approximate Location of Former Feature	Abandoned Fuel Line (1952)	Proposed Soil/Groundwater Sample	Abandoned Monitoring Well	
Structure		Proposed Soil/Groundwater Sample	Production Well	
Airfield or Road		Proposed Soil/Groundwater Sample	Abandoned Production Well	
Fence		Proposed Soil/Groundwater Sample		
Service Wastewater Line	Proposed Soil/Groundwater Sample	Proposed Soil/Groundwater Sample		
Abandoned Fuel Line	Proposed Soil/Groundwater Sample	Proposed Soil/Groundwater Sample		
Main Fuel Line	Proposed Soil/Groundwater Sample	Proposed Soil/Groundwater Sample		
Abandoned Fuel Line (1952)	Proposed Soil/Groundwater Sample	Proposed Soil/Groundwater Sample		
	Proposed Soil/Groundwater Sample	Proposed Soil/Groundwater Sample		

**Proposed Sample Location - Step Out #1**

**Note:**  
 1. The groundwater flow direction shown is the predominant direction that persists from late August through breakup of the Yukon River (approximately May 15). Groundwater flow directions during the remainder of the year are directed away from the Yukon River and are oriented approximately due north (exact direction will vary depending on time and location).

**Proposed Stepout #1  
 August 2 Triad Call**  
 Work Plan for Site Inspection, Remedial Investigation, and Site Characterization  
 Former Galena Forward Operating Location, Alaska