

**Final Meeting Minutes**  
**Former Galena FOL Restoration Advisory Board (RAB) Meeting**  
**Galena, Alaska**  
**20 October 2015**

**Time/Place:** 7:50 pm, 20 October 2015 – Larson Charlie Hall, Galena, Alaska

**Attendees (not a comprehensive list):**

Approximately 20 people attended the meeting including representatives from the Air Force Civil Engineer Center (AFCEC), the Alaska Department of Environmental Conservation (ADEC), and the Galena Restoration Advisory Board (RAB). The following is a partial list of people at the meeting.

AL Weilbacher, AFCEC  
Donna Kozak, Booz Allen Hamilton (BAH)  
Bruce Henry, Parsons  
Kevin Smith, Parsons  
Brian Blicher, Parsons  
Win Westervelt, CH2M HILL  
Dennis Shepard, ADEC  
Tim Bodony, Community RAB Member  
Tim Kalke, Sustainable Energy for Galena (SEGA) and Community RAB Member  
Bill Kulash, Alaska Department of Transportation and Public Facilities (ADOT&PF)  
Bruce Dianoski, ADOT&PF  
Jon Korta, Galena City Mayor  
Shanda Huntington, Galena City Manager  
Nick Hruby, City of Galena  
Betty Huntington, Gana-A'Yoo  
Fred Huntington, Sr., Community Member  
Ed Pitka, Community Member  
Terry Pitka, Community Member  
Larry Hausman, Community Member  
Edgar Nollner, Jr., Community Member

**Agenda:** See Attachment 1

**Introduction:**

AL Weilbacher opened the RAB meeting by reviewing the agenda for presentations on Performance-Based Remediation (PBR) Cleanup efforts, the Small Arms Range Time Critical Removal Action (TCRA), and a Tar Investigation and Pipeline Abandonment project.

**Presentations:**

Bruce Henry started the presentations with an update of the PBR Cleanup contract. He provided an overview of the activities that were completed during the 2015 field season (Attachment 2), including the following:

- A TCRA at the former Disposal Area West of Dike (Site DP023),
- Excavation of petroleum-contaminated soil at Former Building 1812 (Site CSS002),

- Excavation of petroleum-contaminated soil at former Underground Storage Tank (UST) 1770 (Site CST013),
- Confirmation of abandonment of USTs at the Combat Alert Cell (CAC) Building (Site CST011), and
- Installation of SVE Pilot Test Systems at Sites SS022, OW024, SS019, and SS025.

Win Westervelt also provided input on Method Three risk evaluations. Mr. Henry ended the presentation with an update of PBR activities proposed for the 2016 field season, including installation of bioventing, soil vapor extraction, and air sparging remedial systems at multiple sites.

AL Weilbacher provided an overview of activities completed for a TCRA at the Small Arms Range which was performed by Ahtna Engineering Services (Attachment 3). Mr. Weilbacher described the removal of soil contaminated with lead and antimony, and the decommissioning and closure of the small arms firing range. Approximately 290 cubic yards of soil was classified as hazardous waste and transported to Oregon for disposal. Another 101 cubic yards classified as non-hazardous contaminated soil that also requires disposal outside of Galena, of which 80 cubic yards is being stored at Galena over the winter for shipment next summer.

Mr. Weilbacher also gave a presentation on the tar investigation and pipeline abandonment project performed by Aerostar (Attachment 4). The goal of this tar investigation was to determine the extent of tar located south of the runway and north of the northern dike road. Tar was found that ranged from 2 to 12 inches thick up to a depth of 3 feet. The next step is to develop a strategy for addressing tar-contaminated soil. The objective of the pipeline investigation was to locate abandoned fuel pipelines and verify that they were properly abandoned. Approximately 480 gallons of fuel were recovered from three pipelines, and a number of pipelines were cleaned out and plugged with grout.

Bruce Dianoski with ADOT&PF discussed the runway realignment project. Mr. Dianoski distributed a handout showing the current plan for runway shortening, and noted that the work was currently planned for the summer of 2017.

### **Questions/Discussion:**

After the update of the PBR Cleanup contract, Tim Bodony asked about the future process for review of Proposed Plans and Cleanup Plans. He expressed concern that the pace of the planning documents may be too quick for the RAB to keep up and provide feedback. Bruce Henry responded that the proposed cleanup technologies for Cleanup Plans had been presented for public review last August, and that review of the remaining Proposed Plans would likely be spread out over 2016.

An ADOT representative asked if the PBR contract will provide local jobs. Bruce Henry responded that the PBR Teaming Partners hire subcontractors that employ a number of local hires, and that practice will continue.

During the presentation on the Small Arms Range TCRA, one resident commented that practice rounds from automatic M16 rifles were fired in a sweeping motion that resulted in bullets all around the back stop. AL Weilbacher noted this may be one reason that lead bullets were encountered on the sides of the small arms range.

Another resident commented that tar is present on the ground surface to the north of South Dike Road, and more is appearing over time. Win Westervelt inquired if tar is regulated. Dennis Shepard said that the tar typically contains constituents above cleanup levels. Although it is not a hazardous waste, there are state requirements that it be disposed at an industrial landfill.

Since Galena does not have ready access to an industrial landfill, the Air Force and ADEC are looking for alternative disposal options for the tar material at Galena.

Dennis Shepard asked about the pipe alignment along North-South section on each side of runway. AL Weilbacher responded that the pipeline under the runway was not part of the Pipeline Abandonment project. A resident commented that the pipe is on the ground surface north of the dike road across from the barge landing.

Resident Betty Huntington commented that Air Force contractors should be considerate of the local B&Bs when booking lodging arrangements, as several cancellations occurred this past field season.

AL Weilbacher concluded the RAB meeting by reviewing the schedule for the next proposed RAB meeting in April of 2016 and provided closing remarks.

**Attachments:**

1. RAB Meeting Agenda
2. Performance Based Remediation at Former Galena FOL
3. Small Arms Firing Range Time Critical Removal Action
4. Tar Investigation and Pipeline Abandonment at Former Galena FOL

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**Attachment 1**  
**RAB Meeting Agenda**

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# Galena Restoration Advisory Board (RAB)

## RAB Meeting Agenda

October 20, 2015

8:00 p.m. – 9:00 p.m.

Larsen Charlie Community Hall  
Galena, Alaska

### **Welcome**

**AL Weilbacher, AFCEC**

- Introductions

### **Overview of Environmental Restoration**

- Performance-Based Remediation (PBR) Contract **Bruce Henry, PARSONS**
  - Summary of 2015 Field Activities **Win Westervelt, CH2M HILL**
  - Disposal Site West of Dike Time Critical Removal Action
  - Activities Planned for 2016 Field Season
- Small Arms Firing Range Time Critical Removal Action **AL Weilbacher**
- Pipeline Abandonment Verification & Tar Delineation **AL Weilbacher**

### **Remarks from ADEC**

**Dennis Shepard, ADEC**

### **Remarks from ADOT**

**Sam Myers, ADOT**

### **Questions from the Public**

**Bruce Henry/Win Westervelt (Facilitators)**

### **Schedule for Next RAB and Closing Remarks**

**AL Weilbacher**

For more information about the Galena Environmental Cleanup program, please contact the AFCEC Public Affairs hotline at 1-866-725-7616 or via email at [AFCEC.PA@us.af.mil](mailto:AFCEC.PA@us.af.mil).

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**Attachment 2**

**Performance Based Remediation at Former Galena FOL**

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***PERFORMANCE-BASED  
REMEDiation (PBR) AT FORMER  
GALENA FORWARD OPERATING  
LOCATION (FOL), ALASKA***

**RAB Meeting, 20 October 2015, Galena, Alaska**

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# Former Galena FOL Performance Based Contract

- Parsons - Prime Contractor
- Partnering Team – CH2M and Ahtna Engineering Services
- Remediation of 31 sites contaminated primarily with fuels and solvents
- Installation of remediation systems from 2015 to 2018
- Operation through Summer 2020





# *Field Activities Completed in 2015*

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- **Time Critical Removal Action at DP023 (Disposal Site West of Dike - DSWD)**
- **Excavation at CSS002 (former Building 1812)**
- **Excavation at CST013 (former UST 1770)**
- **Confirm UST Tank abandonment at CAC Building (UST1428)**
- **Installation of four Pilot Test Soil Vapor Extraction (SVE) Systems (SS019, SS025, SS022, and OW024,)**
- **Annual Groundwater Sampling**
- **Sampling for Preliminary Design or Risk Calculations**



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# *Time Critical Removal Action (TCRA) for Site DP023 (DSWD)*

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- **CERCLA Site contaminated with**
  - Polychlorinated biphenyls (PCBs),
  - Petroleum hydrocarbons,
  - Volatile organic compounds (VOCs),
  - Polycyclic aromatic hydrocarbons (PAHs), and
  - Pesticides
  
- **Excavation from late August to early October**
  - Transformers and soil contaminated with PCBs
  - Leaking drums filled with tar and used oil
  - Metal and wood debris – asphalt processing equipment, vehicle and machinery parts, marsh mats, generator parts, general landfill and construction debris



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# Location of DSWD Excavation and Staging Areas



### Legend

- DP023 Site Boundary
- Winter Storage Areas
- Clean Debris and Equipment Staging Areas
- Contingency Soil Stockpile Area
- Estimated Extent of Constituents in Soil with Concentrations Greater than Human Health Method Two CULs

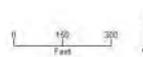


Figure 1 (Revision 1)

Site DP023 Excavation and Equipment and Soil Waste Staging Areas

Time Critical Removal Action for Disposal Site West of Disk (Site DP023)  
Former Galena Forward Operating Location, Alaska



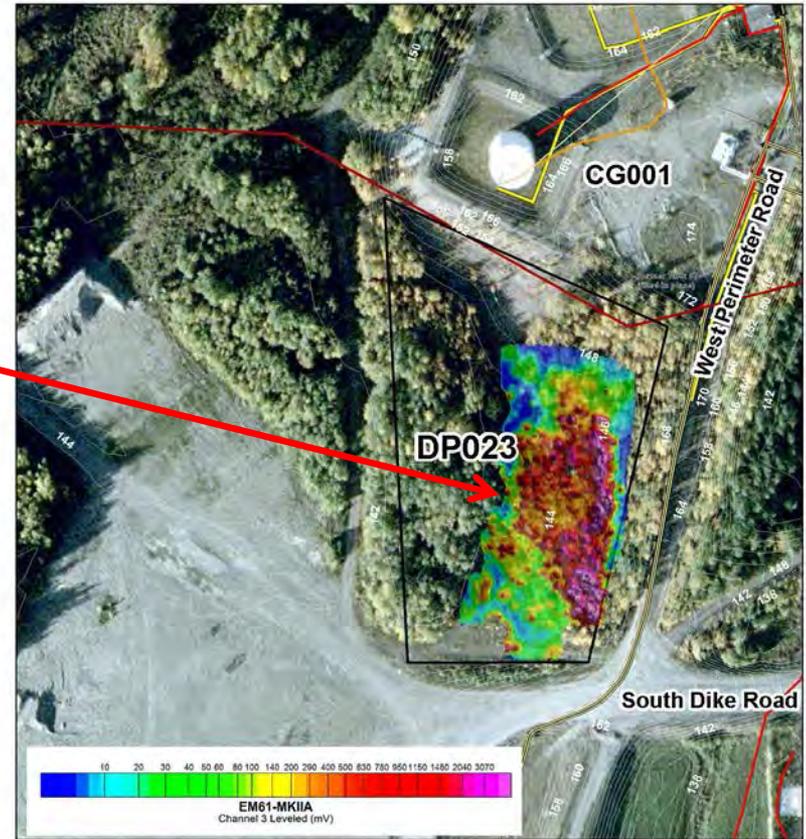
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# DP023 (Disposal Site West of Dike)

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- The DP023 TCRA removal action removed 48 truck loads of debris and approximately 500 cy of contaminated soil in the disposal area identified by a geophysical survey and soil sampling



**FIGURE 1**  
**Site DP023 Layout and Geophysical Survey Results**  
 Time Critical Removal Action for Disposal Site West of Dike (Site DP023) Former Galena Forward Operating Location, Alaska  
 PARSONS



# *Excavation from DP023*

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**Clean debris taken to landfill**



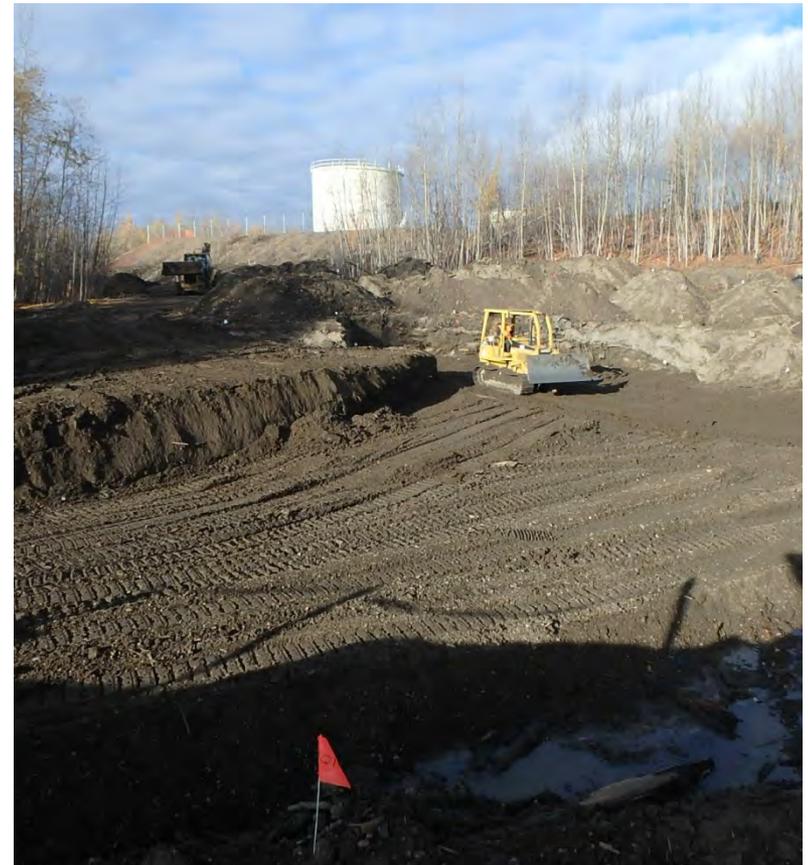
**Placing contaminated soil in super sacks for off-site disposal**



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# ***DP023 Site Status***

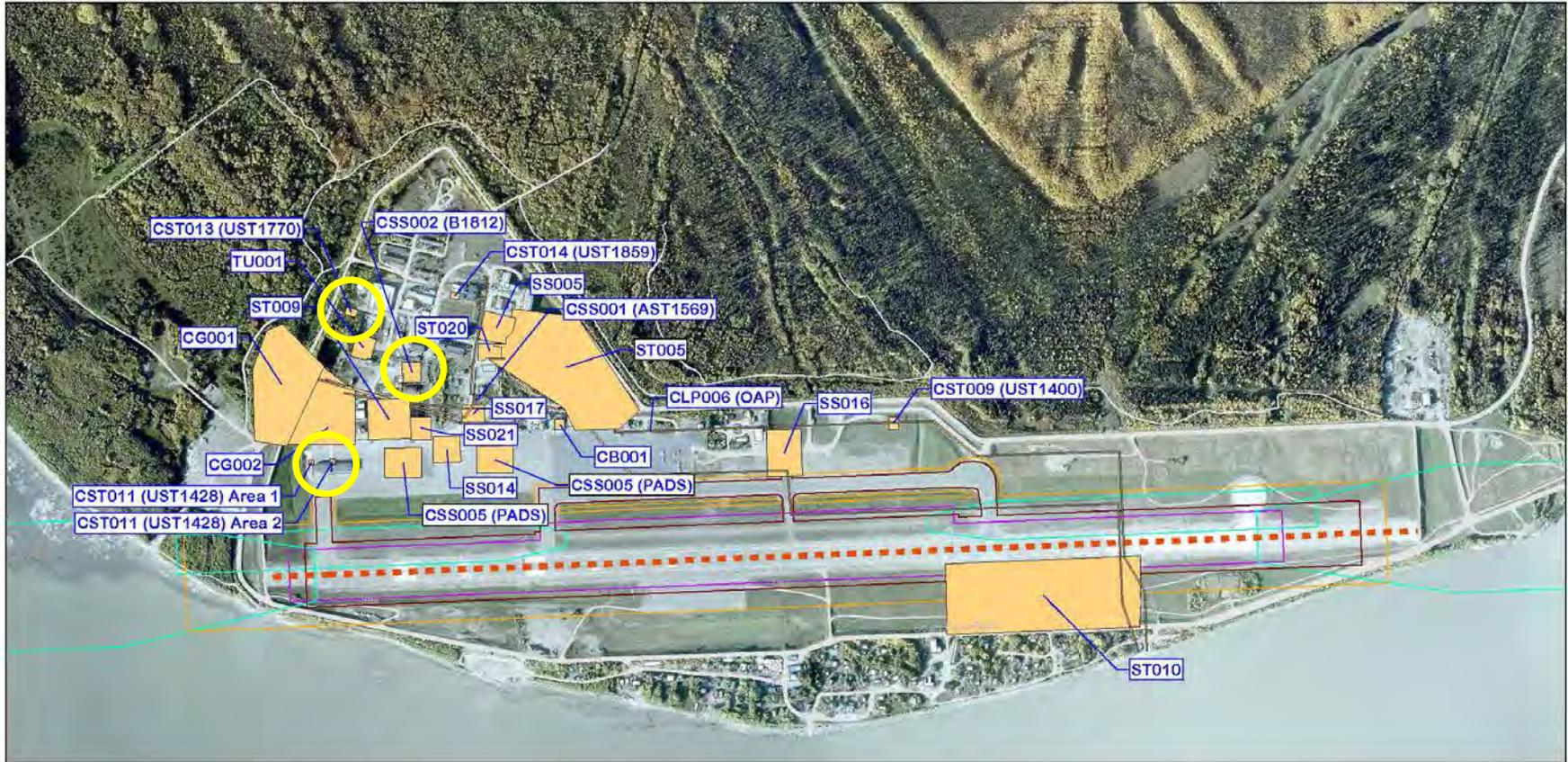
- **The majority of debris and contaminated soil was removed**
- **Not all debris could be removed during the 2015 field season**
- **Areas that were not excavated were covered with clean soil to prevent accidental exposure**
- **Cleanup will follow the CERCLA process with a Feasibility Study, Proposed Plan and Record of Decision**
- **Future excavation of additional debris is anticipated to complete cleanup actions**





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# Location of CSS002, CST013 and CST011 Excavations in 2015 (fuels)



### Legend

- ADOT Runway Control Areas
  - Approach (TERPS)
  - OFA
  - OFZ
  - Safety Area
  - Runway Centerline
- Site Characterization Areas
- Building

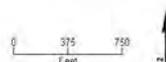


Figure 1

Investigation Areas for Site Characterization

Former Galena Forward Operating Location, Alaska

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# CSS002 (B1812) Phase I Cleanup Excavation

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- Approximately 2,800 cubic yards of soil was removed to a depth of 15 feet
- Petroleum-contaminated soil went to landfarm for treatment
- TCE-contaminated soil transported to Million Gallon Hill for treatment
- Small amount of PCB-contaminated soil was placed in super sacks for off-site disposal
- Chemical oxidizer (persulfate) added to base of excavation to treat residual contamination
- Excavation backfilled with clean soil and river gravel
- Phase II Cleanup of deeper soil below 15 feet planned for 2016/2017





# CST013 (UST1770) Excavation

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- Excavated approximately 500 cubic yards of soil
- Petroleum-contaminated soil went to landfarm for treatment
- Excavation backfilled with clean soil and river gravel
- Preliminary data from excavation indicates the CST013 excavation will achieve cleanup complete





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# CST011 (UST1428) Underground Storage Tank Investigations

- Objective was to determine if three USTs had been properly abandoned for closure
- Two USTs at the NW corner of the CAC Building were found to have been previously excavated
- One UST at the north central side of the CAC Building was found abandoned in place and filled with sand
- ADEC officially closed the USTs in their database

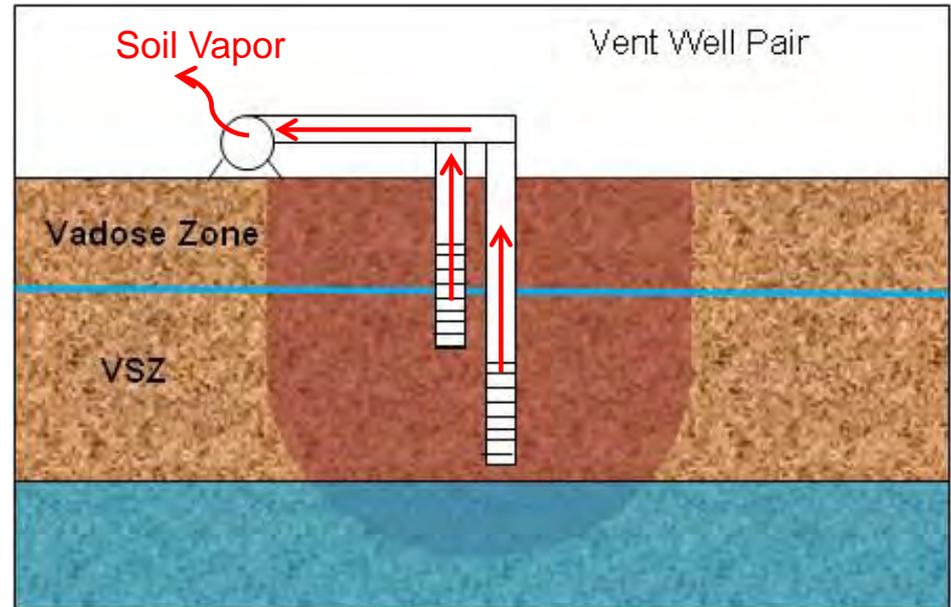




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# Soil Vapor Extraction (SVE) Pilot Tests

- Installed four SVE Pilot Test Systems
  - SS019
  - SS025
  - OW024 (OWS1833)
  - SS022 (B400)
- Pilot Tests to determine how best to design remediation systems for TCE and volatile fuel hydrocarbons in unsaturated soil



Note: VSZ = variably saturated zone



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# SVE Pilot Test Locations



- Legend**
- ADOT Runway Control Areas
    - Approach (TERPS)
    - CF A
    - CF Z
    - Safety Area
    - Runway Centerline
  - Remedial Investigation Areas
  - Building

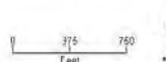


Figure 2

Investigation Areas  
for Remedial Investigation

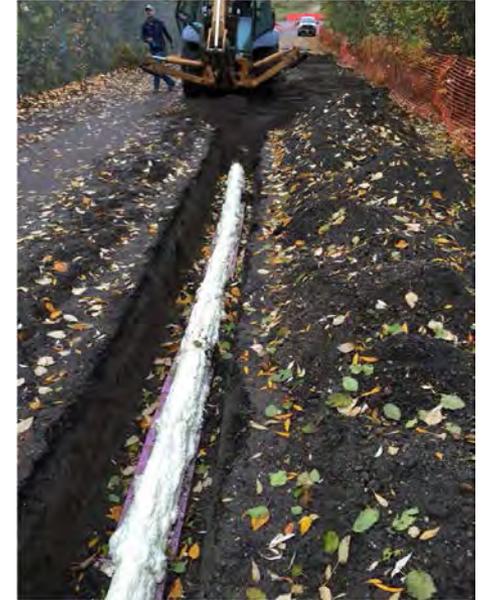
Former Galena Forward Operating Location, Alaska  
PARSONS



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# ***Soil Vapor Extraction***

- **Soil Vapor Extraction (SVE) – extracts air to remove volatile compounds like trichloroethene (TCE) or benzene**
- **Common elements:**
  - **Blower in above-ground shed**
  - **Buried piping between blower and vent wells**
  - **Operated from August to April with maintenance in May/July when groundwater levels are high**





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# ***Method Three Risk Evaluations***

- **Method Three Risk Evaluations are procedures approved by the Alaska Department of Environmental Conservation (ADEC) to determine if remaining contamination levels are below a threshold that would cause risks to human health and would meet the ADEC site cleanup levels**
- **The evaluations also help target what areas require remediation**
- **Site CST009 (UST1400) was approved by ADEC in September for Cleanup Complete status based on risk calculations performed by CH2M, and the site is now closed**
- **Method Three risk calculations will be used to close out other sites as additional data are collected or remediation is completed**



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# Galena PBR Schedule: 2016 Overview

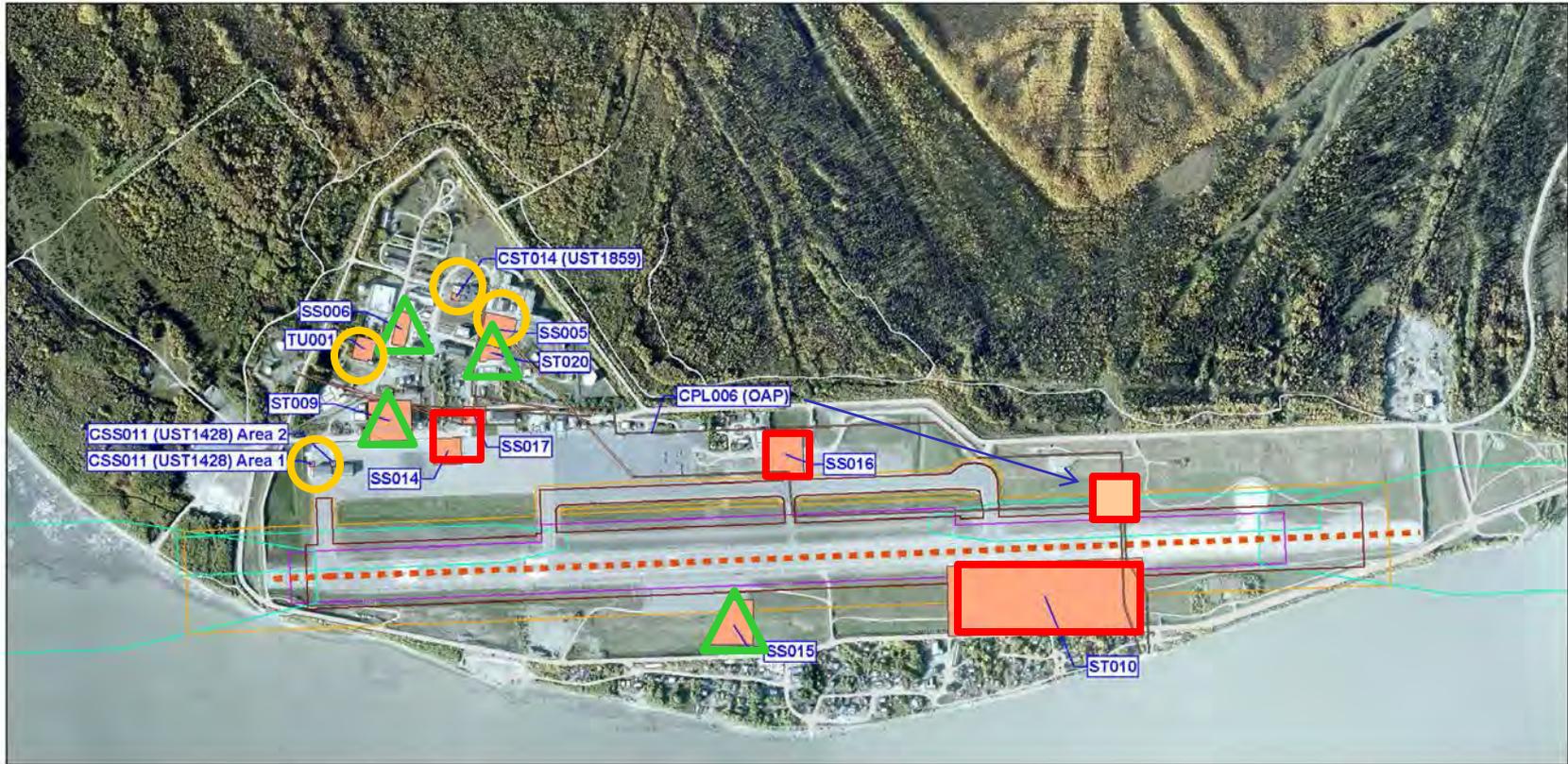
- **2016 Field Work (June through September)**
  - Install 4 SVE Systems (ST009, ST020, SS006, SS015)
  - Install 4 Air Sparge/SVE Systems (CSS011, CST014, SS005, TU001)
  - Install 4 Bioventing Systems (ST010, SS016, CPL006, SS014/SS017)
  - Remediation at sites to be determined (CSS002, SS018, ST005 Area C)
  - Annual Groundwater Monitoring and Landfarm Maintenance
  
- **2017 to 2018 – Implement remaining remedies**





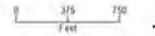
# 2016 Field Work Locations

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- Legend**
- ADOT Runway Control Areas
    - Approach (TERPS)
    - OFA
    - CFZ
    - Safety Area
    - Runway Centerline
  - Remediation Investigation Areas
  - Building

- SVE System
- Air Sparge/SVE
- Bioventing



Investigation Areas for Remedial Investigation

October 2015 Presentation for Former Galena Forward Operating Location, Alaska  
**PARSONS**

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- **Public Review Period for Proposed Plans (SS015, SS022, OW024)**
  - Review Period October 20 through November 20, 2015
  - Updated DVDs of the Administrative Record have been placed at the Galena library
- **Semi-annual RAB Meetings (April/October)**
- **Air Force maintains Administrative Record for Final Documents at:**  
<http://afcec.publicadmin-record.us.af.mil/>



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# Questions?

## ■ Please send comments to:

AL Weilbacher  
Program Manager  
BRAC Support Branch  
AFCEC/CIBE  
2261 Hughes Ave., Ste 155  
Lackland AFB, TX 78236-9853  
[Adolph.Weilbacher@us.af.mil](mailto:Adolph.Weilbacher@us.af.mil)



**Attachment 3**

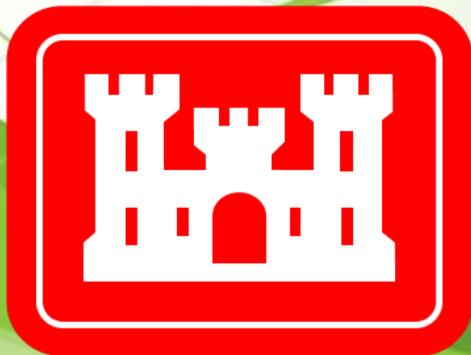
**Small Arms Firing Range Time Critical Removal Action**

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# Small Arms Firing Range (SAFR) Time Critical Removal Action (TCRA)

## Former Galena FOL, AK RAB Meeting

20 October 2015



# SAFR Time Critical Removal Action

Goal: Characterize and remove contaminated soil impacted by SAFR activities and decommission the range



# SAFR Site Characterization

Site Characterization: Determine the extent of lead and antimony impact to soil

- Lead Field Screening using XRF
  - 401 field screening samples from various depths
- Laboratory Analytical Sample Collection
  - 21 samples collected from the highest XRF screening results
  - 25 samples collected for use in comparing XRF to laboratory results

# Lead Field Screening Activities

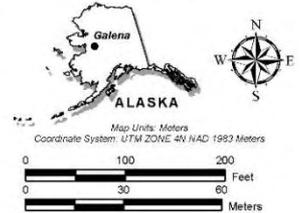


# Lead Field Screening Locations and Results



**Figure 2**  
Lead XRF Screening Locations and Results

Former Galena Forward  
Operating Location  
Galena, Alaska



**Legend**  
XRF Sample Locations

**Depth**

- 0-1 ft
- 1-2 ft
- △ 2-3 ft

**Results**

- 0 - 200 ppm
- 200 - 400 ppm
- > 400 ppm

▭ Current Small Arms Firing Range  
Footprint

**Notes:**

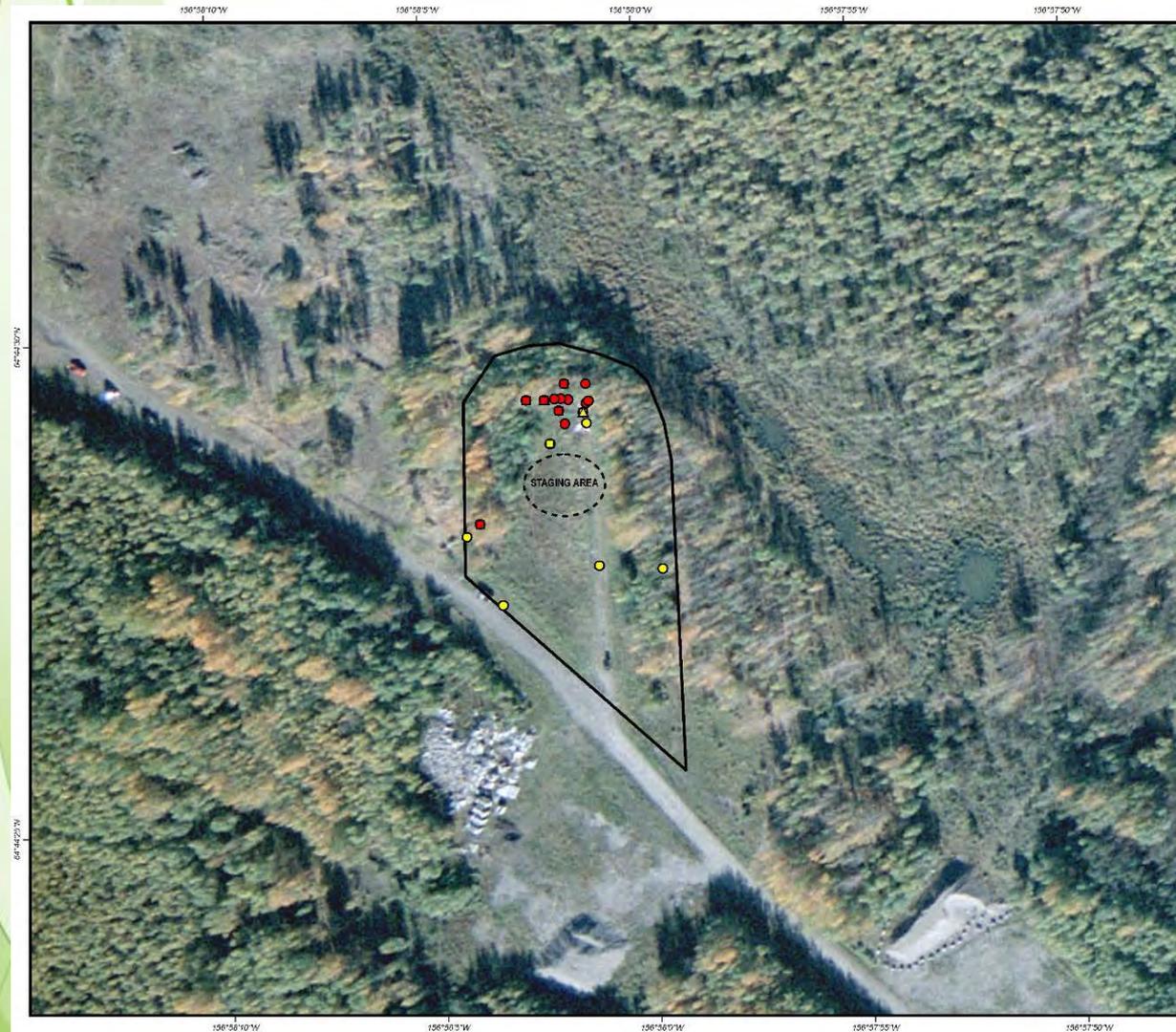
1. Image credit: Aerometric, 2012.
2. Maximum XRF reading displayed for each sampling location

**Dimensions:**

Current Small Arms Firing Range: 1.56 Acres  
Current and Historical Small Arms Firing Range: 2.29 Acres  
Side Berms: 12 feet tall  
Backstop: 45 feet long, 20 feet wide, 12 feet tall  
Firing Line: 250 feet long



# Lead and Antimony Analytical Laboratory Sample Results and Locations



**Figure 3**  
**Lead and Antimony Analytical Sample**  
**Locations and Results**  
**Former Galena Forward**  
**Operating Location**

Galena, Alaska



Map Units: Meters  
 Coordinate System: UTM ZONE 4N NAD 1983 Meters

0 100 200 Feet  
 0 30 60 Meters

## Legend

### Laboratory Analysis

#### Results

- Does Not Exceed Soil Cleanup Level
- Exceeds Soil Cleanup Level

#### Depth

- 0-1 ft
- 1-2 ft
- △ 2-3 ft

□ Current Small Arms Firing Range Footprint

#### Notes:

1. Image credit: Aerometric, 2012.
2. Exceedances based on Alaska Department of Environmental Conservation Method Two, Table B1 Soil Cleanup Level:  
 (Lead = 400 mg/kg, Antimony = 3.6 mg/kg)

#### Dimensions:

Current Small Arms Firing Range: 1.56 Acres  
 Current and Historical Small Arms Firing Range: 2.29 Acres  
 Side Berms: 12 feet tall  
 Backstop: 45 feet long, 20 feet wide, 12 feet tall  
 Firing Line: 250 feet long



# SAFR Site Characterization

## Conclusion

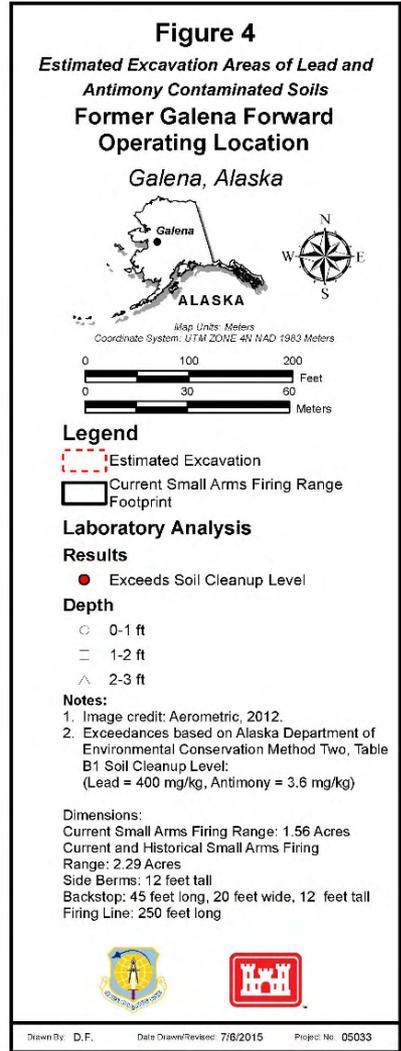
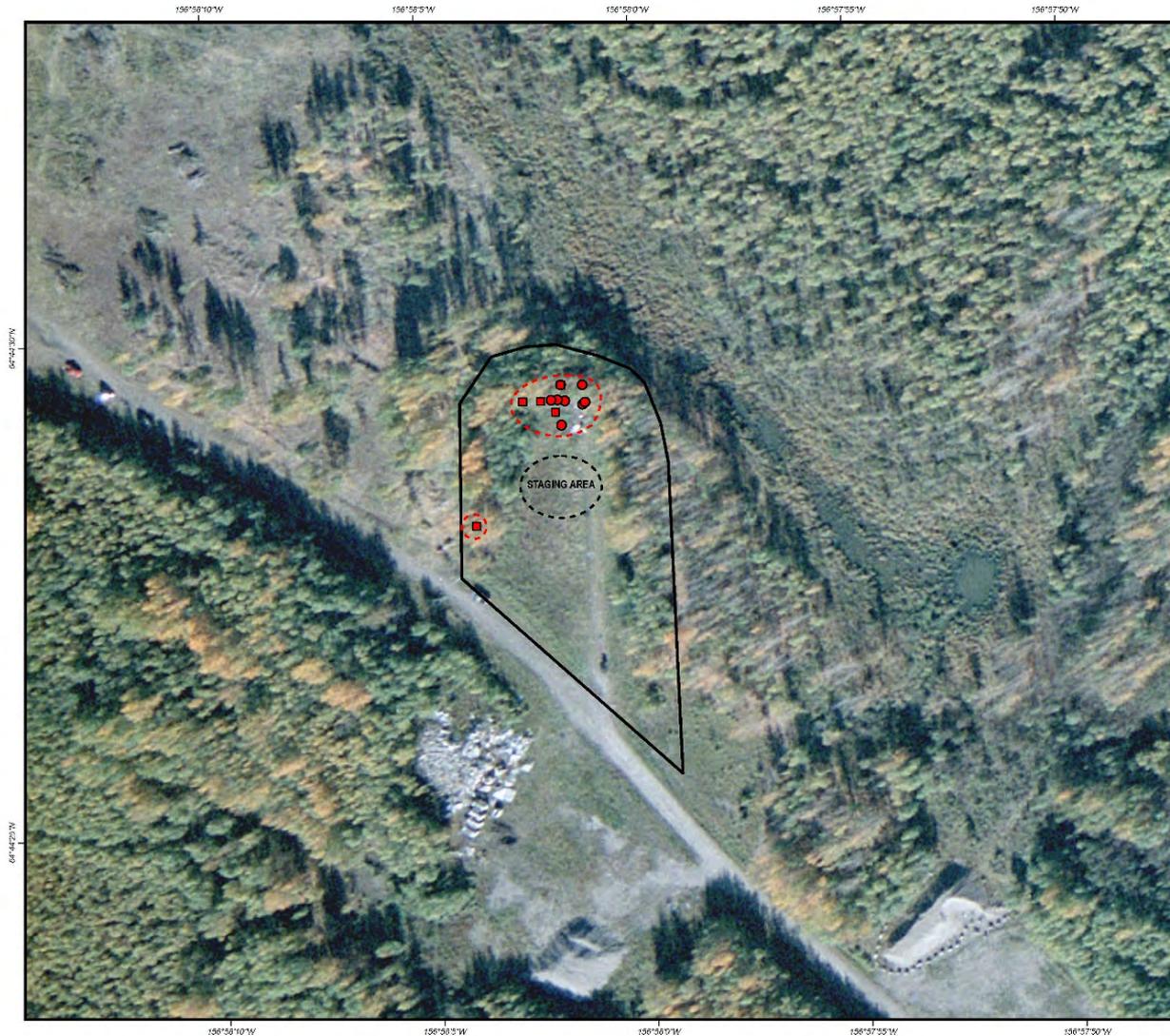
- The majority of lead and antimony contamination above cleanup levels (CULs) is in the south side of the backstop
  - 11 soil samples exceeded the CUL of 400 milligrams per kilogram (mg/kg) for lead (410 – 9,500 mg/kg)
  - 14 soil samples exceeded the CUL of 3.6 mg/kg for antimony (3.7 – 680 mg/kg)
- A portion of the target area and west lateral berm also exceeded CULs for antimony (3.7 – 4.3 mg/kg)

# SAFR Removal Action

Removal Action: Excavate soil that exceeds CULs based on site characterization

- Conducted between July 13 and October 9, 2015
- Consisted of 6 rounds of excavation and confirmation sampling
  - 355 field screening samples for lead screening
  - 87 laboratory analytical samples

# Estimated Excavation Area of Impacted Soil



# SAFR Removal Action - Excavation



# SAFR Removal Action - Supersacks



# SAFR Removal Action - Sampling



# SAFR Removal Action

## Conclusion

- Removed 391 cubic yards of lead and antimony contaminated soil
  - 290 cubic yards was classified as hazardous waste due to high levels of lead (all soil was transported to Oregon for disposal)
  - 101 cubic yards classified as non-hazardous contaminated soil (80 supersacks stored at Galena over the winter and will be shipped next summer)
- Remaining berm soil was levelled
- Report in preparation

# SAFR Removal Action - Restoration



**Attachment 4**

**Tar Investigation and Pipeline Abandonment at Former Galena FOL**

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***TAR INVESTIGATION AND  
PIPELINE ABANDONMENT  
AT FORMER GALENA FORWARD  
OPERATING LOCATION (FOL),  
ALASKA***

**RAB Meeting, 20 October 2015, Galena, Alaska**

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# *Tar Investigation Summary*

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- **The goal of this tar investigation was to define the extent of tar and tar debris based on previous investigations that identified two tar areas**
  - **Southern Tar Investigation Area located south of runway**
  - **Northern Tar Investigation Area located north of dike road**
- **A backhoe or hand auger was used to visually identify tar and tar debris in August/September 2015**
- **Tar thickness ranged from 2-12 inches and was found up to a depth of 3 feet**
- **Next step is to develop a strategy for addressing tar-contaminated soil**



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# *Southern Tar Investigation Area (Continued)*



Tar at ground surface



Tar at 1-2 feet below ground surface



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# Southern Tar Investigation Area Preliminary Results



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# *Southern Tar Investigation Area (Continued)*



Tar covered metal barrel straps found below ground surface

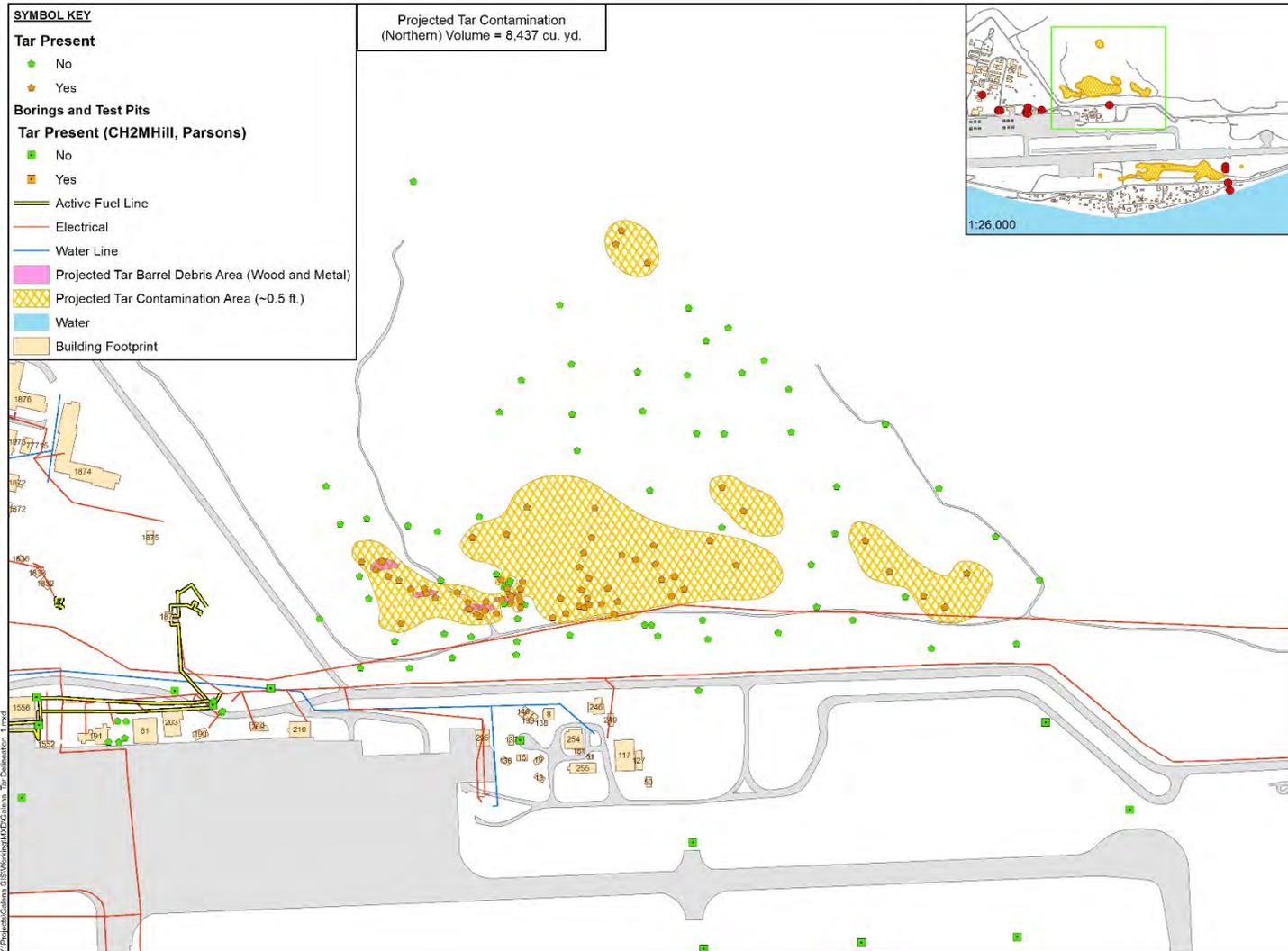


Metal barrel straps found below ground surface



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# Northern Tar Investigation Area Preliminary Results





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# Northern Tar Investigation Area (Continued)



Tar found below ground surface



Tar found at and below ground surface



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# Northern Tar Investigation Area (Continued)



Debris from tar barrels and drums



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# *Fuel Pipeline Abandonment Summary*

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- During a previous excavation an abandoned pipeline was discovered to contain fuel; thus, the Air Force's objective was to locate abandoned fuel pipelines, verify that they were properly abandoned, and properly abandon them in-place if they were not plugged
- Metal detectors were used to acquire the pipeline locations and a combination of hand tools or a mini-backhoe was used to expose the pipe terminations
- August/September 2015 field activities
  - Pipelines A, B, C and G were cleaned out
  - Pipelines A, B, C, F, and H were plugged with grout
  - The western end of Pipeline B was not located but residual fuel was drained



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# *Fuel Pipeline Abandonment Summary (Continued)*

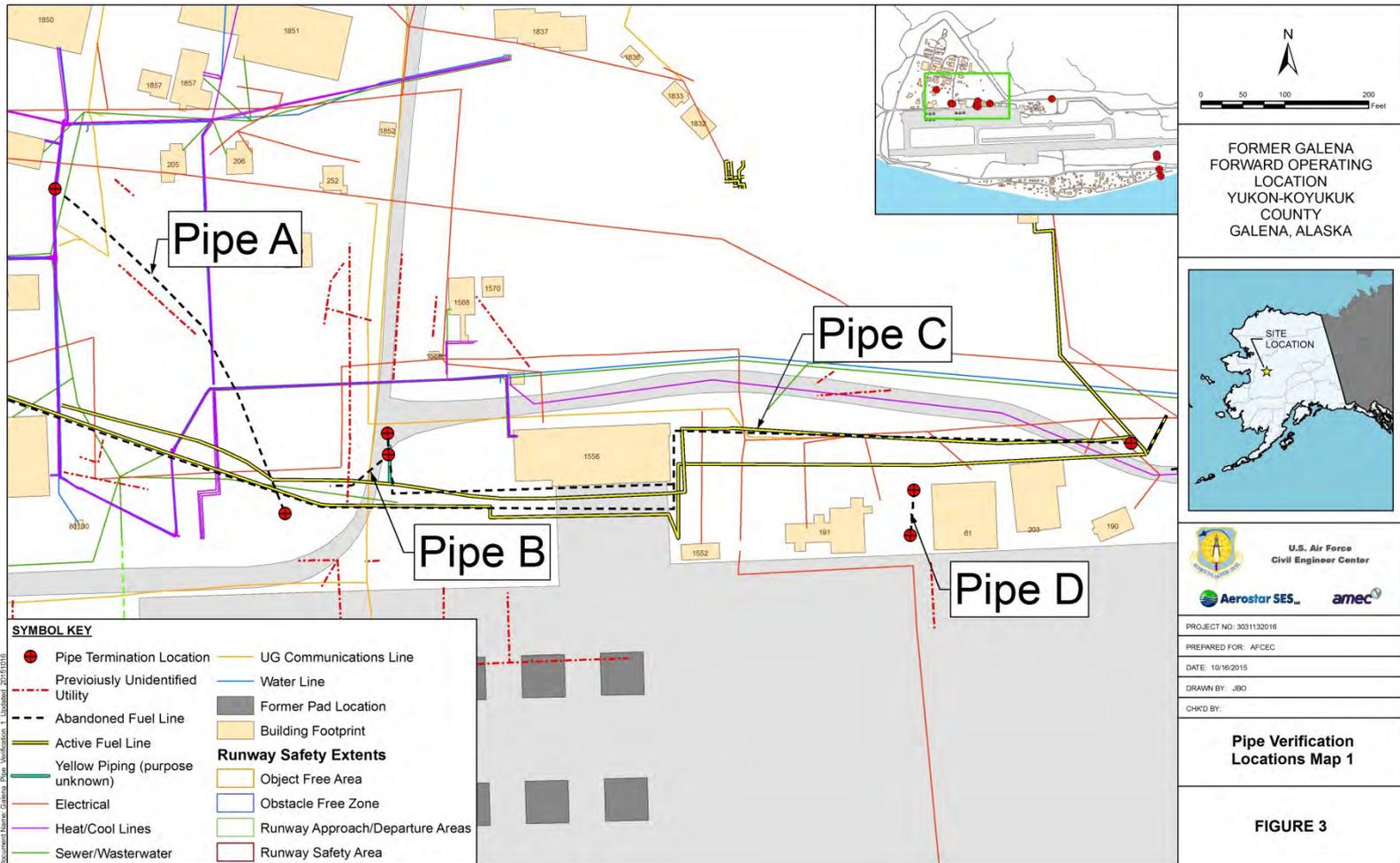
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- Pipeline D was a 1 inch steel fuel line, 89 feet long, and was removed
- Pipeline E was a 1 inch steel electrical conduit (not shown on maps but adjacent to Pipeline D)
- Approximately 480 gallons of fuel were recovered from Pipelines A, B, and C
- Next step is to develop a fuel pipeline abandonment report



# Fuel Pipeline Location – Map 1

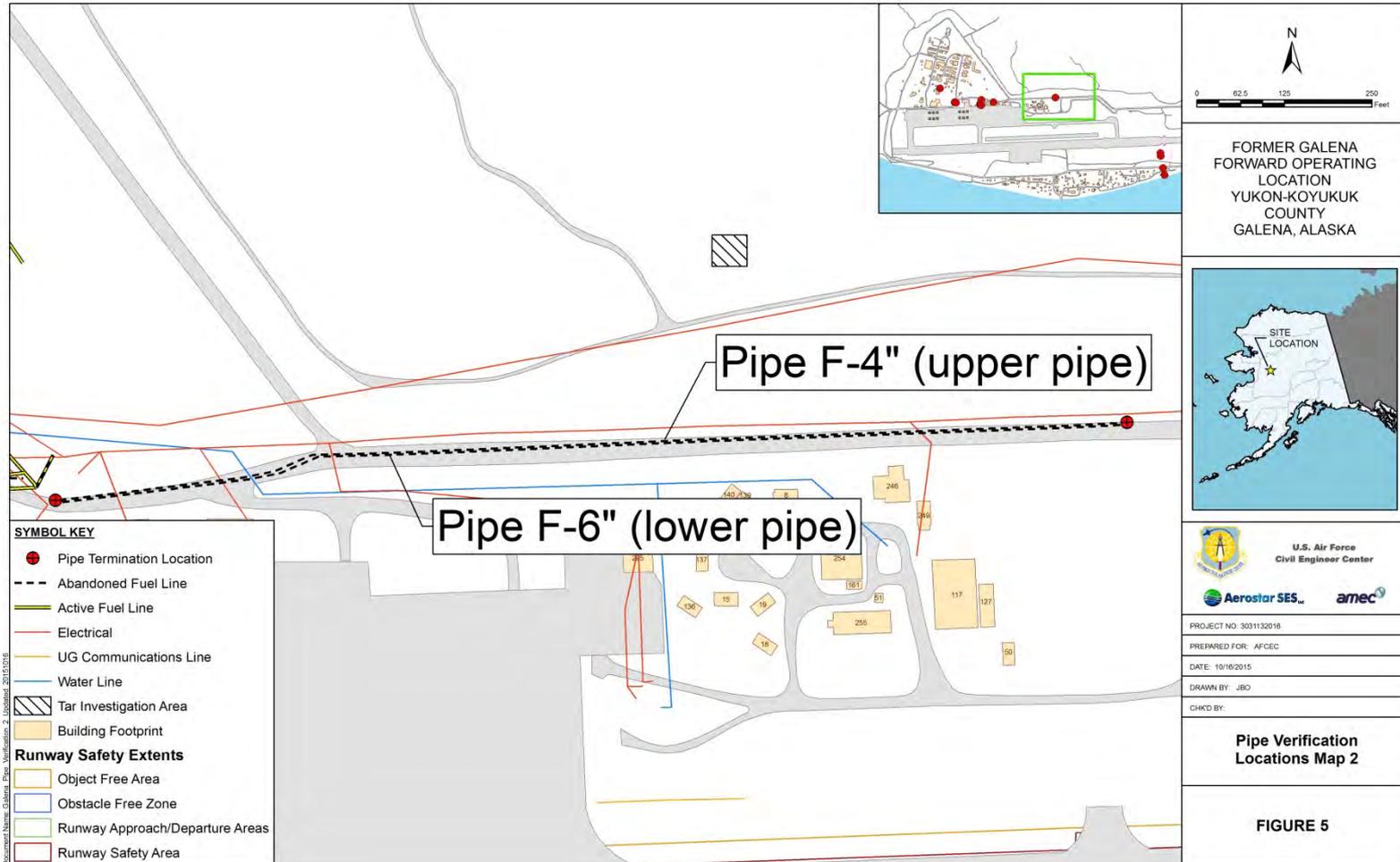
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# Fuel Pipeline Location – Map 2

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# Fuel Pipeline Location – Map 3

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