

Galena Technical Project Team Meeting #19
Galena Air Force Base Administration Bldg. Conference Room
January 23-26, 2006

In Attendance:

TPT Members

Ragine Pilot	Louden Tribal Council
Marvin Yoder	City of Galena
Harry White	Galena Schools
Dave Hertzog	Air Force (AF)
Colin Craven	Department of Environmental Conservation (DEC)
Darren Mulkey	Department of Transportation (DOT)
Phil Koontz	Louden Tribe
JoAnn Grady	Facilitator

Support Personnel

Janice Wiegers	DEC
Ron Porter	MitreTek
Patrick Haas	Patrick Haas and Associates
Collen Brownlow	Earthtech
Jim Klasen	Air Force

Invited Guests

Randy Warnke	Air Force
--------------	-----------

Summary Comments

The Galena Technical Project Team (TPT) gathered in Galena, January 23-26, 2006, to review the Final Remedial Investigation/Feasibility Study (RI/FS) Report for the Galena Airport. The RI/FS Executive Summary was provided to the team by the AF and is attached to these summary comments.

AF Project Manager Mr. Dave Hertzog began the meeting with an overview of the milestones leading to the development of the RI/FS Report. He thanked the team for contributing to the completion of the draft report. He stated that during the course of the week, his team would present a thorough review and analysis of data available for each site in Galena; the data being the basis for the proposed technologies and time frame for remediation for the Installation Restoration Program (IRP) sites listed in the RI/FS document. He stated that the Risk Assessment (RA) is the tool used by the AF to select

remediation technologies at each site and has been brought forward in a section of the RI/FS document to support remediation decisions.

Risk Assessment (RA) Discussion

Following Mr. Hertzog's overview of the RI/FS report, Dr Ron Porter of MitreTek led a discussion on the process used to prepare the Galena Human Health Risk Assessment (RA). He explained that each site in the RI/FS has been subject to RA calculations which determine the level of risk at that particular site. He stated the AF:

- Estimated the potential health hazards and cancer risk for exposure to contaminated soil, air and groundwater, and
- Determined whom the risk would affect including boarding students, temporary residents, construction workers, recreational users, incidental visitors or subsistence users.

If the RA calculations determined for a site were minimal, or posed no unacceptable risk to human health and the environment, that determination was substantiated in the Report. If an unacceptable risk was determined to exist at a site, the specific risk calculations and decisions were then handed over to engineers who considered the best technology to address those risks. Mr. Hertzog stated that future land use in Galena was assumed in order to develop the risk assessment. However, the assumptions are based on numerous meetings with community members who determined how the land at each site is currently being used.

A discussion on metals was included in Dr. Porter's report. He noted that the RA takes into account those metals which occur, both naturally and otherwise, in the area. He stated the AF used a Lines of Evidence Approach (LEA) to determine whether the AF was responsible for any metals found to pose an unacceptable risk at any of the sites. He explained that as the team reviewed each site during the course of the week, all historic and current data, RA calculations, and remediation decisions would be presented.

ST010- Southeast Runway Fuel Spill (SERFS)

The TPT began its afternoon session reviewing site ST010-the Southeast Runway Fuel Spill. The AF provided a comprehensive background and investigation summary on the site reviewing all soil, groundwater, and soil gas sampling results conducted at this site. The AF reported the risk assessment conducted at this site showed an unacceptable risk from DRO in subsurface soil and proposed to address the finding via the following site closure approach:

- Land use controls, which will include:
 1. No shallow <200 ground water use
 2. Approved Health and Safety Plan for subsurface construction.
- Long term monitoring of ground water

The AF stated that the Record of Decision (ROD), which will be written for this site, will contain the specific clean-up goals.

Mr. Craven stated in order for the DEC to close the site, the AF will need to continue to monitor until results of sampling indicate levels are below the Maximum Contaminant Levels (MCLs), i.e. 1.5 mg/L for DRO and 0.005 mg/L for Benzene. Both AF and DEC agreed that the details and frequency of monitoring will be recorded in the Decision Document for this site.

SS002 – Control Tower Drum Storage Area (CTDSA) / SS013 - CTDSA South

The AF provided a comprehensive background and investigation summary at the CTDSA, reviewing all soil sampling results conducted at this site. Mr. Hertzog explained to the team that this site was not chosen to be updated in the RA as it has previously shown no risk.

If groundwater sampling results demonstrate there is no unacceptable groundwater contamination, AF will propose land use controls as the recommended remedy with monitoring being conducted for VOCs.

Colin Craven stated the DEC would like the AF to demonstrate there is no TCE associated with this site and recommended that the site be kept open for additional monitoring until the groundwater contamination is adequately characterized. Darren Mulkey added that the DOT is interested in limiting land use restrictions at this site.

The AF responded that they will add additional micro-wells down-gradient of the site, will conduct additional groundwater sampling for VOCs, and will sample to demonstrate that TCE is not associated with the area. Future work at this site will hinge upon what is found after the new wells are sampled. The AF further reported that based upon a lack of migration of metals to groundwater at the site, no groundwater analysis will be conducted on metals at the site.

SS005 – Wilderness Hall

The AF provided a comprehensive background and investigation summary on the site reviewing all soil, groundwater and soil gas sampling results conducted at this site.

The RA showed no unacceptable risk at the Wilderness Hall site. The site closure approach at this site will include:

- Land use Controls including:
 1. No Shallow groundwater use
 2. Approved Health and Safety Plan for subsurface construction

- Long term monitoring of the groundwater for VOCs and GRO

The AF stated the frequency for LTM will be proposed in the Proposed Plan/Decision Document for this site and will be based on the proper protocol for demonstrating the effectiveness of natural attenuation.

AF stated that the building is currently safe for occupancy

Land Use Controls

Tuesday morning began with a lengthy discussion among TPT members concerning land use controls at sites in Galena and Campion. Patrick Haas of Haas and Associates explained what is referred to as a 'layering strategy' which has been implemented at other AF base closures within the US. This strategy identifies layers of protection that are memorialized in ordinance or legal documents and which safeguard human health and the environment at sites where contamination must be left in place. In Galena they may include:

- Registering the existence of contamination left in place with the DOT, the City of Galena, the Local Reuse Authority, the DEC, the district recorder, the AF Admin. Record and a local land use control repository.
- Enforce building code ordinances and zoning and planning controls through municipal and state ordinances, the non-compliance of which would include fines.
- DEC drinking water system regulation.
- USAF land use control implementation plan which will require reviews of the LUC effectiveness at a minimum frequency of 5 years.
- Lease agreements which would include notification of contamination left in place with proper leasee restrictions.

ST007-Campion –POL Area

Mr. Hertzog began discussion on the Campion POL site by explaining that while Campion is included in the RI/FS, a separate decision document will be prepared for the site.

The AF provided a comprehensive background and investigation summary on the site reviewing all soil, groundwater, and soil gas sampling results conducted at this site. They reported that the RA conducted at the site revealed an unacceptable non-cancer risk for DRO in surface and subsurface soils. Dr Porter stated that the assumption of Aldrin exposure at the site was calculated into the RA and showed a slight risk exceedence of the threshold cancer criteria.

A feasibility study was performed for the site to evaluate alternatives for remedial actions. The following best satisfies remedial action objectives for the site.

- In place land farming of upland DRO surface soils
- Naturally vegetated soil cover
- Natural attenuation
- Long term monitoring
- Land use controls which will include:
 1. Restriction of shallow ground water use. The AF added that a nearby landfill and permafrost may already prevent the use of the ground water at the site.
 2. Notification to contractors that contamination remains in place. OSHA regulations will provide protection to workers in the area.

The DEC's Colin Craven added that PAHs in the water at Campion were detected down drainage of the original contaminated site. He stated that DEC had agreed that the water in the drainage down-gradient of the Campion POL could be broadly classified as groundwater instead of surface water, as long as it could be shown that contamination wasn't migrating to a down-gradient surface water body where aquatic receptors would be present. Some of the pesticides infrequently detected at Campion could be unacceptable if treated as surface water detections. Although all down-gradient water samples fell below surface water quality criteria, he suggested that explaining and resolving the issue in the text of the RI/FS would be helpful.

FT001 – Fire Protection Training Area

The AF provided a comprehensive background and investigation summary on the site reviewing all soil, soil gas and groundwater sampling results conducted at this site.

The RA conducted at the site showed an unacceptable non-cancer risk for DRO surface soils.

Site closure approach suggested by the AF includes:

- In-place land farming of DRO impacted surface soils
- Long term monitoring
- Land use controls at the site that will include:
 1. No drinking water wells at the site
 2. Notification of contractors regarding contamination at the site.

Following the AF's presentation at the site, Mr. Craven stated his concern, questioning the accuracy of the depiction of the groundwater contours and containment concentrations at the site. He stated that in the past, the AF had been monitoring at what has been shown to be the most contaminated part of the site. Historically, 01-MW-06 has had the highest concentrations of Benzene and that well was abandoned in the mid-1990s. He stated that sometimes the groundwater flow direction would be such that it is not delineating the plume as shown in the figures, but at other times it is accurate, depending on annual variation. He stated the concern might be worth considering for the appropriateness of the existing monitoring well network for implementing LTM.

AF agreed that additional sampling at the site may be beneficial to both address the DEC's concern regarding the contour of the groundwater, and to support the TPT's suggestion that new information collected at the site may show that less excavation at the site may be required. The AF's Jim Klasen stated there may also be a potential to reduce costs if additional sampling determines that less soil will need to be removed.

The AF stated the frequency for the LTM will be included in the Proposed Plan/Decision Document for this site and will be based on proper protocol for demonstrating the effectiveness of natural attenuation.

ST005 South POL Tank Farm

The AF provided a comprehensive background and investigation summary on the site reviewing all soil, groundwater, and air sampling results conducted at the site. In addition, current RI/FS activities at the POL Tank Farm, which include the installation of

groundwater monitoring wells and vapor monitoring points, the expansion of the air injection and air extraction bioventing systems, were reviewed.

A feasibility study was performed for the site to evaluate alternatives for remedial actions.

The following will be included in the RI/FS as the preferred alternative for the site:

- Bioventing
- Natural attenuation
- Long term groundwater monitoring
- Land use controls including:
 1. operation of the sub-slab depressurization system at the GAVTC building

A lengthy discussion on the SVE system at this site was undertaken by the TPT. The DEC suggested a discussion to explain why the process for converting the SVE system at this site to an air extraction bioventing approach would be helpful. Mr. Hertzog stated that the detailed operational procedures at the SVE will be included in the design discussion on the site.

Marvin Yoder informed the TPT that the City of Galena has acquired three of the eight excess saddle tanks at the site. He also stated the right of way for the city road follows the fence line of the tank farm. He stated the City of Galena will request that the existing road be moved to the surveyed right of way. The AF stated that an existing pipeline near the road may be abandoned in place.

The TPT requested that additional discussions take place regarding how other buildings surrounding the GAVTC may be impacted by vapor intrusion from the POL Tank Farm.

The AF stated that the frequency for LTM will be included in the Proposed Plan/Decision Document for this site and will be based on proper protocol for demonstrating the effectiveness of natural attenuation.

CB001 - GAVTC

The AF provided a comprehensive background and investigation summary on the site reviewing all soil, groundwater, and indoor/outdoor air sampling results. It was noted that the sub-slab depressurization system at this site has been monitored either weekly and/or monthly and to insure the system is operating correctly. Data reviewed reported that the systems have been operating protectively since 2002.

A feasibility study was conducted at this site in conjunction with the POL Tank Farm and alternatives for remedial actions are listed under the POL Tank Farm section of these summary comments.

Mr. Hertzog added that in addition to the previously listed alternatives, the following three alternatives for the GAVTC building are being considered by the AF:

- The AF purchases the GAVTC and the maintenance of occupancy in the building until the clean up levels are met.
- Installation and operation of a heating/venting system to maintain a positive pressure in the building.
- Purchase the GAVTC building and maintenance of zero-occupancy in the building until the clean up levels are achieved.

The AF reported that all options are considered fully protective and listed in order of high to lower effectiveness to mitigate the vapor intrusion effects.

The AF stated the frequency for LTM will be included in the Proposed Plan/Decision Document for this site and will be based on proper protocol for demonstrating the effectiveness of natural attenuation.

CG001/CG002 – Million Gallon Hill /Missile Storage Area (MGH/MSA)

The AF provided a comprehensive background and investigation summary on the site reviewing all soil and groundwater sampling results followed by a summary of current activities RI/FS activities at the site.

AF reported that the RA conducted at this site determined that contamination left in the ground at this site did not pose an unacceptable risk for non-cancer affects. Without risk, the AF stated that a feasibility study was not recommended at the site per CERCLA and ADEC guidelines.

The DEC's Mr. Craven noted that while he did not generally disagree with the AF's decision on this site, he noted that compared to other sites with a similar magnitude of contamination, there were many fewer soil samples taken at MGH. He further stated that although the RA showed no risk, he would like to see the details concerning the limitation of groundwater samples conducted at the site considered in the RI report.

He further stated that he did not feel that other alternatives for the site were fully evaluated and it was difficult to support the remedy with the limited investigation into other possibilities. He reiterated that the DEC may request an expanded explanation in the RI/FS as to why this remedy was chosen.

AF's chosen remediation alternatives at this site include:

- Continuation of the bioventing systems in place at the site.
- Long term monitoring
 1. Including the installation of down-gradient monitoring wells to determine plume stability.
- Land use controls including;
 1. The restriction of drinking water wells
 2. Requirement for dig permits for subsurface construction projects
 3. Annual land use compliance surveys

4. 5 year review requirements to determine if the remedy chosen is effective.

Ragine Pilot from the Louden Tribe commented that she did not feel adequately informed as to why this site was being categorized as a no risk site. She stated the site has been the subject of many conversations throughout the community, all of which questioned the safety of hunting or berry picking in the area of MGH. Facilitator Grady asked Dr. Porter to take extra time and explain, in lay terms, why the AF felt that risk at this site was negligible. Ragine and Dr. Porter agreed to compile information for a presentation that could then be given to the community, explaining in understandable terms, the conditions and decisions made at this site.

Principal Harry While also suggested that the information or pamphlet that is compiled for the community is given to science teachers at the school in order to explain to students the process the AF undertook to insure the area was protective of human health and the environment.

The AF stated the Proposed Plan/Decision Document for this site and will be based on proper protocol for demonstrating the effectiveness of natural attenuation.

TCE Plume (SS006)

The AF provided a comprehensive background and investigation summary on the site reviewing all soil and groundwater sampling results followed by a summary of current RI/FS activities at the site.

The AF proceed with their presentation, stating their confidence that, based on reviewed data, the plume shows a degree of natural containment and stability due to natural attenuation occurring at the site.

The AF also stated that the RA conducted at the site was found to pose an unacceptable cancer risk due to the potential for vapor intrusion.

A feasibility study was performed for the site to evaluate alternatives for remedial actions. AF's decisions for site closure at the site include:

- Long term groundwater monitoring
 1. Including annual monitoring for VOSs for 5 years and biannual monitoring for other COCs.
- Land Use Controls which will include:
 1. No drinking water wells <200 feet deep
 2. Notification of contractors that contamination remains in place.

The AF stated the Proposed Plan/Decision Document for this site and will be based on proper protocol for demonstrating the effectiveness of natural attenuation.

JP4 Fillstands

The AF provided a comprehensive background and investigation summary on the site reviewing all soil and groundwater sampling results followed by a summary of current RI/FS activities at the site.

The RA at this site showed an unacceptable cancer risk for benzene in sub surface soils at this site. A feasibility study was performed for the site to evaluate alternatives for remedial actions.

AF's site closure approach for this site includes:

- Bioventing
- Natural attenuation
- Long term monitoring of the groundwater until benzene sampling reads <.005 mg/L
- Land use controls which will include:
 1. No shallow groundwater use
 2. Approved health and Safety Plan for subsurface construction and at the Vehicle Maintenance Facility Building.

The AF stated the Proposed Plan/Decision Document for this site and will be based on proper protocol for demonstrating the effectiveness of bioventing and natural attenuation.

Next TPT Meeting Date and Location:

The next TPT meeting will be held at the DEC offices in Anchorage, March 13-14, 2006. The offices are located at 555 Cordova Street in Anchorage. The team will meet in the 1st floor conference room and the meeting will begin at 8 AM.