

**JOINT BASE MCGUIRE-DIX-LAKEHURST (JB MDL)
LAKEHURST TECHNICAL REVIEW COMMITTEE MEETING
October 26, 2016**

1) Attendees:

Ms. Carla Struble, Project Manager, USEPA
Ms. Donna Gaffigan, Case Manager, NJDEP
Mr. Joseph Marchesani, Hydrogeologist, NJDEP
Ms. Branwen Ellis, Pinelands Commission
Ms. Theresa Lettman, Pinelands Preservation Alliance
Mr. Michael Figura, Environmental Engineer, Joint Base McGuire-Dix-Lakehurst
Ms. Andrea Graham, Technical Lead, USACOE, Baltimore District (by phone)
Mr. Jim Bedessem, Technical Lead, Arcadis (by phone)
Mr. Tom Crone, Asst. Project Manager, Arcadis
Ms. Whitney Plasket, Lakehurst Task Manager/Technical Lead, Arcadis
Ms. Katrina Harris, Bridge Consulting/Arcadis

2) Handouts:

- Meeting Agenda
- Presentation Slides
- Air Force Press Release

3) Opening, Introductions, Administrative Items, Minutes:

Mr. Michael Figura called the meeting to order at 10:16 a.m., and everyone introduced themselves.

Mr. Tom Crone asked for any comments on the July 27, 2016 minutes, and none were offered.

Mr. Crone reviewed the agenda and meeting objectives.

Mr. Crone reviewed Action Items from the last meeting, and the team updated the Action Items.

4) Update on Areas A/B and C:

Mr. Crone stated there are six sites included in Areas A/B and C and displayed a map showing the location of Areas A/B and C.

Mr. Crone reviewed a chart showing the status of documents and sampling. He stated notification had been given in August regarding the pilot test at Site AT016 designed to gather current data, and the report is expected to be submitted to the regulators by October 31st. He advised the Remedial Design Report for Sites LF042, TT013, and TT017 will be submitted to the Air Force by November 4th. Mr. Crone noted more aggressive treatment had been recommended for these three sites as a result of the monitored natural attenuation study in order to get to clean

closure in six years which is Arcadis' objective. He said the Remedial Design Report for the other three sites (AT014, AT016, and LF029) will be submitted to the Air Force in the first quarter of calendar year 2017. Mr. Crone advised at AT016 temporary well and soil boring installation will start November 14th, with pilot test work to occur in December, if needed. He stated semi-annual groundwater sampling was conducted the previous week. Mr. Crone displayed a graphic showing the tentative schedule for Areas A/B & C.

Ms. Whitney Plasket reviewed the pilot test results for LF042, TT013, and TT017. She stated at LF042 a pilot test was conducted in the area of the naphthalene exceedances to determine what needs to be treated. She advised the test results will be reflected in the remedial design. Ms. Plasket discussed Well CF where TCE/PCE has been detected above remedial goals. She stated Building 266 to the south was a dry cleaner; there was a PCE release spill and the impacted soil was excavated. She noted there was limited recent data so temporary wells were installed and sampled. She reviewed the results and noted a permanent monitoring well is being proposed in the remedial design. Ms. Plasket advised that east of Well CF there were no detections above remedial goals or Pinelands Standards. Ms. Plasket showed a current draft layout of monitoring wells. She noted Arcadis is proposing a new trailer/treatment system which would connect to both areas. She stated the plan still needs to be coordinated with the Air Force. Mr. Crone noted there are many utilities in the area which will need to be taken into consideration.

Ms. Plasket next discussed TT013. She said the pilot test used NG as the closest monitoring well for the sparge test. She noted NG has had rebounding concentrations since it was turned off for the plume stability study. She stated at this site 15 foot radius of influence (ROI) was observed for air sparge. Ms. Plasket said the pilot test information will be applied to the remedial design. Ms. Plasket advised the temporary well sampling results point to three source areas of petroleum products from underground tanks. She said based on the sampling results Arcadis is proposing to install permanent wells at two locations. Ms. Plasket displayed a draft full-scale design and stated existing wells will be used where possible.

Ms. Plasket next discussed TT017 and the pilot test results. She reviewed the ROI observations and the possible connection to the site geology. Ms. Plasket reviewed the temporary well sampling results and the location of additional proposed temporary wells. She discussed the detection of naphthalene upgradient of Well J and stated Arcadis is proposing to put a temporary well upgradient to find the source.

Ms. Donna Gaffigan asked if a fuel discharge which occurred a few years earlier could be a source. Mr. Figura confirmed the discharge and said a treatment system was installed at the spill location which ran for approximately six months. He stated the former fuel tanks upgradient at Site 10 may be a more likely source.

Ms. Plasket displayed the draft full-scale design. She stated soil vapor extraction is not proposed as this site as all soils are below goals. She advised the proposed plan is to run the existing system.

Ms. Plasket reviewed the pre-design investigation at Site AT016, which is located across the road from Site TT017. She advised field work is tentatively scheduled to start November 14 and will

consist of installing soil borings at all locations that exceeded the standard for TPH in the past. She noted the borings will be installed by auger. Ms. Plasket displayed a map showing the temporary well points. She advised a purge test is planned since concentrations at well MV increased after the groundwater treatment system was shut down, and the purge test will help determine if it is worthwhile to try and treat the groundwater in this area.

Mr. Crone said the next discussion topic is the contaminants of concern list and whether an Explanation of Significant Difference is needed. Mr. Crone stated Arcadis is proposing AS/SVE or bioventing at four sites. He noted Arcadis could not locate Explanation of Significant Difference or Record of Decision documentation for AS/SVE as the selected remedy at LF042, TT017, and AT016. He said the selected remedy was pump and treat with optimization, and it appears the modifications were viewed as optimization; therefore, an Explanation of Significant Difference may not be required.

The group discussed whether an Explanation of Significant Difference is needed. Ms. Carla Struble suggested the Air Force propose how it would like to handle the changes.

Mr. Crone advised the Remedial Design will reset the contaminants of concern list and remedial goals. He said Arcadis' review of EPA guidance indicates this would be a minor change and would be documented through a memo to the file and through the Remedial Design. Mr. Crone discussed how contaminants not listed as a contaminant of concern would be screened to determine if they should be added and how current contaminants of concern would be screened to determine if they should be removed. Mr. Crone noted Arcadis will be discussing further with the Air Force.

5) Update on Area H:

Mr. Crone stated Arcadis has just completed sampling and is working on the annual progress report.

Ms. Plasket discussed the status and performance of the groundwater treatment system. She stated a letter had been sent last year requesting concurrence to shut down pumping at RWH-2 and approval was received in December; the well was shut off. Ms. Plasket said shortly after that Arcadis requested shutting off RWH-3. She explained the treatment system is very large and cannot run with just the water from RWH-1. She noted RWH-2 used to be redeveloped often due to iron fouling, and the problem has now moved to RWH-1. She said RWH-1 was redeveloped in August. Ms. Plasket said recommendations for the future will be in the annual progress report.

6) Update on Areas D, I/J and K:

Ms. Plasket advised the internal draft of the annual progress report will be submitted to the Air Force in the first quarter of calendar year 2017.

Ms. Struble commented that it looked like the regulators will be receiving all the progress reports in January. She stated EPA does want to review them, but comments may be delayed if all are

received at the same time. Mr. Crone asked if it would be easier to have one progress report, but EPA and NJDEP agreed that separate reports are preferred.

7) Five-Year Review:

Mr. Figura advised the final report was distributed on September 21, and a notice of availability was published in the Burlington Times on September 30, October 2 and October 3 and in the Asbury Park Press on September 30, October 1, and October 2. He stated copies of the report are at both libraries and also on the web-based Administrative Record site; Ms. Harris advised there is a link to the web-based Administrative Record on the www.envirostorejbmdl.com web site.

8) Military Munitions Response Program:

Mr. Figura displayed a map showing the location of the six Military Munitions Response Program (MMRP) Sites numbered ZZ001 through ZZ006:

- Site ZZ001, Sub-Target Site: Established during WWII as a practice target set-up in the shape of a German U-Boat.
- Site ZZ002, MALRE Site: Installed temporary anchors for aircraft landing system; holes were created with the use of C4.
- Site ZZ003, Lakehurst Proving Grounds: Ranges used for testing of both high explosive and chemical munitions.
- Site ZZ004, Small Arms Range: Located on the western Lakehurst area boundary.
- Site ZZ005, Trap Range: Located in wooded area to the north.
- Site ZZ006, Rifle Range: Located in northeast; site includes a rifle, pistol, and skeet range.

Mr. Figura provided an update on work at the MALRE site (Site ZZ002) which is being conducted by Bay West. He advised the previous month the ground truthing was performed; he explained anomalies detected through a 100 percent sweep of the site with ground penetrating radar and magnetometry survey were hand dug. He said anchors were found as suspected, and he displayed photographs of the anchor systems. He advised three location were identified where soil boring samples were taken at the surface, four to six feet deep, and eight to ten feet deep. He stated the samples were all non-detect according to the preliminary data received which is now undergoing data validation. Mr. Figura said all the data will be included in the Remedial Investigation Report. Mr. Figura asked Ms. Struble if she would like to see one Remedial Investigation Report for Sites ZZ002, ZZ004, ZZ005 and ZZ006, and she suggested there be one report for ZZ002 and ZZ004 and one report for ZZ005 and ZZ006.

Mr. Figura next discussed the Small Arms Range (ZZ004). He stated two new monitoring wells were sampled, and the Air Force is awaiting the results.

Mr. Figura reviewed the current status of the Trap Range (ZZ005). He said responses to comments on the draft EE/CA were distributed on October 10, and the Action Memorandum and Work Plan are undergoing regulatory review. He advised the start of fieldwork is planned for mid-March 2017. Ms. Struble mentioned an outstanding ecological comment. Mr. Figura said

the comment is being discussed, and he would suggest a conference call with Ms. Struble once the Air Force has a response; Ms. Struble agreed. He also advised a new well was installed on October 3, following a UXO avoidance sweep.

Mr. Figura next discussed groundwater sampling at Site ZZ006. He said the analysis of the samples showed non-detect for PAHs from samples at the skeet range and levels well below screening levels for metals.

Mr. Figura advised the draft Remedial Investigation Report had just been received from Weston for the Former Submarine Target (ZZ001) site. He said the Report will be distributed to regulatory agencies in January 2017.

Mr. Figura stated the draft Remedial Investigation Report for the Proving Grounds Parachute Jump Circle Targets is due to be submitted to the regulators in November. He advised the after-action report for the destruction of the chemical munitions was distributed on September 29.

9) Perfluorinated Compounds

Mr. Figura advised the issue continues to be a high priority for the Air Force. He distributed copies of a press release that was released the previous Friday. He stated Aerostar is performing the Site Inspection, and the Air Force is awaiting receipt of the validated data from the hundreds of groundwater, surface water, and soil samples collected from the potential sites. Mr. Figura said the Air Force has awarded two additional contracts—one to perform additional sampling to further delineate areas and to determine if there are any off-base impacts and a second to provide technical support for identifying off-base sources. He stated the Air Force is awaiting validated data but contamination has been identified at the boundary of the two National Priority List sites—Area A and Area C, former firefighting areas. He said the potential for migration to nearby off-base areas and the location of any private wells is being discussed with local officials.

10) Open Discussion:

Mr. Figura invited discussion or comments. No other comments were offered. Mr. Figura mentioned the next Restoration Advisory Board meeting may be postponed.

11) Action Items:

1. Arcadis to update the Basewide QAPP, worksheet #15, to reflect final dispute resolution regarding the Pineland Standards as suggested by Ms. Gaffigan. (PENDING. Mr. Crone noted the update is being developed and should be distributed to the Air Force within the next week and then to the stakeholders.)
2. Mr. Figura to check with Weston and provide Mr. Alvey with data on Lakehurst groundwater monitoring points, including coordinates and elevations. (PENDING. Mr. Figura will forward existing updated MMRP well information and continue to send updates. Arcadis is developing a more comprehensive data base that will provide a snapshot of every well and that information will also be provided to Mr. Alvey when it is completed.)

3. Mr. Figura distributed the memo about step-out sampling at Proving Grounds for informational purposes; let Mike know of any needed changes or comments. (PENDING. Ms. Struble said EPA sending comments this week relating to copper. Mr. Figura acknowledged sampling was completed by the contractor at risk, and EPA's comments will be addressed in Proving Grounds draft RI Report in November.)
4. Arcadis to review solar-powered spray aeration system trends. (COMPLETED. Arcadis will look at the data at the end of the year for comparison and in the future; will add to annual report.)
5. Arcadis will provide Mr. Figura with a list of wells with Hydrasleeves, and Mr. Figura will let Arcadis know which wells the SI contractor will be sampling. COMPLETED
6. Ms. Struble will discuss proposed ESD with EPA management. Mr. Figura will check with the Air Force chain of command, as well as check the minutes from a meeting with EPA risk assessors about which standards need to be met. Mr. Figura will send Ms. Struble an email outlining why an ESD is being proposed; Arcadis will prepare the rationale in the next few weeks and send to Mr. Figura. (PENDING; discussed at meeting)

12) Next Meeting:

The next TRC meeting is scheduled for January 25, 2017 in Building 5 at 10:00 a.m.

The meeting was adjourned at 11:47 p.m.

LAKEHURST 2016 DOCUMENT TRACKING

| IRP Documents | | | |
|----------------------|--|-------------------------|--------------|
| Area/Site | Document | Date¹ | Notes |
| D, I/J, K | Final 2015 Annual Report | 8/18/16 | |
| H | Final 2015 Annual Report | 8/18/16 | |
| A/B, C | Final 2015 Plume Stability Study | 8/26/16 | |
| A/B, C | Draft 2016 Semi Annual Progress Report | <i>August 2016</i> | |
| C | AT016 Confirmatory Sampling Notification | <i>October 2016</i> | |
| | | | |

| MMRP Documents | | | |
|--|---------------------------------------|-------------------------|--------------|
| Area/Site | Document | Date¹ | Notes |
| Site ZZ001 (Submarine Target) | Draft RI Report | <i>September 2016</i> | |
| Site ZZ001 (Submarine Target) | Draft Well Sampling Report | <i>September 2016</i> | |
| Site ZZ002 (MALRE site) | Draft Well and Boring Location Report | March 2016 | |
| Sites ZZ005 (Trap Range) and ZZ006 (Rifle, Pistol and Skeet Ranges) | Draft EE/CA | <i>June 2016</i> | |
| Sites ZZ005 (Trap Range) and ZZ006 (Rifle, Pistol and Skeet Ranges) | Draft IRA Work Plan | <i>June 2016</i> | |

Footnotes:

1. Dates which appear in italics are planned submittal dates.