

Date 7 July 2022

To Flannery Ballard, ADEC

CC Jenna Van Horn, AKARNG

From Paragon Professional Services, LLC

Subject Akiak FSRC Monitoring Well Decommissioning Technical Memorandum

INTRODUCTION

This technical memorandum will summarize the well decommissioning activities that occurred at the Akiak Alaska Army National Guard (AKARNG) Federal Scout Readiness Center (FSRC) on 9 June 2022. Included with this tech memo is a figure of the site, a photograph log containing the photos captured of the decommissioning activities, and the field notes logbook of site activities.

BACKGROUND

The Akiak Alaska Army National Guard (AKARNG) Federal Scout Readiness Center (FSRC) went into use in 1960. During its use, two spills are known to have occurred at the Akiak FSRC. A large fuel spill occurred in August 1987 when the wooden stand for the former 1,500-gallon, single-walled heating oil above ground storage tank (AST) collapsed and spilled up to 1,500 gallons of heating oil. During an Environmental Compliance and Audit Survey completed in June 1992, a second fuel release was discovered on the ground beneath the fuel supply piping between the new 1,500-gallon, double-walled AST and the FSRC building. Investigations which occurred between 1995 and 2015 identified and removed fuel contamination at the site in soil and groundwater. Three groundwater monitoring wells were installed in 2015, and long-term monitoring (LTM) activities were attempted from 2015 through 2018; however, insufficient water was present for sampling during each attempt. In 2019, the existing wells were decommissioned and replaced with three new flush-mount 2-inch diameter PVC monitoring wells, completed to approximately 20 feet below ground surface, which all produced sufficient water for sampling (Figure 1). Two consecutive groundwater monitoring events, in 2019 and 2021, demonstrated that the applicable contaminant concentrations in groundwater were below the Alaska Department of Environmental Conservation (ADEC)-approved site-specific groundwater cleanup levels (Eagle Eye 2019; Paragon 2021a). ADEC has determined that site conditions and contaminant concentrations at the Akiak FSRC are appropriate for a cleanup complete without institutional controls determination. The Akiak FSRC site is ADEC Hazard ID number 2456 and File Number 2404.38.002.

WELL DECOMMISSIONING ACTION

To close out the site, three monitoring wells were decommissioned on 9 June 2022 in accordance with the Akiak FSRC *Monitoring Well Decommissioning Letter Work Plan* (Paragon 2021b) and the ADEC *Monitoring Well Guidance* (ADEC 2013). Locations of the decommissioned wells, MW1A, MW2A, and



MW3A, are displayed on Figure 1, below. A photograph log of well decommissioning activities is included at the end of the document.

After measuring the depth to water (static water level), the casing and concrete finish were removed. A spade was used to remove approximately 1 foot of soil around the top of the well to be able to grip the riser for extraction. A 1-inch black iron pipe with connector fittings that fit into the well was then used to break out the bottom cap of the 2inch diameter well screen, allowing the well to be used as a tremie pipe. The well risers were removed by a telescoping boom forklift and tow straps. Wells were extracted approximately 7 feet until the bottoms of the wells were just above the groundwater interface, which allowed the aquifer material to collapse into the borehole. Risers were cut to a height of approximately 1-2 feet above the ground surface, at which time bentonite chips were added until the well was filled to about 2 feet below the surface. Riser was pulled and trimmed, and more bentonite was added to maintain the level at approximately 2 feet below the surface. After removing the screen, the bentonite was hydrated and topped off to 2 feet below the surface as necessary. Pea gravel was placed above the bentonite and the surface material removed by spade was used to top the pea gravel. All three wells were removed in their entirety with no pieces decommissioned in place. Site refuse including disposable PPE and retrieved well parts (cut into manageable lengths) were bagged in heavy duty plastic garbage bags and disposed of at the local landfill in Akiak.

Decommissioning of the monitoring wells marks the final remedial activity at the Akiak FSRC site in accordance with a cleanup complete determination provided with approval of the 2021 LTM Report and the site Record of Decision (AKARNG 2013; Paragon 2021a).

REFERENCES

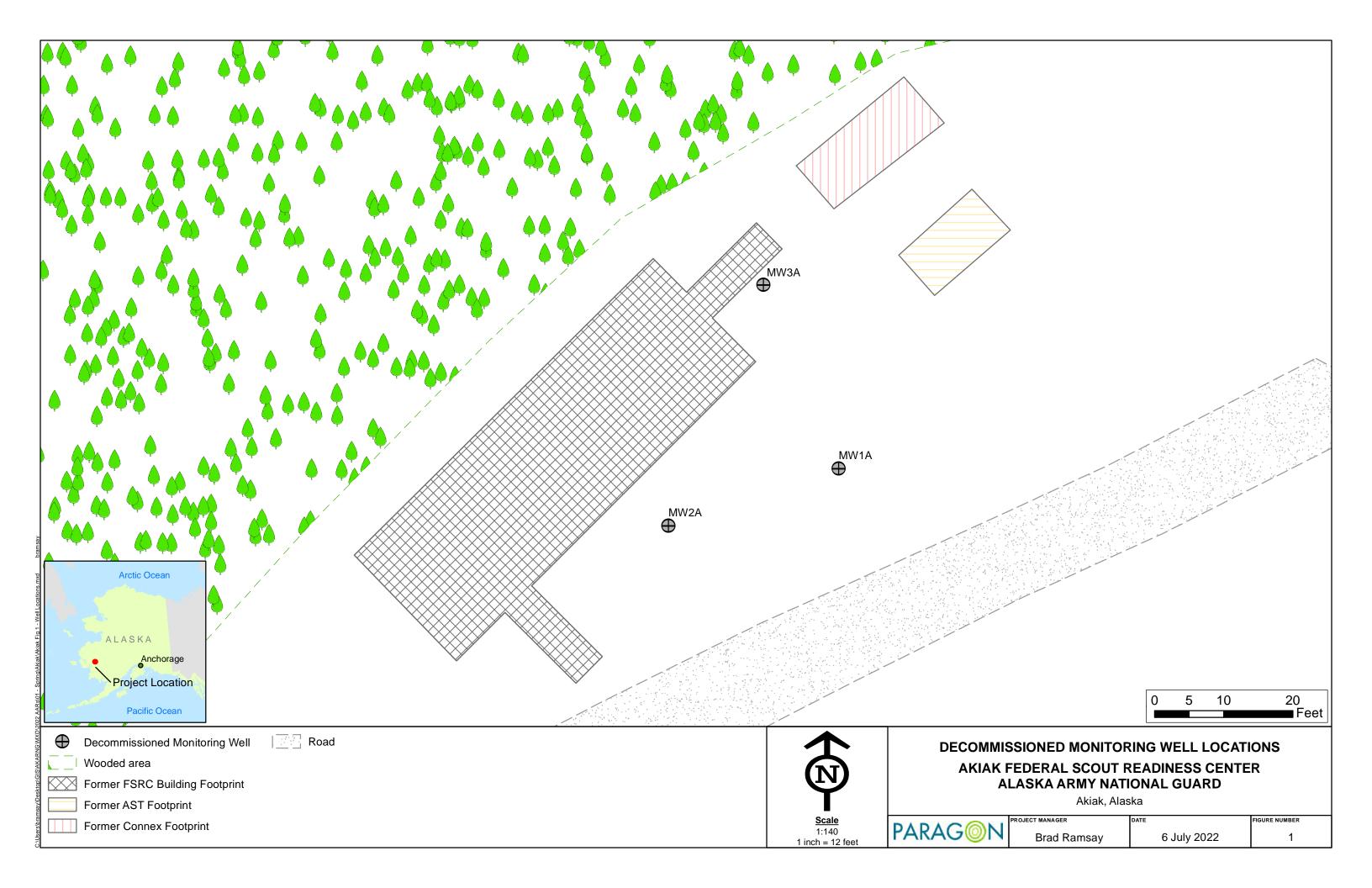
ADEC. 2013 (September). *Monitoring Well Guidance*. Division of Spill Prevention and Response, Contaminated Sites Program.

AKARNG. 2013 (September). Akiak Federal Scout Readiness Center Record of Decision for Petroleum Contamination.

Eagle Eye. 2019 (November). Akiak 2019 Long-Term Monitoring Report, Federal Scout Readiness Center. Final.

Paragon. 2021a (November). Akiak 2021 Long-Term Monitoring Report. Final.

Paragon. 2021b (November). Akiak FSRC Monitoring Well Decommissioning Letter Work Plan.







Photograph #1 - 6 June 2022. Paragon staff directs the boom lift operator while decommissioning monitoring well MW1A. One end of the tow strap was hooked to the boom lift fork, and one end was wrapped around the well. A strip of duct tape maximized the bite of the tow strap. View facing northwest.



Photograph #2 - 6 June 2022. The decommissioned borehole for monitoring well MW1A, topped with pea gravel. The soil pile to the left and above the borehole was backfilled on top of the pea gravel. View facing east.





Photograph #3 – 6 June 2022. Decommissioned monitoring well MW1A (marked with a red arrow) after backfilling the soil above the pea gravel. View facing northwest.



Photograph #4 – 6 June 2022. Decommissioned monitoring well MW2A (marked with a red arrow) after backfilling the soil above the pea gravel. View facing southwest.





Photograph #5 – 6 June 2022. Decommissioned monitoring well MW3A (marked with a red arrow) after backfilling the soil above the pea gravel. View facing southwest.

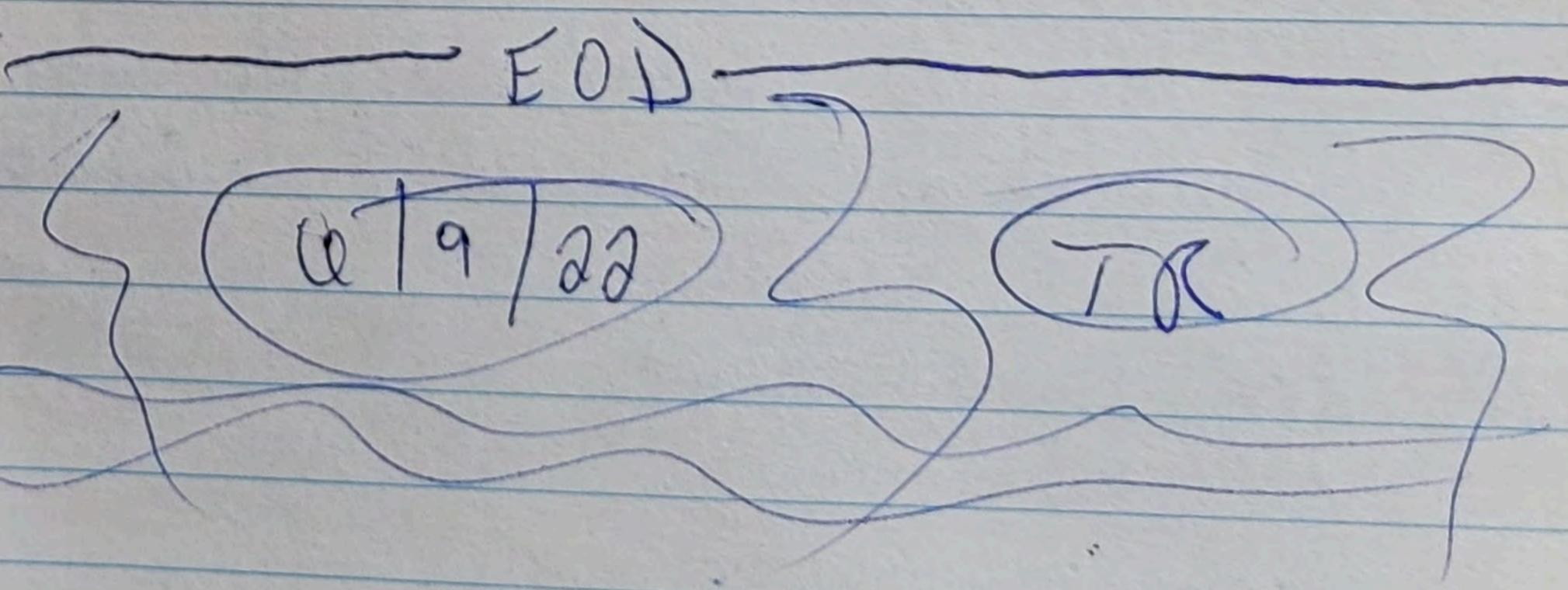
09 June 2022 AKARNG Spring 2022 LTM25 Onsite: Tyler Richabaugh, Brad Ramsa, OBS: GW Sampling @ Guard Site PRE Mad Jevel D'Mokey Timeline 0630 Bagin Calibrating YSIs. See calibration sheet for details 0730 Finish calibration, begin somple management for Tununak and Kwethlyk. .0815 Mob truck with sampling geers and coolers with samples 0845 Arrive at Kyan Dir and speak, with dispatch about the days objective 8900 Drop samples off at Gold Streak 0930 Return to Ryan Air. Plane unable to take team to Nunap due to Fires. Plan to wait For smoke to clear. 1030 Smoke not clearing Plan changes to go to Akiak instead.

Call Akiak Village and plan with operator and Pront loader

Rite in the Rain.

26 AKARNG Spring 20 LTM ,09 June 22 1130 Load plane with Field gear For AKiaK. 1195 Fly from Bethel fo AKiak 1200 Land in Akiaz and load truck with Field gear. 1205 Arrive on site, off load goers and open wells and take water level and well depths MW2 GWP 9.4 19.01 TO MW 33 GWD7 19.5 TD MW 31 GWD 7.0 18,6 TD 1015 Village aperator assives on site with Front loader 1220 Hold tail gate meeting with operator and discuss Plan to remove wells. 1240 Begin pulling MW3 and chips and pea grave 1300 Finished removing MW3. More gear to remove MWI. Begin removing MW and backfilling with bentonite chies and pea gravel. 345 Finished Removing MW1.

09 June 22 AKARNET Spring 22 LAM27 1350 Begin removing MW2 and backfilling with bentonite chips and gravel. 140 Finished removing MW2 Bazin demobbing zite and breaking down the PVC pipes from wells. 1445 Moses assives on Site to take field team back to air Strip. 1500 Peam arrives at 911 Strip and takes field goar out of truck. 1800 Airplane assives. Jean lagols Plane and prepares for take off 1825 Jean Jands in Bethel Team collects Field geen From plane



Rete in the Rain.