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Subject: Bethel Youth Facility UST #1 Monitoring Well Decommissioning Report
ADEC File No. 2407.26.016

Ms. Rodman:

Restoration Science & Engineering, LLC (RSE) is providing this letter report documenting monitoring well decommissioning via removal of four (4) groundwater monitoring wells located at the Bethel Youth Facility (BYF) in Bethel, Alaska at 950 State Highway. This site is listed under file 2407.26.016 in the Alaska Department of Environmental Conservation (ADEC) contaminated sites database.

WELL DECOMMISSIONING

Monitoring wells MW-1 (B1), MW-3 (B3), MW-4 (B4) and MW-8 (B8) were decommissioned on October 19, 2018 in general accordance with ADEC Monitoring Well Guidance and the ADEC approved monitoring well decommissioning workplan (RSE, April 2018). RSE and contractor Dale Construction used a mini excavator to excavate around the top two feet of each monitoring well with the exception of monitoring well MW-8 which was not accessible to the mini excavator. Once the monitoring well PVC casing was exposed, a hole was drilled through the PVC, and a bolt placed through the PVC. A mini excavator was used to pull the PVC casing out of the ground (MW-8 was pulled by hand). While each well casing was being removed, bentonite chips were fed through the casing into the well until the fill material was two to three feet below ground surface (bgs). The column was kept close to full during casing removal to avoid any bridging effects in case of well casing breaking during removal.

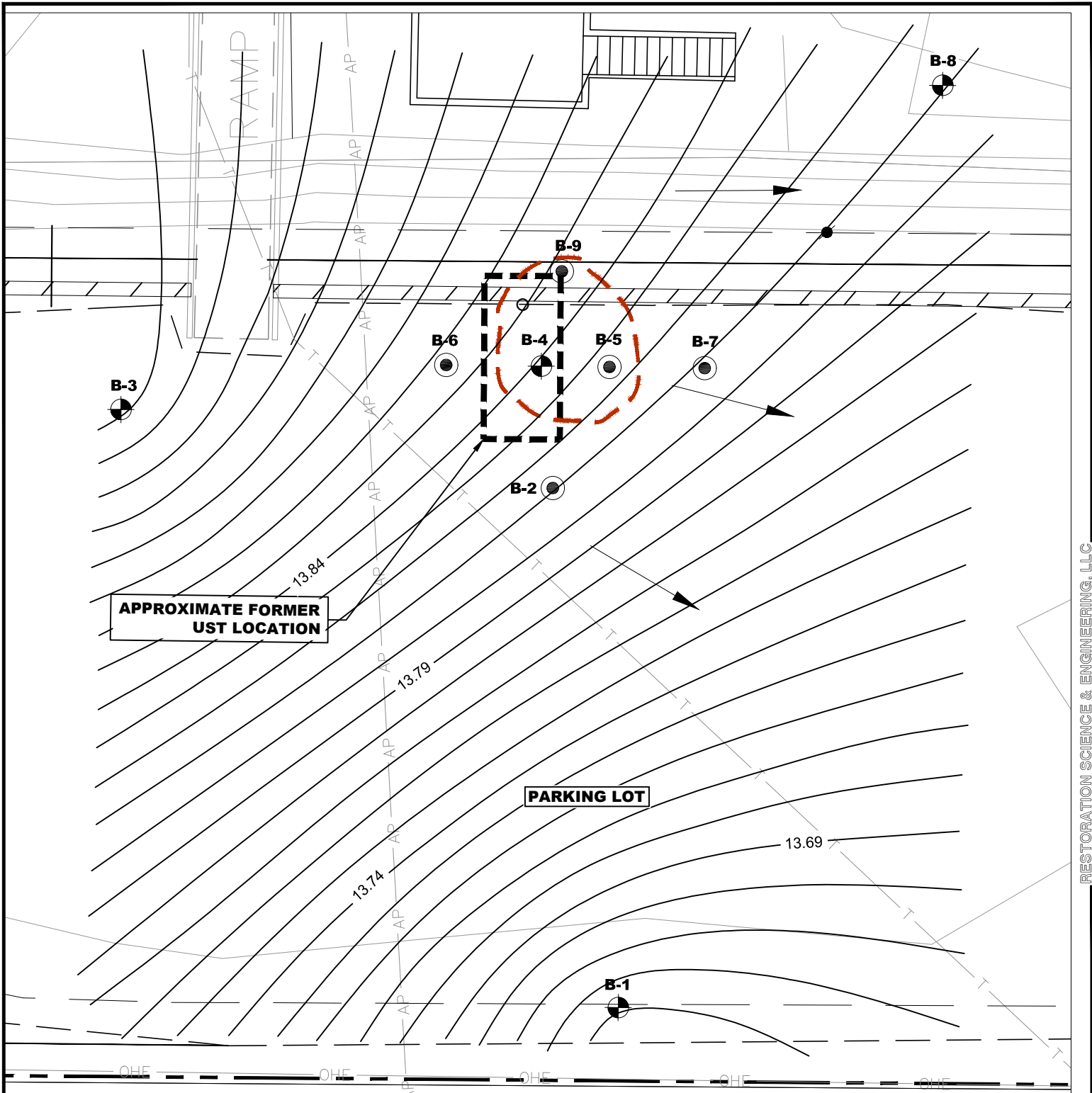
Wells MW-1 and MW-3 were removed intact with the well borehole filled to approximately two feet bgs with bentonite, and sandy gravel from two feet bgs to the ground surface. The PVC well casing from well MW-4 was unable to be removed and broke off approximately 5.5 feet bgs, and the well borehole filled to approximately three feet bgs with bentonite, and sandy gravel from three feet bgs to the ground surface. Well MW-8 was pulled by hand until the bottom of the well casing was approximately four and a half feet below ground surface (bgs) before becoming stuck, at which point, the casing was cut off at grade. The MW-8 well borehole was filled with bentonite grout to approximately three feet bgs, and sandy gravel was used to fill the excavation to just below ground surface at which point the soil and grass plug that had been removed was replaced on top of the hole.

Photos of Bethel Youth Facility monitoring well decommissioning are attached. Please contact David Nyman, PE at 907-278-1023 ext. 103, if you have any questions or comments.








David Nyman, PE
Restoration Science & Engineering LLC

Attached: BYF Monitoring Well Decommissioning Photos
Map of BYF Monitoring Wells

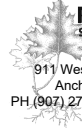


RESTORATION SCIENCE & ENGINEERING, LLC

LEGEND

-  SOIL BORING & MONITORING WELL LOCATION
-  SOIL BORING LOCATION
-  GROUNDWATER FLOW DIRECTION
-  13.88 APPROX GROUNDWATER ELEVATION JANUARY 2016
-  ESTIMATED LIMITS OF DRO IMPACTED SOIL ABOVE ADEC METHOD 2 CLEANUP LEVELS



ALASKA DEPARTMENT OF HEALTH AND SOCIAL SERVICES BETHEL YOUTH FACILITY AUGUST 2017 GROUNDWATER MONITORING REPORT	
GROUNDWATER GRADIENT MAP AUGUST 2016	
BETHEL, ALASKA	
JOB NO: 15-1459 DATE: 9.13.2016	DRAWN: MSB CHECKED: DN
 RESTORATION Science & Engineering, LLC 911 West 8th Avenue, Suite 100 Anchorage, Alaska 99501 PH.(907) 278-1023 FAX (907) 277-5718	
FIGURE 5	



Connecting Bolt to MW-1 Well Casing for Removal



Removed MW-1 Casing



Excavation at MW-3 to Expose Top of Casing



Removed MW-3 Casing



Broken MW-4 Casing



MW-8 Casing



MW-8 Location and Bentonite