



NEW MEXICO  
ENVIRONMENT DEPARTMENT



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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

February 5, 2019

Mark Patterson  
BRAC Environmental Coordinator  
Fort Wingate Depot Activity  
13497 Elton Road  
North Lima, OH 44452

Steve Smith  
USACE  
CESWF-PER-DD  
819 Taylor Street, Room 3B06  
Fort Worth, TX 76102

**RE: DISAPPROVAL  
LETTER WORK PLAN DOWNGRADIENT ALLUVIAL AQUIFER  
INVESTIGATION & INSTALLATION OF ONE ADDITIONAL WELL  
FORT WINGATE DEPOT ACTIVITY  
MCKINLEY COUNTY, NEW MEXICO  
EPA ID# NM6213820974  
HWB-FWDA-18-009**

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Letter Work Plan Downgradient Alluvial Aquifer Investigation & Installation of One Additional Well (Work Plan)*, dated October 11, 2018, and received October 26, 2018. NMED has reviewed the Work Plan and hereby issues this Disapproval. The Permittee must address the following comments.

**1. Cover Letter**

**Permittee Statement:** “The purpose of this letter is to transmit the attached Letter Work Plan for the Downgradient Alluvial Aquifers Investigation in Parcel 25 per comment number 2 of the New Mexico Environment Department (NMED’s) letter dated, April 18, 2018 (HWB-FWDA-15-001); and the installation of one additional well in Parcel 21 per comment number 12 in NMED’s comment letter dated September 4, 2018 (HWB-FWDA-18-003),

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cp

Fort Wingate Depot Activity (FWDA), McKinley County, New Mexico dated October 11, 2018.”

**NMED Comment:** The statement contains a typographical error. The last part of the sentence, “Fort Wingate Depot Activity (FWDA), McKinley County, New Mexico dated October 11, 2018” should be removed. Correct the statement and provide a revised cover letter.

**2. Section 2.0, Purpose and Scope, lines 17-20, page 1**

**Permittee Statement:** “This Letter Work Plan describes the field activities that includes an outline of an approach to determine the presence of either singular or multiple downgradient aquifers as well as a better delineation of potentiometric surfaces and installation of one additional bedrock well east of the TMW39D.”

**NMED Comment:** Although an installation of an additional bedrock well east of the TMW39D will help to delineate potentiometric surfaces more accurately, the primary purpose of the well is to define the eastern extent of the perchlorate plume as required by Comment 12 in the NMED’s *Disapproval*, dated September 4, 2018. Include the primary purpose for the installation of the well in the revised Work Plan.

**3. Section 5.0, Field Methodology, Monitoring Well Installation, lines 34-36, page 4**

**Permittee Statement:** “To determine the presence or absence of two separate alluvial aquifers, four boreholes will be drilled in the vicinity of existing wells, MW-23 and MW-24 to search for water-bearing zones.”

**NMED Comment:** The advancement of four borings in the vicinity of wells MW-23 and MW-24 is not necessary as the first step of the investigation. NMED recommends advancement of one exploratory boring between wells MW-23 and MW-24 that intersects the alluvial-Petrified Forest Formation (bedrock) interface. A relatively dry confining layer (e.g., clay) may be present between two separate aquifers within the alluvial deposits. If soil cores collected from the boring visually indicate the presence of a confining layer between two saturated zones, the proposed method of investigation (e.g., installation of wells and observation in differences in hydrostatic head and groundwater chemistry) should be followed. Revise the Work Plan accordingly.

**4. Section 5.0, Field Methodology, Monitoring Well Installation, lines 13-16, page 5**

**Permittee Statement:** “If it is determined that only one aquifer exist[s] near each of the existing monitoring wells (MW-23 and MW-24), [two] boring[s] or temporary well[s] will then be converted into permanent wells at each location and will be designated as MW-34 and MW-35 (Figure 2).”



**NMED Comment:** The installation of two proposed monitoring wells in the locations next to wells MW23 and MW24 does not address NMED's Comment 2 in the April 18, 2018 *Approval with Modifications*. Comment 2 states, "[p]ropose to investigate whether separate aquifers are present in the response letter. If both shallow and deep aquifers are distinctly present in the vicinity of proposed well BGMW11, two separate background monitoring wells must be installed." If the first step of the investigation indicates that only one aquifer exists in the vicinity, conduct original investigations outlined in the *Final Groundwater Supplemental RCRA Facility Investigation Work Plan Revision 4*, dated March 23, 2018, and the installation of proposed wells next to wells MW23 and MW24 is unnecessary. Revise the Work Plan accordingly.

**5. Section 5.0, Field Methodology, Monitoring Well Installation, lines 13-16, page 5**

**NMED Comment:** The designation of the proposed wells (e.g., MW34) has already been assigned to different wells proposed in the *Final Groundwater Supplemental RCRA Facility Investigation Work Plan Revision 4*. A unique designation must be assigned for new wells. Revise the Work Plan accordingly.

**6. Section 5.0, Field Methodology, Monitoring Well Installation, lines 17-19, page 5**

**Permittee Statement:** "If two separate water-bearing zones (aquifers) are found then two (2) wells at each location (e.g. MW-34a and MW-34b and MW-35a and MW-35b) will be installed near each of the existing monitoring wells (Figure 3)."

**NMED Comment:** If the Permittee elects to install these wells, clarify the purpose of the investigation. If two separate aquifers are found, Comment 2 requires the installation of shallow and deep monitoring wells for the purpose of groundwater background investigation. The locations of the proposed monitoring wells are next to wells MW24 and MW23 and are not appropriate for the purpose of a background investigation because site contaminants have already been detected in these wells. Revise the Work Plan accordingly.

**7. Section 5.0, Field Methodology**

**NMED Comment:** The Permittee did not discuss whether soil samples were to be collected from the borings. Conduct soil sampling in a manner consistent with soil investigations of relevant borings (e.g., TMW58) as described in the *Final Groundwater Supplemental RCRA Facility Investigation Work Plan Revision 4*. Provide the discussion in the revised Work Plan.

The Permittee must address all comments in this Disapproval and submit a revised Work Plan. Two bound hard copies and an electronic version must be submitted to NMED. In addition, include a red-line strikeout version in electronic format showing where all revisions to the Work Plan have been made. The revised Work Plan must be accompanied by a response letter that details where revisions have been made, cross-referencing NMED's numbered comments. The revised Work Plan must be submitted to NMED no later than **June 3, 2019**.

Messrs. Patterson and Smith  
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If you have questions regarding this Disapproval, please contact Michiya Suzuki of my staff at 505-476-6059.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

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