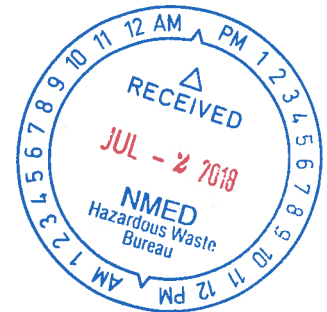




DEPARTMENT OF THE AIR FORCE
377TH AIR BASE WING (AFGSC)

Colonel Richard W. Gibbs, USAF
Commander
377th Air Base Wing
2000 Wyoming Blvd SE
Kirtland AFB NM 87117

Office of the State Engineer
c/o Jeffery L. Peterson, Water Rights Division
5550 San Antonio Blvd NE
Albuquerque NM 87109

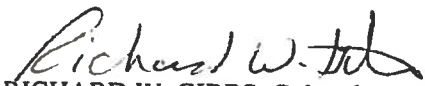


Dear Mr. Peterson

Kirtland Air Force Base (AFB) is submitting herein a "Well Plugging Plan of Operations" for RG-1579 POD 329 (KAFB-106240; Contingency Well only). During the two-well nest construction on June 22, 2018, the contingency well above the water table was compromised and will not meet our performance objectives for the Bulk Fuels Facility groundwater remediation effort. The second water table well in the nested pair will be utilized for long-term monitoring as part of the Kirtland AFB Bulk Fuels Facility, Solid Waste Management Units (SWMUs) ST-106 and SS-111 remediation project.

If you have any questions or concerns, please contact Mr. Scott Clark at (505) 846-9017 or at scott.clark@us.af.mil.

Sincerely


RICHARD W. GIBBS, Colonel, USAF
Commander

Attachment:
NMOSE Well Plugging Plan of Operations

cc:
NMED (Borrogo) letter
NMED-OOTS (McQuillan), letter and CD
NMED HWB (Kieling), letter and CD
NMED GWQB (Hunter), letter and CD
EPA Region 6 (King, Ellinger), letter and CD
COA (Faris), letter and CD
ABCWUA (Shean), letter and CD
SAF-IEE (Lynnes), electronic only
AFCEC/CZ (Renaghan, Clark, Kottkamp, Segura), electronic only
USACE-ABQ District Office (Moayyad, Phaneuf, Dreeland, Sanchez, Salazar), electronic only
Public Info Repository, Administrative Record/Information Repository (AR/IR) and File

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WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP:

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: RG-1579/POD329
Name of well owner: Kirtland Air Force Base
Mailing address: AFCEC/Kirtland AFB IST Bldg. 20685; 2050 Wyoming Blvd SE
City: Albuquerque State: NM Zip code: 87117-5270
Phone number: 505-846-9017 E-mail: scott.clark@us.af.mil

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Yellow Jacket Drilling Services, LLC
New Mexico Well Driller License No.: WD-1458 Expiration Date: October 31, 2018

IV. WELL INFORMATION:

Note: A copy of the existing Well Record for the well to be plugged should be attached to this plan.

- 1) GPS Well Location: Latitude: 35 deg, 3 min, 9.29 sec
Longitude: 106 deg, 34 min, 46.76 sec, WGS84
☒ Check if seconds are decimal format.

- 2) Reason(s) for plugging well:

Plugging plan is only for one of the wells in the 2-well nest; the Contingency Well completed above the water table was compromised during bentonite grouting operations and the lower portion of well (246-442 bgs) filled with bentonite grout. Well is unusable for environmental monitoring.

- 3) Was well used for any type of monitoring program? YES If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

- 4) Does the well tap brackish, saline, or otherwise poor quality water? NO If yes, provide additional detail including analytical results and/or laboratory report(s):

- 5) Static water level: NA above WT feet below land surface feet above land surface (circle one)

- 6) Depth of the well: 442 (Cont) feet

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- 7) Inside diameter of innermost casing: 3 inches.
- 8) Casing material: Schedule 80 PCV casing
- 9) The well was constructed with:
☐ an open-hole production interval, state the open interval: _____
☒ a well screen or perforated pipe, state the screened interval(s): 415-440 ft bgs
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? 30-412 (bentonite) 0-30 (Portland cement)
- 11) Was the well built with surface casing? NO If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? _____ If yes, please describe:
- 12) Has all pumping equipment and associated piping been removed from the well? NA If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal.

- 1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

Well casing will be grouted with a tremie from current bentonite grout depth (246 ft bgs) to the top of well casing; Due to 2 well completion in the well nest, the grouted casing will not be cut below the ground surface. Well location is completed in flush-mounted, 18-inch diameter locking vault.
- 2) Will well head be cut-off below land surface after plugging? NO, see above

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant

- 1) For plugging intervals that employ cement grout, complete and attach Table A.
- 2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
- 3) Theoretical volume of grout required to plug the well to land surface: 12 cubic feet
- 4) Type of Cement proposed: Portland Cement (Type II)
- 5) Proposed cement grout mix: 6 gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be: _____ batch-mixed and delivered to the site
X mixed on site

7) Grout additives requested, and percent by dry weight relative to cement:

5-percent bentonite

8) Additional notes and calculations:

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

RG-1579 POD 329 is still active, but with only the water table well functioning. Depth to water in this functioning well is 474 feet bgs. Only the contingency well, completed above the water table (TD 442) is to be abandoned. WR-20 reports have not been filed for this location yet, as the well compromise occurred during construction on 22JUN18.

VIII. SIGNATURE:

I, Richard W. Gibbs, Colonel, USAF, 377 ABW Commander, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Richard W. Gibbs

Signature of Applicant

28 Jun 18

Date

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

☐ Approved subject to the attached conditions.

☐ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this _____ day of _____, _____

Tom Blaine P.E., New Mexico State Engineer

By: _____

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TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			Ground surface
Bottom of proposed interval of grout placement (ft bgl)			442
Theoretical volume of grout required per interval (gallons)			162 for entire well casing; however, 80 gallons have already filled lower casing; 82 gallons are need to complete
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			6
Mixed on-site or batch-mixed and delivered?			Mixed on site
Grout additive 1 requested			bentonite
Additive 1 percent by dry weight relative to cement			5
Grout additive 2 requested			None
Additive 2 percent by dry weight relative to cement			None

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant or grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

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