



Homestake Mining Company of California

Thomas Wohlford
Closure Manager

01 August 2017

40-8903

ATTN: Mr. Matthew Meyer
Project Manager
Materials Decommissioning Branch
Division of Decommissioning, Uranium Recovery and Waste Programs
Office of Nuclear Materials Safety and Safeguards
U.S. Nuclear Regulatory Commission
Mail Stop: T-8F5
Washington, DC 20555

ATTN: Mr. Sairam Appaji
Region VI Superfund Division
1445 Ross Avenue, Suite 1200
6SF-LP
Dallas, TX 75202-2733

ATTN: Mr. Kurt Vollbrecht
Ground Water Quality Bureau
New Mexico Environment Department
PO Box 5469
Santa Fe, NM 87502-5469

ATTN: Mr. Christopher Burrus
New Mexico Office of the State Engineer
5550 San Antonio Drive, N.E.
Albuquerque, NM 87109

RE: San Andres Glorieta Aquifer Well 928 (B-28-POD-407), Abandonment Plan.

Dear Sirs:

The New Mexico State Engineer's Office (OSE) and the Environment Department (NMED) requested modifications to the abandonment plan for the San Andres-Glorieta (SAG) well 928 (B-28-POD-407). SAG well 928 has not been used for fresh water supply on Homestake Mining Company's (HMC) Grants Reclamation Project site. Attached is the OSE well abandonment form and a description of the abandonment plan.

Thank you for your time and attention on this matter. If you or anyone on your staff has any questions, please contact me at the Grants office at 505.287.4456, extension 34, or call me directly on my cell phone at 505.290.2187.

Respectfully,

Homestake Mining Company

P.O. Box 98, Grants, NM 87020

Tele: (505) 287-4456

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NMSS

Thomas Wohlford

Closure Manager
Homestake Mining Company of California
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Copy To:

- B. Tsosie, DOE, Grand Junction, Colorado (electronic copy)
- M. McCarthy, Barrick, Salt Lake City, Utah (electronic copy)
- H. Burns, Barrick, Toronto, Ontario (electronic copy)
- C. Burton, Barrick, San Francisco, California (electronic copy)
- G. Hoffman, Hydro-Engineering, Casper, Wyoming (electronic copy)

Well 928 Abandonment Plan Description

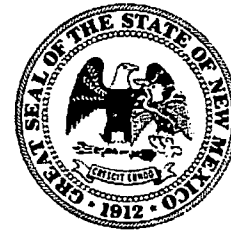
The attached B-28 POD407 (HMC 928) abandonment plan proposes drilling through the obstruction at 324 feet with a 6" bit down to a depth of 791 feet (10 feet above the top of the San Andres limestone). A cement plug placed via tremie pipe or dump bailer to a depth of 731 feet below ground surface is proposed. The volume of cement needed should be 588 gallons which is included in the volume in the next paragraph.

Above the initial cement seal, placing neat cement via tremie pipe or dump bailer from 731 to 300 feet below ground surface. The recommended neat cement would be API Class B and mixed with no more than 6 gallons of water per 94 pound bag of cement. The amount of cement needed would be between 4890 gallons. These volumes are also presented in Table A and Table B of the Well Plugging Plan of Operations. The cement would be allowed to set 48 hours prior to any to any additional cement being placed above it.

From 300 to 40 feet below ground level, the 20 inch steel casing would be perforated with a Holte perforator in a minimum of six columns distributed around the circumference of the casing. The columns of perforations will extend over a length of 15 feet within each 20 foot interval. The five foot long interruption in perforations in each 20 feet interval is intended to preserve some strength in the casing to prevent collapse prior to cementing. The inside of the well would be cemented with a tremie pipe from 300 to 2 feet. The necessary volume of cement is 4863 gallons and is presented in Table A of the Plugging Plan of Operations. The cement will be API Class B and mixed with no more than 6 gallons of water per 94 pound bag of cement. The casing would be cut off 2 feet below land surface and backfilled.



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: B-28-1605 POD407(HMC 928)

Name of well owner: Homestake Mining Company

Mailing address: PO Box 98

City: Grants State: NM Zip code: 87020

Phone number: 505-287-4456 E-mail: twohlford@barrick.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: undetermined

New Mexico Well Driller License No.: _____ Expiration Date: _____

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, 15 min, 19.81 sec
Longitude: 107 deg, 51 min, 42.30 sec, NAD 83

2) Reason(s) for plugging well:

ordered by NMED

3) Was well used for any type of monitoring program? No 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: 134 feet below land surface / feet above land surface (circle one)

6) Depth of the well: 824 feet

- 7) Inside diameter of innermost casing: 20 inches.
- 8) Casing material: Steel
- 9) The well was constructed with:
 an open-hole production interval, state the open interval: 312-824
 a well screen or perforated pipe, state the screened interval(s): _____
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? Assume No
- 11) Was the well built with surface casing? No If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? No If yes, please describe:
- 12) Has all pumping equipment and associated piping been removed from the well? Yes 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:

See attached Abandonment Plan Description for abandonment details
- 2) Will well head be cut-off below land surface after plugging? Yes

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: N/A
- 4) Type of Cement proposed: Portland Cement API Class B
- 5) Proposed cement grout mix: 6 gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be: X batch-mixed and delivered to the site
 _____ mixed on site

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

N/A

8) Additional notes and calculations:

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

See attached Abandonment Plan Description for abandonment details

VIII. SIGNATURE:

I, Thomas Wohlford, 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.

Tom Wohlford

7-26-17

Signature of Applicant

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: _____

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)	300	2	
Bottom of proposed interval of grout placement (ft bgl)	791	300	
Theoretical volume of grout required per interval (gallons)	4890	4863	
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	6	6	
Mixed on-site or batch-mixed and delivered?	API Class B Batch-mixed	API Class B Batch-mixed	
Grout additive 1 requested	N/A	N/A	
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested	N/A	N/A	
Additive 2 percent by dry weight relative to cement			

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)			