

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 76-22

WASTE DISCHARGE REQUIREMENTS
FOR
MAGMA POWER COMPANY
East Mesa Area - Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region finds that:

1. Magma Power Company (hereinafter also referred to as the discharger), 631 South Witmer Street, Los Angeles, CA 90017, submitted a Report of Waste Discharge dated January 14, 1976.
2. The discharger proposes to drill four geothermal deep test wells in the East Mesa area of Imperial County. The wells will be located as follows:

Section 7, T16S, R17E, SBB&M

<u>Well No.</u>	<u>Location</u>
Magma-US #11-7	500'S, 500'E from NW corner
Magma-US #44-7	2500'S, 2500'E from NW corner
Magma-US #48-7	500'N, 2500'E from SW corner

Section 18, T16S, R17E, SBB&M

Magma-US #48-18 500'N, 2100' E of SW corner

3. The discharger proposes to flow each geothermal test well to clear drilling debris from the well; a 300 gpm to 1000 gpm flow will be maintained for a period of three to four hours for the cleaning operation, yielding a maximum expected discharge of approximately 240,000 gallons per well. The discharger proposes that geothermal brines from the first well to be drilled will be stored in a holdingbasin adjacent the well, and later reinjected; the geothermal brines from subsequent cleaning operations on the other wells will be directly reinjected. It is expected that all brines will be removed from the basins and reinjected with final cleanup by October 1, 1977.

*Succeeded
1/19
78-19*

4. The discharger reports that holding basins for geothermal brines will be lined with a 12-inch compacted layer of bentonite and soil; the maximum permeability of the lining will be 2.5×10^{-7} centimeters/second (117 days/inch). The holding basins will be approximately 125' x 60' in size with a volume of approximately 258,000 gallons.
5. The discharger proposes that drilling muds will be stored in a sealed retention pit. After drilling operations cease, the drilling muds will be allowed to dry and the retention pit will be filled and graded to as near original condition as possible.
6. The Water Quality Control Plan for the West Colorado River Basin was adopted on April 10, 1975. This Order implements the objectives stated in said Plan.
7. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge.
8. The Board in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, Magma Power Company shall comply with the following:

A. Discharge Specifications

1. Neither the treatment nor the discharge of wastes shall cause a pollution or nuisance.
2. Temporary discharge and/or storage of geothermal materials other than in water tight basins is prohibited.
3. There shall be no seepage or overflow from temporary storage basins.
4. Adequate protective works and maintenance shall be provided to assure that storage basins will not become eroded or otherwise damaged.
5. A minimum freeboard of at least three feet shall be maintained in all storage basins.
6. All brine wastes shall be removed from storage basins and reinjected with final cleanup by October 1, 1977.

7. Discharge of geothermal materials into the storage basins after October 1, 1977, is prohibited.
8. Brine wastes discharged by subsurface injection shall be discharged into the zone of extraction or zones that contain a total dissolved solids content which is equal to or greater than that contained in the zone of extraction, or to other zone(s) approved by the Regional Board.

B. Provisions

1. The discharger shall comply with the "Monitoring and Reporting Program No. 76-22" and the "General Provisions for Monitoring and Reporting", and future revisions thereto, as specified by the Executive Officer. Copies of all reports submitted to the Regional Board pursuant to said Monitoring and Reporting Program shall be maintained at the site of drilling, and be made available to members of the Board's staff upon request.
2. Prior to the discharge of any geothermal materials into holding basins, the discharger shall submit to the Regional Board a certificate signed by a California Registered Civil Engineer stating that the basins and attendant facilities are constructed to meet the requirements of this Order.
3. Prior to destruction of any holding basin, the discharger shall inform the Regional Board of the discharger's intent and request a Regional Board staff inspection and approval of the cleanup procedures.

I, Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on April 22, 1976.


Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 76-22
FOR
MAGMA POWER COMPANY
East Mesa Area - Imperial County

Location: Sections 7 and 18, T16S, R17E, SBB&M.

Magma Power Company shall report monitoring data to the Regional Board in accordance with the following schedule.

MONITORING

<u>Constituents</u>	<u>Units</u>	<u>Reporting Frequency</u>
1. Discharge to each storage basin	Gallons	Monthly
2. Volume contained in each storage basin	Gallons	Monthly
3. Volume injected to sub-surface strata from each storage basin	Gallons	Monthly
4. Total Dissolved Solids content of water contained in each storage basin	mg/l	Monthly
5. Analyses of ground water contained in strata receiving waste brine injection	mg/l	At least 10 days prior to commencement of injection
6. Location and depth of injection well		At least 10 days prior to commencement of injection
7. Immediate reporting of any accidental spillage or release of waste material, and also, plan for immediate measures being taken to correct same and to limit detrimental effects.		
8. At least ten (10) days prior to destruction of any holding basin, the discharger shall request a Regional Board staff inspection and approval of the cleanup procedure.		
9. Report of completion of removal of all brine from storage basins and cleanup of premises - Reported within one week following completion of work.		

REPORTING

Monthly reports shall be submitted to the Regional Board by the 15th day of the following month. Reports for Item 7 (above) shall be forwarded immediately; and if at all possible, shall be preceded by phone communication to the Regional Board's office - Phone No. (714) 346-7491.

Mail reports to:

California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260

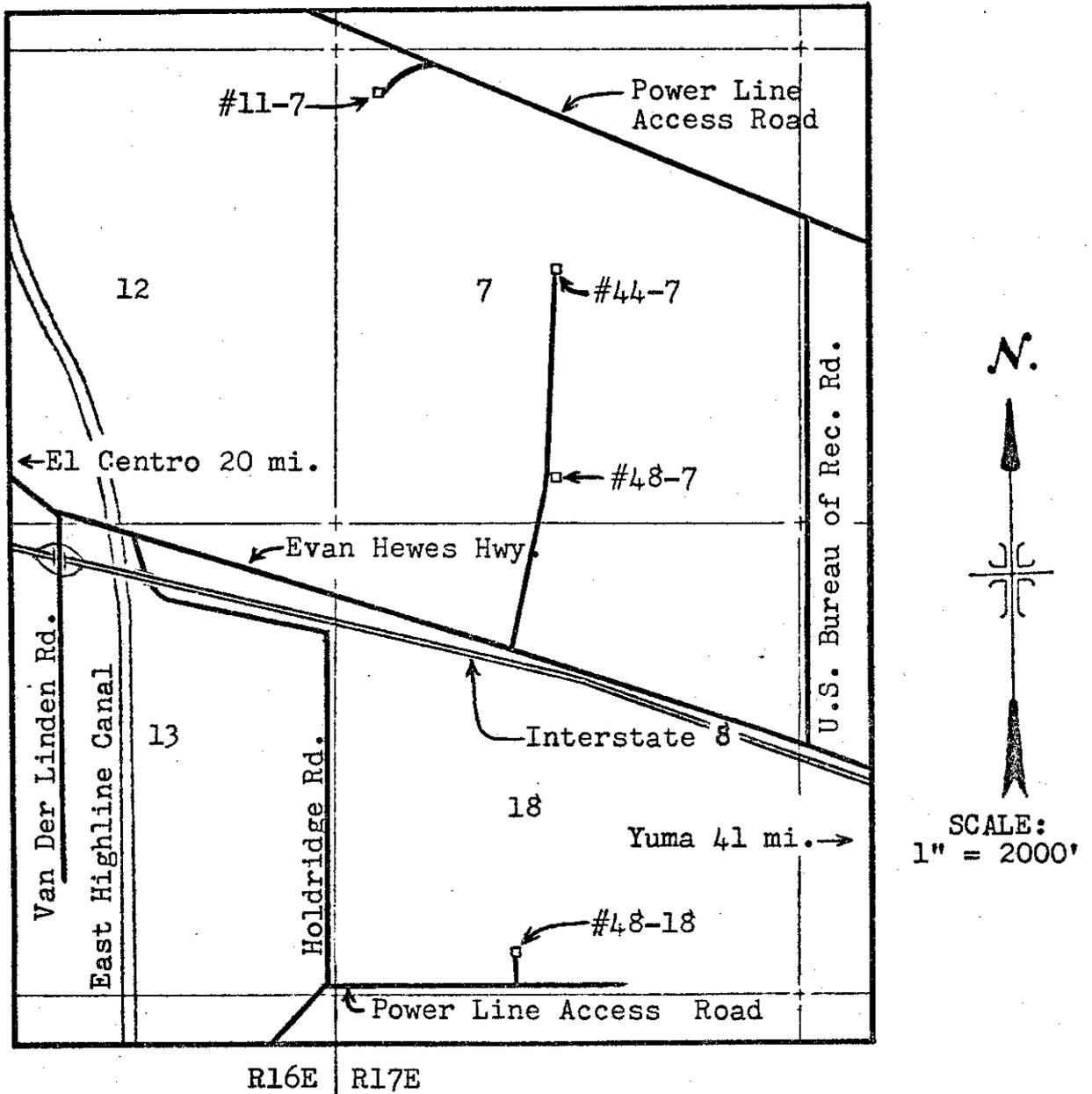
ORDERED BY:

Arthur Levajian
Executive Officer

April 22, 1976

Date

California Regional Water Quality Control Board - 7



SITE MAP
FOR
MAGMA POWER COMPANY
East Mesa Area - Imperial County
Location: Sections 7 and 18, T16S, R17E, SBB&M
Holtville East and Glamis SW, 7.5' Topographic Maps

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