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STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In the Matter of July 2, 2014 Order of the Central Valley Regional Water Quality Control Board Directing Macpherson Operating Company, L.P. To Submit Information and Take Other Action (Water Code Section 13267)	File No. _____ PETITION FOR REVIEW OF REGIONAL BOARD ORDER, AND FOR HEARING ON PETITION (Wat. Code, § 13320; Cal. Code Regs., tit. 23, §§ 2050-2068) PETITION FOR STAY OF REGIONAL BOARD ORDER PENDING HEARING OR OTHER ACTION (Wat. Code, § 13321; Cal. Code Regs., tit. 23, § 2053)

Petitioner Macpherson Operating Company, L.P. ("Macpherson Operating") hereby petitions for review by the State Water Resources Control Board (the "State Board") of a July 2, 2014 order (the "Order") of the Central Valley Regional Water Quality Control Board (the "Regional Board"), and a hearing on this Petition.

Macpherson Operating also requests a stay of the Regional Board's Order pending a hearing, or other action on this Petition by the State Board.

A. PETITION FOR REVIEW

1. Name, Address, Telephone Number And E-Mail Address Of The Petitioner.

Macpherson Operating Company, L.P.
2716 Ocean Park Boulevard, Suite 3080
Santa Monica, CA 90405
310.452.3880

Please direct notices and other communications to:

Macpherson Operating Company, L.P.
c/o Bright and Brown
550 North Brand Boulevard, Suite 2100
Glendale, CA 91203
818.243.2121
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2. The Action Or Inaction Of The Regional Water Board Being Petitioned, Including A Copy Of The Action Being Challenged.

The Regional Board's Order directs Macpherson Operating to obtain and submit certain information and take other actions with respect to a previously permitted and operated water disposal well commonly known as the "Ring #20-3" well, and more formally identified by API number 02914064 (the "Well") located within the Mount Poso Oil Field as designated by the Division of Oil, Gas and Geothermal Resources. The Order is based on the authority of the Regional Board pursuant to Water Code section 13267 ("Section 13267"). (A copy of the Regional Board's Order is attached as Exhibit 1.)

The Regional Board's Order was issued concurrently with, and as an expressly intended compliment to, a self-proclaimed "emergency order" of same date by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (the "DOGGR") directing Macpherson Operating to "immediately cease injection operations" with respect to the Well and submit specified information concerning the operation of the Well to the DOGGR and the Regional Board within 30 days after the DOGGR Order, i.e., by Friday, August 1, 2014 (the "DOGGR Order"). (A copy of the DOGGR Order is attached as Exhibit 10.)

3. The Date The Regional Board Acted.

The date of the Regional Board's Order is July 2, 2014.

4. A Statement Of The Reasons The Action Was Inappropriate Or Improper.

The Regional Board's Order is based on its authority under Section 13267 to require specifically described persons to "furnish...technical or monitoring program reports which the regional board requires" in connection with its investigation of the quality of waters within its region." (Wat. Code, § 13267(b)(1).) That authority is subject to the express mandatory limitation, however, that "the burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." (Wat. Code, § 13267(b)(1).)

First, contrary to the specific requirements of Section 13267, the burden, including costs, of the activity mandated by the Order bears no reasonable relationship either to the need for such activity or any benefit to be obtained by it. Any need for or benefit of this activity would have been greatly outweighed by the burden, including costs, occasioned by compliance with its requirements in any time frame. However, Macpherson Operating has suffered and continues to suffer an unnecessarily enhanced burden, including costs and business disruption, as a result of the unreasonably abbreviated schedule mandated for compliance with the Order on the basis of a completely contrived sense of urgency.

Second, the Order is based upon factual assumptions that are demonstrably incorrect. Therefore, there is no need for the demanded activity nor any appreciable benefit to be obtained.

Third, contrary to the specific requirements of Section 13267, the Regional Board's Order is directed to Macpherson Operating which has never operated the Well, and does not propose to do so, either for water disposal or any other purpose.

Fourth, contrary to the statutory requirements no evidence was provided by the Regional Board to justify the need for the Order.

5. How The Petitioner Is Aggrieved.

As more fully explained in the statement of points and authorities below, the activity mandated by the Order serves no substantial purpose and is of no substantial benefit whatsoever. Once permitted, the Well was used to dispose of water produced in association with oil extracted from the Vedder formation until August, 2008. The Well has been idle, and unused for injection or any other purpose, for the past six (6) years. Contrary to the erroneous factual assumptions in the Regional Board's Order and the DOGGR Order, no water supply well—whether producing from the Olcese or any other formation—has been found to exist within a one (1)-mile radius of the Well. Documents in the Regional Board's own files reflect the conclusion that, although oil field operators in the Mount Poso Oil Field currently inject wastewater into a zone that contains water that is beneficially useful, "the wastewater does not contain sufficient dissolved matter to degrade the Olcese beyond its current beneficial uses." (Regional Board internal memorandum, 2-3-1982, attached as Exhibit 5.) Moreover, Macpherson Operating, to whom the Regional Board's Order is directed as the asserted "discharger," has never operated the Well for injection or any other purpose and has never proposed to do so.

The Order has already imposed a significant burden upon the monetary and other resources of Macpherson Operating, and exposed Macpherson Operating to substantial legal penalties for any failure to comply. In addition, the Order leaves Macpherson Operating exposed to an open-ended threat of further potentially required, but as yet unspecified, "additional information or action," and the continuing threat of substantial legal penalties for failure to comply with such further and as yet unspecified requirements.

In addition, and beyond the costs and other burdens associated with the requirements of the Regional Board's Order (and the DOGGR Order), Macpherson Operating has suffered and continues to suffer further burdens associated with the increased costs and business disruption occasioned by the completely contrived sense of urgency associated with these orders and the abbreviated schedule imposed on Macpherson Operating for compliance with them. In fact, compliance was

ordered by August 1, 2014 – within the statutory period in which to file this Petition, which effectively forces compliance with the improper Order before this appeal could be heard.

6. The Action The Petitioner Requests The State Water Board To Take.

Macpherson Operating requests that the Regional Board's Order be set aside and that the Regional Board be directed to take no further action with respect to the subject matter of its Order unless and until it has first reviewed the information and material that has been provided by Macpherson Operating in response both to the DOGGR Order and the Regional Board's Order and reasonably determined from that review that further action is in fact required. Macpherson Operating further requests that the Regional Board be instructed, should it reasonably determine that further action concerning the subject matter of its Order is required, to direct any further order to an appropriate party in accordance with the provisions of Section 13267 and to provide evidence demonstrating that further action is warranted.

Macpherson Operating further requests both a hearing on this Petition and that the Regional Board's Order be stayed pending a hearing on this Petition or other action by the State Board.

7. A Statement Of Points And Authorities Of Legal Issues Raised In The Petition.

a. <u>The Regional Board's Order Fails To Comply With The Specific Requirements Of Section 13267.</u>

Section 13267 authorizes the Regional Board to conduct an investigation into the quality of waters of the state for certain purposes, and in connection with such an investigation to "require...*any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste* within its region..., [to] furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires." Section 13267 expressly limits the Regional Board's authority in that regard by requiring that "[t]he burden,

including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports."

Because the burden upon Macpherson Operating of complying with the Order greatly outweighs any need for the demanded report, and any benefit which might be obtained from it, the Order violates the specific mandatory limitation provided in Section 13267.

Further, Macpherson Operating has never operated the Well—for injection or any other purpose. Beyond that, Macpherson Operating has no intention of operating the Well for injection or any other purpose, and is foreclosed by action of the DOGGR (both in September 2010 and now, in addition, by the expressly "complimentary" DOGGR Order expressly forbidding Macpherson Operating to operate the Well for injection). Macpherson Operating is not a person to whom the Regional Board's Order may properly be directed under the authority of Section 13267.

b. Summary Of Facts – History Prior To The Recent Orders.

In November 1974, Macpherson Operating's remote predecessor, Thomas Oil Company, requested approval from the United States Geologic Survey ("USGS") to put the Well into operation for the disposal into the Olcese sand formation of waste water produced in association with oil and gas. (Thomas Oil letter of 11-14-1974 attached as Exhibit 2.) In making that request, Thomas Oil noted that the Olcese had been "found to be Oil Productive in many areas of the San Joaquin Valley; and *has been sidewall cored in the immediate area as spotty oil stained.*" (Emphasis added.) In the same letter, Thomas Oil stated: "No known fresh water exists within the area."

In December 1974, the USGS returned to Thomas Oil its written approval of the proposed conversion of the Well for use to inject produced water into the Olcese formation. (USGS letter of 12-27-1974, attached as Exhibit 3.) Among other things, that approval noted that "chemical analysis of the Olcese formation water is shown having an average boron content of 3.3 ppm and NaCl of 1713 ppm." The USGS further noted in the same letter that "chemical analysis of the water to be injected

show it also greatly exceeds the desirable limits, therefore, the water to be injected will not degrade any possible future water source."

Periodic tests conducted under the auspices of the DOGGR have confirmed that fluid injected through the Well has been confined, as intended, to strata below 920 ft. (DOGGR Report On Operations, 9-25-1980, as an example, attached as Exhibit 4.)

By memorandum of February 3, 1982, the Regional Board communicated to the DOGGR the conclusion that "it appears reasonable to allow continued injection of existing quality and quantity of Vedder Formation water into the Olcese Formation." (Attached as Exhibit 5.) That memorandum was accompanied by an internal Regional Board memorandum of same date (also included in Exhibit 5) identifying the watering of livestock as the only known beneficial use of either Vedder or Olcese formation water. That internal memorandum concludes that, although it is apparent that oil field operators in the Mount Poso Oil Field currently inject wastewater into a zone that contains water that is beneficially used, "the wastewater does not contain sufficient dissolved matter to degrade the Olcese beyond its current beneficial uses."

In March 1982, Macpherson Operating's immediate predecessor, Macpherson Oil Company, took over operation of the Well (DOGGR approved notice of change of operator, attached as Exhibit 6), and continued operation of the Well for injection through August 2008. (DOGGR on-line report of injection activity for the Well during the period May 1977 – April 2014, attached as Exhibit 7.) As reflected in Exhibit 7, any and all operation of the Well for water disposal was voluntarily halted in September 2008. The actual owner of the Well since 1986 has been Mt. Poso Cogeneration Company and Macpherson Oil Company operated the Well and other wells in the field as a contract operator for Mt. Poso Cogeneration Company under the provisions of an operating agreement from that point in time through November 30, 2010, though the Well itself was not returned to service or operated at any time subsequent to August, 2008. Two years later, in September 2010, specifically noting that inactivity, the DOGGR notified Macpherson Oil Company,

Macpherson Operating's predecessor, that "this project has been suspended and approval to inject is hereby rescinded." (DOGGR's letter of September 29, 2010, attached as Exhibit 8.)

Macpherson Operating was formed in October, 2010 and took over as operator for the Well and other wells in the surrounding area owned by Mt. Poso Cogeneration Company in November 2010 (DOGGR approved notice of change of operator, attached as Exhibit 9). Macpherson Operating has never operated the Well for injection or any other purpose (as confirmed by zero injection figures in Exhibit 7). Neither has Macpherson Operating ever requested permission to operate the Well, or in any other manner proposed to operate it, for injection or any other purpose.

c. DOGGR And Regional Board Orders And Petitioner's Responses.

The Regional Board's Order was explicitly issued concurrently with, and as an intended compliment to, the DOGGR Order of same date directing Macpherson to "immediately cease injection operations" with respect to the Well and submit specified information concerning the operation of the Well to the DOGGR and the Regional Board within 30 days after the DOGGR Order (i.e., by Friday, August 1, 2014). (Exhibit 10.)

Since, in fact, all operation of the Well—injection or otherwise—ceased six years ago, and in an effort to demonstrate good faith, Macpherson did not appeal or otherwise contest the DOGGR Order. Instead, Macpherson has assembled such of the information requested by the DOGGR Order as is available to it and has submitted that information to the DOGGR and the Regional Board. (That response is attached as Exhibit 11.)

The Regional Board's Order (Exhibit 1) describes 3 basic required actions, as follows:

(1) "By 11 July 2014, submit a work plan that adequately describes the procedures to collect a representative groundwater sample from the injection zone(s) for the injection well subject to this Order. By 1 August 2014, submit a technical report with the

analyses of each of the groundwater samples, in accordance with the water quality analysis and reporting requirements contained in Attachment A to this Order. ("Order Item 1.")

(2) "By 1 August 2014, submit all previously-obtained analytical data for fluid samples collected from any injection zones within one (1) mile of the injection well subject to this Order." ("Order Item 2.")

(3) "By 1 August 2014, submit a technical report containing...(A) a list and location map of all water supply wells within one mile of the injection well subject to this Order [and] (B) All available information for each identified water supply well, including the well owner name and contact information; type of well...; well construction; borehole geophysical logs; and all analytical results for any water sample(s) collected from each water supply well. Notify [Regional Board] staff within 24 hours upon determination that any water supply well information cannot be obtained from the California Department of Water Resources because it is confidential." ("Order Item 3.")

The Order further describes any failure to comply with these requirements as a misdemeanor subject to "additional enforcement actions," including a potential fine of $1,000 for each day in which such a violation continues, and reserves the possibility that, based on the information submitted in compliance with Order Items 1, 2 & 3, "additional information or action may be required."

Notwithstanding the difficulties inherent in the unnecessarily compressed compliance schedule mandated by the Order to avoid imposition of the threatened fines and penalties, Macpherson Operating has provided the demanded report/information both to the Regional Board's Order (attached as Exhibit 11) and to the DOGGR Order (attached as Exhibit 12). In providing the response Macpherson Operating specifically observed that it was doing so reserving its right to pursue this appeal of the Order. As reflected in Macpherson Operating's

response to the Order, review of public records disclosed no water supply well anywhere within a one-mile radius of the Well. (Exhibit 11.)

d. The Burden For Macpherson Operating Of Complying With The Order, Particularly In Light Of The Unnecessarily Abbreviated Period Allowed For Compliance, Far Outweighs Any Need For The Demanded Report, And Any Resulting Benefit.

Even though the Regional Board's Order declares an intent "to complement the [DOGGR]'s Emergency Order," and expressly disclaims any intent "to require Macpherson...to submit any information that the [DOGGR]'s Emergency Order also requires Macpherson...to submit," all of the action deadlines established by the Regional Board's Order are within the period established for response to the DOGGR Order—not to mention being also within the 30-day period allowed Macpherson Operating to seek review by this Petition. Thus, among other things, no allowance was made in the Order for the possibility that a review of the information submitted in response to the DOGGR's Order may demonstrate that no actual need exists for the report mandated by the Regional Board' Order, and that no benefit at all is likely to be obtained from it.

The burden of this unnecessarily abbreviated response time has been imposed on Macpherson Operating due to the Regional Board's inexplicable failure to acknowledge at least two plain facts. First, there is no credible basis for a concern that past injection of water through the Well into the Olcese formation has damaged the quality of water in that formation. The Well was used to dispose of produced water from the Vedder formation into the Olcese formation. The Regional Board's own internal memorandum of February 3, 1982, in addition to identifying the watering of livestock as the only known beneficial use of either Vedder or Olcese formation water, also expressed the conclusion that, although "it is apparent that oil field operators in Mount Poso Oil Field currently inject wastewater into a zone that contains water that is beneficially used...[, t]he wastewater does not contain sufficient dissolved matter to degrade the Olcese beyond its current beneficial uses." (Exhibit 5, page 3.) Even earlier than that, indeed prior to approval of conversion of

the Well to injection, there is credible evidence that one or more well bores in immediate area of the Well have "been sidewall cored...as spotty oil stained." (Thomas Oil letter, 11-14-1974, Exhibit 2, page 1.) And later in the same year, in approving conversion of the Well to disposal of produced water in the Olcese formation, the USGS stated, "The chemical analysis of the water to be injected show it also greatly exceeds the desirable limits, therefore, the water to be injected will not degrade any possible future water source." (USGS letter, 12-27-1974, Exhibit 3, page 1.)

Moreover, notwithstanding the contrary implications in both the Regional Board's Order and the DOGGR Order, no emergency exists here. The aura of an emergency which pervades these orders is entirely contrived. The appearance of an emergency has been fostered by ignoring the fact that the Well is not being operated for injection or otherwise and has not been operated for six years. In addition, despite a professed intent to complement, and avoid redundancy with, the DOGGR Order, the abbreviated compliance schedule mandated by the Regional Board's Order completely ignores the very real possibility that information and materials submitted in compliance with the DOGGR Order would demonstrate the total absence of any need or justification for the further activity mandated by the Regional Board's Order—at great and totally unjustified burden and expense for Macpherson Operating.

In order to provide the technical report/information sought by the July 2, 2014 Regional Board Order, Macpherson Operating prepared a work plan that was submitted to the Regional Board for approval within the time provided in the Order. Macpherson Operating installed all necessary piping and collection basins in anticipation of the fluid sample collection process. Macpherson Operating had scheduled to have a workover rig on site at the Well to undertake the necessary preliminary well work and collect a fluid sample from the Olcese Zone on July 17, 2014, but the Regional Board had not yet approved the work plan so the rig had to be sent to another location rather than sit idle waiting for Regional Board approval

of the work plan. (Declaration of Tim Lovley in Support of Request for Stay of Regional Board Order ("Lovley Declaration").)

The workover rig returned to the Well site and was able to collect a sample of Olcese Zone fluids on July 24, 2014. The final report concerning Order Item 1 will be submitted to the Regional Board and the DOGGR within one week after receipt of the laboratory analytic report. (Lovley Declaration.)

In all, Macpherson Operating has already spent or committed to spend approximately $30,000 or more in order to provide the technical report/information specified in the Regional Board's Order. In addition to those out of pocket costs, Macpherson Operating has had to devote considerable time on the part of several of its professional staff members to review files, assemble information, research wells, monitor the sample collection process, and other activities necessary to identify, assemble and provide all this information. (Lovley Declaration.)

More significantly for purposes of the requested stay, Macpherson Operating representatives have already been told by Regional Board representatives that if the Regional Board concludes the technical report/information Macpherson Operating submits is not deemed to be sufficient for whatever purpose or purposes the Regional Board is collecting this information, Macpherson Operating will likely be ordered to drill a new well or wells to collect additional fluid samples and/or undertake additional work to provide further information to the Regional Board. Macpherson Operating estimates the cost to drill a new well to the Olcese formation to collect a fluid sample will cost approximately $100,000. (Lovley Declaration.)

e. The Regional Board's Order May Not Properly Be Directed To Macpherson Operating Under The Authority Of Section 13267.

The Well has not been operated for injection (or otherwise for that matter) since 2008. (Exhibit 6.) Macpherson Operating became operator of the Well in November 2010. (Exhibit 9.) Shortly before that time, taking note of the fact that the Well had not been operated for injection for some time, the DOGGR suspended and/or rescinded prior approval for injection operation of the Well. (Exhibit 8.) Without doubt Macpherson Operating has not only never operated the Well for

injection (or otherwise), it could not do so now even if it wished to do so—and it has never proposed to do so. Accordingly, the Regional Board's Order may not properly be directed to Macpherson Operating under the authority of Section 13267.

8. A Statement That Copies Of The Petition Have Been Sent To The Regional Water Board And To The Discharger, If Different From The Petitioner.

A copy of this Petition has been sent to the Regional Water Board.

Macpherson Operating is the asserted "discharger."

9. An Explanation Of Why The Petitioner Could Not Raise The Issues Raised In The Petition Before The Regional Board.

Macpherson Operating was unable to present the issues raised in this Petition to the Regional Board prior to issuance of the Order because the Regional Board did not provide Macpherson Operating advance notice or other opportunity to do so. Macpherson Operating had no advance notice either of the impending Order or of any other pending inquiry or action concerning the subject matter of the Order.

B. REQUEST FOR STAY PENDING HEARING OR OTHER ACTION

1. Facts Re Macpherson Operating Is Not A Person To Whom The Regional Board Order Can Properly Issue.

The July 2, 2014 Regional Board Order required Macpherson Operating to furnish technical or monitoring reports and information under the authority of California Water Code section 13267. As applicable here, said section 13267 only authorizes the issuance of such an order to a "person who has discharged, discharges or is suspected of having discharged or discharging, or who proposes to discharge waste within [the Regional Board] region." Macpherson Operating is not such a person predicated on the following facts:

- The Well has remained idle and has not been operated or used as an injection well since August, 2008.
- Macpherson Operating is not now, nor has it ever been, the owner of the Well or any other well in the vicinity of the Well. The Well is owned by Mt. Poso Cogeneration Company, LLC. Macpherson

Operating is a contract operator who conducts oil and gas operations in the area of the Well with respect to wells that are owned by Mt. Poso Cogeneration Company, LLC for the benefit of that company under the provisions of a November, 2010 Oil Field Operating Agreement between Mt. Poso Cogeneration Company, LLC and Macpherson Operating. Macpherson Operating was not even in existence prior to October 11, 2010. Macpherson Operating was first designated as the operator of the Well in the official records of the DOGGR as of November 1, 2010.

- By letter dated September 29, 2010, the DOGGR issued a Notice of Suspension of Injection into the Olcese Zone due to the fact that the injection project had been idle and there were no short term plans for reactivation. That DOGGR letter suspended the injection project and rescinded approval to inject.
- There are no current plans to submit a permit application and to attempt to reactivate the injection project and commence injection into the Well.

In light of these facts, Macpherson Operating is not a person who has discharged, discharges or is suspected of having discharged or discharging, or proposes to discharge waste within the region.

2. Facts Re The Burden And Costs Of Providing The Report/Information Demanded By The Regional Board Order Bears No Relationship To The Need For The Report And The Benefits To Be Obtained From The Report

Section 13267(b)(1) further requires that the burden, including costs, of providing the ordered technical reports "shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." As referenced above in these points and authorities, the Well was a permitted injection well since December, 1974 when it was permitted by Thomas Oil Company. Historical water samples contained in the files indicate that the produced water from the Vedder

Zone that was injected into the Well is very similar in terms of water quality and did not degrade the Olcese Zone aquifer, the zone into which the Well injected Vedder produced water. The Regional Board previously approved the injection of Vedder produced water in this well and noted that there were no other beneficial uses for this Olcese Zone aquifer water at this location other than supplying water to livestock. There are no other water wells within a mile of the Well. And once again, the Well has been idle since August, 2008.

3. Macpherson Operating Has Already Suffered An Unreasonable Burden And Incurred Substantial Costs That Bear No Reasonable Relationship To The Need For Or Benefit To Be Obtained

In order to provide the technical report/information sought by the July 2, 2014 Regional Board Order, Macpherson Operating prepared a work plan that was submitted to the Regional Board for approval within the time provided in the Order. Macpherson Operating had scheduled to have a workover rig on site at the Well to undertake the necessary preliminary well work and collect a fluid sample from the Olcese Zone on July 17, 2014, but the Regional Board had not yet approved the work plan so the rig had to be sent to another location rather than sit idle waiting for Regional Board approval of the work plan. Macpherson Operating installed all necessary piping and collection basins in anticipation of the fluid sample collection process. The workover rig returned to the Well site and was able to collect a sample of Olcese Zone fluids on July 24, 2014. In all, Macpherson Operating has already spent or committed to spend approximately $30,000 or more in order to provide the technical report/information specified in the Regional Board's Order. In addition to those out of pocket costs, Macpherson Operating has had to devote considerable time on the part of several of its professional staff members to review files, assemble information, research wells, monitor the sample collection process, and other activities necessary to identify, assemble and provide all this information.

More significantly for purposes of the requested stay, Macpherson Operating representatives have already been told by Regional Board representatives that if the Regional Board concludes the technical report/information Macpherson Operating submits is not deemed to be sufficient for whatever purpose or purposes the Regional Board is collecting this information, Macpherson Operating will likely be ordered to drill a new well or wells to collect additional fluid samples and/or undertake additional work to provide further information to the Regional Board. Macpherson Operating estimates the cost to drill a new well to the Olcese formation to collect a fluid sample will cost approximately $100,000.

Macpherson Operating believes that it has already been unnecessarily burdened by having to incur substantial costs to collect and gather data and prepare the technical report/information demanded by the July 2, 2014 Regional Board Order because those costs bear a disproportionate and unreasonable relationship to the need for that technical report/information and the benefits to be obtained from the same. California Water Code section 13267(b)(1) requires the Regional Board to provide a written explanation with regard to the need for the report and identify the "evidence" that supports requiring Macpherson Operating to provide the demanded technical report/information. Despite the Regional Board's previous finding relative to the fully permitted and authorized Well that the Vedder produced water being injected in the Olcese formation was not degrading the Olcese formation water aquifer, the only statement in the July 2, 2014 Regional Board's Order purporting to explain the need for collecting, gathering and presenting the demanded data and information to the Regional Board is the unsupported statement that "these aquifers may be suitable for drinking water supply and other beneficial uses." No evidence was included to support that assertion.

4. There Will Be Substantial Harm To Macpherson Operating If The Stay Is Not Granted And No Substantial Harm To Any Interested Persons And To The Public Interest If The Stay Is Granted.

For the foregoing reasons, substantial harm will be incurred by Petitioner Macpherson Operating if a stay is not granted because Macpherson Operating will be required to incur substantial additional costs. Conversely, no substantial harm will be suffered by any other interested persons or to the public interest if a stay is granted. In fact, there does not appear to be any interested persons other than Macpherson Operating and Mt. Poso Cogeneration Company, LLC as there are no water wells within a mile of the Well. And there are substantial questions of fact or law as to whether Macpherson Operating is a person to whom the July 2, 2014 Regional Board's Order may properly be issued, and whether the burden, including the cost of compliance, bears a reasonable relationship to the need for the data/information and the benefit to be obtained by the same. Therefore, the stay should be granted as requested by Macpherson Operating.

C. CONCLUSION

On the basis of the foregoing, Macpherson Operating respectfully requests the Regional Board's Order be set aside and that the Regional Board be directed to take no further action with respect to the subject matter of its Order unless and until it has first reviewed the information and material that has been provided by Macpherson Operating in response both to the DOGGR Order and the July 2, 2014 Regional Board Order and can demonstrate evidence showing that further action is required.

Macpherson Operating further requests that the Regional Board be instructed, should it reasonably determine that further action concerning the subject matter of its Order is required, to direct any further order to an appropriate party in accordance with the provisions of Section 13267 and to provide the evidence upon which such Order is based.

Macpherson Operating further requests both a hearing on this Petition and that the Regional Board's Order be stayed pending a hearing on this Petition or other action by the State Board.

Respectfully submitted,

BRIGHT AND BROWN

DATED: August 1, 2014.

By: _____
Maureen J. Bright
Attorneys for Petitioner
Macpherson Operating Company, L.P.

DECLARATION OF TIM LOVLEY IN SUPPORT OF REQUEST FOR STAY OF REGIONAL BOARD ORDER

1. I, Tim Lovley, make this Declaration in Support of the Request of Macpherson Operating Company, L.P., for Stay of the July 2, 2014 Order of the Central Valley Regional Water Quality Control Board (the "Regional Board") directing Macpherson Operating Company, L.P. to submit information and take other action (the "Order") pending a hearing, or other action by the State Water Quality Control Board (the "State Board"), upon the foregoing Petition for Review of the Order.

2. I am the Health, Safety and Environmental Manager for Macpherson Oil Company ("Macpherson"), which is the Managing General Partner of Macpherson Operating Company, L.P. ("Macpherson Operating"), to whom the Order was directed, and which is the Petitioner in this matter. Macpherson's business offices are located in Santa Monica, California. My office is in the Central Valley facilities of Macpherson, in the Round Mountain Field north of Bakersfield.

3. After being received in Macpherson's Santa Monica office, the Order, and an "emergency order" of same date by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (the "DOGGR" and the "DOGGR Order"), were forwarded to me and others in the Round Mountain office for action on them. A copy of the Order is attached to the within Petition as Exhibit 1, and a copy of the DOGGR Order is attached to the Petition as Exhibit 10.

4. The Order and the DOGGR Order each address a previously permitted and operated water disposal well in the Round Mountain Oil Field commonly known as the "Ring #20-3" well, and more formally identified by API number 02914064 (the "Well"). The Regional Board's Order directed Macpherson Operating to obtain and submit certain information and take other actions with respect to the Well, and is based on the authority of the Regional Board pursuant to Water Code section 13267 ("Section 13267"). The DOGGR Order directed Macpherson Operating to "immediately cease injection operations" with respect to the Well and submit

specified information concerning the operation of the Well to the DOGGR and the Regional Board within 30 days after the DOGGR Order, i.e., by Friday, August 1, 2014.

5. Macpherson Operating is not now, nor has it ever been, the owner of the Well or any other well in the vicinity of the Well. I am informed and believe that the Well is owned by Mt. Poso Cogeneration Company and has been since 1986. Macpherson Operating is a contract operator who conducts oil and gas operations in the area of the Well with respect to wells that are owned by Mt. Poso Cogeneration Company for the benefit of that company under the provisions of a November 2010 Oil Field Operating Agreement between Mt. Poso Cogeneration Company and Macpherson Operating. I am informed and believe that Macpherson Operating was not even in existence prior to October 11, 2010, and that Macpherson Operating was first designated as the operator of the Well in the official records of the DOGGR as of November 1, 2010.

6. As of the July 2, 2014 date of the Order and the DOGGR Order, the Well was not being operated for injection or any other purpose. According to the books and records of Macpherson and of the DOGGR, the Well was taken out of operation for injection or any other purpose in 2008 and has not been operated for injection or any other purpose at any time since then. Accordingly, there was no issue of compliance or required activity concerning that aspect of the DOGGR Order. Macpherson Operating has otherwise complied with the DOGGR Order and timely satisfied its reporting requirements, as reflected in the response of Macpherson Operating submitted to the DOGGR and the Regional Board (and attached as Exhibit 11 to the Petition).

7. A true and correct copy of the Regional Board's Order is attached as Exhibit 1.

8. In order to provide the technical report/information sought by the Regional Board Order, Macpherson Operating prepared a work plan that was submitted to the Regional Board for approval within the time provided in the Order. Macpherson Operating installed all necessary piping and collection basins in

anticipation of the fluid sample collection process. Macpherson Operating had scheduled to have a workover rig on site at the Well to undertake the necessary preliminary well work and collect a fluid sample from the Olcese Zone on July 17, 2014, but the Regional Board had not yet approved the work plan so the rig had to be sent to another location rather than sit idle waiting for Regional Board approval of the work plan. The workover rig returned to the Well site and was able to collect a sample of Olcese Zone fluids on July 24, 2014.

9. On July 17, 2014, Macpherson Operating requested an extension from the Regional Board in which to provide the required test results from the mandated water testing. To date, Macpherson Operating has received no response from the Regional Board.

10. Macpherson Operating has submitted to the Regional Board and the DOGGR a report responsive to the requirements of the Order, other than as to the analysis of the sample of Olcese Zone fluids taken on July 24, 2014. A copy of that report is attached as Exhibit 12 to the Petition. As stated in that report, review of public records disclosed no water supply well within a one-mail radius of the Well. A further, final report concerning analysis of the sample of Olcese Zone fluids taken on July 24, 2014 will be submitted to the Regional Board within one week after receipt of the laboratory analytical report of the sample of Olcese Zone fluids taken on July 24, 2014.

11. In all, Macpherson Operating has already spent or committed to spend approximately $30,000 or more in order to provide the technical report/information specified in the Regional Board's Order. In addition to those out of pocket costs, Macpherson Operating has had to devote considerable time on the part of several of its professional staff members to review files, assemble information, research wells, monitor the sample collection process, and other activities necessary to identify, assemble and provide all this information.

12. Moreover, in addition to amounts already paid or committed to be paid, I have been informed that Regional Board staff has alerted Macpherson Operating representatives that Macpherson Operating may also be ordered to drill a new well

or wells to collect additional fluid samples and/or undertake additional work to provide further information to the Regional Board. More specifically, Jane McNaboe of EnviroTech, Macpherson Operating's environmental consultants on this project, has informed me that Dane Johnson of Regional Board staff reported to her a statement by Clay Rogers, Regional Board Assistant Executive Officer, that if the Regional Board concludes the technical report/information Macpherson Operating submits is not deemed to be sufficient for whatever purpose or purposes the Regional Board is collecting this information, Macpherson Operating will likely be ordered to drill a new well or wells to collect additional fluid samples and/or undertake additional work to provide further information to the Regional Board. Macpherson Operating estimates the cost to drill a single new well to the Olcese formation to collect a fluid sample will cost approximately $100,000. Multiple wells would obviously cost multiples of that amount.

All of the statements in this Declaration are known to me of my own personal knowledge to be true and correct (except as to matters stated on information and belief, and as to those I believe them to be true).

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed by me on August 1, 2014, at Bakersfield, California.

Tim Lovley

EXHIBIT 1

EXHIBIT 1

July 2, 2014

PERSONAL SERVICE AND CERTIFIED MAIL
7013 2250 0002 0464 4000

Scott Macpherson, Agent
Macpherson Operating Company, L.P.
2716 Ocean Park Boulevard, #3080
Santa Monica, CA 90405

ORDER PURSUANT TO CALIFORNIA WATER CODE SECTION 13267. You are legally obligated to respond to this Order. Read this Order carefully.

Macpherson Operating Company, L.P., is the operator of the injection well identified as API number 02914064 (hereinafter "injection well subject to this Order"). The California Division of Oil, Gas, and Geothermal Resources (Division) has determined that the injection well subject to this Order have been injecting fluids produced by oil or gas extraction activities into aquifers that may not have been properly designated as exempt aquifers under the federal Safe Drinking Water Act (42 U.S.C. § 300f et seq.). These aquifers may be suitable for drinking water supply and other beneficial uses. The Division is issuing an Emergency Order to Immediately Cease Injection Operations (Emergency Order) to Macpherson Operating Company, L.P., for the injection well subject to this Order concurrently with the issuance of this Order by the Central Valley Regional Water Quality Control Board (Central Valley Water Board).

This Order is intended to complement the Division's Emergency Order. As described further below, this Order requires Macpherson Operating Company, L.P., to submit information about the quality of groundwater within the zone(s) where fluids have been injected using the injection well subject to this Order. In addition, this Order requires Macpherson Operating Company, L.P., to submit the location and contact information for all water supply wells within one (1) mile of each of the injection well subject to this Order. The Division's Emergency Order requires Macpherson Operating Company, L.P., to submit other information that is also needed to assess the threat to groundwater quality posed by the operation of the injection well subject to this Order. The Division's Emergency Order requires Macpherson Operating Company, L.P., to submit that information to the Division and to the Central Valley Water Board. This Order is not intended to require Macpherson Operating Company, L.P., to submit any information that the Division's Emergency Order also requires Macpherson Operating Company, L.P., to submit.

The Central Valley Water Board's authority to require technical reports derives from Section 13267 of the California Water Code, which specifies, in part, that:

> *(a) A regional board ... in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within its region.*

(b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region... that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The Central Valley Water Board is concerned about the potential threat to human health and potential impacts to water quality posed by the discharge of waste associated with the injection of fluids into aquifers that were not properly designated as exempt aquifers under the federal Safe Drinking Water Act and that may be suitable for drinking water supply and other beneficial uses. The technical information and reports required by this Order are necessary to assess the potential threat to human health and potential impacts to water quality. The need to understand the potential threat to human health and potential impacts to water quality justifies the need for the information and reports required by this Order. Based on the nature and possible consequences of the discharges of waste, the burden of providing the required information, including reporting costs, bears a reasonable relationship to the need for the report, and the benefits to be obtained. Macpherson Operating Company, L.P., is required to submit this information and reports because it is the operator of the injection well subject to this Order.

Under the authority of California Water Code section 13267, the Central Valley Water Board hereby orders Macpherson Operating Company, L.P., to:

1. **By 11 July 2014**, submit a work plan that adequately describes the procedures to collect a representative groundwater sample from the injection zone(s) for the injection well subject to this Order. **By 1 August 2014**, submit a technical report with the analyses of each of the groundwater samples, in accordance with the water quality analysis and reporting requirements contained in Attachment A to this Order.

   Note: If a representative sample cannot feasibly be collected from one or more of the injection zones for the injection well subject to this Order within the required timeframe (e.g., due to constraints posed by the design of the injection well), then **by 18 July 2014**, submit a technical report demonstrating that collection of a representative sample from those injection zones is not feasible within the required timeframe, and proposing an alternative sampling procedure and expeditious time schedule for obtaining a representative sample of groundwater from those injection zones. Alternative sampling procedures and time schedules are subject to approval by the Assistant Executive Officer of the Central Valley Water Board.

2. **By 1 August 2014,** submit all previously-obtained analytical data for fluid samples collected from any injection zones within one (1) mile of the injection well subject to this Order.

3. **By 1 August 2014,** submit a technical report containing the following:

   A. A list and location map of all water supply wells within one mile of the injection well subject to this Order.
   B. All available information for each identified water supply well, including the well owner name and contact information; type of well (i.e., domestic, irrigation, industrial, etc.); status (i.e., active, idle, etc.); well construction; borehole geophysical logs; and all analytical results for any water sample(s) collected from each water supply well. Notify Central Valley Water Board staff within 24 hours upon determination that any water supply well information cannot be obtained from the California Department of Water Resources because it is confidential.

Submissions pursuant to this Order must include the following statement signed by an authorized representative of Macpherson Operating Company, L.P.:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The failure to furnish the required report, or the submission of a substantially incomplete report or false information, is a misdemeanor, and may result in additional enforcement actions, including issuance of an Administrative Civil Liability Complaint pursuant to California Water Code section 13268. Liability may be imposed pursuant to California Water Code section 13268 in an amount not to exceed one thousand dollars ($1,000) for each day in which the violation occurs.

Any person aggrieved by this Order of the Central Valley Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with California Water Code section 13320. The State Water Board must receive the petition by 5:00 p.m., within 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations, and instructions applicable to filing petitions, may be found at http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml, or will be provided upon request.

By **9 July 2014**, you must contact Dane S. Johnson of this office at (559) 445-5525 to discuss your proposed work plan and technical report.

All required technical information must be submitted to the attention of:

Dane S. Johnson
Central Valley Water Board
1685 E Street
Fresno, CA 93706

In addition, all information is to be copied to the Division, to the attention of:

Steven R. Bohlen, State Oil and Gas Supervisor
Department of Conservation, DOGGR
801 K Street
Sacramento, CA 95814-3500

Based on the information submitted in the work plan and/or technical report, additional information or action may be required.

Be advised that sections 13260 and 13264 of the California Water Code require any person who proposes to discharge waste that could affect waters of the state to submit a Report of Waste Discharge for any new discharge or change in the character, volume, or location of an existing discharge. Fluids produced by oil or gas extraction activities that can no longer be disposed of in the injection well subject to this Order cannot be discharged to land or waters of the state prior to the issuance of Waste Discharge Requirements, and cannot be discharged to waters of the United States prior to the issuance of an National Pollutant Discharge Elimination System (NPDES) Permit. Failure to comply with these requirements may constitute a misdemeanor under Water Code section 13265 or a felony under Water Code section 13387, and may also subject Macpherson Operating Company, L.P., to judicial or administrative civil liabilities. It is strongly recommended that you contact Central Valley Water Board staff to discuss any proposed changes to the discharge of the fluids that had previously been disposed of in the injection well subject to this Order.

Any questions regarding this matter should be directed to me at (559) 445-5116 or at Clay.Rodgers@waterboards.ca.gov.

Clay L. Rodgers
Assistant Executive Officer

Enclosure: Attachment A

ATTACHMENT A

Water Quality Analysis

Groundwater samples collected from wells and injection zones shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program, using current applicable EPA-approved analytical methods for water for the following:

A. Total dissolved solids

B. Metals listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A)

C. Benzene, toluene, ethylbenzene, and xylenes

D. Total petroleum hydrocarbons for crude oil

E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene)

F. Radionuclides listed under California Code of Regulations, title 22, Table 64442

G. Methane

H. Major and minor cations (including sodium, potassium, magnesium, and calcium)

I. Major and minor anions (including nitrate, chloride, sulfate, alkalinity, and bromide)

J. Trace elements (including lithium, strontium, boron, iron, and manganese)

Water Quality Reporting

Water quality information shall be submitted in a technical report that includes, at a minimum:

A. Site plan with locations of well(s) sampled.

B. Description of field sampling procedures.

C. Table(s) of analytical results organized by well number (including API number).

D. Copies of analytical laboratory reports, including quality assurance/quality control procedures and analytical test methods.

E. Waste management and disposal procedures.

EXHIBIT 2

EXHIBIT 2

Thomas Oil Company • 4311 MEADOW VIEW PLACE • ENCINO CALIF. 91316 • 213-981-5979 • 805-872-0613

November 14, 1974

12/16/74
U.S.L. Wm Ranch request, attached w/ Glide #19

United States Geological Survey
Federal Building, Room 309
Bakersfield, California 93301

Attention: Mr. Don Russell

Re: Conversion of suspended oil-well to water disposal well, U.S.L. 20-3, Sec. 20, T. 27S., R. 28E., M.D.B.&M., Kern County, California
Sac. 044132

Dear Sir:

Thomas Oil Company proposes to convert suspended oilwell No. U.S.L. 20-3, Sec. 20, T. 27S., R. 28E., M.D.B.&M., West Mt. Poso Oil Field to a water disposal well. The purpose is to comply with various Federal and State Agencies relative to disposal of produced waters for the following properties located in Sec. 18, 19, & 20.

U.S.L. Union 18
U.S.L. Ring 18
Glide 19
Glide 19-B
U.S.L. Vedder
U.S.L. Ring 20

Comingled produced waters will be disposed of in the Olcese sand in the interval 920'-1130' (210' gross). The Olcese sand is Lower to Middle Miocene Age and is generally marine in origin. It is found to be Oil Productive in many areas of the San Joaquin Valley; and has been sidewall cored in the immediate area as spotty oil stained. The Olcese is oil productive in the following fields.

Ant Hills, Edison, Mountain View, Tejon, North Tejon, Wheeler Ridge, Greeley, & Rio Bravo

Structural conditions are depicted in the California Division of Oil and Gas Summary of Operations, Vol. 43, No. 2, 1957 and according to our geologic interpretation, Well No. 20-3 is located within a fault closure area. The West Mt. Poso fault has provided a barrier to accumulation.

Analysis of current comingled produced waters is being made by B. C. Lab in order to compare Olcese water and injected water, when Olcese sample is secured.

Regulations established by the State Regional Water Quality Control Board prohibits water discharged onto the surface if said water exceeds 1 p.p.m. Boron, 200 p.p.m. Chloride, and 1,000 umhos specific conductance.

No known fresh water exists within the area.

The proposed program was established after the proceedure used for well No. U.S.L. Bishop #6, Sec. 14, T. 28S., R. 28E., Sharktooth Field, Kern County, California. The project is outlined on the Application for Permit to Drill, Deepen, or Plug Back No. 42-R1425 attached.

Your favorable consideration is appreciated.

Yours truly,

THOMAS OIL COMPANY

F. P. Mondary, Production Engineer

FPM:jp

EXHIBIT 3

309 Federal Building
800 Truxtun Avenue
Bakersfield, California 93301

December 27, 1974

Thomas Oil Company
4311 Meadow View Place
Encino, California 91316

Gentlemen:

Your request to convert well Ring 20-3, lease Sacramento 044132 to a waste water disposal well is hereby approved for use in disposing of approximately 4500 barrels of water per day of Union 18 lease Sac. 030614; Ring 18 lease Sac. 037934; Vedder lease Sac. 019288; Ring 20 lease Sac. 044132.

In order to comply with the State of California Water Quality Control Board regulations and with the USGS Notice to Lessees and Operators of October 21, 1974 (NTL-2) you have elected to dispose of the waste water into the Oleese sand interval 920-1130 of well Ring 20-3. A copy of NTL-2 is enclosed for your file. The chemical analysis of Oleese formation water is shown having an average boron content of 3.3 ppm and N_aCl of 1713 ppm both are considerably above the limits established for a water which may be safely disposed of in sumps. The electrical conductivity is almost three times the limit of 1,000 micrombos. The chemical analysis of the water to be injected show it also greatly exceeds the desireable limits, therefore, the water to be injected will not degrade any possible future water source. We believe water in the Oleese sand will be confined from horizontal movement by faults, especially the West Mount Poso fault and from vertical migration by the Freeman-Jewett silt which underlies the Oleese and by the Round Mountain silt which is above the formation.

We hereby approve the proposed commingling of fluids produced from the four leases and the disposal of waste water into the Oleese sand of well Ring 20-3 subject to the following conditions:

(1) A spinner survey, radio-activity or other type survey should be made at yearly intervals to confirm the waste water is confined to the Oleese.

(2) The injection pressure must not exceed the fracture gradient for the formation.

(3) We will be furnished duplicate copies of DOG form 110-B or other form showing amount of water injected each month.

(4) We reserve the right to modify or to order a cessation of injection of waste water if it should prove to be detrimental to any zone capable of producing a fresh water or if there should be surface damage caused by leaks, spills, etc.

Sincerely yours,

D. F. Russell

D. F. Russell
District Engineer

cc: Bryant-Park & Assoc., Inc.
1801 Oak Street, Room 18
Bakersfield, California 93301

Oil & Gas Supervisor, Pacific Area

Enclosures

DFR:cr

EXHIBIT 4

EXHIBIT 4

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

No. T 480-1066

Report on Operations

WATER DISPOSAL PROJECT
Mount Poso Field
West Area
Oligese Zone

Mr. Frank P. Mondary
THOMAS OIL COMPANY
P.O. Box 5368
Bakersfield, CA 93308

Bakersfield, Calif.
September 25, 1980

Your operations at well "Ring 20" 3, API No. 029-14064, Sec. 20, T27S, R28E M.D., B.& M. Mount Poso Field, in Kern County, were reviewed on 9-23-80 by Mr. David Mitchell, representative of the supervisor.

Present condition of well: 7" cem. 2272', perf. 2250', WSO perf. 920' - 1130', hole in casing 545' - 590'. (cem. off). T.D. 2317'. E.D. 2100'+.

The operations were performed for the purpose of demonstrating that the injection fluid is confined to strata below 920'.

DECISION: THE OPERATIONS ARE APPROVED AS INDICATING THAT THE INJECTION FLUID IS CONFINED TO STRATA BELOW 920' AT THIS TIME.

Multiple years of this report in the file.

DM/vk
cc: DWR
RWQCB

OG109 (10-78-6SRI-15M)

M.G. MEFFERD
State Oil and Gas Supervisor
By G.W. Hunter
Deputy Supervisor
G.W. Hunter

2-20-81

EXHIBIT 5

EXHIBIT 5

State of California

Memorandum

he Resources Agency of California

To : Mr. Dave Mitchell
Division of Oil and Gas
Department of Conservation
4800 Stockdale Highway, Suite 417
Bakersfield, CA 93309

Date : 3 February 1982

RECEIVED
FEB 05 1982
DIVISION OF OIL & GAS
BAKERSFIELD

From : **California Regional Water Quality Control Board**
3374 East Shields Avenue, Fresno, California 93723

Subject: THOMAS OIL COMPANY, BRINE DISPOSAL WELLS, MOUNT POSO OIL FIELD, KERN COUNTY

We have reviewed your recent inquiry on the subject disposal wells.

Attached is a memorandum reviewing the wells and current Board policy. The memorandum concludes that the operators should be required to demonstrate that the wells can meet our requirements before expanded injection is allowed. However, in the interim it appears reasonable to allow continued injection of existing quality and quantity of Vedder Formation water into the Olcese Formation.

If you have any questions, please call Tim Souther at this office.

SARGEANT J. GREEN
Senior Land and Water Use Analyst

TGS:hmm

Attachment

MEMORANDUM

TO: Sargeant J. Green

FROM: Timothy G. Souther

DATE: 3 February 1982

SUBJECT: THOMAS OIL COMPANY, BRINE DISPOSAL WELLS, MOUNT POSO OIL FIELD, KERN COUNTY

I have reviewed the letter from the Division of Oil and Gas of 8 December 1981, in which they requested information on requirements on nondegradation of ground water as they relate to the subject facilities.

I noted that Thomas Oil Company and other operators inject up to 20,000 barrels per day of oil field production brine from Vedder Zone into the shallow Olcese Formation. The Vedder Zone was found to be poorer in quality than the Olcese based on analyses submitted by Thomas Oil Company (1,590 mg/l total dissolved solids vs. 1,191 mg/l).

In discussion with Kern County Health Department, I have been informed that ground water from the Olcese is used for agricultural purposes in the vicinity of the injection wells.

It is my understanding that produced water from the Vedder Zone is also used for stock watering. I do not know of any other beneficial uses of these zones.

My analysis of the situation is as follows. The University of California Committee of Consultants has issued "Guidelines for Interpretation of Water Quality for Agriculture". The Committee indicates that you can expect problems when irrigation water quality exceeds 2,000 mg/l total dissolved solids or stock water quality exceeds 3,000 mg/l total dissolved soids.

The "Waste Discharge Requirements for Nonsewerable Waste Disposal to Land" as published by the State Water Resources Control Board indicates the following:

"Wells suitable for the disposal of wastes shall provide protection to usable ground water as determined by the following conditions:

a. The receiving formation shall not have continuity with any usable ground water.

b. Construction and injection procedures shall be such that no passageways are developed which will permit the movement of wastes to a usable aquifer or to the surface.

c. Certification has been provided by the California Division of Oil and Gas that construction and operation of waste wells under its jurisdiction conform to regulations of the Division."

The "Water Quality Control Plan Report for the Tulare Lake Basin" as established by the Regional Board states:

> "All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of the resource."

From the information currently available, it is apparent that oil field operators in Mount Poso Oil Field currently inject wastewater into a zone that contains water that is beneficially used. However, the wastewater does not contain sufficient dissolved matter to degrade the Olcese beyond its current beneficial uses.

Before expanded injection is allowed into the Olcese, the operators should be required to demonstrate that the wells can meet the provisions of the Nonsewerable Waste Requirements. In the interim, it is reasonable to allow the continued injection of the existing quantity and quality of Vedder water into the Olcese.

TIMOTHY G. SOUTHER
Staff Engineer

TGS:hmm

EXHIBIT 6

EXHIBIT 6

March 18 , 19 82

Division of Oil and Gas

This is to inform you that effective March 2, 1982 (date),

Thomas Oil Company (old operator) transferred ownership of

the following described property to Macpherson Oil Company (new operator)

P.O. Box 5368 Oildale, Ca 93388 (new operator address)

1. _____ (legal description of property)

Sec. 28 , T. 27S , R. 28E , _____ B.&M., Mount Poso (Kern) (field or county) E1/2 E1/2

2. Tribe A 2, 4, 5, 6, 7, 8, 9, 11, 12 Tribe A-10 WD 1, 13 ABD (list of wells)

Tribe B 1, 2 65-28 ABD W1/2 E1/2 SPOT LOC WITH JOHN SOUCERS TO BE RETAINED

Sec. 18, T27S, R28E

(USL) Ring 18 1,2,3,4,5,6,7,9,10,11,12,14,15,8A Ring 18-13 WD 8 ABD SE1/4

(USL) Union 18 1,2,3, NE 1/4

Sec. 19, T27S, R28E - Glide 19 1, 2, 3 Glide 19-B 1

(If additional space is needed, use back of form.) SE 1/4 NE 1/4

SPOT LOC
EMERION OIL CO. LTD. 1
NE1/4 NE1/4

Macpherson Oil Company (name of operator)

P.O. Box 5368 Oildale, Ca 93388 (address)

By D.K. Macpherson

OGD30 (10-78-DWRR-5C)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or County See Below

District 4

Former Owner: THOMAS OIL COMPANY

Date July 29, 1982

Description of Property MIDWAY-SUNSET
T. 11N., R. 23W., SBB&M
Sec. 7
S½ NW¼
(Hoyt)
All wells
(Oil, Inc.)

List of Wells
All wells
"Midway Northern" 1 (029-15055)(spot loc)
"Munzer" 1 (029-15056)(spot loc)
W½ NW¼ NW¼
(Iroquois)
All wells

(continued)

Date of Transfer March 2, 1982
New Owner: MACPHERSON OIL COMPANY
Address: P.O. Box 5368
Oildale, CA 93388
Telephone No.

Type of Organization Corp.
Reported by: Macpherson
Confirmed by: Thomas
New Operator New Status PA , Old Operator New Status AB
Request Designation of Agent No Remove agent Yes

Remarks:
EAW/pms
cc: Macpherson
THOMAS
EDP
Kern Co. Assessor
Conservation Committee

	INITIALS	DATE
Form 121	PS	8-6-82
New Well Cards	PS	8-6-82
Well Records	PS	8-7-82
Electric Logs	PS	8-7-82
Production Reports	PS-TS	8-6-82
Map and Book	[illegible]	8-18-82
Form 148	PS	8-6-82
Notice to be cancelled		
Bond status		

[signature]
Deputy Supervisor

LEGEND
PA—Producing Active
NPA—Non Potential Active
PI—Potential Inactive
NPI—Non Potential Inactive
Ab—Abandoned or No More Wells

FORM 156

MOUNT POSO
T. 27S., R. 28E., MDB&M
Sec. 18
SE¼
(Ring 18)
All wells
NE¼
(Union 18)
All wells
Sec. 19
NE¼ NE¼
(Glide-19)
(1,2,3)
SE¼ NE¼
(Glide-19-B)
(1)

Retain as spot loc: EMERICH OIL CORP, LTD Well No. 1

Sec. 20
SW¼; SW¼ NW¼
(Ring 20)
All wells
NW¼ NW¼
(Vedder USL)
All wells

Retain as spot loc: SUN EXPLORATION & PROD. CO. , Well No. 1(abd)
Fred J. Elliott, Well No. 1(abd)

Sec. 28
E½ E½
(Tribe A)
All wells
W½ E½
(Tribe B)
(all wells)

Retain as spot loc: JOHN SOWERS, (all the following are "Tribe B" designation)
53X-28, 54X-28, 5 (ab), 65X-28, 55X-28, 56X-28, 65WD, 65-28(ab) -28

ROUND MOUNTAIN
T. 28S., R. 28E., MDB&M
Sec. 1
NE¼ SE¼ NE¼
(Coffee) 1

Sec. 12
S½ NE¼;NW¼ NE¼;N½ NE¼ NW¼
(Bell)
All wells
"Sayre" 1 (029-18240)(spot loc)
SE¼ NE¼ NW¼
(Bell Two)
All wells
E½ SE¼ NW¼
(Larkin)
(1)
(Larkin Two)
(1,2,3)
SE¼
(Thomas)
All wells

T. 28S., R. 28E., MDB&M

Sec. 13

NE¼ NE¼
(KCL)
(2(ab),3(ab),4)

Sec. 14

NE¼ SW¼
(Bishop)
All wells

S½ SE¼
(Malta)
All wells

N½ NW¼
(Maxwell A)
All wells

S½ NW¼
(Maxwell B)
All wells

N½ SE¼
(Ring 14)
All wells

Sec. 15

NE¼ NE¼ NE¼
(Diana)
(1)

Sec. 23

Property as shown
(Railroad)
All wells

T. 28S., R. 29E., MDB&M

Sec. 6

W½ SW¼ NW¼; W½ NW¼ SW¼
(1,2,4,5,6,8,3(ab))

SW¼ SW¼; W½ SW¼ SE¼
(Coffee)
(All wells)

Sec. 7

W½ SE¼; SE¼ NE¼; SW¼ NE¼; SE¼ NW¼; E½ NE¼; SW¼; W½ NW¼
(Caldwell)
All wells
"Pearce" 7-1 (029-42612) (spot loc)

NW¼ NE¼
(East Signal)
All wells

NE¼ NW¼
(West Signal)
All wells

Sec. 16

"Olcese Heirs" 22X-16 (029-52047)(spot loc)

Sec. 17

Property as shown in SW¼ of Sec.
(Olcese Taylor)
All wells

Retain as spot loc: ROUND MOUNTAIN OIL CO., LTD., "Olcese" 1 (ab)

EXHIBIT 7

EXHIBIT 7

API: 02914064 **Oper:** Macpherson Operat. Co., L.P. M0955 **Opr Status:** A **County:** Kern Help

Field: Mount Poso 488 **Lease:** Ring 20 **Well#:** 3 Get Well Map

Area: West Area 18 **District:** 4 **Section:** 20 **Twn:** 27S **Rng:** 28E **BM:** MD Get Well Record

Pool: Olcese 05 **Well Type:** WD **Well Status:** Active **BLM:** B

Entry: 4/1/1976 **Pool Status:** Active

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
04/2014	06	0	0	0	0	0	0
03/2014	06	0	0	0	0	0	0
02/2014	06	0	0	0	0	0	0
01/2014	06	0	0	0	0	0	0
Total 2014		0	0	0			
12/2013	06	0	0	0	0	0	0
11/2013	06	0	0	0	0	0	0
10/2013	06	0	0	0	0	0	0
09/2013	06	0	0	0	0	0	0
08/2013	06	0	0	0	0	0	0
07/2013	06	0	0	0	0	0	0
06/2013	06	0	0	0	0	0	0
05/2013	06	0	0	0	0	0	0
04/2013	06	0	0	0	0	0	0
03/2013	06	0	0	0	0	0	0
02/2013	06	0	0	0	0	0	0
01/2013	06	0	0	0	0	0	0
Total 2013		0	0	0			
12/2012	06	0	0	0	0	0	0
11/2012	06	0	0	0	0	0	0
10/2012	06	0	0	0	0	0	0
09/2012	06	0	0	0	0	0	0
08/2012	06	0	0	0	0	0	0
07/2012	06	0	0	0	0	0	0
06/2012	06	0	0	0	0	0	0
05/2012	06	0	0	0	0	0	0
04/2012	06	0	0	0	0	0	0
03/2012	06	0	0	0	0	0	0
02/2012	06	0	0	0	0	0	0
01/2012	06	0	0	0	0	0	0
Total 2012		0	0	0			
12/2011	06	0	0	0	0	0	0
11/2011	06	0	0				
10/2011	06	0	0	0	0	0	0
09/2011	06	0	0	0	0	0	0
08/2011	06	0	0	0	0	0	0
07/2011	06	0	0	0	0	0	0
06/2011	06	0	0	0	0	0	0
05/2011	06	0	0	0	0	0	0
04/2011	06	0	0	0	0	0	0
03/2011	06	0	0	0	0	0	0
02/2011	06	0	0	0	0	0	0
01/2011	06	0	0	0	0	0	0
Total 2011		0	0	0			
11/2010	09	0	0	0	0	0	0
10/2010	06	0	0	0	0	0	0
09/2010	06	0	0	0	0	6	

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
08/2010	06	0	0	0	0	0	0
07/2010	06	0	0	0	0	0	0
06/2010	06	0	0	0	0	0	0
05/2010	01	0	0	0	0	0	1
04/2010	01	0	0	0	0	0	1
03/2010	01	0	0	0	0	0	1
02/2010	01	0	0	0	0	0	1
01/2010	06	0	0	0	0	0	1
Total 2010		0	0	0			
12/2009	06	0	0	0	0	0	1
11/2009	06	0	0	0	0	1	1
10/2009	06	0	0	0	0	1	1
09/2009	06	0	0	0	0	1	1
08/2009	06	0	0	0	0	1	1
07/2009	06	0	0	0	0	1	1
06/2009	06	0	0	0	0	1	1
05/2009	06	0	0	0	0	1	1
04/2009	06	0	0	0	0	1	1
03/2009	06	0	0	0	0	1	1
02/2009	06	0	0	0	0	1	1
01/2009	06	0	0	0	0	1	1
Total 2009		0	0	0			
12/2008	06	0	0	0	0	1	1
11/2008	06	0	0	0	0	1	1
10/2008	06	0	0	0	0	1	1
09/2008	06	0	0	0	0	1	1
08/2008	00	4,568	0	31	0	1	1
07/2008	06	0	0	0	0	1	1
06/2008	00	56,510	0	30	0	1	1
05/2008	00	23,230	0	31	0	1	1
04/2008	00	49,100	0	30	0	1	1
03/2008	00	18,520	0	31	0	1	1
02/2008	00	14,510	0	29	0	1	1
01/2008	00	7,901	0	31	0	1	1
Total 2008		174,339	0	213			
12/2007	00	146,610	0	30	0	1	1
11/2007	00	6,347	0	30	0	1	1
10/2007	00	7,671	0	31	0	1	1
09/2007	00	599	0	30	0	1	1
08/2007	00	45	0	31	0	1	1
07/2007	00	173	0	31	0	1	1
06/2007	00	17	0	30	0	1	1
05/2007	00	971	0	31	0	1	1
04/2007	06	0	0	0	0	1	1
03/2007	06	0	0	0	0	1	1
02/2007	06	0	0	0	0	1	1
01/2007	06	0	0	0	0	1	1
Total 2007		162,433	0	244			
12/2006	00	7,008	0	31	0	1	1
11/2006	00	90	0	30	0	1	1
10/2006	00	9,430	0	31	0	1	1
09/2006	00	29,690	0	30	0	1	1
08/2006	00	16,620	0	31	0	1	1
07/2006	00	24,770	0	31	0	1	1
06/2006	00	28,350	0	30	0	1	1
05/2006	00	34,870	0	31	0	1	1
04/2006	00	28,400	0	30	0	1	1
03/2006	00	36,850	0	31	0	1	1
02/2006	00	36,640	0	28	0	1	1
01/2006	00	49,480	0	31	0	1	1
Total 2006		302,198	0	365			
12/2005	00	20,240	0	31	0	1	1
11/2005	00	31,100	0	30	0	1	1
10/2005	00	35,320	0	31	0	1	1

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
09/2005	00	42,420	0	30	0	1	1
08/2005	00	46,360	0	31	0	1	1
07/2005	00	21,790	0	31	0	1	1
06/2005	00	26,270	0	30	0	1	1
05/2005	00	16,650	0	31	0	1	1
04/2005	00	23,926	0	30	0	1	1
03/2005	00	46,520	0	31	0	1	1
02/2005	06	0	0	0	0	1	1
01/2005	00	17,190	0	15	0	1	1
Total 2005		327,786	0	321			
12/2004	00	48,140	0	31	0	1	1
11/2004	00	29,270	0	30	0	1	1
10/2004	00	30,480	0	31	0	1	1
09/2004	00	54,110	0	30	0	1	1
08/2004	00	69,420	0	31	0	1	1
07/2004	00	62,880	0	31	0	1	1
06/2004	00	28,480	0	30	0	1	1
05/2004	00	4,100	0	31	0	1	1
04/2004	00	39,070	0	30	0	1	1
03/2004	00	34,400	0	31	0	1	1
02/2004	00	63,730	0	29	0	1	1
01/2004	00	40,200	0	30	0	1	1
Total 2004		504,280	0	365			
12/2003	00	50,380	0	31	0	1	1
11/2003	00	47,630	0	30	0	1	1
10/2003	00	15,910	0	31	0	1	1
09/2003	00	14,440	0	30	0	1	1
08/2003	00	31,314	0	31	0	1	1
07/2003	00	5,380	0	31	0	1	1
06/2003	00	44,670	0	30	0	1	1
05/2003	00	81,030	0	31	0	1	1
04/2003	00	25,320	0	30	0	1	1
03/2003	00	34,590	0	31	0	1	1
02/2003	00	38,940	0	28	0	1	1
01/2003	00	32,480	0	31	0	1	1
Total 2003		422,084	0	365			
12/2002	00	28,220	0	28	0	1	1
11/2002	00	19,200	0	30	0	1	1
10/2002	00	34,310	0	31	0	1	1
09/2002	00	20,680	0	30	0	1	1
08/2002	00	48,330	0	31	0	1	1
07/2002	00	39,630	0	31	0	1	1
06/2002	00	59,730	0	30	0	1	1
05/2002	00	32,070	0	31	0	1	1
04/2002	00	27,550	0	30	0	1	1
03/2002	00	44,250	0	31	0	1	1
02/2002	00	43,880	0	28	0	1	1
01/2002	00	20,590	0	31	0	1	1
Total 2002		418,440	0	362			
12/2001	00	24,380	0	31	0	1	1
11/2001	00	37,310	0	30	0	1	1
10/2001	00	15,850	0	31	0	1	1
09/2001	00	22,830	0	30	0	1	1
08/2001	00	32,290	0	31	0	1	1
07/2001	00	12,480	0	31	0	1	1
06/2001	00	14,320	0	30	0	1	1
05/2001	00	24,290	0	31	0	1	1
04/2001	00	28,940	0	30	0	1	1
03/2001	00	2,207	0	31	0	1	1
02/2001	00	29,580	0	28	0	1	1
01/2001	00	34,120	0	31	0	1	1
Total 2001		278,597	0	365			
12/2000	00	41,910	0	31	0	1	1
11/2000	00	35,090	0	30	0	1	1

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
10/2000	00	45,520	0	31	0	1	1
09/2000	00	12,610	0	30	0	1	1
08/2000	06	0	0	0	0	1	1
07/2000	00	26,880	0	31	0	1	1
06/2000	06	0	0	0	0	1	1
05/2000	00	3,590	0	31	0	1	1
04/2000	00	640	0	30	0	1	1
03/2000	06	0	0	0	0	1	1
02/2000	06	0	0	0	0	1	1
01/2000		2,090	0	31	0		
Total 2000		168,330	0	245			
12/1999	06	0	0	0	0	1	1
11/1999	06	0	0	0	0	1	1
10/1999	06	0	0	0	0	1	1
09/1999	06	0	0	0	0	1	1
08/1999	06	0	0	0	0	1	1
07/1999	00	2,800	0	31	0	1	1
06/1999	06	0	0	0	0	1	1
05/1999	06	0	0			1	1
04/1999	06	0	0	0	0	1	1
03/1999	06	0	0	0	0	1	1
02/1999	06	0	0	0	0	1	1
01/1999	00	51,294	0	31	0	1	1
Total 1999		54,094	0	62			
12/1998	00	31,114	0	31	0	1	1
11/1998	00	31,426	0	30	0	1	1
10/1998	00	44,780	0	31	0	1	1
09/1998	00	11,580	0	30	0	1	1
08/1998	00	51,423	0	31	0	1	1
07/1998	00	46,410	0	31	0	1	1
06/1998	00	20,860	0	30	0	1	1
05/1998	00	23,300	0	31	0	1	1
04/1998	00	27,630	0	30	0	1	1
03/1998	00	5,280	0	31	0	1	1
02/1998	00	4,690	0	28	0	1	1
01/1998	00	23,100	0	31	0	1	1
Total 1998		321,593	0	365			
12/1997	00	8,599	0	31	0	1	1
11/1997	00	25,800	0	30	0	1	1
10/1997	00	25,500	0	31	0	1	1
09/1997	00	98,060	0	30	0	1	1
08/1997	00	36,030	0	31	0	1	1
07/1997	00	25,410	0	31	0	1	1
06/1997	00	30,940	0	30	0	1	1
05/1997	00	18,070	0	31	0	1	1
04/1997	00	34,560	0	30	0	1	1
03/1997	00	32,870	0	31	0	1	1
02/1997	00	15,880	0	28	0	1	1
01/1997	00	22,620	0	31	0	1	1
Total 1997		374,339	0	365			
12/1996	00	30,020	0	31	0	1	1
11/1996	00	29,410	0	30	0	1	1
10/1996	00	34,710	0	31	0	1	1
09/1996	00	51,020	0	30	0	1	1
08/1996	00	41,690	0	31	0	1	1
07/1996	00	24,180	0	31	0	1	1
06/1996	00	18,860	0	30	0	1	1
05/1996	00	12,950	0	31	0	1	1
04/1996	00	22,710	0	30	0	1	1
03/1996	00	41,670	0	31	0	1	1
02/1996	00	122,900	0	29	0	1	1
01/1996	00	161,790	0	31	0	1	1
Total 1996		591,910	0	366			
12/1995	00	146,610	0	31	0	1	1

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
11/1995	00	214,140	0	30	0	1	1
10/1995	00	205,650	0	31	0	1	1
09/1995	00	206,180	0	30	0	1	1
08/1995	00	141,100	0	31	0	1	1
07/1995	00	189,750	0	31	0	1	1
06/1995	00	200,210	0	30	0	1	1
05/1995	00	223,811	0	31	0	1	1
04/1995	00	180,490	0	30	0	1	1
03/1995	00	214,810	0	31	0	1	1
02/1995	00	202,350	0	28	0	1	1
01/1995	00	156,210	0	31	0	1	1
Total 1995		2,281,311	0	365			
12/1994	00	169,350	0	31	0	1	1
11/1994	00	99,530	0	30	0	1	1
10/1994	00	42,100	0	31	0	1	1
09/1994	00	33,760	0	30	0	1	1
08/1994	06	0	0	0	0	1	1
07/1994	06	0	0	0	0	1	1
06/1994	06	0	0	0	0	1	1
05/1994	06	0	0	0	0	1	1
04/1994	00	22,980	0	30	0	1	1
03/1994	00	21,280	0	31	0	1	1
02/1994	00	43,160	0	28	0	1	1
01/1994	00	16,060	0	31	0	1	1
Total 1994		448,220	0	242			
12/1993	00	30,330	0	31	0	1	1
11/1993	00	61,650	0	30	0	1	1
10/1993	00	60,010	0	31	0	1	1
09/1993	00	44,780	0	30	0	1	1
08/1993	06	0	0	0	0	1	1
07/1993	06	0	0	0	0	1	1
06/1993	06	0	0	0	0	1	1
05/1993	06	0	0	0	0	1	1
04/1993	00	15,540	0	30	0	1	1
03/1993	00	16,770	0	31	0	1	1
02/1993	06	0	0	0	0	1	1
01/1993	00	1,830	0	31	0	1	1
Total 1993		230,910	0	214			
12/1992	00	16,660	0	31	0	1	1
11/1992	00	37,030	0	30	0	1	1
10/1992	00	44,150	0	31	0	1	1
09/1992	00	8,810	0	30	0	1	1
08/1992	00	64,630	0	31	0	1	1
07/1992	00	113,780	0	31	0	1	1
06/1992	00	111,850	0	30	0	1	1
05/1992	00	64,000	0	31	0	1	1
04/1992	00	76,680	0	30	200	1	1
03/1992	00	60,580	0	31	150	1	1
02/1992	00	59,800	0	29	0	1	1
01/1992	00	40,550	0	31	0	1	1
Total 1992		698,520	0	366			
12/1991	00	30,330	0	31	0	1	1
11/1991	00	53,790	0	30	0	1	1
10/1991	00	18,710	0	31	0	1	1
09/1991	00	23,550	0	30	0	1	1
08/1991	00	45,700	0	31	0	1	1
07/1991	00	61,550	0	31	0	1	1
06/1991	00	11,640	0	30	0	1	1
05/1991	00	24,690	0	31	0	1	1
04/1991	00	11,130	0	30	0	1	1
03/1991	00	15,910	0	31	0	1	1
02/1991	00	38,570	0	28	0	1	1
01/1991	00	59,340	0	31	0	1	1
Total 1991		394,910	0	365			

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
12/1990	00	54,140	0	31	0	1	1
11/1990	00	82,000	0	30	0	1	1
10/1990	00	57,990	0	31		1	1
09/1990	00	32,100	0	30		1	1
08/1990	00	42,110	0	31		1	1
07/1990	01	0	0	0		0	0
06/1990	00	32,960	0	30		1	1
05/1990	00	59,630	0	31		1	1
04/1990	00	80,290	0	30		1	1
03/1990	00	58,470	0	31		1	1
02/1990	00	13,330	0	28	0	1	1
01/1990	00	54,970	0	31		1	1
Total 1990		567,990	0	334			
12/1989	00	43,400	0	31		1	1
11/1989	00	82,140	0	30		1	1
10/1989	06	0	0	0		0	0
09/1989	00	16,460	0	30	0	1	1
08/1989	00	21,690	0	31	0	1	1
07/1989	06	0	0	0		0	0
06/1989	00	57,320	0	30	0	1	1
05/1989	00	164,230	0	31	0	1	1
04/1989	00	29,090	0	30	0	1	1
03/1989	01	0	0	0		0	0
02/1989	01	0	0	0		0	0
01/1989	00	50,316	0	31	0	1	1
Total 1989		464,646	0	244			
12/1988	00	169,520	0	31	0	1	1
11/1988	01	0	0	0	0	0	0
10/1988	01	0	0	0	0	0	0
09/1988	01	0	0	0	0	0	0
08/1988	01	0	0	0		0	0
07/1988	00	4,176	0	31		1	1
06/1988	01	0	0	0		0	0
05/1988	00	4	0	31		1	1
04/1988	00	56	0	30	0	1	1
03/1988	00	112	0	31	0	1	1
02/1988	00	112	0	29	0	1	1
01/1988	00	55,061	0	31	0	1	1
Total 1988		229,041	0	214			
12/1987	00	22,692	0	31	200	1	1
11/1987	00	329,489	0	30	306	1	1
10/1987	00	287,020	0	31	346	1	1
09/1987	00	329,489	0	30	275	1	1
08/1987	00	311,425	0	31	368	1	1
07/1987	00	273,392	0	31	375	1	1
06/1987	00	290,561	0	30	380	1	1
05/1987	00	472,352	0	31	380	1	1
04/1987	00	536,039	0	30	370	1	1
03/1987	00	201,804	0	31	320	1	1
02/1987	00	243,102	0	28	340	1	1
01/1987	00	266,942	0	31	0	1	1
Total 1987		3,564,307	0	365			
12/1986	00	366,208	0	31		1	1
11/1986	00	607,368	0	30	0	1	1
10/1986	00	161,250	0	31	0	1	1
09/1986	00	104,106	0	30	350	1	1
08/1986	00	16,210	0	31	350	1	1
07/1986	00	408,580	0	31	350	1	1
06/1986	00	462,390	0	30	241	1	1
05/1986	00	430,740	0	31	360	1	1
04/1986	00	490,370	0	30	369	1	1
03/1986	00	520,870	0	31	369	1	1
02/1986	00	420,920	0	28	317	1	1
01/1986	00	560,860	0	31	212	1	1

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
Total 1986		4,549,872	0	365			
12/1985	00	609,370	0	31	124	1	1
11/1985	00	506,190	0	29	126	1	1
10/1985	00	572,160	0	31	136	1	1
09/1985	00	549,460	0	30	138	1	1
08/1985	00	567,420	0	31	101	1	1
07/1985	00	584,844	0	31	111	1	1
06/1985	00	580,950	0	30	96	1	1
05/1985	00	562,710	0	31		1	1
04/1985	00	545,920	0	30	94	1	1
03/1985	00	510,830	0	29	103	1	1
02/1985	00	493,590	0	28	130	1	1
01/1985	00	557,960	0	31	124	1	1
Total 1985		6,641,404	0	362			
12/1984	00	558,960	0	31	135	1	1
11/1984	00	497,720	0	30	125	1	1
10/1984	00	504,160	0	31	136	1	1
09/1984	00	500,160	0	30	101	1	1
08/1984	00	480,190	0	31	117	1	1
07/1984	00	442,600	0	31	108	1	1
06/1984	00	456,730	0	30	100	1	1
05/1984	00	493,030	0	31	158	1	1
04/1984	00	508,580	0	30	150	1	1
03/1984	00	513,580	0	31	175	1	1
02/1984	00	431,100	0	29	170	1	1
01/1984	00	403,100	0	30	150	1	1
Total 1984		5,789,910	0	365			
12/1983	00	415,380	0	31	105	1	1
11/1983	00	386,220	0	30	103	1	1
10/1983	00	190,526	0	31	110	1	1
09/1983	00	180,315	0	30	125	1	1
08/1983	00	172,721	0	31	137	1	1
07/1983	00	181,161	0	31	145	1	1
06/1983	00	164,901	0	30	135	1	1
05/1983	00	441,805	0	31	150	1	1
04/1983	00	415,353	0	30	140	1	1
03/1983	00	393,252	0	31	145	1	1
02/1983	00	374,788	0	28	125	1	1
01/1983	00	410,300	0	31	105	1	1
Total 1983		3,726,722	0	365			
12/1982	00	379,900	0	31	90	1	1
11/1982	00	132,800	0	30	80	1	1
10/1982	00	226,840	0	31	80	1	1
09/1982	00	127,888	0	30	55	1	1
08/1982	00	219,256	0	31	110	1	1
07/1982	00	194,158	0	31	90	1	1
06/1982	00	177,347	0	30	80	1	1
05/1982	00	154,150	0	31	70	1	1
04/1982	00	273,234	0	30	110	1	1
03/1982	00	284,770	0	31	130	1	1
02/1982	00	261,497	0	28	150	1	1
01/1982	00	320,091	0	31	130	1	1
Total 1982		2,751,931	0	365			
12/1981	00	257,999	0	31	95	1	1
11/1981	00	194,099	0	30	80	1	1
10/1981	06	341,299	0	28	60	1	1
09/1981	00	347,088	0	30	50	1	1
08/1981	00	382,152	0	31	55	1	1
07/1981	00	362,944	0	31	60	1	1
06/1981	00	364,165	0	30	50	1	1
05/1981	00	409,123	0	31	49	1	1
04/1981	00	381,267	0	30	40	1	1
03/1981	00	386,463	0	31	45	1	1
02/1981	00	365,660	0	28	35	1	1

Date	Stat	Water/Steam	Gas/Air	Days	Pressure	Water Source	WaterKind
01/1981	00	380,339	0	31	60	1	1
Total 1981		4,172,598	0	362			
12/1980	00	390,442	0	31	30	1	1
11/1980	00	325,606	0	30	40	1	1
10/1980	00	354,121	0	31	34	1	1
09/1980	00	323,118	0	30	40	1	1
08/1980	00	333,887	0	31	34	1	1
07/1980	00	356,460	0	31	44	1	1
06/1980	00	301,421	0	30	40	1	1
05/1980	00	321,105	0	31	20	1	1
04/1980	00	271,517	0	30	50	1	1
03/1980	00	230,592	0	31	42	1	1
02/1980	00	203,787	0	29	36	1	1
01/1980	00	207,232	0	31	28	1	1
Total 1980		3,619,288	0	366			
12/1979	00	181,455	0	31	32	1	1
11/1979	00	180,617	0	30	42	1	1
10/1979	00	200,426	0	31	40	1	1
09/1979	00	207,870	0	30	85	1	1
08/1979	00	209,435	0	31	54	1	1
07/1979	00	180,741	0	31	16	1	1
06/1979	00	167,999	0	30	20	1	1
05/1979	00	158,440	0	31	20	1	1
04/1979	00	136,969	0	30	35	1	1
03/1979	00	175,893	0	31	75	1	1
02/1979	00	188,180	0	28	48	1	1
01/1979	00	217,682	0	31	85	1	1
Total 1979		2,205,707	0	365			
12/1978	00	257,646	0	31	30	1	1
11/1978	00	256,049	0	30	18	1	1
10/1978	00	247,726	0	31	24	1	1
09/1978	00	217,574	0	30	20	1	1
08/1978	00	253,889	0	31	0	0	0
06/1978	00	216,744	0	30	0	1	1
05/1978	00	221,033	0	31	0	1	1
04/1978	00	225,496	0	30	12	1	1
03/1978	00	237,471	0	31	5	1	1
02/1978	00	242,813	0	28	12	1	1
01/1978	00	269,040	0	31	0	1	1
Total 1978		2,645,481	0	334			
12/1977	06	211,589	0	26	18	1	1
11/1977	00	262,918	0	30	20	1	1
10/1977	00	241,010	0	31	15	1	1
09/1977	06	0	0	0	15	0	0
08/1977	00	250,765	0	29	0	1	1
07/1977	00	251,936	0	31	0	1	1
05/1977	00	218,830	0	31	0	1	1
Total 1977		1,437,048	0	178			

EXHIBIT 8

NATURAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF CONSERVATION

Managing California's Working Lands

Division of Oil, Gas, & Geothermal Resources

4800 Stockdale Highway • Suite 417 • BAKERSFIELD, CALIFORNIA 93309

PHONE 661 / 322-4031 • FAX 661 / 861-0279 • WEBSITE conservation.ca.gov/DOG

September 29, 2010

Macpherson Oil Company (M0950)
Mr. Joseph Butler
P.O. Box 5368
Bakersfield, CA 93388

PROJECT REVIEW - SUSPENSION
Project Code(s):48818029

Dear Mr. Butler:

During the annual injection project review of your above referenced project, it was noted that this project has been idle and that you have no short term plans for re-activation.

Therefore, effective today, this project has been suspended and approval to inject is hereby rescinded. In order to resume injection, a written request must be submitted to this office. It may also be necessary to furnish this Division with a current fluid stream analysis at that time.

If you have any questions, please call Bill Penderel at (661) 334-3659.

Sincerely,

Randy Adams
Deputy Supervisor

CERTIFIED MAIL # 7009 2820 0001 6379 5966

uic\wp\projsusp

Mt Poso
Oil Case Zone

EXHIBIT 9

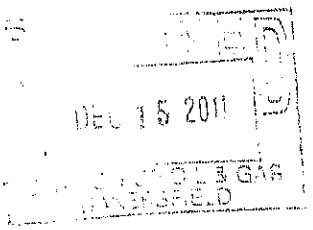
EXHIBIT 9

REPORT OF PROPERTY/WELL TRANSFER OR ACQUISITION

(To be completed by old and new operators)

Please complete and return this form to:

Division of Oil, Gas, and Geothermal Resources
2800 Cottage Way
Sacramento, CA 95825



November 30, 2010
(date)

Effective date of transfer / acquisition November 1, 2010 *(date)*, date of possession _____ *(if different)*,

Macpherson Oil Company *(old operator)*, transferred

the following wells to Macpherson Operating Company L.P. *(new operator)*

NOTE: Pursuant to Section 3202 of the Public Resources Code, before wells will be transferred, the new operator must provide proper bond coverage and well information for all transferred active, idle, and/or plugged and abandoned wells.

Well Designation	Field or County	Sec. T. R.	API Number
See Attached Sheet			

(If additional space is needed, use separate sheets.)

Legal description of the land where the well(s) is (are) located: Sect. 19 E/2 NE/4 NE/4 & NE/4 SE/4 NE/4; Sect. 18 SE/4; Sect. 20 SW/4 & SW/4 NW/4; Sect. 18 W/2 NE/4 Lots 1 of NW/4 & Lots 1 of SW/4; Sect. 20 NW/4 NW/4; and Sect. 17 SW/4 SW/4

OLD OPERATOR

Macpherson Oil Company
(operator name)
2716 Ocean Park Blvd., Suite 3080
(address)
Santa Monica, CA 90405
Phone (310) 452-3880
By _____ *(signature)* *(date)*
Donald R. Macpherson, President & CEO
(printed name) *(title)*

NEW OPERATOR

Macpherson Operating Company L.P.
(operator name)
2716 Ocean Park Blvd., Suite 3080
(address)
Santa Monica, CA 90405
Phone (310) 452-3880
By Macpherson Operating Company LLC, General Partner
(signature) *(date)*
Donald R. Macpherson, President and CEO
(printed name) *(title)*

Note: By signing this form, both the old operator and the new operator certify that the new operator owns the mineral interest, holds a valid and effective lease, or holds a valid and effective operating contract, giving the new operator the right to operate the well or wells being transferred.

Mt. Poso Unit - West Area

Lease	Well #	API	Status	Section	Township	Range
Union 18	1	029-14055	Plugged	18	27S	28E
Union 18	2	029-14056	Plugged	18	27S	28E
Union 18	3	029-14057	Plugged	18	27S	28E
Union 18	4	029-85330	Idle	18	27S	28E
Union 18	5	029-85331	Active	18	27S	28E
Union 18	WS 1	029-89773	Active	18	27S	28E
Union 18	WS 2	030-02050	Active	18	27S	28E
Glide-19	1	029-14058	Plugged	19	27S	28E
Glide-19	2	029-14059	Plugged	19	27S	28E
Glide-19	3	029-14060	Idle	19	27S	28E
Glide-19-B	1	029-14061	Plugged	19	27S	28E
Ring 20	1	029-14062	Plugged	20	27S	28E
Ring 20	2	029-14063	Plugged	20	27S	28E
Ring 20	3	029-14064	Active	20	27S	28E
Ring 20	3A	029-66994	Idle	20	27S	28E
Ring 20	4A	029-14066	Plugged	20	27S	28E
Ring 20	5	029-14067	Plugged	20	27S	28E
Ring 20	6	029-14068	Plugged	20	27S	28E
Ring 20	8	029-14070	Plugged	20	27S	28E
Ring 20	9	029-14071	Active	20	27S	28E
Ring 20	10	029-14072	Idle	20	27S	28E
Ring 20	11	029-14073	Idle	20	27S	28E
Ring 20	12	029-14074	Plugged	20	27S	28E
Ring 20	13	029-14075	Plugged	20	27S	28E
Ring 20	14	029-14076	Active	20	27S	28E
Ring 20	16	029-14078	Plugged	20	27S	28E
Ring 20	17	029-66995	Idle	20	27S	28E
Vedder-USL	1	029-14079	Active	20	27S	28E
Vedder-USL	2	029-14080	Active	20	27S	28E
Vedder-USL	3	029-14081	Plugged	20	27S	28E
Vedder-USL	4	029-14082	Active	20	27S	28E

Zeke Jones

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county Mount Poso		District 04
Former owner Macpherson Oil Company	Operator code M0950	Date 01/10/2013

Name and location of well(s)
See attached list.

Description of the land upon which the well(s) is (are) located Sec.18,19&20-27S/28E / Retain Spot Locs: None.

Date of transfer, sale, assignment, conveyance, or exchange 11/01/2010	New owner Macpherson Operating Co. L.P.	Operator code (M0955)	Type of organization Limited Partnership
	Address 2716 Ocean Park Blvd. Ste. 3080 Santa Monica, CA 90405		Telephone No. 949-242-3636

Reported by
Macpherson Oil Company (M0950)

Confirmed by
Macpherson Operating Co. L.P. (M0955)

New operator new status (status abbreviation) PA	Request designation of agent
Old operator new status (status abbreviation) PA	Remarks The DOGGR requirements for this transfer have been met. However, your right to enter and operate the wells/property is not complete until you receive final approval of transfer from the Bureau of Land Management.

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor Burton R. Ellison	Signature Burton R. Ellison 1-10-13

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs			Computer Files		
Production reports					

OGD186 (5/98)

Mt. Poso Unit - West Area

Lease	Well #	API	Status	Section	Township	Range
Tribe B	1	029-12646	Plugged	28	27S	28E
Tribe B	2	029-12642	Plugged	28	27S	28E
Ring 18	1	029-14039	Plugged	18	27S	28E
Ring 18	2	029-14040	Plugged	18	27S	28E
Ring 18	3	029-14041	Plugged	18	27S	28E
Ring 18	4	029-14042	Plugged	18	27S	28E
Ring 18	5	029-14043	Plugged	18	27S	28E
Ring 18	6	029-14044	Plugged	18	27S	28E
Ring 18	7	029-14045	Plugged	18	27S	28E
Ring 18	8A	029-14047	Plugged	18	27S	28E
Ring 18	9	029-14048	Active	18	27S	28E
Ring 18	10	029-14049	Plugged	18	27S	28E
Ring 18	11	029-14050	Plugged	18	27S	28E
Ring 18	12	029-14051	Active	18	27S	28E
Ring 18	13	029-14052	Plugged	18	27S	28E
Ring 18	14	029-14053	Plugged	18	27S	28E
Ring 18	15	029-14054	Active	18	27S	28E
Ring 18	16	029-66534	Plugged	18	27S	28E
Ring 18	17	029-66856	Plugged	18	27S	28E
Ring 18	18	029-66857	Idle	18	27S	28E
Ring 18	19	029-67011	Plugged	18	27S	28E
Ring 18	20	029-87403	Active	18	27S	28E
Ring 18	21	029-87404	Active	18	27S	28E
Ring 18	22	029-89560	Idle	18	27S	28E
Ring 18	25	030-00784	Active	18	27S	28E
Ring 18	101	029-83694	Active	18	27S	28E
Ring 18	102	029-83695	Plugged	18	27S	28E
Ring 18	103	029-89562	Idle	18	27S	28E

Ring 18 WD-1 029-67125 → OK per e-mail dated 12/17/12 18 27S 28E

Per Susan

Bak office 393-3204
Zeke X 111

Zeke Jones

EXHIBIT 10

Steven R. Bohlen, State Oil and Gas Supervisor
Department Of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street
Sacramento, CA 95814-3500
Telephone (916) 323-6733
Facsimile (916) 445-9916

STATE OF CALIFORNIA

NATURAL RESOURCES AGENCY

DEPARTMENT OF CONSERVATION

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

EMERGENCY ORDER TO IMMEDIATELY CEASE INJECTION OPERATIONS

NO. 1056

Dated: Wednesday, July 2, 2014

Operators: Macpherson Operating Company, L.P.

Well: 02914064

BY

Steven R. Bohlen

STATE OIL AND GAS SUPERVISOR

INTRODUCTION

1. The Division of Oil, Gas, and Geothermal Resources (Division) has determined that an emergency exists in connection with underground injection operations for the well operated by Macpherson Operating Company, L.P., identified as API no(s). 02914064 (hereinafter "the well subject to this order"). Injection into this well, if any is still occurring, poses danger to life, health, property, and natural resources. Therefore, under the authority of Public Resources Code sections 3106, 3222, 3224, 3225, 3226, and 3235, and California Code of Regulations, title 14, sections 1724.6, 1724.7, 1724.10, the State Oil and Gas Supervisor (Supervisor) is ordering that any injection into the well subject to this order, if any is still occurring, immediately cease as specified below. The Division is working cooperatively with the Central Valley Regional Water Quality Control Board, (which is contemporaneously issuing its own order pursuant to California Water Code section 13267), and the State Water Resources Control Board to obtain information for use in evaluating, preserving and protecting underground water suitable for irrigation or domestic purposes.

2. This order constitutes written notice from the Division to immediately stop any and all injection in the well subject to this order, pursuant to California Code of Regulations, title 14, section 1724.10, subdivision (h).

STATUTORY and RELATED AUTHORITY

3. Pursuant to Public Resources Code section 3106, the Supervisor shall supervise the operation of wells in this State so as to prevent, as far as possible, damage to life, health, property, and natural resources, and to prevent damage to underground waters suitable for irrigation and domestic purposes by the infiltration of, or the addition of, detrimental substances.

4. Pursuant to Public Resources Code sections 3222, 3224, 3225, 3226, 3235, and other authorities, the Supervisor has a duty to, and may take action to, prevent the infiltration of detrimental substances into underground water potentially suitable for irrigation or domestic purposes. Pursuant to these statutes and authorities, the Supervisor may order tests to be performed, remedial action(s) to be taken, and the preparation of reports regarding such tests and/or remedial action(s).

5. Pursuant to Title 14, California Code of Regulations, sections 1724.6, 1724.7, 1724.10, and other authorities, the Division possesses authority to approve and evaluate Underground Injection and Disposal projects, and to require that data be submitted in connection therewith.

6. Pursuant to Title 40, Code of Federal Regulations, section 146.4, and other authorities, only properly designated aquifers may receive injected fluids in connection with underground injection operations.

7. Pursuant to Title 14, California Code of Regulations, section 1724.10, subdivision (h), underground injection operations shall be stopped upon written notice from the Division.

FACTS

8. The well subject to this order is under the permitting authority of the Supervisor and/or Division pursuant to Public Resources Code section 3106, and Title 14, California Code of Regulations section 1724.6.

9. Such permitting authority is also contemplated by the federal Safe Drinking Water Act and its implementing regulations. Effective March 14, 1983, California's Division of Oil, Gas and Geothermal Resources (Division) was granted primacy by the United States Environmental Protection Agency (US EPA) to carry out the terms of an Underground Injection Control Program, pursuant to section 1425 of the Safe Drinking Water Act (codified at 42 U.S.C. § 300f et seq.). (48 Fed. Register 6336, Feb. 11, 1983.)

10. Contemporaneously with the granting of primacy to the Division, and on occasion thereafter, certain underground aquifers within the State were designated as "exempted aquifers." (40 CFR, § 146.3.) This designation qualifies such aquifers as appropriate for the injection of fluids attendant to or produced by oil and gas extraction activities and depends upon, among other things, the presence of sufficient hydrocarbons and sufficient number of parts per million (ppm) of total dissolved solids (TDS) in the receiving aquifer. (40 CFR, section 146.4.)

11. As a result of the granting of primacy, the Division, pursuant to Title 14, California Code of Regulations sections 1724.6, 1724.7, and 1724.10, must approve any subsurface injection or disposal activities based on pertinent and necessary data submitted to the Division.

12. The Division has become aware that certain underground injection activities are occurring, or may have been permitted to occur, into non-exempted aquifers.

13. Based on information and belief, the Division has determined that the well subject to this order is or may be injecting into one or more non-exempt aquifers which:

(a) May contain underground water suitable for irrigation or domestic purposes;

(b) May contain water with less than 3,000 ppm total dissolved solids;

(c) May have been specifically denied exempted aquifer status by the US EPA in connection with the Division's application for primacy;

(d) May not have been hydrocarbon-bearing at the time injection commenced; and

(e) May be potential underground sources of drinking water.

14. In order to prevent the infiltration of detrimental substances into underground water suitable for irrigation or domestic purposes, the Supervisor relies on the above-referenced legal authorities and factual allegations, and makes the orders set forth below.

ORDERS

15. Based on the facts, circumstances, and authorities described herein, on information and belief, and pursuant to the Supervisor's duties set forth in Public Resources Codes section 3106, pursuant to Public Resources Code section 3222, 3224, 3225, 3226, and 3235 the Supervisor has determined that an emergency exists and that immediate action(s) are necessary to protect life, health, property, and natural resources, specifically, the further degradation of the affected aquifers, and orders as follows:

I. Cease and Desist Injection Operations

16. The operator subject to this order will cease any and all injection operations still occurring into the well subject to this order on or before 12:00 Noon on Monday, July 7, 2014 unless the operator subject to this order provides the Division with documentary evidence generated by the United States Environmental Protection Agency, satisfactory to the Supervisor, specifically establishing that the aquifer(s) affected by the well subject to this order are "exempted aquifers" as defined in Title 40, Code of Federal Regulations, sections 146.3, consistent with Title 40, Code of Federal Regulations section

144.1, subdivisions (e)-(g), and the Safe Drinking Water Act. In the event the operator subject to this order makes such a submission of evidence, the operator will nevertheless cease any and all injection operations into the wells subject to this order on or before 12:00 Noon on Monday, July 7, 2014unless the Supervisor notifies the operator in writing (1) that the documentary evidence provided is sufficient to establish that the aquifer receiving injection is an exempted aquifer under the authorities stated above, and (2) that resumption of injection is approved on that basis.

II. Alternative Disposal or Injection

17. In the event that production activities relying on the use of any well subject to this order are continued using an alternative method of disposal of fluid, or an alternative location of underground injection, such alternative disposal or injection method or location shall be utilized only pursuant to, as applicable, (a) any applicable waste discharge requirements or NPDES permit issued by the Central Valley Regional Water Quality Control Board; (b) an existing permit for Underground Injection into an "exempted aquifer" consistent with Title 40, Code of Federal Regulations, section 146.3, updated to reflect the addition of the new injectate as required by Title 14 of the California Code of Regulations, section 1724.10, subdivision (d); or (c) other means carried out in full compliance with any required laws or regulations.

III. Written Approval Required

18. Injection operations shall not resume into the well subject to this order except on the express written approval of the Supervisor.

IV. Provide Information

19. The operator subject to this order will provide the following information to the State Oil and Gas Supervisor, in compliance with the truthful and accurate reporting requirement of Public Resources Code section 3236, **within 30 days of the date of this order:**

(a) For each well subject to this order, any and all information compiled or maintained, whether or not previously submitted to the Division, in compliance with Title 14,

California Code of Regulations, section 1724.7. The information submitted in response to this aspect of this order shall include, but not be limited to, the categories of information listed in Exhibit A attached hereto;

(b) For each well subject to this order, the total volume of injected fluid for each month of operation, for all years of operation, any periodic chemical analyses of the fluid(s) being injected, and any amendments to the original project approval, as provided by Division reporting requirements;

(c) For each well subject to this order, a technical report with an analysis of a representative sample of the fluid being injected, in accordance with the water quality analysis and reporting requirements contained in Exhibit B to this order;

(d) For each well subject to this order, any and all data maintained in compliance with Title 14, California Code of Regulations, section 1724.10, subd. (h);

(e) For each well subject to this order, the dates of, and documentation associated with, each mechanical integrity test undertaken to comply with Title 14, California Code of Regulations, section 1724.10, subd. (j);

(f) For each well subject to this order, please also send copies of all of the data required in items (a) through (e) above to

Central Valley Water Board
Attn. Dane Johnson
1685 E Street
Fresno, CA 93706

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Operator's Appeal Rights

20. This order may be appealed by filing a written statement with the State Oil and Gas Supervisor or district deputy that the order is not acceptable within ten (10) days of service of the order. **This is an emergency order issued pursuant to Public Resources Code section 3226 and therefore, pursuant to Public Resources Code section 3350, subdivision (b), the filing of an appeal of this emergency order shall not operate as a stay of the order.**

DATE JUL 01 2014

By _____
Steven R. Bohlen
State Oil and Gas Supervisor

Exhibit A

Paragraph 19(a) of this order requires submission of the categories of information listed below. Specifically, your submission will include the following in spreadsheet form, labeled with the capital letters indicated, with attachments containing the backup documentation indicated in items Q through S, inclusive:

A. The name of the owner and/or operator of the injection well;
B. American Petroleum Institute (API) number for the injection well;
C. Injection well name and number;
D. Name of the field in which the well is located;
E. County in which the well is located;
F. Latitude and Longitude (decimal degrees) of well head location;
G. Latitude and Longitude Datum, indicate "1" for North American Datum of 1983 or "2" for North American Datum of 1927;
H. Injection well total depth (feet);
I. Top injection depth (feet);
J. Formation/Zone name at top injection depth;
K. Bottom injection depth (feet);
L. Formation/Zone name at bottom injection depth;
M. Date injection started in the well (Day/Month/Year, xx/xx/xxxx);
N. Identify and describe all sources of fluid injected into the well;
O. Injection volume in barrels for the period from 1 June 2013 through 31 May 2014;
P. Total injection volume in barrels from the date injection in the well began through 31 May 2014;
Q. Attach well construction diagram including all perforations, annular material, and seals;
R. Attach copies of all available water quality lab analyses and/or reports of the injected fluids;
S. Attach a calculation of the average water quality of injected fluid from the date injection began through 31 May 2014;

Exhibit B

Paragraph 19(c) of this order requires a technical report with an analysis of a representative sample of the fluid being injected into the well subject to this order. Such sampling and reporting will reflect the following:

Sampling

Injection fluid samples shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program, using current applicable EPA-approved analytical methods for water for the following:

A. Total dissolved solids
B. Metals listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A)
C. Benzene, toluene, ethylbenzene, and xylenes
D. Total petroleum hydrocarbons for crude oil
E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene)
F. Radionuclides listed under California Code of Regulations, title 22, Table 64442
G. Methane
H. Major and minor cations (including sodium, potassium, magnesium, and calcium)
I. Major and minor anions (including nitrate, chloride, sulfate, alkalinity, and bromide)
J. Trace elements (including lithium, strontium, boron, iron, and manganese)

Water Quality Reporting

Water quality information shall be submitted in a technical report that includes, at a minimum:

A. Site plan with location(s) of representative sample(s).
B. Description of field sampling procedures.
C. Table(s) of analytical results organized by well number (including API number).
D. Copies of analytical laboratory reports, including quality assurance/quality control procedures and analytical test methods.
E. Waste management and disposal procedures.

EXHIBIT 11

EXHIBIT 11

MACPHERSON OPERATING COMPANY, L.P.

July 31, 2014

Central Valley Regional Water Quality Control Board
165 E Street
Fresno, CA 93706

Attention: Dane S. Johnson

Ladies and Gentlemen:

Enclosed please find information being submitted by Macpherson Operating Company in response to Order Pursuant To California Water Code Section 13276 dated July 2, 2014 issued to Macpherson Operating Company ("Macpherson") by the Central Valley Regional Water Quality Control Board ("RWQCB"). Please be advised that Macpherson is concurrently filing an appeal of this Order with the State Water Resources Control Board. Accordingly, Macpherson is providing this information to the RWQCB without prejudice to or waiver of any of Macpherson's rights or remedies.

Sincerely,

On Behalf Of
Macpherson Operating Company, L.P.

Enclosure
cc: Stephen R. Bohlen, State Oil and Gas Supervisor
Department of Conservation, DOGGR
801 K Street
Sacramento, CA 95814-3500

MACPHERSON OPERATING COMPANY, L.P.

July 31, 2014

Central Valley Regional Water Quality Control Board
165 E Street
Fresno, CA 93706

Attention: Dane S. Johnson

Ladies and Gentlemen:

Enclosed please find information being submitted by Macpherson Operating Company in response to Order Pursuant To California Water Code Section 13276 dated July 2, 2014 issued to Macpherson Operating Company ("Macpherson") by the Central Valley Regional Water Quality Control Board ("RWQCB"). Please be advised that Macpherson is concurrently filing an appeal of this Order with the State Water Resources Control Board. Accordingly, Macpherson is providing this information to the RWQCB without prejudice to or waiver of any of Macpherson's rights or remedies.

Sincerely,

On Behalf Of
Macpherson Operating Company, L.P.

Enclosure

cc: Stephen R. Bohlen, State Oil and Gas Supervisor
Department of Conservation, DOGGR
801 K Street
Sacramento, CA 95814-3500

EnviroTech
Consultants, Inc.

5400 Rosedale Highway
Bakersfield, CA 93308

MACPHERSON OPERATING COMPANY

RESPONSE TO CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

ORDER PURSUANT TO CALIFORNIA WATER CODE SECTION 13267
Issued on July 2, 2014

API 029-14064, RING 20-3

MT. POSO OIL FIELD
Section 20, T27S, R28E, MDB&M

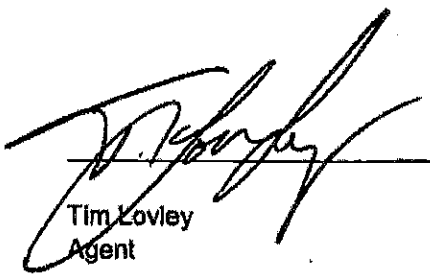
Kern County, California

August 1, 2014

Prepared by:

EnviroTech Consultants, Inc.
5400 Rosedale Avenue
Bakersfield, CA 93308

I, Tim Lovley, an authorized representative of Macpherson Operating Company, L.P., certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Tim Lovley
Agent

7.30.14

Date

EXECUTIVE SUMMARY

The following information is provided to the State of California, California Water Boards, Central Valley Regional Water Quality Control Board (RWQCB) by Macpherson Operating Company following Order Pursuant to California Water Code Section 13267 issued to Macpherson Operating Company on July 2, 2014 to provide the information listed in the Order and in the attachment to the Order. The RWQCB Order was complimented by an Order from the Department of Oil, Gas, and Geothermal Resources (DOGGR), a copy of this response is being provided to the DOGGR.

Table of Contents

ATTACHMENTS

ATTACHMENT A	Copy of July 2, 2014 Order Pursuant to California Water Code Section 13267
ATTACHMENT B	Copy of the Request for a Time Extension for Water Quality Analysis and Reporting (Order Item 1)
ATTACHMENT C	Copies of all available previously-obtained chemical analysis within one mile (Order Item 2)
ATTACHMENT D	Map of all water supply wells within one mile of each injection well subject to this order (Order Item 3A)
ATTACHMENT E	Copy of 24 hour notification to RWQCB of wells with confidential classification (Order Item 3B)

ON DISK

One PDF copy of the data included in this binder

1.0 Introduction

This report provides the information requested in Order Pursuant to California Water Code Section 13267 issued to Macpherson Operating Company (Macpherson) by the Central Valley Regional Water Quality Control Board (RWQCB). Copies of the requested spreadsheets, attachments and text are also provided electronically on a disk in the back of this report. A copy of the Order is included at the back of this report (Attachment A).

2.0 Water Quality Analysis and Reporting (Order Item 1)

An extension to the required water quality analysis and reporting was filed with the RWQCB on July 17, 2014 as the radionuclide testing could not be processed by the lab within the required time frame. A copy of the extension is included at the back of this report (Attachment B).

Water samples were collected on July 24, 2014 and the final report will be submitted no later than one week following receipt of the laboratory analytical report.

3.0 Previously-Obtained Chemical Analysis (Order Item 2)

Attachment C contains information on previously-obtained analytical data for fluid samples collected from any injection zones within one mile of each of the injection wells subject to this order.

4.0 Order Items 3A and 3B – Water Supply Wells

During our search for surrounding water supply wells, none were found within a one mile radius of the injection well subject to this order.

- Attachment D contains a map showing that there are no water supply wells within one mile of the injection well subject to this order.

Due to confidentiality classification on many of the surrounding wells, minimal information was available for each identified water supply well within one mile of the injection wells subject to this order. The RWQCB was notified within 24 hours upon determination and a copy of the notification is included in Attachment E.

EnviroTech was able to view water well records at the Kern County Water Agency, and received records from Kern County Environmental Health. We were able to identify the following:

- Location (Section, Township, Range)
- Well Identification Number
- Owner
- Owner address
- Year of drilling application (from Kern County Water Agency Files)
- Type of well
- Descriptive location

- Data Source

Well completion interval and water analytical data are confidential.

ATTACHMENT A

Copy of July 2, 2014 Order Pursuant to California Water Code Section 13267

July 2, 2014

PERSONAL SERVICE AND CERTIFIED MAIL
7013 2250 0002 0464 4000

Scott Macpherson, Agent
Macpherson Operating Company, L.P.
2716 Ocean Park Boulevard, #3080
Santa Monica, CA 90405

ORDER PURSUANT TO CALIFORNIA WATER CODE SECTION 13267. You are legally obligated to respond to this Order. Read this Order carefully.

Macpherson Operating Company, L.P., is the operator of the injection well identified as API number 02914064 (hereinafter "injection well subject to this Order"). The California Division of Oil, Gas, and Geothermal Resources (Division) has determined that the injection well subject to this Order have been injecting fluids produced by oil or gas extraction activities into aquifers that may not have been properly designated as exempt aquifers under the federal Safe Drinking Water Act (42 U.S.C. § 300f et seq.). These aquifers may be suitable for drinking water supply and other beneficial uses. The Division is issuing an Emergency Order to Immediately Cease Injection Operations (Emergency Order) to Macpherson Operating Company, L.P., for the injection well subject to this Order concurrently with the issuance of this Order by the Central Valley Regional Water Quality Control Board (Central Valley Water Board).

This Order is intended to complement the Division's Emergency Order. As described further below, this Order requires Macpherson Operating Company, L.P., to submit information about the quality of groundwater within the zone(s) where fluids have been injected using the injection well subject to this Order. In addition, this Order requires Macpherson Operating Company, L.P., to submit the location and contact information for all water supply wells within one (1) mile of each of the injection well subject to this Order. The Division's Emergency Order requires Macpherson Operating Company, L.P., to submit other information that is also needed to assess the threat to groundwater quality posed by the operation of the injection well subject to this Order. The Division's Emergency Order requires Macpherson Operating Company, L.P., to submit that information to the Division and to the Central Valley Water Board. This Order is not intended to require Macpherson Operating Company, L.P., to submit any information that the Division's Emergency Order also requires Macpherson Operating Company, L.P., to submit.

The Central Valley Water Board's authority to require technical reports derives from Section 13267 of the California Water Code, which specifies, in part, that:

> *(a) A regional board ... in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within its region.*

(b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region... that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The Central Valley Water Board is concerned about the potential threat to human health and potential impacts to water quality posed by the discharge of waste associated with the injection of fluids into aquifers that were not properly designated as exempt aquifers under the federal Safe Drinking Water Act and that may be suitable for drinking water supply and other beneficial uses. The technical information and reports required by this Order are necessary to assess the potential threat to human health and potential impacts to water quality. The need to understand the potential threat to human health and potential impacts to water quality justifies the need for the information and reports required by this Order. Based on the nature and possible consequences of the discharges of waste, the burden of providing the required information, including reporting costs, bears a reasonable relationship to the need for the report, and the benefits to be obtained. Macpherson Operating Company, L.P., is required to submit this information and reports because it is the operator of the injection well subject to this Order.

Under the authority of California Water Code section 13267, the Central Valley Water Board hereby orders Macpherson Operating Company, L.P., to:

1. **By 11 July 2014**, submit a work plan that adequately describes the procedures to collect a representative groundwater sample from the injection zone(s) for the injection well subject to this Order. **By 1 August 2014**, submit a technical report with the analyses of each of the groundwater samples, in accordance with the water quality analysis and reporting requirements contained in Attachment A to this Order.

   Note: If a representative sample cannot feasibly be collected from one or more of the injection zones for the injection well subject to this Order within the required timeframe (e.g., due to constraints posed by the design of the injection well), then **by 18 July 2014**, submit a technical report demonstrating that collection of a representative sample from those injection zones is not feasible within the required timeframe, and proposing an alternative sampling procedure and expeditious time schedule for obtaining a representative sample of groundwater from those injection zones. Alternative sampling procedures and time schedules are subject to approval by the Assistant Executive Officer of the Central Valley Water Board.

2. **By 1 August 2014,** submit all previously-obtained analytical data for fluid samples collected from any injection zones within one (1) mile of the injection well subject to this Order.

3. **By 1 August 2014,** submit a technical report containing the following:

   A. A list and location map of all water supply wells within one mile of the injection well subject to this Order.
   B. All available information for each identified water supply well, including the well owner name and contact information; type of well (i.e., domestic, irrigation, industrial, etc.); status (i.e., active, idle, etc.); well construction; borehole geophysical logs; and all analytical results for any water sample(s) collected from each water supply well. Notify Central Valley Water Board staff within 24 hours upon determination that any water supply well information cannot be obtained from the California Department of Water Resources because it is confidential.

Submissions pursuant to this Order must include the following statement signed by an authorized representative of Macpherson Operating Company, L.P.:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The failure to furnish the required report, or the submission of a substantially incomplete report or false information, is a misdemeanor, and may result in additional enforcement actions, including issuance of an Administrative Civil Liability Complaint pursuant to California Water Code section 13268. Liability may be imposed pursuant to California Water Code section 13268 in an amount not to exceed one thousand dollars ($1,000) for each day in which the violation occurs.

Any person aggrieved by this Order of the Central Valley Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with California Water Code section 13320. The State Water Board must receive the petition by 5:00 p.m., within 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations, and instructions applicable to filing petitions, may be found at http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml, or will be provided upon request.

By **9 July 2014,** you must contact Dane S. Johnson of this office at (559) 445-5525 to discuss your proposed work plan and technical report.

All required technical information must be submitted to the attention of:

Dane S. Johnson
Central Valley Water Board
1685 E Street
Fresno, CA 93706

In addition, all information is to be copied to the Division, to the attention of:

Steven R. Bohlen, State Oil and Gas Supervisor
Department of Conservation, DOGGR
801 K Street
Sacramento, CA 95814-3500

Based on the information submitted in the work plan and/or technical report, additional information or action may be required.

Be advised that sections 13260 and 13264 of the California Water Code require any person who proposes to discharge waste that could affect waters of the state to submit a Report of Waste Discharge for any new discharge or change in the character, volume, or location of an existing discharge. Fluids produced by oil or gas extraction activities that can no longer be disposed of in the injection well subject to this Order cannot be discharged to land or waters of the state prior to the issuance of Waste Discharge Requirements, and cannot be discharged to waters of the United States prior to the issuance of an National Pollutant Discharge Elimination System (NPDES) Permit. Failure to comply with these requirements may constitute a misdemeanor under Water Code section 13265 or a felony under Water Code section 13387, and may also subject Macpherson Operating Company, L.P., to judicial or administrative civil liabilities. It is strongly recommended that you contact Central Valley Water Board staff to discuss any proposed changes to the discharge of the fluids that had previously been disposed of in the injection well subject to this Order.

Any questions regarding this matter should be directed to me at (559) 445-5116 or at Clay.Rodgers@waterboards.ca.gov.

Clay L. Rodgers
Assistant Executive Officer

Enclosure: Attachment A

ATTACHMENT A

Water Quality Analysis

Groundwater samples collected from wells and injection zones shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program, using current applicable EPA-approved analytical methods for water for the following:

A. Total dissolved solids

B. Metals listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A)

C. Benzene, toluene, ethylbenzene, and xylenes

D. Total petroleum hydrocarbons for crude oil

E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene)

F. Radionuclides listed under California Code of Regulations, title 22, Table 64442

G. Methane

H. Major and minor cations (including sodium, potassium, magnesium, and calcium)

I. Major and minor anions (including nitrate, chloride, sulfate, alkalinity, and bromide)

J. Trace elements (including lithium, strontium, boron, iron, and manganese)

Water Quality Reporting

Water quality information shall be submitted in a technical report that includes, at a minimum:

A. Site plan with locations of well(s) sampled.

B. Description of field sampling procedures.

C. Table(s) of analytical results organized by well number (including API number).

D. Copies of analytical laboratory reports, including quality assurance/quality control procedures and analytical test methods.

E. Waste management and disposal procedures.

ATTACHMENT B

Copy of the Request for a Time Extension for Water Quality Analysis and Reporting

Order Item 1

MACPHERSON OIL
COMPANY

July 17, 2014

Clay Rodgers
Assistant Executive Officer
Central Valley Water Board
1685 E Street,
Fresno, CA 93706

Subject: Macpherson Operating Company, L.P., Request for Extension To Requirements in Order Pursuant to California Water Code Section 13267 dated July 2, 2014. API 029—14064, Ring 20-#3.

Mr. Rodgers:

As required by the Central Valley Regional Water Quality Control Board (RWQCB) Order referenced above Macpherson Operating Company (MOC) is submitting this request for an extension to the well testing required by the order issued by RWQCB on July 2, 2014 hereby referred to as the Order. Below is a status of preparation, explanation of this request, and a revised timeline to comply with the Order.

- MOC has prepared the injection well for sampling by placing a half-round containment, having standby replacement tubing placed at the site, and performing some of the required plumbing to perform the sampling required. MOC had a work over rig scheduled to be on the well on July 17, 2014.
- An approved work plan has not been received, the work over rig has been sent to another job. Scheduling the work over rig is subject to multiple variables that cannot be controlled by MOC.
- MOC will provide the RWQCB and Division of Oil and Gas and Geothermal Resources (DOGGR) a schedule to perform the testing required within 2 (two) business days of when an approved work plan has been received by MOC. Please see the attached schedule identifying the number of days required to perform and receive the results of testing.
- In addition, some sample results required in the Order cannot be analyzed within the schedule required within the Order. MOC will ensure the sample results are sent in the most expeditious manner available to the RWQCB and DOGGR when the results are available.

All other requested information will be submitted to the RWQCB and DOGGR as requested in the Order. Macpherson will also inform the RWQCB of any delays or changes to the program listed above and in the Order.

Sincerely,

Tim Lovley

I certify under penalty of the law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

cc: Steven R. Bohlen, State Oil and Gas Supervisor (via email)
J. Ellis-McNaboe, EnviroTech (via email)
File Attachment

POST OFFICE BOX 5368 BAKERSFIELD, CALIFORNIA 93388 TEL.661.393.3204 FAX.661.393.8068

TASK	Scheduled Days	DATE
1. MIRU workover rig and clean half round surface tank for swabbing displacement.	1	
2. POOH with AD1 Packer and 3-1/2" tubing string.	0.5	
3. M/U bailer and RIH and tag fill.	0.5	
4. Clean out fill to +/- 970' and POOH. If unable to bail down to 970', MOC will select a nearby well to be used for formation water sampling.	2	
5. Install displacement line (with 1" valve for sampling) to half round tank.	0.25	
6. RIH with 2-7/8 tubing string and swab tool. Attempt to swab out 18 plus bbl's of fluid (three well volumes) and displace into half round surface tank. If unable to collect targeted volume, contact Mike Cook at MOC for further instructions.	1	
7. Swab an additional barrel of fluid (4 sample gallons to be extracted from sampling valve). Sample to be provided to laboratory representative.	0.1	
LABORATORY ANALYSIS		
Transport Groundwater sample to Certified Laboratory. If the sample arrives at the lab on a Friday the analytical work will begin the following Monday.	1	
Analysis, 25 calendar days	25	
Report/Table preparation	2	
Overnight delivery to the RWQCB and DOGGR	1	
TOAL # of DAYS: 35	34.35(35)	

As stated in the MOC submitted work plan:

- If during bailing the fluid level drops to the total depth of the well, the RWQCB will be notified. The well will be left standing for 12 hours and the fluid level will be checked at the end of the 12 hour period. A discussion with the RWQCB and if appropriate DOGGR to determine next actions.
- If the well does not bail dry, following removal of three well volumes of fluid the water samples will be decanted from the bailer to labeled laboratory sampling containers.
- The samples will be placed in a cold ice chest and transported to the laboratory under chain of custody procedures.

ATTACHMENT C

Copies of All Available Previously-Obtained Chemical Analysis within One Mile

Order Item 2

December 10, 1974

Mr. Don Russell
United States Geological Survey
Federal Building, Room 309
800 Truxtun Avenue
Bakersfield, California 93301

Dear Mr. Russell:

Enclosed is a summary of the laboratory analysis of water samples from the Olcese formation from well no. "Ring 20" 3, Section 20, T.27S., R.28E., M.D.B.& M. Also included in this report is the analysis of a combined sample of the injection water.

Thank you for your cooperation in the conversion of this well to a waste water injector.

Yours truly,

William H. Park

WHP/jk

Enclosure

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

BC LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Attention: Mr. Frank Mendary

Date Reported: 13/6/74
Laboratory No.: 11316, 11317, 11352, 11353, 11364, 11375, 11376, 11396, 11397, 11436, 11438

Combined Water including Sec. #10	3.4	200	1,693.6

WATER ANALYSES

Sample Description	Boron	E. C. (Kx10^5)	Salinity as NaCl
Ring 20 #3 Oleese	0.27	55	496.4
Ring 20 #3			
Casing fluid prior to shooting	2.0	280	1,635.2
Ring 20 #3 Sample #1	1.10	139	811.8
Ring 20 #3 Sample #2	1.3	148	864.3
Ring 20 #3 Oleese 11/29/74	1.2	160	934.4
Ring 20 #3 3:45 PM 755'			
#4 11/29/74	1.9	190	1,109.6
Ring 20 #3 4:00 PM 760'			
#5 11/29/74	1.7	190	1,109.6
Ring 20 #3 Sample #6	1.6	196	1,132
Ring 20 #3 Sample #7	2.1	200	1,191
Well 20 #3 1000 Feet	3.8	300	1,752

B C LABORATORIES, INC.

BY J. J. Eglin

MW

BC
LABORATORIES Inc.
OIL · CORES · SOIL · WATER
3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Attention: Mr. Mendary

Date Reported: 12/6/74
Date Received: 12/3/74
Laboratory No.: 11435

Marked: Well 20 @ 3 1000 Base

pad 20

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity		8.0
E.C. x 10^5 @ 25°C (salinity)		300
Electrical Resistivity Ohms M^2/M		

Constituents, P. P. M. (parts per million)

Boron, (B)		3.8
Calcium, (Ca)		26
Magnesium, (Mg)		3.2
Sodium, (Na)		615
Potassium, (K)		21
Carbonates, (CO_3)		0
Bicarbonates, (HCO_3)		681.5
Chlorides, (Cl)		640.7
Sulphates, (SO_4)	less than	5
Nitrate, (NO_3)	less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		5.8
Copper, (Cu)	less than	0.01
Manganese, (Mn)		0.17
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		50
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		70.30 (4.6 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		1,634
Total Suspended Solids		1,752

Salinity as NaCl

B C LABORATORIES Inc.

By J. J. Eglin

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

BC LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 12/3/74
Date Received: 12/2/74
Laboratory No.: 11396-11397

WATER ANALYSES

Sample Description:

#1 - Ring 20 #3 Sample #6
#2 - Ring 20 #3 Sample #7

Constituents	#1		#2	
Salinity as NaCl	1144.6	PPM	1168.0	PPM
Electrical Conductivity	196	$Kx10^5$	200	$Kx10^5$
Boron	1.6	PPM	2.1	PPM

B C LABORATORIES, INC.
BY J. J. Eglin
J. J. Eglin

mw

BC
LABORATORIES Inc.
OIL - CORES - SOIL - WATER
3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Olcese

Date Reported: 12/2/74
Date Received: 11/26/74
Laboratory No.: 11316

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity	7.8
E.C. x 10^5 @ 25°C (salinity)	85.
Electrical Resistivity Ohms M^2/M	11.76

Constituents, P. P. M. (parts per million)

Boron, (B)		0.27
Calcium, (Ca)		47.
Magnesium, (Mg)		17.3
Sodium, (Na)		93.
Potassium, (K)		66.
Carbonates, (CO_3)		0
Bicarbonates, (HCO_3)		183.
Chlorides, (Cl)		74.7
Sulphates, (SO_4)		210.
Nitrate, (NO_3)	less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		1.03
Copper, (Cu)	less than	0.01
Manganese, (Mn)		0.06
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		79.
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		189.6 (11.1 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		600.
Total Suspended Solids		
Salinity as NaCl		496.4

BC LABORATORIES Inc.

By J. J. Eglin

BC
LABORATORIES Inc.
OIL - CORES - SOIL - WATER
3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Casing Fluid Prior to Shooting

Date Reported: 12/2/74
Date Received: 11/26/74
Laboratory No.: 11317

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity	10.7
E.C. x 10^6 @ 25°C (salinity)	280.
Electrical Resistivity Ohms M^3/M	3.57

Constituents, P. P. M. (parts per million)

Boron, (B)		2.0
Calcium, (Ca)		5.0
Magnesium, (Mg)	Less than	0.1
Sodium, (Na)		570.
Potassium, (K)		66.
Carbonates, (CO_3)		80.1
Bicarbonates, (HCO_3)		0
Chlorides, (Cl)		648.9
Sulphates, (SO_4)		57.
Nitrate, (NO_3)	Less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		1.16
Copper, (Cu)	Less than	0.01
Manganese, (Mn)	Less than	0.01
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		60.0
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		12.50 (0.7 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		1,564.
Total Suspended Solids		
Salinity as NaCl		1,635.2

BC LABORATORIES Inc.

By J. J. Eglin

BC
LABORATORIES Inc.
OIL · CORES · SOIL · WATER
3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Sample #1

Date Reported: 12/2/74
Date Received: 11/27/74
Laboratory No.: 11352

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity		7.8
E.C. x 10^5 @ 25°C (salinity)		139.
Electrical Resistivity Ohms M^2/M		7.19

Constituents, P. P. M. (parts per million)

Boron, (B)		1.10
Calcium, (Ca)		48.
Magnesium, (Mg)		13.8
Sodium, (Na)		235.
Potassium, (K)		62.
Carbonates, (CO_3)		0.
Bicarbonates, (HCO_3)		292.8
Chlorides, (Cl)		252.
Sulphates, (SO_4)		163.
Nitrate, (NO_3)	less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		2.68
Copper, (Cu)	less than	0.01
Manganese, (Mn)		0.11
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		62.
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		177.5 (10.3 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		920.
Total Suspended Solids		
Salinity as NaCl		811.8 (47.4 gr/gal)

B C LABORATORIES Inc.

By J. J. Eglin

BC
LABORATORIES Inc.
OIL · CORES · SOIL · WATER
3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Sample #2

Date Reported: 12/2/74
Date Received: 11/27/74
Laboratory No.: 11353

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity	7.8
E.C. x 10^6 @ 25°C (salinity)	148.
Electrical Resistivity Ohms M²/M	6.76

Constituents, P. P. M. (parts per million)

Boron, (B)		1.3
Calcium, (Ca)		49.
Magnesium, (Mg)		13.6
Sodium, (Na)		250.
Potassium, (K)		66.
Carbonates, (CO_3)		0
Bicarbonates, (HCO_3)		311.1
Chlorides, (Cl)		282.5
Sulphates, (SO_4)		145.
Nitrate, (NO_3)	less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		2.19
Copper, (Cu)	less than	0.01
Manganese, (Mn)		0.13
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		61.
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		179.2 (10.4 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		962.
Total Suspended Solids		
Salinity as NaCl		864.3

BC LABORATORIES Inc.

By J. J. Eglin

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P..O. Box 6356
Bakersfield, California 93306

Date Reported: 12/2/74
Date Received: 11/29/74
Laboratory No.: 11376

WATER ANALYSIS

Sample Description: Sample #5 760' @ 4:00 pm 11/29/74 Sec. #20-3

Salintiy as NaCl	1109.6	ppm
Electrical Conductivity	190	$Kx10^5$
Boron	1.7	ppm

B C LABORATORIES, INC.

BY J. J. Eglin
J. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 12/2/74
Date Received: 11/29/74
Laboratory No.: 11375

WATER ANALYSIS

Sample Description: Sample #4 755' 3:45 pm 11/29/74 Sec. #20-3

Salinity as NaCl	1109.6	ppm
Electrical Conductivity	190	$Kx10^5$
Boron	1.9	ppm

B C LABORATORIES, INC.

BY J. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 12/2/74
Date Received: 11/29/74
Laboratory No.: 11364

WATER ANALYSIS

Sample Description: Ring 20 #3 Olcese 11/29/74

Salinity as NaCl	934.4	ppm
Electrical Conductivity	160	$Kx10^5$
Boron	1.2	ppm

B C LABORATORIES, INC.

BY C. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

BC LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 11/29/74
Date Received: 11/26/74
Laboratory No.: 11316

WATER ANALYSIS

Sample Description: Ring 20 #3 Olcese

Salinity as NaCl	496.4	PPM
Electrical Conductivity	85	$Kx10^5$
Boron	0.27	PPM

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BY J. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

BC LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 11/29/74
Date Received: 11/27/74
Laboratory No.: 11352

WATER ANALYSIS

Sample Description: Ring 20 #3 Sample #1

Salinity as NaCl	811.8	ppm
Electrical Conductivity	139	$Kx10^5$
Boron	1.1	ppm

B C LABORATORIES, INC.
BY J. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

BC LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P.O. Box 6356
Bakersfield, California 93306

Date Received: 11/27/74
Date Reported: 11/29/74
Laboratory No.: 11353

WATER ANALYSIS

Sample Description: Ring 20 #3 Sample #2

Salinity as NaCl	864.3	PPM
Electrical Conductivity	148	$Kx10^5$
Boron	1.3	PPM

B C LABORATORIES, INC.

BY J. J. Eglin

mw

DI -700 ppm #1
Ec -100
Ca -10
M -6
O .1

2 wells
Ca 2 to 300
TDJ Sr.

BC LABORATORIES Inc.

OIL · CORES · SOIL · WATER

3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
4311 Meadowview Place
Encino, California 91316

Marked: Attention: Mr. Frank Mondary

Date Reported: 11/21/74
Date Received: 11/13/74
Laboratory No.: 10995

Co-mingled water sample from Section 20, Glide 19 & Vadder U. S. L. Tank Farm
West Mt. Poso 11/13/74

WATER ANALYSIS (water for injection into well 20-3 Mt. Poso)

Sample Description:

pH or Hydrogen-ion activity		7.7	
E.C. x 10^3 @ 25°C (salinity)		3000	
Electrical Resistivity Ohms M³/M		3.33	
Constituents, P. P. M. (parts per million)			
ron, (B)			
cium, (Ca)		3.2	
nesium, (Mg)		58	Total Salinity (as NaCl) 1,752. ppm
ium, (Na)		3.8	
ssium, (K)		610	
onate, (CO_3)		19.3	Chlorides (as NaCl) 1,308.2 ppm
onates, (HCO_3)		0	
ide, (Cl)		474.6	
ate, (SO_4)		793	
(NO_3)	less than	5	
, (F)	less than	0.5	
n, (Fe)			
(Cu)			
e, (Mn)	less than	0.79	
, (Cr)		0.01	
		0.12	
(Al)			
a)			
l)			

52

S

as $CaCO_3$			
n extractable)			
Solids		160.8	(9.4 gr/gal)
l Solids		1,723	

1741

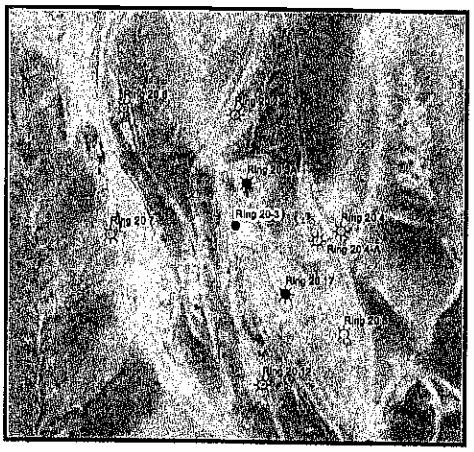
Inc.

ATTACHMENT D

Map of All Water Supply Wells within One Mile of the Injection Well Subject to this Order

Order Item 3A

Macpherson Operating Company, L.P.



Legend

- Macpherson Injection Well
- Mcpherson_1mileBuff
- Ring 20 Lease

DOGGR Well Status

- Active
- Idle
- Plugged

0 0.1 0.2 0.4 0.6 0.8 Miles

Prepared By: EnviroTech Consultants, Inc.	TITLE:	RWQCB California Water Code Section 13267 Response
	FIELD:	Mount Poso Oil Field
	COUNTY:	Kern
Section/Township/Range	DRN By:	Ashley Bylow
T27S/R28E Sections 16, 17, 18, 19, 20, 21, 29, 30	DATE:	July 30, 2014
	SCALE:	1:12,500

ATTACHMENT E

Copy of 24 Hour Notification to RWQCB of Wells with Confidential Classification

Order Item 3B

Ashley Bylow

From: Jane McNaboe
Sent: Thursday, July 17, 2014 1:34 PM
To: Johnson, Dane@Waterboards; 'dwachtell@waterboards.ca.gov'
Cc: Tim Lovley; Michael Cook; Ashley Bylow
Subject: Macpherson Order Technical Report - Water Supply Well Information, confidentiality notification
Attachments: Macpherson Water Well Research - Techinical Report.xlsx

Dane,

This email is to notify the RWQCB that some requested water supply well data within one mile of the Macpherson Ring 20-3 well is confidential.

EnviroTech will review the public DWR web site, and the Kern County Water Agency files, and will provide the RWQCB with the information publicly available. For each water supply well within one mile, where possible from public information, we will provide the following information (also see the attached spreadsheet):

- Location (Section, Township, Range)
- Well Identification number
- Owner
- Owner address
- Year of drilling application (from Kern County Water Agency Files)
- Type of well
- Descriptive location
- Data Source

The details of the depth, well construction, geophysical logs, and water analytical data are confidential and not available to EnviroTech.

Regards,

M. Jane Ellis-McNaboe, PG
jmcnaboe@envirotechteam.com

EnviroTech Consultants, Inc.
5400 Rosedale Highway,
Bakersfield, CA 93308

(661) 377-0073 X 11, Office
(661) 246-9854, Cell
(661) 377-0074, Fax

DISK

One PDF copy of the data included in this binder

API: 029-14064

EXHIBIT 12

EXHIBIT 12

MACPHERSON OPERATING COMPANY, L.P.

July 31, 2014

Central Valley Regional Water Quality Control Board
165 E Street
Fresno, CA 93706

Attention: Dane S. Johnson

Ladies and Gentlemen:

Enclosed please find information being submitted by Macpherson Operating Company in response to Order Pursuant To California Water Code Section 13276 dated July 2, 2014 issued to Macpherson Operating Company ("Macpherson") by the Central Valley Regional Water Quality Control Board ('RWQCB"). Please be advised that Macpherson is concurrently filing an appeal of this Order with the State Water Resources Control Board. Accordingly, Macpherson is providing this information to the RWQCB without prejudice to or waiver of any of Macpherson's rights or remedies.

Sincerely,

On Behalf Of
Macpherson Operating Company, L.P.

Enclosure
cc: Stephen R. Bohlen, State Oil and Gas Supervisor
Department of Conservation, DOGGR
801 K Street
Sacramento, CA 95814-3500

EnviroTech
Consultants, Inc.

5400 Rosedale Highway
Bakersfield, CA 93308

MACPHERSON OPERATING COMPANY

RESPONSE TO CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

EMERGENCY ORDER No. 1056 issued on July 2, 2014

API 029-14064, Ring 20-3

Mt. POSO OIL FIELD
Section 20, T27S, R28E, MDB&M

Kern County, California

August 1, 2014

Prepared by:

EnviroTech Consultants, Inc.
5400 Rosedale Avenue
Bakersfield, CA 93308

Table of Contents

1.0 Introduction

Ring 20-3 has been a permitted injection well since December 1974 when it was permitted by Thomas Oil Company. Ring 20-3 has not been used, injected into, since August of 2008. In 2009 Ring 20-3 documentation was submitted to the Division officially idling the well. Effective December 1, 2010 Macpherson Operating Company became the Operator of Record for the Mt Poso project. Additional Ring 20-3 history is described in section 6.0 and 7.0 and in the attachments to this document.

This report provides the information requested in Order No. 1056 issued to Macpherson Operating Company (MOC) by the Department of Conservation, Division of Oil, Gas and Geothermal Resources (the Division). Copies of the requested spreadsheets, attachments and text are also provided electronically on a disk in the back of this report. A copy of the Order is included at the back of this report (Attachment A).

2.0 Exhibit A (Information IV(a))

- Attachment B contains the spreadsheet required in Exhibit A of the Division Order.
- Attachment C contains a wellbore diagram of APN 029-14064, Ring 20-3.
- Attachment D contains copies of all available water quality analyses and/or reports of the injected fluids (Exhibit A, Item R).

3.0 All Information Compiled or Maintained by MOC in Compliance with Title 14, CCR, Section 1724.7 (Information IV(a))

Attachment E contains copies of the project correspondence. Included in Attachment D is the original formation water analysis from the correspondence file, the formation water sample was collected in December 1974.

Attachment F contains a copy of the MOC well file. The original project application (Attachment E), copies of annual Mechanical Integrity Tests (MIT) and Standard Annular Pressure Tests (SAPT). Copies of the MITs and SAPTs are included on disk.

4.0 Volume of Fluid Injected (Information IV(b))

A spreadsheet containing the total volume of injected fluid for each month of operation, for years 1977 through 2014 included in Attachment G. Fluid was injected into the well from January 1975 until August 2008. No injection volume information was found for the time period January 1975 through April 1977. The total volume injected between May 1977 and May 2014 is shown below.

No injection has taken place in Ring 20-3 since August 2008. Ring 20-3 has been officially suspended since September 29, 2010.

Table 1 – Volume of Fluid Injected

Dates	Injected Wastewater (BBLS)
May 1977– May 2014	50,520,239
1 June 2013 – 31 May 2014	0

5.0 Periodic Chemical Analysis (Information IV(b))

Copies of the analyses of the fluid that were injected are included in Attachment D. A spread sheet listing the results is also included in Attachment D. No water quality averages were calculated as the analytical results are not comparable and the source of each water sample is unknown.

6.0 Amendments to the Original Project Approval (Information IV(b))

This UIC project (project) was initiated by Thomas Oil Company in November 1974. In December of 1974 a report was provided to the USGS United States Geological Survey from William Park, Geologist indicating that "No known fresh water exists within the area". The Division approved a discharge rate of 4500 barrels per day in December 1974. The Division continued to approve the project through the Report on Operations Water Disposal Project indicating that the fluid is confined to the strata below 920 feet. On February 3, 1982 The California Regional Water Quality Control Board concluded that the project be allowed to continue. In the Memorandum dated February 3, 1982 the California Regional Water Quality Control Board indicated that they did not know of any other beneficial uses of these zones, and that is is reasonable to allow the continued injection of the existing quantity and quality of Vedder water into the Olcese. In November of 1991 the Division again approved the continued use of the project with a reduction in rate to 4,000 barrels per day. In August 1996 the continuance of the project was approved by the Division of Oil, Gas, and Geothermal Resources. Injection stopped in August of 2008 and Ring 20-3 has been suspended since September 29, 2010.

There have been no amendments to the project.

(Correspondence from and to the Division of Oil and Gas and other agencies is included in Attachment E).

7.0 Chemical Analysis of Injectate (Information IV(c))

A representative sample of fluid being injected into the well was not collected as ordered by the Division Order No. 1056, Exhibit B. No fluid has been injected into the well since August 2008.

From 1975 until 2008 produced water from the Ring lease Vedder production wells was injected into Ring 20-3. After 2008 produced water from the lease and waste water from the Mt Poso Gogeneration Facility, who receives produced water from the lease, has been injected into the permitted Vedder wastewater disposal wells Ring 18-9, Ring 18-21 and Ring 18 WD-1. Wells Ring 18-9 and Ring 18-21 dispose of waste water into the producing Vedder zone (cycling waste water through the production formation).

During the time that Ring 20-3 was used as a wastewater disposal well only Vedder Formation produced water was disposed. The Mt Poso Cogeneration Facility waste water was isolated, through piping limitations, from being disposed of in Ring 20-3.

It is no longer possible to collect a sample representative of the fluid injected into the Ring 20-3 well as the current waste water stream includes both Vedder produced water and the cogeneration facility brine water.

8.0 Data Maintained to Show Project Performance (Information IV(d))

A copy of the well file for Ring 20-3 is included in Attachment F. Electronic copies of the open-hole logs, annual Mechanical Integrity Tests (MITs) and one Standard Annual Pressure Test (SAPT) are included electronically on the disk located in a pocket in the back of the report. Macpherson retains copies of all electronic logs, Notices, MITs and SAPTs.

Mechanical Integrity tests were conducted on the dates shown below:

- 6/26/2007
- 7/15/2005
- 8/6/1992
- 8/31/1992
- 5/30/1990
- 5/24/1989
- 8/19/1988
- 10/9/1987
- 7/8/1986
- 11/21/1985
- 6/4/1984
- 6/1/1983
- 7/20/1982
- 8/5/1981
- 9/25/1980
- 9/2/1980
- 5/6/1979
- 11/4/1977
- 10/13/1977
- 9/13/1977
- 1/21/1977

The casing was pressure tested on:

- October 6, 1977, the pressure test was approved witnessed and by the Division.

Electronic copies of the MIT and SAPT records are included on the disk located in the back of this report.

ATTACHMENT A

Copy of Emergency Order No. 1056

Steven R. Bohlen, State Oil and Gas Supervisor
Department Of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street
Sacramento, CA 95814-3500
Telephone (916) 323-6733
Facsimile (916) 445-9916

STATE OF CALIFORNIA

NATURAL RESOURCES AGENCY

DEPARTMENT OF CONSERVATION

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

EMERGENCY ORDER TO IMMEDIATELY CEASE INJECTION OPERATIONS

NO. 1056

Dated: Wednesday, July 2, 2014

Operators: Macpherson Operating Company, L.P.

Well: 02914064

BY

Steven R. Bohlen

STATE OIL AND GAS SUPERVISOR

INTRODUCTION

1. The Division of Oil, Gas, and Geothermal Resources (Division) has determined that an emergency exists in connection with underground injection operations for the well operated by Macpherson Operating Company, L.P., identified as API no(s). 02914064 (hereinafter "the well subject to this order"). Injection into this well, if any is still occurring, poses danger to life, health, property, and natural resources. Therefore, under the authority of Public Resources Code sections 3106, 3222, 3224, 3225, 3226, and 3235, and California Code of Regulations, title 14, sections 1724.6, 1724.7, 1724.10, the State Oil and Gas Supervisor (Supervisor) is ordering that any injection into the well subject to this order, if any is still occurring, immediately cease as specified below. The Division is working cooperatively with the Central Valley Regional Water Quality Control Board, (which is contemporaneously issuing its own order pursuant to California Water Code section 13267), and the State Water Resources Control Board to obtain information for use in evaluating, preserving and protecting underground water suitable for irrigation or domestic purposes.

2. This order constitutes written notice from the Division to immediately stop any and all injection in the well subject to this order, pursuant to California Code of Regulations, title 14, section 1724.10, subdivision (h).

STATUTORY and RELATED AUTHORITY

3. Pursuant to Public Resources Code section 3106, the Supervisor shall supervise the operation of wells in this State so as to prevent, as far as possible, damage to life, health, property, and natural resources, and to prevent damage to underground waters suitable for irrigation and domestic purposes by the infiltration of, or the addition of, detrimental substances.

4. Pursuant to Public Resources Code sections 3222, 3224, 3225, 3226, 3235, and other authorities, the Supervisor has a duty to, and may take action to, prevent the infiltration of detrimental substances into underground water potentially suitable for irrigation or domestic purposes. Pursuant to these statutes and authorities, the Supervisor may order tests to be performed, remedial action(s) to be taken, and the preparation of reports regarding such tests and/or remedial action(s).

5. Pursuant to Title 14, California Code of Regulations, sections 1724.6, 1724.7, 1724.10, and other authorities, the Division possesses authority to approve and evaluate Underground Injection and Disposal projects, and to require that data be submitted in connection therewith.

6. Pursuant to Title 40, Code of Federal Regulations, section 146.4, and other authorities, only properly designated aquifers may receive injected fluids in connection with underground injection operations.

7. Pursuant to Title 14, California Code of Regulations, section 1724.10, subdivision (h), underground injection operations shall be stopped upon written notice from the Division.

FACTS

8. The well subject to this order is under the permitting authority of the Supervisor and/or Division pursuant to Public Resources Code section 3106, and Title 14, California Code of Regulations section 1724.6.

9. Such permitting authority is also contemplated by the federal Safe Drinking Water Act and its implementing regulations. Effective March 14, 1983, California's Division of Oil, Gas and Geothermal Resources (Division) was granted primacy by the United States Environmental Protection Agency (US EPA) to carry out the terms of an Underground Injection Control Program, pursuant to section 1425 of the Safe Drinking Water Act (codified at 42 U.S.C. § 300f et seq.). (48 Fed. Register 6336, Feb. 11, 1983.)

10. Contemporaneously with the granting of primacy to the Division, and on occasion thereafter, certain underground aquifers within the State were designated as "exempted aquifers." (40 CFR, § 146.3.) This designation qualifies such aquifers as appropriate for the injection of fluids attendant to or produced by oil and gas extraction activities and depends upon, among other things, the presence of sufficient hydrocarbons and sufficient number of parts per million (ppm) of total dissolved solids (TDS) in the receiving aquifer. (40 CFR, section 146.4.)

11. As a result of the granting of primacy, the Division, pursuant to Title 14, California Code of Regulations sections 1724.6, 1724.7, and 1724.10, must approve any subsurface injection or disposal activities based on pertinent and necessary data submitted to the Division.

12. The Division has become aware that certain underground injection activities are occurring, or may have been permitted to occur, into non-exempted aquifers.

13. Based on information and belief, the Division has determined that the well subject to this order is or may be injecting into one or more non-exempt aquifers which:

(a) May contain underground water suitable for irrigation or domestic purposes;

(b) May contain water with less than 3,000 ppm total dissolved solids;

(c) May have been specifically denied exempted aquifer status by the US EPA in connection with the Division's application for primacy;

(d) May not have been hydrocarbon-bearing at the time injection commenced; and

(e) May be potential underground sources of drinking water.

14. In order to prevent the infiltration of detrimental substances into underground water suitable for irrigation or domestic purposes, the Supervisor relies on the above-referenced legal authorities and factual allegations, and makes the orders set forth below.

ORDERS

15. Based on the facts, circumstances, and authorities described herein, on information and belief, and pursuant to the Supervisor's duties set forth in Public Resources Codes section 3106, pursuant to Public Resources Code section 3222, 3224, 3225, 3226, and 3235 the Supervisor has determined that an emergency exists and that immediate action(s) are necessary to protect life, health, property, and natural resources, specifically, the further degradation of the affected aquifers, and orders as follows:

I. Cease and Desist Injection Operations

16. The operator subject to this order will cease any and all injection operations still occurring into the well subject to this order on or before 12:00 Noon on Monday, July 7, 2014 unless the operator subject to this order provides the Division with documentary evidence generated by the United States Environmental Protection Agency, satisfactory to the Supervisor, specifically establishing that the aquifer(s) affected by the well subject to this order are "exempted aquifers" as defined in Title 40, Code of Federal Regulations, sections 146.3, consistent with Title 40, Code of Federal Regulations section

144.1, subdivisions (e)-(g), and the Safe Drinking Water Act. In the event the operator subject to this order makes such a submission of evidence, the operator will nevertheless cease any and all injection operations into the wells subject to this order on or before 12:00 Noon on Monday, July 7, 2014unless the Supervisor notifies the operator in writing (1) that the documentary evidence provided is sufficient to establish that the aquifer receiving injection is an exempted aquifer under the authorities stated above, and (2) that resumption of injection is approved on that basis.

II. Alternative Disposal or Injection

17. In the event that production activities relying on the use of any well subject to this order are continued using an alternative method of disposal of fluid, or an alternative location of underground injection, such alternative disposal or injection method or location shall be utilized only pursuant to, as applicable, (a) any applicable waste discharge requirements or NPDES permit issued by the Central Valley Regional Water Quality Control Board; (b) an existing permit for Underground Injection into an "exempted aquifer" consistent with Title 40, Code of Federal Regulations, section 146.3, updated to reflect the addition of the new injectate as required by Title 14 of the California Code of Regulations, section 1724.10, subdivision (d); or (c) other means carried out in full compliance with any required laws or regulations.

III. Written Approval Required

18. Injection operations shall not resume into the well subject to this order except on the express written approval of the Supervisor.

IV. Provide Information

19. The operator subject to this order will provide the following information to the State Oil and Gas Supervisor, in compliance with the truthful and accurate reporting requirement of Public Resources Code section 3236, **within 30 days of the date of this order:**

(a) For each well subject to this order, any and all information compiled or maintained, whether or not previously submitted to the Division, in compliance with Title 14,

California Code of Regulations, section 1724.7. The information submitted in response to this aspect of this order shall include, but not be limited to, the categories of information listed in Exhibit A attached hereto;

(b) For each well subject to this order, the total volume of injected fluid for each month of operation, for all years of operation, any periodic chemical analyses of the fluid(s) being injected, and any amendments to the original project approval, as provided by Division reporting requirements;

(c) For each well subject to this order, a technical report with an analysis of a representative sample of the fluid being injected, in accordance with the water quality analysis and reporting requirements contained in Exhibit B to this order;

(d) For each well subject to this order, any and all data maintained in compliance with Title 14, California Code of Regulations, section 1724.10, subd. (h);

(e) For each well subject to this order, the dates of, and documentation associated with, each mechanical integrity test undertaken to comply with Title 14, California Code of Regulations, section 1724.10, subd. (j);

(f) For each well subject to this order, please also send copies of all of the data required in items (a) through (e) above to

Central Valley Water Board
Attn. Dane Johnson
1685 E Street
Fresno, CA 93706

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Operator's Appeal Rights

20. This order may be appealed by filing a written statement with the State Oil and Gas Supervisor or district deputy that the order is not acceptable within ten (10) days of service of the order. **This is an emergency order issued pursuant to Public Resources Code section 3226 and therefore, pursuant to Public Resources Code section 3350, subdivision (b), the filing of an appeal of this emergency order shall not operate as a stay of the order.**

DATE JUL 01 2014

By _____
Steven R. Bohlen
State Oil and Gas Supervisor

Exhibit A

Paragraph 19(a) of this order requires submission of the categories of information listed below. Specifically, your submission will include the following in spreadsheet form, labeled with the capital letters indicated, with attachments containing the backup documentation indicated in items Q through S, inclusive:

A. The name of the owner and/or operator of the injection well;
B. American Petroleum Institute (API) number for the injection well;
C. Injection well name and number;
D. Name of the field in which the well is located;
E. County in which the well is located;
F. Latitude and Longitude (decimal degrees) of well head location;
G. Latitude and Longitude Datum, indicate "1" for North American Datum of 1983 or "2" for North American Datum of 1927;
H. Injection well total depth (feet);
I. Top injection depth (feet);
J. Formation/Zone name at top injection depth;
K. Bottom injection depth (feet);
L. Formation/Zone name at bottom injection depth;
M. Date injection started in the well (Day/Month/Year, xx/xx/xxxx);
N. Identify and describe all sources of fluid injected into the well;
O. Injection volume in barrels for the period from 1 June 2013 through 31 May 2014;
P. Total injection volume in barrels from the date injection in the well began through 31 May 2014;
Q. Attach well construction diagram including all perforations, annular material, and seals;
R. Attach copies of all available water quality lab analyses and/or reports of the injected fluids;
S. Attach a calculation of the average water quality of injected fluid from the date injection began through 31 May 2014;

Exhibit B

Paragraph 19(c) of this order requires a technical report with an analysis of a representative sample of the fluid being injected into the well subject to this order. Such sampling and reporting will reflect the following:

Sampling

Injection fluid samples shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program, using current applicable EPA-approved analytical methods for water for the following:

A. Total dissolved solids
B. Metals listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A)
C. Benzene, toluene, ethylbenzene, and xylenes
D. Total petroleum hydrocarbons for crude oil
E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene)
F. Radionuclides listed under California Code of Regulations, title 22, Table 64442
G. Methane
H. Major and minor cations (including sodium, potassium, magnesium, and calcium)
I. Major and minor anions (including nitrate, chloride, sulfate, alkalinity, and bromide)
J. Trace elements (including lithium, strontium, boron, iron, and manganese)

Water Quality Reporting

Water quality information shall be submitted in a technical report that includes, at a minimum:

A. Site plan with location(s) of representative sample(s).
B. Description of field sampling procedures.
C. Table(s) of analytical results organized by well number (including API number).
D. Copies of analytical laboratory reports, including quality assurance/quality control procedures and analytical test methods.
E. Waste management and disposal procedures.

ATTACHMENT B

DOGGR Exhibit A Requested Information on Spreadsheet

Items A through S

DOGGR EMERGENCY ORDER No. 1056 REQUIRED INFORMATION

A	**Owner/Operator**	**Macpherson Operating Company**
B	API Number	029-14064
C	Injection Well Name and Number	Ring 20 - 3
D	Field Name	Mount Poso
E	County	Kern
F	Lat (NAD83)	35.567266
	Long (NAD83)	-118.992262
G	Datum "1" for NAD 83; "2" for NAD 27	1
H	Total Depth (feet)	2317'
I	Top Injection Depth (feet)	920'
J	Formation/Zone name at top injection depth	Olcese
K	Bottom injection depth (feet)	1130'
L	Formation/Zone name at bottom injection depth	Olcese
M	Date injection started in the well (Day/Month/Year)	January 20, 1975
N	Identify and describe all sources of fluid injected into the well	Vedder Formation Produced water, Ring Lease
O	Injection volume in barrels for the period from 1 June 2013 through 31 May 2014	0
P	Total injection volume in barrels from the date injection in the well began through 31 May 2014	50,520,239 - data from 1975 - 1977 is not available
Q	Attach well construction diagram including all perforations, annular material, and seals.	See Attachment B
R	Attach copies of all available water quality lab analyses and /or reports of the injected fluids	See Attachment C
S	Attach a calculation of the average water quality of injected fluid from the date injection began through 31 May 2014.	See Attachment C and text

ATTACHMENT C

Well Construction Diagram, Ring 20-3

Macpherson Oil Company

Field: Mount Poso

Well No: Ring 20 #3

Sec. 20, T27S, R28E, MD B&M

2320' S & 600' E from NW corner of

WBD As of : 09/29/77

Lease Ser. #: CAS 044132

Unit or CA #: CACA 23573X

Drawing Date: 8/14/07

Commenced Drilling: 10/1/48

Completed Drilling:

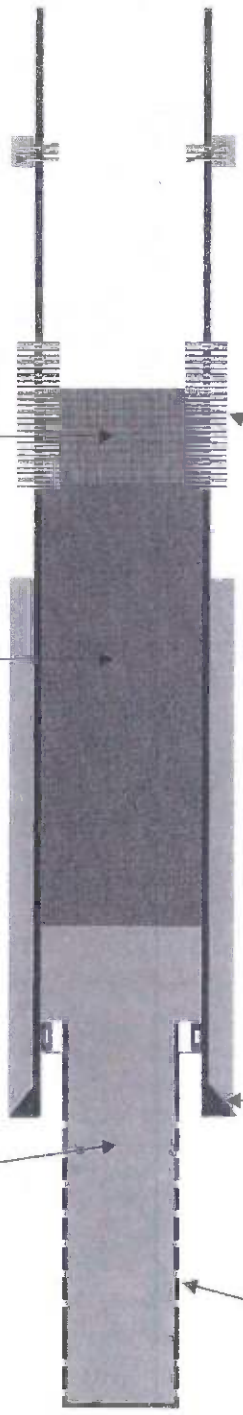
On Production: 11/6/48

All measurements from DF **GL:** 941' **DF:** 949' **API No.:** 029-14064

Bit Record 10-3/4" 0' - 2272'
11" 2272' - 2317'

Prod. Equip. as of 10/30/07
Reason for pull Csg. test

	Length	Depth
KB	8.00	
fat Nipple	0.77	8.00
24 jts. 3-1/2" tbg.	716.49	8.77
3-1/2" x 2-7/8" X-Over	1.10	725.26
1 jt. 2-7/8" tbg.	30.70	726.36
7", AD1 Packer. (Inverted)	4.53	757.06
Wireline entry guide	0.35	761.59
		761.94



Cmt. Sqz'd holes in csg. @ 550' & 560' w/ 168 Sks. Cmt.

Cannot clean out fill below 970'. Possible damaged csg. @ 970'.

Hard Drilling Mud Plug 1130'-2100'

Vedder Top @ 2270'

Cement Plug 2100' - 2316'

Perforated 920'-1130' w/ 4-1/2" JHPF

NOTE: **Packer release**. Pick up to neutral. 1/4 turn to right.

NOTE: Bad casing @ 793'-880', 446'-584', 219'-376', & 47"

7", 23# casing @ 2272'
Cemented with 250 Sks Cmt.
TTOC @ 1300'

5-1/2", 17# Liner Hung @ 2316', Top @ 2227'
Pertforated 2261'-2316' w/ 80M slots

TD @ 2317'

ATTACHMENT D

Spreadsheet - Water Quality Analytical Report Summary

Copies of All Available Water Quality Laboratory Analyses, Injected Fluids

Macpherson, Ring Lease
Historic Produced Water Analytical Data

Sample date	11/22/1974	12/6/1974	1/4/2008
Sample name	From Water Tank Discharge	Combined water including Sec. #10	Mt Poso Ring 20 #3
pH	7.30		3.3
Electrical Conductivity (millimhos/cm@25C)	370*	290.00	11.9
Specific Gravity @60 F			1.0060
Resistivity (ohm meters @25C)	2.70		0.8
Constituents (mg/L)			
Calcium, Ca	104.00		70
Magnesium, Mg	7.80		16
Sodium, Na (calculated)	700.00		3300
Potassium, K	12.30		94
Iron, Fe (total)			13
Alkalinity as:			
Hydroxide			0
Carbonate	0		0
Bicarbonate	90.3		0
Chloride, Cl	1250		4100
Sulfate (SO4)	<5		2100
Nitrate (NO3)	<0.5		
Sulfide, S			<1.0
Hydrogen Sulfide			
Boron, B	4.10	0.34	14
Barium			
Silica, SiO2			
Strontium			
TOTALS (sum)			9700
Total Dissolved Solids			8700
Calculated Hardness	292.5		240
Total Alkalinity, CaCO3	0		0
Sodium Chloride (total)			8800
Oil and Grease, mg/L	2113**		
Cation/Anion Balance %			5.2
Sodium (measured)			
Sodium (calculated)			3483.41
Langelier Scale Index			
Stiff/Davis Stability Index			
Primary Alkalinity			0
Secondary Alkalinity			0
Total Alkalinity			0
Salinity as NaCl		1693.6	
Primary Salinity			93.88
Secondary Salinity			3.03
Total Salinity			96.96

* E.C. x 10 E 5

** Oil (chloroform extractable)

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

MacPherson Oil Co.
PO BOX 5368
Bakersfield, CA 93308

Laboratory No: 0801053-004
Date Received: 1/4/2008
Date Reported: 1/15/2008

Attention: Scott Mundy

Sample Identification: Mt. POSO Ring 20 #3
Sampled by: Date: 1/4/2008 Time: 06:45
Report Notes: Alkalinity reported as zero due to low pH, < 4.5

GEOCHEM ANALYSIS

pH	3.3	Specific Gravity @ 60 F..	1.0060
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	11.91	Resistivity (ohm meters @ 25 C)	0.8

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	70	3.5	1.12
Magnesium, Mg	16	1.3	0.42
Sodium, Na	3300	140	44.88
Potassium, K	94	2.4	0.77
Iron, Fe	13	0.7	0.22
Alkalinity as:			0.00
Hydroxide, OH	0	0	0.00
Carbonate, CO3	0	0	0.00
Bicarbonate, HCO3	0	0	0.00
Chloride, Cl	4100	120	38.47
Sulfate, SO4	2100	44	14.10
Sulfide, S	< 1.0	0.062	0.02
Totals (Sum)	9700	312	
Boron, B	14		
Total Dissolved Solids, (Gravimetric)	8700		
Calculated Hardness, CaCO3	240		
Total Alkalinity, CaCO3	0		
Sodium Chloride, (total)	8800		

Cation/Anion Balance, %	5.2	Primary Salinity	93.88
Sodium, Na (Calculated), mg/L	3483.41	Secondary Salinity	3.08
Langelier Scale Index	not determined	Total Salinity	96.96
Stiff/Davis Stability Index	not determined		
		Primary Alkalinity	0
		Secondary Alkalinity	0
		Total Alkalinity	0

Laboratory Authorization

December 10, 1974

Mr. Don Russell
United States Geological Survey
Federal Building, Room 309
800 Truxtun Avenue
Bakersfield, California 93301

Dear Mr. Russell:

Enclosed is a summary of the laboratory analysis of water samples from the Olcese formation from well no. "Ring 20" 3, Section 20, T.27S., R.28E., M.D.B.& M. Also included in this report is the analysis of a combined sample of the injection water.

Thank you for your cooperation in the conversion of this well to a waste water injector.

Yours truly,

William H. Park

WHP/jk

Enclosure

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

BC LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thanas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Attention: Mr. Frank Mondary

Date Reported: 12/6/74
Laboratory No.: 11316, 11317, 11353, 11353, 11364, 11375, 11376, 11396, 11397, 11434, 11435

Combined Water including Sec. #18	3.4	290	1,693.6

WATER ANALYSES

Sample Description	Boron	E. C. ($K \times 10^5$)	Salinity as NaCl
Ring 20 #3 Oleese	0.27	65	496.4
Ring 20 #3 Casing fluid prior to shooting	2.0	280	1,635.2
Ring 20 #3 Sample #1	1.10	139	811.8
Ring 20 #3 Sample #2	1.3	148	864.3
Ring 20 #3 Oleese 11/29/74	1.2	160	934.4
Ring 20 #3 3:45 PM 755' #4 11/29/74	1.9	190	1,109.6
Ring 20 #3 4:00 PM 760' #5 11/29/74	1.7	190	1,109.6
Ring 20 #3 Sample #6	1.6	196	1,132
Ring 20 #3 Sample #7	2.1	200	1,191
Well 20 #3 1000 Feet	3.8	300	1,752

B C LABORATORIES, INC.

BY J. J. Eglin

MW

BC
LABORATORIES Inc.
OIL - CORES - SOIL - WATER
3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Attention: Mr. Mondary

Date Reported: 12/6/74
Date Received: 12/3/74
Laboratory No.: 11435

Marked: Well 20 #3 1000 Feet

P109
20

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity		8.0
E.C. x 10^n @ 25°C (salinity)		300
Electrical Resistivity Ohms M^2/M		

Constituents, P. P. M. (parts per million)

Boron, (B)		3.6
Calcium, (Ca)		26
Magnesium, (Mg)		3.2
Sodium, (Na)		615
Potassium, (K)		21
Carbonates, (CO_3)		0
Bicarbonates, (HCO_3)		651.5
Chlorides, (Cl)		640.7
Sulphates, (SO_4)	less than	5
Nitrate, (NO_3)	less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		5.6
Copper, (Cu)	less than	0.01
Manganese, (Mn)		0.17
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		50
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		70.30 (4.6 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		1,634
Total Suspended Solids		1,752

Salinity as NaCl

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AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 12/3/74
Date Received: 12/2/74
Laboratory No.: 11396-11397

WATER ANALYSES

Sample Description:

#1 - Ring 20 #3 Sample #6
#2 - Ring 20 #3 Sample #7

Constituents	#1		#2	
Salinity as NaCl	1144.6	PPM	1168.0	PPM
Electrical Conductivity	196	$Kx10^5$	200	$Kx10^5$
Boron	1.6	PPM	2.1	PPM

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BY J. J. Eglin
J. J. Eglin

mw

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3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Olcese

Date Reported: 12/2/74
Date Received: 11/26/74
Laboratory No.: 11316

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity	7.8
E.C. x 10^6 @ 25°C (salinity)	85.
Electrical Resistivity Ohms M^2/M	11.76

Constituents, P. P. M. (parts per million)

Boron, (B)		0.27
Calcium, (Ca)		47.
Magnesium, (Mg)		17.3
Sodium, (Na)		93.
Potassium, (K)		66.
Carbonates, (CO_3)		0
Bicarbonates, (HCO_3)		183.
Chlorides, (Cl)		74.7
Sulphates, (SO_4)		210.
Nitrate, (NO_3)	less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		1.03
Copper, (Cu)	less than	0.01
Manganese, (Mn)		0.06
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		79.
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		189.6 (11.1 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		600.
Total Suspended Solids		
Salinity as NaCl		496.4

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By J. J. Eglin

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BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Casing Fluid Prior to Shooting

Date Reported: 12/2/74
Date Received: 11/26/74
Laboratory No.: 11317

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity	10.7
E.C. x 10^n @ 25°C (salinity)	280.
Electrical Resistivity Ohms M^2/M	3.57

Constituents, P. P. M. (parts per million)

Boron, (B)		2.0
Calcium, (Ca)		5.0
Magnesium, (Mg)	Less than	0.1
Sodium, (Na)		570.
Potassium, (K)		66.
Carbonates, (CO_3)		80.1
Bicarbonates, (HCO_3)		0
Chlorides, (Cl)		648.9
Sulphates, (SO_4)		57.
Nitrate, (NO_3)	Less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		1.16
Copper, (Cu)	Less than	0.01
Manganese, (Mn)	Less than	0.01
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		60.0
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		12.50 (0.7 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		1,564.
Total Suspended Solids		
Salinity as NaCl		1,635.2

BC LABORATORIES Inc.
By J. J. Eglin

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OIL · CORES · SOIL · WATER
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BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7478
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Sample #1

Date Reported: 12/2/74
Date Received: 11/27/74
Laboratory No.: 11352

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity	7.8
E.C. x 10^5 @ 25°C (salinity)	139.
Electrical Resistivity Ohms M^2/M	7.19

Constituents, P. P. M. (parts per million)

Boron, (B)	1.10
Calcium, (Ca)	48.
Magnesium, (Mg)	13.8
Sodium, (Na)	235.
Potassium, (K)	62.
Carbonates, (CO_3)	0.
Bicarbonates, (HCO_3)	292.8
Chlorides, (Cl)	252.
Sulphates, (SO_4)	163.
Nitrate, (NO_3)	less than 0.5
Fluoride, (F)	
Total Iron, (Fe)	2.68
Copper, (Cu)	less than 0.01
Manganese, (Mn)	0.11
Chromium, (Cr)	
Zinc, (Zn)	
Aluminum, (Al)	
Silica, (SiO_2)	62.
Lithium, (Li)	
Lead, (Pb)	
Phenol	
Sulfides as H_2S	
Total Hardness as $CaCO_3$	177.5 (10.3 gr/gal)
Oil (chloroform extractable)	
Total Dissolved Solids	920.
Total Suspended Solids	
Salinity as NaCl	811.8 (47.4 gr/gal)

B C LABORATORIES Inc.

By J. J. Eglin

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Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306
Attention: Mr. Frank Mondary

Marked: Ring 20 #3 Sample #2

Date Reported: 12/2/74
Date Received: 11/27/74
Laboratory No.: 11353

WATER ANALYSIS

Sample Description:

pH or Hydrogen-ion activity	7.8
E.C. x 10^6 @ 25°C (salinity)	148.
Electrical Resistivity Ohms M^2/M	6.76

Constituents, P. P. M. (parts per million)

Boron, (B)		1.3
Calcium, (Ca)		49.
Magnesium, (Mg)		13.6
Sodium, (Na)		250.
Potassium, (K)		66.
Carbonates, (CO_3)		0
Bicarbonates, (HCO_3)		311.1
Chlorides, (Cl)		282.5
Sulphates, (SO_4)		145.
Nitrate, (NO_3)	less than	0.5
Fluoride, (F)		
Total Iron, (Fe)		2.19
Copper, (Cu)	less than	0.01
Manganese, (Mn)		0.13
Chromium, (Cr)		
Zinc, (Zn)		
Aluminum, (Al)		
Silica, (SiO_2)		61.
Lithium, (Li)		
Lead, (Pb)		
Phenol		
Sulfides as H_2S		
Total Hardness as $CaCO_3$		179.2 (10.4 gr/gal)
Oil (chloroform extractable)		
Total Dissolved Solids		962.
Total Suspended Solids		
Salinity as NaCl		864.3

B C LABORATORIES Inc.

By J. J. Eglin

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P.. O. Box 6356
Bakersfield, California 93306

Date Reported: 12/2/74
Date Received: 11/29/74
Laboratory No.: 11376

WATER ANALYSIS

Sample Description: Sample #5 760' @ 4:00 pm 11/29/74 Sec. #20-3

Salintiy as NaCl	1109.6	ppm
Electrical Conductivity	190	$Kx10^5$
Boron	1.7	ppm

B C LABORATORIES, INC.

BY J. J. Eglin
J. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 12/2/74
Date Received: 11/29/74
Laboratory No.: 11375

WATER ANALYSIS

Sample Description: Sample #4 755' 3:45 pm 11/29/74 Sec. #20-3

Salinity as NaCl	1109.6	ppm
Electrical Conductivity	190	$Kx10^5$
Boron	1.9	ppm

B C LABORATORIES, INC.

BY J. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 12/2/74
Date Received: 11/29/74
Laboratory No.: 11364

WATER ANALYSIS

Sample Description: Ring 20 #3 Olcese 11/29/74

Salinity as NaCl	934.4	ppm
Electrical Conductivity	160	$Kx10^5$
Boron	1.2	ppm

B C LABORATORIES, INC.

BY J. J. Eglin

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J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 11/29/74
Date Received: 11/26/74
Laboratory No.: 11316

WATER ANALYSIS

Sample Description: Ring 20 #3 Olcese

Salinity as NaCl	496.4	PPM
Electrical Conductivity	85	$Kx10^5$
Boron	0.27	PPM

B C LABORATORIES, INC.

BY J. J. Eglin

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AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.

J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P. O. Box 6356
Bakersfield, California 93306

Date Reported: 11/29/74
Date Received: 11/27/74
Laboratory No.: 11352

WATER ANALYSIS

Sample Description: Ring 20 #3 Sample #1

Salinity as NaCl	811.8	ppm
Electrical Conductivity	139	$Kx10^5$
Boron	1.1	ppm

B C LABORATORIES, INC.

BY J. J. Eglin

mw

AGRICULTURE
CHEMICAL ANALYSIS
PETROLEUM

B C LABORATORIES INC.
J. J. EGLIN, REG. CHEM. ENGR.
3016 UNION AVE. BAKERSFIELD, CALIFORNIA 93305 PHONE 325-7475

Thomas Oil Company
P.O. Box 6356
Bakersfield, California 93306

Date Received: 11/27/74
Date Reported: 11/29/74
Laboratory No.: 11353

WATER ANALYSIS

Sample Description: Ring 20 #3 Sample #2

Salinity as NaCl	864.3	PPM
Electrical Conductivity	148	$Kx10^5$
Boron	1.3	PPM

B C LABORATORIES, INC.

BY J. J. Eglin

mw

DI 7000, RD 700 #1 Zero

Ca - 100
Cl - 10 -
M - 6
0 .8

2 wells
Ca 2200 ppm
RDJ Sr.

BC LABORATORIES Inc.
OIL - CORES - SOIL - WATER
3016 UNION AVENUE
BAKERSFIELD, CALIFORNIA 93305
Phone (805) 325-7475
J. J. EGLIN, Reg. Chem. Engr.

Submitted By: Thomas Oil Company
4311 Meadowview Place
Encino, California 91316

Marked: Attention: Mr. Frank Mondary

Co-mingled water sample from Section 20, Glide 19 & Vadder U. S. L. Tank Farm
West Mt. Poso 11/13/74

Date Reported: 11/21/74
Date Received: 11/13/74
Laboratory No.: 10995

WATER ANALYSIS (water for injection into well 20-3 Mt. Poso)

Sample Description:

pH or Hydrogen-ion activity	------	7.7
E.C. x 10^6 @ 25°C (salinity)	------	3000
Electrical Resistivity Ohms M'/M	------	3.33

Constituents, P. P. M. (parts per million)

ron, (B)	----------	
cium, (Ca)	----------	3.2
nesium, (Mg)	----------	58
um, (Na)	----------	3.8
ssium, (K)	----------	610
onates, (CO_3)	----------	19.3
nates, (HCO_3)	----------	0
ion, (Cl)	----------	474.6
ate, (SO_4)	----------	793
(NO_3)	less than	5
, (F)	less than	0.5
n, (Fe)	----------	
(Cu)	less than	0.79
e, (Mn)	----------	0.01
, (Cr)		0.12
(Al)		
a)		
l)	----------	

Total Salinity (as NaCl) 1,752. ppm

Chlorides (as NaCl) 1,308.2 ppm

52

S

as $CaCO_3$	----------	
n extractable)		
Solids		160.8 (9.4 gr/gal)
l Solids	----------	1,723

1741

Inc.

ATTACHMENT E

Project Application, and Division Project Approval Correspondence

STATE OF CALIFORNIA—RESOURCES AGENCY

RONALD REAGAN, Governor

DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

120 KENTUCKY STREET

BAKERSFIELD, CALIFORNIA 93305

December 16, 1974

WATER DISPOSAL PROJECT
Mount Poso Field
West Area
Olcese Zone

L. C. Fiedler
THOMAS OIL COMPANY
2401 Eric Way #45
Bakersfield, CA 93306

Gentlemen:

Your proposal to initiate a water disposal project in the Olcese Zone in the West Area of Mount Poso is approved provided:

1. Form OG105 or Form OG107 shall be used whenever a new well is to be drilled for use as an injection well, or whenever an existing well is to be converted to an injection well, even if no work is required. (Specific requirements will be outlined in our answer to your notice.)
2. A monthly statement shall be filed with this Division on our Form 110-B showing the amount of fluid injected, pressure required, and source of injected fluid.
3. A chemical analysis of the fluid to be injected shall be made and filed with this Division whenever the source of injection fluid is changed, or as requested by this office.
4. An accurate, operating pressure gauge or chart shall be maintained at the wellhead at all times. Additional pressure monitoring devices may be required for wells equipped with packers or multiple tubing strings.
5. This Division shall be notified to witness, within 30 days after injection is started, sufficient surveys to confirm that the injection fluid is confined to the intended zone. Subsequent periodic surveys may be required for continued surveillance. (Specific requirements will be determined on an individual well basis.)
6. A graph of tubing pressure, casing pressure and injection rate vs. time shall be maintained for each injection well and shall be available for periodic inspection by personnel from this Division.
7. The injection pressure gradient at the top of the injection zone in any injection well shall not exceed 0.8 psi/ft., without approval from this Division. Additional tests may be required to establish that no damage will occur due to excessive injection pressure.
8. All injection piping, valves and facilities shall meet or exceed design standards for the injection pressure and shall be maintained in a safe and leak-free condition.
9. Injection shall cease if any evidence of damage or pollution is observed, or upon written notice from this Division.

Yours truly,

A. G. Hluza

A. G. Hluza
Deputy Supervisor
FOH/ajc

cc: Department of Water Resources
Regional Water Quality Control Board
Mr. James C. Thomas III

Thomas Oil Company • 4311 MEADOW VIEW PLACE • ENCINO CALIF. 91316 • 213-981-5979 • 805-872-0613

December 26, 1974

United States Geological Survey
Federal Building, Room 309
800 Truxtun Avenue
Bakersfield, California 93301

Attention: Mr. Don Russell

Re: Conversion of suspended oilwell to water disposal well, U.S.L. 20-3, Sec. 20, T.27S., R.28E., M.D.B.& M, Kern County, California.

Dear Sir:

Thomas Oil Company proposes to convert suspended oilwell No. U.S.L. 20-3, Sec. 20, T.27S., R.28E., M.D.B.& M., West Mount Poso Oil Field to a water disposal well. The purpose is to comply with various Federal and State agencies relative to disposal of produced waters for the following properties located in Sec. 18, 19, and 20:

U.S.L. Union 18
U.S.L. Ring 18
U.S.L. Vedder
U.S.L. Ring 20

Comingled produced waters will be disposed of in the Olcese sand in the interval 920' - 1,130' (210' gross). The Olcese sand is Lower to Middle Miocene Age and is generally marine in origin. It is found to be oil productive in many areas of the San Joaquin Valley; and has been sidewall cored in the immediate area as spotty oil stained. The Olcese is oil productive in the following fields:

Ant Hills, Edison, Mountain View, Tejon,
North Tejon, Wheeler Ridge, Greeley, and Rio Bravo.

Structural conditions are depicted in the California Division of Oil and Gas Summary of Operations, Vol. 43, No. 2, 1057 and according to our geologic interpretation, Well No. 20-3 is located within a fault closure area. The West Mount Poso fault has provided a barrier to accumulation.

The attached report by B. C. Laboratories shows the chemical analysis of a combined sample of the water to be injected as follows:

Boron - 3.4 p.p.m., Electrical Conductivity (E.C.) - 2900 Micromhos and Total Salinity as NaCl - 1693.6 p.p.m.

This report also shows the analysis of a series of samples taken from Well No. "Ring 20" 3, beginning on November 27, 1974 when the casing opposite the Olcese sand was first perforated, until December 9, 1974.

It will be noted that the quality of the water from the Olcese declined as it was produced. When the well was originally completed the relatively fresh water from the drilling operations infiltrated the very permeable Olcese sand and became entrapped when the casing was cemented in the hole. During the testing procedure it was necessary to exhaust this previously introduced water before samples of the true formation water could be obtained. Therefore, samples 8, 9, and 10 on the attached report are representative of the actual formation water. An average of the analysis of these samples show the following:

Boron - 3.3 p.p.m., E.C. - 2933.3 Micromhos and
NaCl - 1713.0 p.p.m.

Regulations established by the State Regional Water Quality Control Board prohibits water to be discharged to the surface in this area if such water exceeds 1 p.p.m. Boron, 1,000 Micromhos E.C. and 200 p.p.m. chloride.

No known fresh water exists within the area.

The proposed program was established after the procedure was used for Well No. U.S.L. Bishop No. 6, Sec. 14, T.28S., R.28E., Sharktooth Field, Kern County, California. The project is outlined on the Application for Permit to Drill, Deepen, or Plug Back No. 42-R1425.

Your favorable consideration will be appreciated.

Yours truly,

THOMAS OIL COMPANY

William H. Park

William H. Park, Consulting Geologist

WHP/jk

Enclosure

309 Federal Building
800 Truxtun Avenue
Bakersfield, California 93301

December 27, 1974

Thoums Oil Company
4311 Meadow View Place
Encino, California 91316

Gentlemen:

Your request to convert well Ring 20-3, lease Sacramento 044132 to a waste water disposal well is hereby approved for use in disposing of approximately 4500 barrels of water per day of Union 18 lease Sec. 030614; Ring 18 lease Sec. 037934; Vedder lease Sec. 019289; Ring 20 lease Sec. 044132.

In order to comply with the State of California Water Quality Control Board regulations and with the USGS Notice to Lessees and Operators of October 21, 1974 (NTL-2) you have elected to dispose of the waste water into the Oicese sand interval 920-1130 of well Ring 20-3. A copy of NTL-2 is enclosed for your file. The chemical analysis of Oicese formation water is shown having an average boron content of 3.3 ppm and N_aCl of 1713 ppm both are considerably above the limits established for a water which may be safely disposed of in sumps. The electrical conductivity is almost three times the limit of 1,000 micromhos. The chemical analysis of the water to be injected show it also greatly exceeds the desireable limits, therefore, the water to be injected will not degrade any possible future water source. We believe water in the Oicese sand will be confined from horizontal movement by faults, especially the West Mount Poso fault and from vertical migration by the Freeman-Jewett silt which underlies the Oicese and by the Round Mountain silt which is above the formation.

We hereby approve the proposed commingling of fluids produced from the four leases and the disposal of waste water into the Oicese sand of well Ring 20-3 subject to the following conditions:

(1) A spinner survey, radio-activity or other type survey should be made at yearly intervals to confirm the waste water is confined to the Oicese.

(2) The injection pressure must not exceed the fracture gradient for the formation.

(3) We will be furnished duplicate copies of DOG form 110-B or other form showing amount of water injected each month.

(4) We reserve the right to modify or to order a cessation of injection of waste water if it should prove to be detrimental to any zone capable of producing a fresh water or if there should be surface damage caused by leaks, spills, etc.

Sincerely yours,

D. F. Russell
District Engineer

cc: Bryant-Park & Assoc., Inc.
1801 Oak Street, Room 18
Bakersfield, California 93301

Oil & Gas Supervisor, Pacific Area

Enclosures.

DFR:cr

Thomas Oil Company • 4311 MEADOW VIEW PLACE • ENCINO CALIF. 91316 • 213-981-5979 • 805-872-0613

November 14, 1974

12/10/74
W. Russell via Russell requested Attached

United States Geological Survey
Federal Building, Room 309
Bakersfield, California 93301

Attention: Mr. Don Russell

Re: Conversion of suspended oil-well to water disposal well, U.S.L. 20-3, Sec. 20, T. 27S., R. 28E., M.D.B.&M., Kern County, California
Sac. 044132

Dear Sir:

Thomas Oil Company proposes to convert suspended oilwell No. U.S.L. 20-3, Sec. 20, T. 27S., R. 28E., M.D.B.&M., West Mt. Poso Oil Field to a water disposal well. The purpose is to comply with various Federal and State Agencies relative to disposal of produced waters for the following properties located in Sec. 18, 19, & 20.

U.S.L. Union 18	Glide 19-B
U.S.L. Ring 18	U.S.L. Vedder
Glide 19	U.S.L. Ring 20

Comingled produced waters will be disposed of in the Olcese sand in the interval 920'-1130' (210' gross). The Olcese sand is Lower to Middle Miocene Age and is generally marine in origin. It is found to be Oil Productive in many areas of the San Joaquin Valley, and has been sidewall cored in the immediate area as spotty oil stained. The Olcese is oil productive in the following fields.

Ant Hills, Edison, Mountain View, Tejon, North Tejon, Wheeler Ridge, Greeley, & Rio Bravo

Structural conditions are depicted in the California Division of Oil and Gas Summary of Operations, Vol. 43, No. 2, ~~1957~~ 1957 and according to our geologic interpretation, Well No. 20-3 is located within a fault closure area. The West Mt. Poso fault has provided a barrier to accumulation.

Analysis of current comingled produced waters is being made by B. C. Lab in order to compare Olcese water and injected water, when Olcese sample is secured.

Regulations established by the State Regional Water Quality Control Board prohibits water discharged onto the surface if said water exceeds 1 p.p.m. Boron, 200 p.p.m. Chloride, and 1,000 umhos specific conductance.

No known fresh water exists within the area.

The proposed program was established after the proceedure used for well No. U.S.L. Bishop #6, Sec. 14, T. 28S., R. 28E., Sharktooth Field, Kern County, California. The project is outlined on the Application for Permit to Drill, Deepen, or Plug Back No. 42-R1425 attached.

Your favorable consideration is appreciated.

Yours truly,

THOMAS OIL COMPANY

F. P. Mondary, Production Engineer

FPM:jp

309 Federal Building
800 Truxtun Avenue
Bakersfield, California 93301

December 27, 1979

Thomas Oil Company
4311 Meadow View Place
Encino, California 91316

Gentlemen:

Your request to convert well Ring 20-3, lease Sacramento 044132 to a waste water disposal well is hereby approved for use in disposing of approximately 4500 barrels of water per day of Union 19 lease Sec. 030614; Ring 18 lease Sec. 037994; Veddar lease Sec. 019268; Ring 20 lease Sec. 044132.

In order to comply with the State of California Water Quality Control Board regulations and with the USGS Notice to Lessees and Operators of October 21, 1974 (NTL-2) you have elected to dispose of the waste water into the Oleese sand interval 920-1130 of well Ring 20-3. A copy of NTL-2 is enclosed for your file. The chemical analysis of Oleese formation water is shown having an average boron content of 3.3 ppm and N_aCl of 1713 ppm both are considerably above the limits established for a water which may be safely disposed of in ampa. The electrical conductivity is almost three times the limit of 1,000 micromhos. The chemical analysis of the water to be injected show it also greatly exceeds the desireable limits, therefore, the water to be injected will not degrade any possible future water source. We believe water in the Oleese sand will be confined from horizontal movement by faults, especially the West Mount Poso fault and from vertical migration by the Freeman-Jewett silt which underlies the Oleese and by the Round Mountain silt which is above the formation.

We hereby approve the proposed commingling of fluids produced from the four leases and the disposal of waste water into the Oleese sand of well Ring 20-3 subject to the following conditions:

(1) A spinner survey, radio-activity or other type survey should be made at yearly intervals to confirm the waste water is confined to the Oleese.

(2) The injection pressure must not exceed the fracture gradient for the formation.

(3) We will be furnished duplicate copies of DOG form 110-B or other form showing amount of water injected each month.

(4) We reserve the right to modify or to order a cessation of injection of waste water if it should prove to be detrimental to any zone capable of producing a fresh water or if there should be surface damage caused by leaks, spills, etc.

Sincerely yours,

D. F. Russell

D. F. Russell
District Engineer

cc: Bryant-Park & Assoc., Inc.
1801 Oak Street, Room 18
Bakersfield, California 93301

Oil & Gas Supervisor, Pacific Area

Enclosures

DFR:cr

STATE OF CALIFORNIA — RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
4800 STOCKDALE HWY., SUITE #417
BAKERSFIELD, CALIFORNIA 93309
(805) 322-4031

January 31, 1980

Mr. Frank P. Mondary
THOMAS OIL COMPANY
P. O. Box 5368
Bakersfield, Ca. 93308

WATER DISPOSAL PROJECT
Mount Poso Field
West Area
Olcese Zone

Gentlemen:

Continuation of your water disposal project in the Olcese Zone in the West area of Mount Poso Field is approved, provided:

1. Form OG105 or Form OG107 shall be used whenever a new well is to be drilled for use as an injection well, or whenever an existing well is to be converted to an injected well, even if no work is required. (Specific requirements will be outlined in our answer to your notice.)

2. A monthly statement shall be filed with this Division on our Form OG110B on or before the last day of each month, for the preceding month, showing the amount of fluid injected, pressure required and source of injected fluid.

3. A chemical analysis of the fluid to be injected shall be made and filed with this Division whenever the source of injection fluid is changed, or as requested by this office.

4. An accurate, operating pressure gauge or chart shall be maintained at the wellhead at all times. Additional pressure monitoring devices may be required for wells equipped with packers or multiple tubing strings.

5. Injection profile surveys for all fluid injection wells shall be filed with the Division within three (3) months after injection has commenced, once every year thereafter, after any significant anomalous rate or pressure change, or as requested by the Division, to confirm that the injection fluid is confined to the proper zone or zones. This monitoring schedule may be modified by the district deputy. This office shall be notified before such surveys are made, as surveys may be witnessed by a Division inspector.

6. Data shall be maintained to show performance of the project and to establish that no damage to life, health, property, or natural resources is occurring by reason of the project. Injection shall be stopped if there is evidence of such damage, or loss of hydrocarbons, or upon written notice from the Division. Project data shall be available for periodic inspection by Division personnel.

7. The injection pressure gradient at the top of the injection zone in any injection well shall not exceed 0.8 psi/ft., without approval from this Division. Additional tests may be required to establish that no damage will occur due to excessive injection pressure.

8. All injection piping, valves, and facilities shall meet or exceed design standards for the injection pressure and shall be maintained in a safe and leak-free condition.

9. This office shall be notified of any anticipated changes in a project resulting in alteration of conditions originally approved, such as: increase in size, change of injection interval, or increase in injection pressure. Such changes shall not be carried out without Division approval.

). Additional data will be supplied upon the request of the Division.

ours truly,

R. B. Hunter for

. W. Hunter
eputy Supervisor

c: Department of Water Resources
Regional Water Quality Control Board

State of California — The Resources Agency of California

Memorandum

To : Mr. Dave Mitchell
Division of Oil and Gas
Department of Conservation
4800 Stockdale Highway, Suite 417
Bakersfield, CA 93309

Date : 3 February 1982

RECEIVED
FEB 05 1982
DIVISION OF OIL & GAS
BAKERSFIELD

From : **California Regional Water Quality Control Board**
3374 East Shields Avenue, Fresno, California 93723

Subject: THOMAS OIL COMPANY, BRINE DISPOSAL WELLS, MOUNT POSO OIL FIELD, KERN COUNTY

We have reviewed your recent inquiry on the subject disposal wells.

Attached is a memorandum reviewing the wells and current Board policy. The memorandum concludes that the operators should be required to demonstrate that the wells can meet our requirements before expanded injection is allowed. However, in the interim it appears reasonable to allow continued injection of existing quality and quantity of Vedder Formation water into the Olcese Formation.

If you have any questions, please call Tim Souther at this office.

Sargeant J. Green

SARGEANT J. GREEN
Senior Land and Water Use Analyst

TGS:hmm

Attachment

MEMORANDUM

TO: Sargeant J. Green

DATE: 3 February 1982

FROM: Timothy G. Souther

SUBJECT: THOMAS OIL COMPANY, BRINE DISPOSAL WELLS, MOUNT POSO OIL FIELD, KERN COUNTY

I have reviewed the letter from the Division of Oil and Gas of 8 December 1981, in which they requested information on requirements on nondegradation of ground water as they relate to the subject facilities.

I noted that Thomas Oil Company and other operators inject up to 20,000 barrels per day of oil field production brine from Vedder Zone into the shallow Olcese Formation. The Vedder Zone was found to be poorer in quality than the Olcese based on analyses submitted by Thomas Oil Company (1,590 mg/l total dissolved solids vs. 1,191 mg/l).

In discussion with Kern County Health Department, I have been informed that ground water from the Olcese is used for agricultural purposes in the vicinity of the injection wells.

It is my understanding that produced water from the Vedder Zone is also used for stock watering. I do not know of any other beneficial uses of these zones.

My analysis of the situation is as follows. The University of California Committee of Consultants has issued "Guidelines for Interpretation of Water Quality for Agriculture". The Committee indicates that you can expect problems when irrigation water quality exceeds 2,000 mg/l total dissolved solids or stock water quality exceeds 3,000 mg/l total dissolved soids.

The "Waste Discharge Requirements for Nonsewerable Waste Disposal to Land" as published by the State Water Resources Control Board indicates the following:

> "Wells suitable for the disposal of wastes shall provide protection to usable ground water as determined by the following conditions:
>
> a. The receiving formation shall not have continuity with any usable ground water.
>
> b. Construction and injection procedures shall be such that no passageways are developed which will permit the movement of wastes to a usable aquifer or to the surface.
>
> c. Certification has been provided by the California Division of Oil and Gas that construction and operation of waste wells under its jurisdiction conform to regulations of the Division."

The "Water Quality Control Plan Report for the Tulare Lake Basin" as established by the Regional Board states:

> "All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of the resource."

From the information currently available, it is apparent that oil field operators in Mount Poso Oil Field currently inject wastewater into a zone that contains water that is beneficially used. However, the wastewater does not contain sufficient dissolved matter to degrade the Olcese beyond its current beneficial uses.

Before expanded injection is allowed into the Olcese, the operators should be required to demonstrate that the wells can meet the provisions of the Nonsewerable Waste Requirements. In the interim, it is reasonable to allow the continued injection of the existing quantity and quality of Vedder water into the Olcese.

TIMOTHY G. SOUTHER
Staff Engineer

TGS:hmm

MACPHERSON
OIL COMPANY

P.O. BOX 5368
BAKERSFIELD, CALIFORNIA 93388
TEL: 805 393 3204 FAX: 805 393 8065

2716 OCEAN PARK BOULEVARD, SUITE 3080
SANTA MONICA, CALIFORNIA 90405
TEL: 213 452 3880 FAX: 213 452 0058

October 17, 1991

Joyce Jaszarowski
Division of Oil and Gas
4800 Stockdale Hwy Suite #417
Bakersfield, CA 93309

Subject: Proposed volume expansion for Water Disposal Project, Code 48818029, Mt. Poso Field-West Area.

Dear Ms Jaszarowski:

The proposed water disposal project expansion on Macpherson Oil Company's United States Lease (USL) in sections 18 and 20, T27S, R28E, is requested to increase the volume of disposed produced water from these USL properties. The proposed volume expansion is for a combined disposal rate of 15,000 BPD, from the present approved disposal rate of 8,000 BPD. The two approved disposal wells will remain the same. Currently, RING 20 #3 is active and RING 18 #13 is idle. The zone of disposal will remain the same which is the Olcese Formation. The produced water requiring disposal is from the Vedder Sand.

A geochemical analysis of the Vedder water from Union 18 #6, section 18, T27S, R28E in included. This March 1991 analysis reports that the Vedder water has a specific gravity of 1.002, and TDS of 1915. All production in the project area is from the Vedder zone, thus the disposed fluid is also from the Vedder.

The increase in volume of disposed produced water is necessary due to planned production increases from submersible pump installations on several producing wells in the project area. Also, the Mount Poso Cogeneration Company (MPCC), who currently uses a large percentage of the properties produced water for steam generation, is planning to reduce that percentage after a source water well is drilled by early 1992. With the increase in production and the decrease in water use by MPCC, the need for expanded disposal volumes is essential for effective lease management. Concurrently, a request to expand the water disposal project code 48818026, also on this lease, is being submitted.

Thank you for your attention and consideration regarding this expansion request. Please notify myself or Rocky Freeman at 393-3204, of questions or further requirements for this project.

Sincerely,

Chris Williamson
Engineer

Encl.

STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, *Governor*

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
4800 STOCKDALE HWY., SUITE # 417
BAKERSFIELD, CALIFORNIA 93309
(805) 322-4031

November 13, 1991

Mr. Chris E. Williamson
MACPHERSON OIL COMPANY
P. O. Box 5368
Bakersfield, CA 93388

Re: WATER DISPOSAL PROJECT
Mount Poso Field
Olcese Zone

Dear Mr. Williamson:

This office has received and reviewed your October 17, 1991 proposal to expand your Olcese zone water disposal project in Mount Poso field. Your proposal must be denied.

On November 27, 1981, this office mailed a letter to Thomas Oil Company, the operator at that time, stating that the Olcese zone in Mount Poso field is an underground source of drinking water under the Federal U.I.C. program (a copy of this letter is attached for your records). As such, this zone was designated a non-exempt aquifer. The California Regional Water Quality Control Board at that time issued a statement outlining the potential use of this zone and concluded that injection of oilfield water could be allowed but should be restricted. The Division of Oil and Gas, in our November 1981 letter, stipulated that injection into the Olcese would be restricted to existing conditions.

Since that time, this office has worked toward not only restricting but eventually eliminating the use of the Olcese zone in Mount Poso field for Class II injection. It is for this reason that your proposal to expand injection into this zone must be rejected. It is further this Division's ruling that injection into the Olcese zone be limited to currently active wells and current volumes and intervals. Well "Ring 18" 13, section 18, township 27S, range 28E, is shown as idle in Division records, hence reactivation of this well is henceforth prohibited and approval to inject rescinded. Injection into well "Ring 20" 3, section 20, township 27S, range 28E, is allowed to continue in its present interval at a maximum of 4,000 barrels per day until such time as the well is idled for 30 or more consecutive days, or until the well is reworked requiring perforating, plugging, or remedial cementing work, or until so ordered by this Division. We will be glad to work with you on identifying and permitting alternative zones and wells for injection.

If you have any questions, please contact this office.

Yours truly,

David Mitchell

David Mitchell
Senior Oil and Gas Engineer

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
4800 STOCKDALE HWY., SUITE # 417
BAKERSFIELD, CALIFORNIA 93309
(805) 322-4031

November 27, 1981

Thomas Oil Company
P.O. Box 5368
Bakersfield, CA 93388

Gentlemen:

In April of this year, this Division submitted its underground injection control program to the Environmental Protection Agency for review and approval to permit the California Division of Oil and Gas to retain control of the injection of produced oilfield water. Within this application, we specified that due to the fact the Olces Zone is a potential source of drinking water, as defined by the U.I.C., no additional injection would be permitted, other than those wells and intervals approved prior to April 1981.

As a result, we cannot approve your applications for four new injectors into this zone and we are returning these notices to you. If you have any questions, please contact this office.

Yours truly,

A. G. HLUZA
Acting Deputy Supervisor

By David C. Mitchell
David C. Mitchell
Associate Oil & Gas Engineer

DCM/bp

attachments 8

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
4800 STOCKDALE HWY., SUITE # 417
BAKERSFIELD, CALIFORNIA 93309
(805) 322-4031

November 27, 1981

Thomas Oil Company
P.O. Box 5368
Bakersfield, CA 93388

Gentlemen:

In April of this year, this Division submitted its underground injection control program to the Environmental Protection Agency for review and approval to permit the California Division of Oil and Gas to retain control of the injection of produced oilfield water. Within this application, we specified that due to the fact the Olces Zone is a potential source of drinking water, as defined by the U.I.C., no additional injection would be permitted, other than those wells and intervals approved prior to April 1981.

As a result, we cannot approve your applications for four new injectors into this zone and we are returning these notices to you. If you have any questions, please contact this office.

Yours truly,

A. G. HLUZA
Acting Deputy Supervisor

By David C. Mitchell
David C. Mitchell
Associate Oil & Gas Engineer

DCM/bp

attachments 8

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
4800 STOCKDALE HWY., SUITE 417
BAKERSFIELD, CALIFORNIA 93309-2694
Phone (805) 322-4031
TELEFAX (805) 861-0279

August 15, 1996

Mr. Paul K. Duncan
Macpherson Oil Co.
P. O. Box 5368
Bakersfield, CA 93388

WATER DISPOSAL PROJECT
Mount Poso Field
Olcese Zone
Sec. 18,20, T.27S., R.28E

Project Code: 48818029
Max. Permitted Volume: 4000 B/D
Max. Permitted Well(s): 2
Note: Notify this office if either of these values are exceeded.

Dear Mr. Duncan:

The continuance of the project designated above is approved provided:

1. Notices of intention to drill, redrill, deepen, rework, or abandon, on current Division forms (OG105, OG107, OG108) shall be completed and submitted to the Division for approval whenever a new well is to be drilled for use as an injection well and whenever an existing well is converted to an injection well, even if no work is required on the well.

2. This office shall be notified of any anticipated changes in a project resulting in alteration of conditions originally approved, such as: increase in size, change of injection interval, or increase in injection pressures. Such changes shall not be carried out without Division approval.

3. A monthly Injection Report shall be filed with this Division on our Form OG110B on or before the last day of each month, for the preceding month, showing the amount of fluid injected, and surface pressure required for each injection well.

4. A chemical analysis of the fluid to be injected shall be made and filed with this Division whenever the source of injection fluid is changed, or as requested by this office. ALL FLUIDS MUST MEET CLASS II CRITERIA.

5. All fluid sampling and analyses required by this Division are done in accordance with the provisions of the Division's Quality Assurance Program. Please refer to the Division's "Notice to Oil and Gas Operators" dated: November 17, 1986.

6. An accurate, operating pressure gauge or pressure recording device shall be available at all times, and all injection wells shall be equipped for installation and operation of such gauge or device. A gauge or device used for injection pressure testing, which is permanently affixed to the well or any part of the injection system, shall be calibrated at least every six months. Portable gauges shall be calibrated at least every two months. Evidence of such calibration shall be available to the Division upon request.

7. All injection wells shall be equipped with tubing and packer set immediately above the approved zone of injection upon completion or recompletion, unless a variance to this requirement has been granted by this office.

8. A Standard Annular Pressure Test (SAPT) shall be run, as outlined in the Notice to Operators dated 1/9/90, prior to injecting into any well(s) being drilled or reworked for the purpose of injection and every five years thereafter or as requested by the Division. The Division shall be notified to witness such tests.

9. Injection profile surveys for all fluid injection wells shall be filed with the Division within three (3) months after injection has commenced, once every year thereafter, after any significant anomalous rate or pressure change, or as requested by the Division, to confirm that the injection fluid is confined to the proper zone or zones. This monitoring schedule may be modified by the district deputy. This office shall be notified before such surveys are made, as surveys may be witnessed by the Division inspector.

10. Data shall be maintained to show performance of the project and to establish that no damage to life, health, property, or natural resources is occurring by reason of the project. Injection shall be stopped if there is evidence of such damage, of loss of hydrocarbons, or upon written notice from the Division. Project data shall be available for periodic inspection by Division personnel.

11. The maximum allowable injection pressure gradient is limited to 0.8 psi per foot of depth as measured at the top perforation. Prior to any sustained injection above this gradient, rate-pressure tests shall be made. The test shall begin at the hydrostatic gradient of the injection fluid to be used and shall continue until either the intended maximum injection pressure is reached or until the formation fractures, whichever occurs first. These tests tests shall be witnessed, unless otherwise instructed, and the test results submitted to this Division for approval.

All injection piping, valves, and facilities shall m or exceed design standards for the injection ssure and shall be maintained in a safe and leak-free condition.

13. Any remedial work needed as a result of this project on idle, abandoned, or deeper zone wells in order to protect oil, gas, or freshwater zones, shall be the responsibility of the project operator.

14. Additional data will be supplied upon the request of the Division.

Sincerely,

Hal Bopp
Deputy Supervisor

cc: RWQCB
UIC file

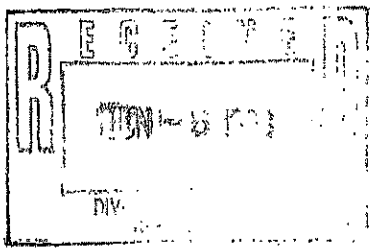
uic\wp\wd

MACPHERSON
OIL COMPANY

P.O. BOX 5368
BAKERSFIELD, CALIFORNIA 93388
TEL: 805 393-3204 FAX: 805 393-8065

2716 OCEAN PARK BOULEVARD, SUITE 3080
SANTA MONICA, CALIFORNIA 90405
TEL: 310 452-3880 FAX: 310 452-0058

June 2, 1998



State of California
Department of Conservation
Division of Oil, Gas, & Geothermal Resources
4800 Stockdale Highway, Suite 417

Attention: Rich Theskin

Re: Variance for Standard Annular Pressure Test
Mount Poso
West Area
Vedder Formation & Olcese Formation
Water Disposal Projects
Sec.18 & 20, T27S, R28E, MDB&M

Macpherson Oil Company requests a variance to the California Code of Regulations Section 1724.10 (j)(3) concerning annular pressure tests in water disposal wells located in Sections 18 and 20, T28S, R29E, MDB&M in the Mount Poso Field, West Area. Macpherson requests the ability to dispose of water down tubing and utilizing a packer without running the required biannual SAPT. The annual fluid migration test for casing, tubing and packer will continue to be conducted.

As you know many of our wells have packers and tubing installed because of holes in the casing. SAPT's for these wells are not feasible, hence the variance request. It is Macpherson Oil Company's position that the produced water injected from the Vedder Formation (See attached water analysis – Exhibit 1) is of a Class 2 water quality category and the closest to fresh water zone in the area, the Olcese Formation (See attached water analysis – Exhibit 2) is also a Class 2 category. Both analysis are fairly low in TDS and have similar Boron content and are basically of good quality. If produced water was to accidentally breech the tubing/packer protective string and outside casing annular cement job, there would be no contamination of the Olcese Formation.

Macpherson Oil Company
Variance Request for SAPT
West Area
Mount Poso Field

Projects and wells affected by this variance are as follows:

Project #	48818026	Mount Poso Field	West Area
	Ring 18 #16		
Project#	48818029	Mount Poso Field	West Area
	Ring 20 #3		

The most recent water injection survey for the Ring 18 #16 shows no fluid migration around the packer or above the top perf. All water injection is contained in the permitted zone. We will lower the packer to approximately 100' above the top perf prior to the next due date for the water injection survey. The most recent water injection survey for the Ring 20 #3 shows no fluid migration around the packer or above the top perf. All water injection is contained in the permitted zone.

Thank you for your consideration in this matter. If you have any questions or would like to discuss this further, please call me at our Bakersfield office.

Best regards,

David P. Niewiara

David P. Niewiara
Production Engineer

STATE OF CALIFORNIA-THE RESOURCES AGENCY

PETE WILSON, Gover

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
4800 STOCKDALE HWY., SUITE 417
BAKERSFIELD, CALIFORNIA 93309-2694
Phone (805) 322-4031
TELEFAX (805) 861-0279

June 10, 1998

Mr. David P. Niewiara
Macpherson Oil Co.
P.O. Box 5368
Bakersfield, CA 93388

Re: SAPT Variance Request for Projects 48818029 (Olcese) & 48818026 (Vedder) in Mount Poso, Sec. 18 & 20, T.27S, R.28E

Dear Mr. Niewiara:

The above-mentioned request, dated June 2, 1998, has been reviewed and approved provided that the following conditions are met:

1. the wells in these projects must be surveyed every 6 months instead of every year, and
2. the source of the injection fluid must remain the same. Any new sources must be pre-approved by this office.

If you have any questions, please don't hesitate to call.

Sincerely,

Richard Thesken

Richard S. Thesken
Associate Engineer

STATE OF CALIFORNIA, RESOURCES AGENCY
ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES
4800 Stockdale Highway • Suite 417 • BAKERSFIELD, CALIFORNIA 93309
PHONE 661 / 322-4031 • FAX 661 / 861-0279 • WEBSITE conservation.ca.gov/DOG

April 15, 2009

Macpherson Oil Co. (M0950)
Mr. Scott Mundy
P.O. Box 5368
Bakersfield, CA 93388

PROJECT REVIEW
Project Code(s): 48818032, 48818026, 48818029, 62815026

Dear Mr. Mundy:

This Division maintains a continuous monitoring and surveillance program regarding enhanced recovery and water disposal projects. A portion of this program involves conducting an annual review of these projects.

We wish to review the above mentioned project(s) located in Kern County. In order to complete this review we have provided a questionnaire to be addressed. For each project, please answer the applicable questions and return the completed form(s) to this office within 45 days. The review will be handled entirely by mail. Failure to submit your data within the above time frame will result in the suspension of your project(s) unless previous arrangements have been made.

I look forward to hearing from you in the near future. If you have any questions, please contact me at (661) 334-3674.

Sincerely,

Burton R. Ellison
Associate Oil and Gas Engineer
Division of Oil, Gas and Geothermal Resources

Attachments

uic\wp\apr-301

June 6, 2006 Annual Project Review

M0950 Operator: Macpherson Oil Co.

Project Type: WD Project Code: 48818029

Field: Mount Poso Area: West

Zone: OLCESE

Location: 18 27/28 20 27/28

PLEASE USE EXTRA PAGES AS NEEDED.

1. Number of Injectors: ACTIVE: 1 IDLE: 1

2. Injection Pressure and Rate:

a. average pressure: 6 psig maximum pressure: 206 psig

b. average rate: 1100 bbl/d/well maximum rate: STAX bbl/d/well

3. Injection Fluid Type:

✓ Produced Water _____ Scrubber Effluent _____ Regeneration Brine

_____ Other (Specify) _____

PLEASE SUBMIT AN INJECTATE ANALYSIS NOT OVER TWO YEARS OLD, TO INCLUDE: Ca, Mg, Na, K, Fe, Cl, SO4, B, Total Dissolved Solids, pH, Alkalinity, Hardness, Resistivity, and Electrical Conductivity.

4. Self-Generated and Outside Source(s) of Injection Fluid (MUST complete if active):

A. Leases or other sources operated by you that are associated with this project:

1. Field: Mt. Poso Zone: Vedder

Lease: Ring 18-Ring 32-Unit 18 By: _____ pipeline _____ truck

2. Field: Vedder Jr Zone: _____

Lease: _____ By: _____ pipeline _____ truck

B. Leases or other sources operated by others associated with this project:

Do you receive a net-profit compensation for this service? _____

1. Operator: _____ Field: _____

Zone: _____ Lease: _____

Transport by: _____ pipeline _____ truck

2. Operator: _____ Field: _____

Zone: _____ Lease: _____

Transport by: _____ pipeline _____ truck

Safeguards against unauthorized unloading: _____

5. For Each Trucked Source Noted in # 4:

   a. injectate source.

   b. name of authorized transportation hauler.

   c. delivery schedule(s).

   d. average loads per day or per week and volumes.

6. Anticipated project changes: (expansions, abds, rate chg, fluid chg, etc.)

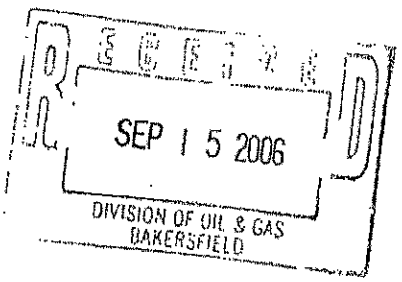
None

7. Plans for Idle Projects:

   If the source lease(s) is active, what is the disposal method and disposition of the fluid previously allocated to this project?

8. Plans for Idle Injectors:

None



Other Data Necessary to Complete This Review:

Operator Signature: _____ Date: 6-28-06

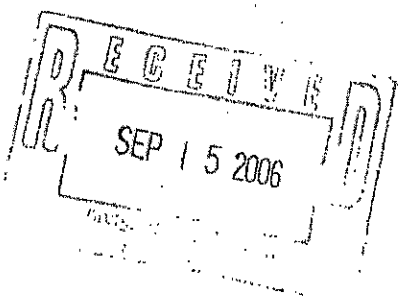
Day Phone: 393-3264 Evening Phone: _____ Emergency Phone: _____

Please check the attached list of well(s) for accuracy and note any changes, including any wells missing from the list.

June 6, 2006

WELLS IN PROJECTS BEING REVIEWED
District 4
Bakersfield, CA

PROJECT CODE	Well Designation	API #	Sec	TWN	RGE	Well Status
48818029	"Ring 18" 13	029-14052	18	27S	28E	R
	"Ring 20" 3	029-14064	20			A



NATURAL RESOURCES AGENCY

DEPARTMENT OF CONSERVATION

Managing California's Working Lands

Division of Oil, Gas, & Geothermal Resources

4800 Stockdale Highway • Suite 417 • BAKERSFIELD, CALIFORNIA 93309

PHONE 661 / 322-4031 • FAX 661 / 861-0279 • WEBSITE conservation.ca.gov/DOG

September 29, 2010

Macpherson Oil Company (M0950)
Mr. Joseph Butler
P.O. Box 5368
Bakersfield, CA 93388

PROJECT REVIEW - SUSPENSION
Project Code(s):48818029

Dear Mr. Butler:

During the annual injection project review of your above referenced project, it was noted that this project has been idle and that you have no short term plans for re-activation.

Therefore, effective today, this project has been suspended and approval to inject is hereby rescinded. In order to resume injection, a written request must be submitted to this office. It may also be necessary to furnish this Division with a current fluid stream analysis at that time.

If you have any questions, please call Bill Penderel at (661) 334-3659.

Sincerely,

Randy Adams
Deputy Supervisor

CERTIFIED MAIL # 7009 2820 0001 6379 5966

uic\wp\projsusp

Mt Poso
Oil Case Zone

ATTACHMENT F

Macpherson Operating Company, Well File, Ring 2-03

September 14 1961

Mr. Clarke N. Simm
PRODUCING PROPERTIES, INC.
9890 Wilshire Blvd.
Beverly Hills California

Dear Sir:

On May 5, 1955, a notice of intention to redrill and a drilling bond were filed with this office by Geo. W. Ring and Frank L. Ring for well No. 20-3, Sec. 20, T. 27 S., R. 28 E., M.D.B.&M., Mount Poso field.

According to our records the bottom of the hole has been effectively abandoned but the well was never redrilled.

Since the bond is still in effect, please inform me of your intentions as to recompletion to production or final abandonment of this well.

Yours truly

G G PEIRCE
Deputy Supervisor

By William H. Park
William H. Park
Associate Oil and Gas Supervisor

WHP:EH

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P B 455-314

Mr. P V Lea
2609 11 Street
Bakersfield, California
Agent for GEO. W. KING & FRANK L. KING

Bakersfield, Calif.
May 9, 1955

DEAR SIR:

Your proposal to Redrill Well No. 20-3,

Section 20, T. 27 S, R. 28 E MD B. & M., Mount Poso Field, Kern County,

dated May 4, 1955, received May 5, 1955, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS in addition to or at variance with those shown in the notice quoted below:
7" cemented 2272', four 1/2" holes at 2250' WSO

THE NOTICE STATES:
"The present condition of the well is as follows:
Total depth: 2317'
Casing: 7" - 2272', cemented.
5½" - 2316', 89' liner, perforated 2261 to 2316'
Average Production: 5 bbls net oil per day, cut 98%."

PROPOSAL:
"The proposed work is as follows:
Clean out hole to 2316',
Set cement retainer in 7" casing and pump in cement to plug hole from 2316' up into 7" casing to approximately 2100',
Shoot off and pull 7" casing from approximately 1500' or from where ever it can be freed.
Place cement plug on top of 7" stub and set whipstock.
Directionally redrill to bottom hole 100' to 125' South of surface location.
Cement 7" casing above oil sand estimated at about 2265',
Complete with 5½" perforated liner at about 2295'.

DECISION:
THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test of the 7" water shut-off with the hole open not more than 5' below the casing shoe.

5/16/55
Leo Park will file
History of work done in plugging
back. Well was never redrill.
cc to Company

Bond 9687, 4/29/55

MBA:jw

Memo: Mathews Jr/st
Witnessed top of plug
Dumped on surface

E. H. MUSSER, State Oil and Gas Supervisor

By G. G. Reiter, Deputy

11210 1-55 30M SPO

FORM 107. 42068 3-37 10M
(CALIFORNIA STATE PRINTING OFFICE)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAY 5 1955
BAKERSFIELD, CALIFORNIA

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given fifteen days before work begins when possible

Bakersfield Calif. May 4, 1955

DIVISION OF OIL AND GAS

Bakersfield, Calif.

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of ~~deepening~~, redrilling, ~~plugging or altering casing~~ at well No. 20 - 3
(Cross out unnecessary words)

, Sec. 20, T. 27 S, R. 28 E, M.D. B. & M.

Mount Poso Field, Kern County.

The present condition of the well is as follows:

Total depth: 2317'
Casing: 7" - 2272', cemented.
5½" - 2316', 89' liner, perforated 2261 to 2316'.
Average Production: 5 bbls net oil per day, cut 98%.

The proposed work is as follows:

Clean out hole to 2316'.
Set cement retainer in 7" casing and pump in cement to plug hole from 2316' up into 7" casing to approximately 2100'.
Shoot off and pull 7" casing from approximately 1500' or from where ever it can be freed.
Place cement plug on top of 7" stub and set whipstock.
Directionally redrill to bottom hole 100' to 125' South of surface location.
Cement 7" casing above oil sand estimated at about 2265'.
Complete with 5½" perforated liner at about 2295'.

Redrill

Reference to file of date

Map & Book	U S	Lead	Card	Forms 1	Forms 21
		9687 5/9/55	1609	7	EA

GEO. W. RING and FRANK L. RING
(Name of Operator)

By

Westaven

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

121
card
150b
map & book

6/27/49

COMPLETED PRODUCING
11 - 6 - 48

1613 Sixteenth Street
Bakersfield, California
June 9, 1949

Mr. P. V. Lee, Agent
Geo. N. Ring & Frank L. Ring
Rm. 104 Morgan Bldg.
Bakersfield, California

Dear Sir:

In accordance with a telephone conversation between you and Engineer Kasline, of this Division, I am correcting your notice to drill well No. 20-3, Sec. 20, T. 27 S., R. 28 E., M. D. B. & M., Mt. Poso field, dated October 15, 1948, and our Report No. P-SD-33193, in answer thereto, to show the following elevations:

949' KB

Yours truly,

H. H. Duncan

Deputy Supervisor

/RH
cc - R. D. Bush (2)
- Company

notice
report
card
127

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T-4E-26503

Bakersfield, Calif. October 27, 1943

Mr. P. T. Lee, Supt.,
Rm. 104, Morgan Bldg., Delano, Calif.
Agent for Ring Oil Company

DEAR SIR:

Your well No. 20-3, Sec. 20, T. 27S, R. 23E, M. D. B & M.
18. Poso Field, in Kern County, was tested for water shut-off
on October 26, 1943 Mr. D. W. Fawcett, designated by the supervisor,
was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present P. Lee, Superintendent &
E. Wiles, Tester Operator.

Shut-off data: 7 in. 17&20 lb. casing was cemented around the shoe at 2272 ft.
on October 24, 1943 in. hole with 300 sacks of cement
of which 10 sacks was left in casing.

Casing record of well: 7" cem. 2272', perf. 4 holes 2250', W.S.O.

Present depth 2317 ft. Bridged with cement from 2272 ft. to 2260 ft. Cleaned out to 2260 ft. for test.
A pressure of 500 lb. was applied to the inside of casing for 30 min. without loss after cleaning out to 2225 ft.
A Johnston combination gun & tester was run into the hole on 5½ in. drill pipe-tubing
with 0 ft. of water-mud cushion, and packer set at 2215 ft. with tailpiece to 2230 ft.
Tester valve, with ¾ in. bean, was opened at 6:45 a.m. and remained
open for 1 hr. and 0 min. During this interval there was a strong steady blow for 1
minute, a light bonding blow for 2 minutes and no blow for the balance of the test.

The inspector arrived at the well at 8:30 a.m. and Mr. Lee reported that the 7" casing was gun perforated at 2250' with four ½" holes for a test of water shut-off.

The inspector noted the following:
1. The 215' of drill pipe remaining to be pulled contained 152' of heavy drilling fluid above the tester valve.
2. The pressure bomb charts indicated that the tester functioned properly.

The inspection was completed at 10:30 a.m.

THE SHUT-OFF IS APPROVED.

DWF:alo
cc: Company

Transferred to Geo. W. Ring & Frank L. Ring 1-1-49
Form 113 5-11-49

R. D. BUSH, State Oil and Gas Supervisor

By _____, Deputy

50092 0-43 12,500 ⓒ SPD

FORM 111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P [illegible]

Bakersfield, Calif. October 19, 1948

Mr. P. V. Lee

Rm. 104, Morgan Bldg., Bakersfield, Calif.

Agent for Ring Oil Company

Dear Sir:

Your proposal to drill Well No. 20-3, Section 20, T. 27S, R. 28E, M. D. B. & M., Mt. Poso Field, Kern County, dated Oct. 15 1948, received Oct. 18 1948, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 2320 feet S. and 600 feet E. from NW corner of Section 20
Elevation of ground above sea level ~~317~~ feet. * 9[illegible] K.B.
All depth measurements taken from top of Kelly Bushing, which is 8 feet above ground.
We estimate that the first productive oil or gas sand should be encountered at a depth of about 2300 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lbs. Per Foot	Grade and Type	Depth	Landed or Cemented
7"	30	seamless	2315'	Cemented
5"		A	2315'	Landed

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION: THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test of the 7" water shut-off with the hole open not more than 5' below the casing shoe.

WBeale
cc: Company

Bond No. 180

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

Date 6-4-49 Ext

FORM 108.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
OCT 18 1948
BAKERSFIELD, CALIFORNIA

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins

Bakersfield, Calif. October 15, 1948

DIVISION OF OIL AND GAS

P48-33193

1613 16th St., Bakersfield, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. 20-3, Sec. 20, T. 27 S, R. 28 E, M.D. B. & M., Mount Poso Field, Kern County.

Legal description of lease SW¼ of NW¼ Sec. 20

The well is 2320 feet ~~N~~ or S., and 600 feet E. of ~~W~~. from NW Corner of Section 20
(Give location in distance from section corners or other corners of legal subdivision)

Elevation of ground above sea level 957 feet.

All depth measurements taken from top of kelly bushing *949' KB, which is 8 feet above ground.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 2265 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
7"	20	seamless	2265'	Cemented
5"		"	2315'	landed
			Reference to file of data	

Well is to be drilled with ~~rotary~~ cable tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 906 Pacific Mutual Bldg.,
Los Angeles 14, Calif.

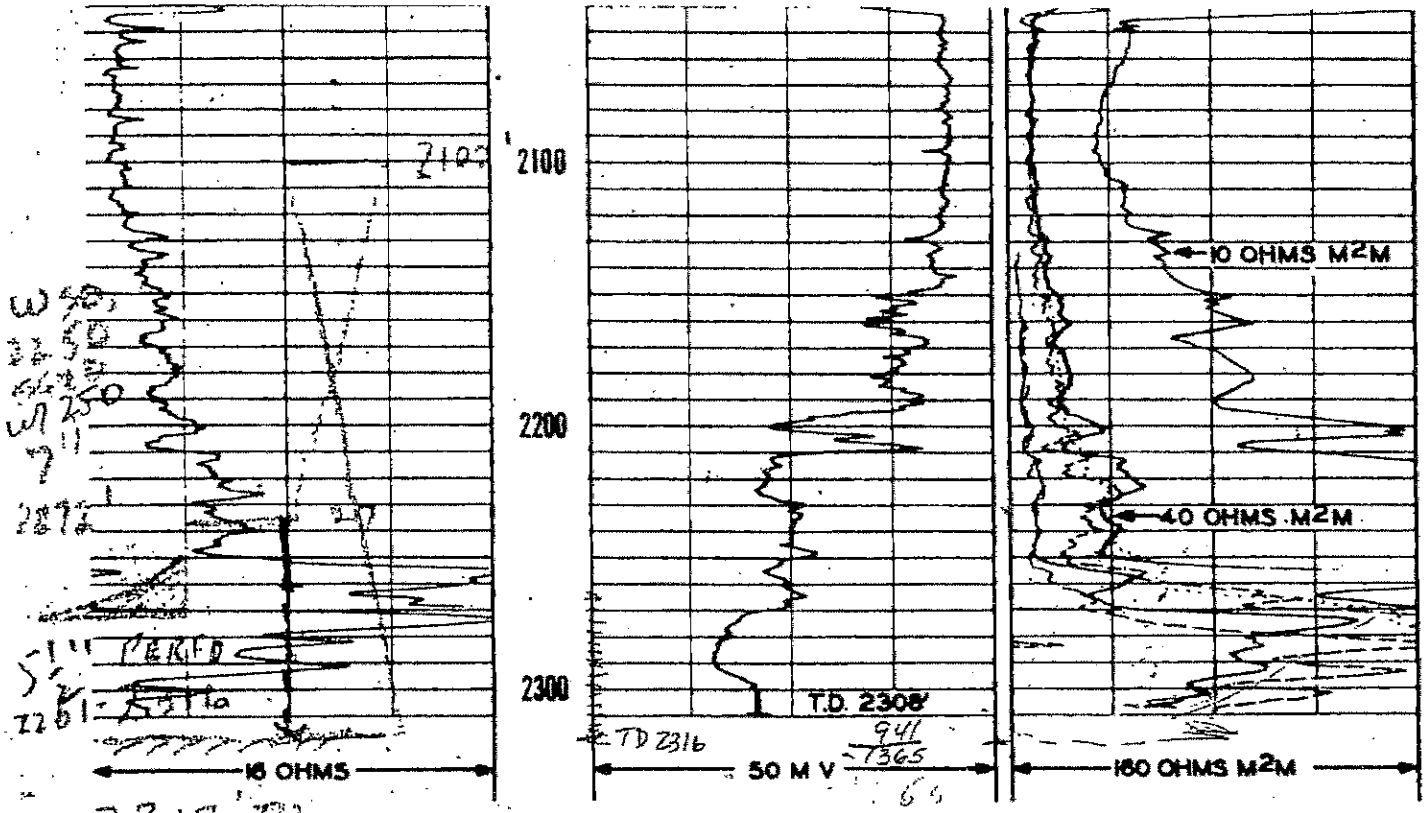
Telephone number

RING OIL COMPANY
(Name of Operator)

By
104 Morgan Bldg., Bakersfield, Calif.

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

* Cancelled 1-4-49



RING OIL CO.
NO. 20-3
MT. POSO

GO INTERNATIONAL

Cement Bond Log

FILING NO.

COMPANY THOMAS OIL COMPANY

WELL RING 20-3

FIELD W. MOUNT POSO

STATE CALIFORNIA COUNTY KERN

LOCATION:

SEC. 20 TWP. 27 RGE. 28

OTHER SERVICES:

PERMANENT DATUM: MAT, ELEV.

LOG MEASURED FROM K.B. 8 FT. ABOVE PERM. DATUM

DRILLING MEASURED FROM K.B.

ELEV.: K.B.

D.F.

G.L.

DATE	9-1-77		
RUN NO.	ONE		
TYPE LOG			
DEPTH—DRILLER	1132'		
DEPTH—LOGGER	1150'		
BOTTOM LOGGED INTERVAL	1148'		
TOP LOGGED INTERVAL	450'		
TYPE FLUID IN HOLE	WATER		
SALINITY, PPM CL.			
DENSITY			
LEVEL			
MAX. REC. TEMP., DEG F.			
OPERATING RIG TIME			
RECORDED BY	J. YEAGER		
WITNESSED BY	MR. MONDARY		

RUN NO.	BORE-HOLE RECORD BIT	FROM	TO	CASING RECORD SIZE	WGT.	FROM	TO
				7"	23#	SURF	1900'

PRIMARY CEMENTING PROCEDURE

	Hour — date	Hours from start of operation
l pumping cement		
n bottom		
e pressure		
ement Bond Log		
Cement Bond Log		

ing fluid _____ Volume _____ bbls.
: Full _____ Partial _____ None _____

Equipment Data	
Type standoff	STD
Logging speed	40
Gain	656
Output	40
Spacing	5"
Tool No.	

Pipe reciprocated during Pumping: Yes _____ No _____
Pipe reciprocated after plug down: Yes _____ min., No _____

PIPE PREPARATION AND CEMENTING DATA

COLLAR LOG

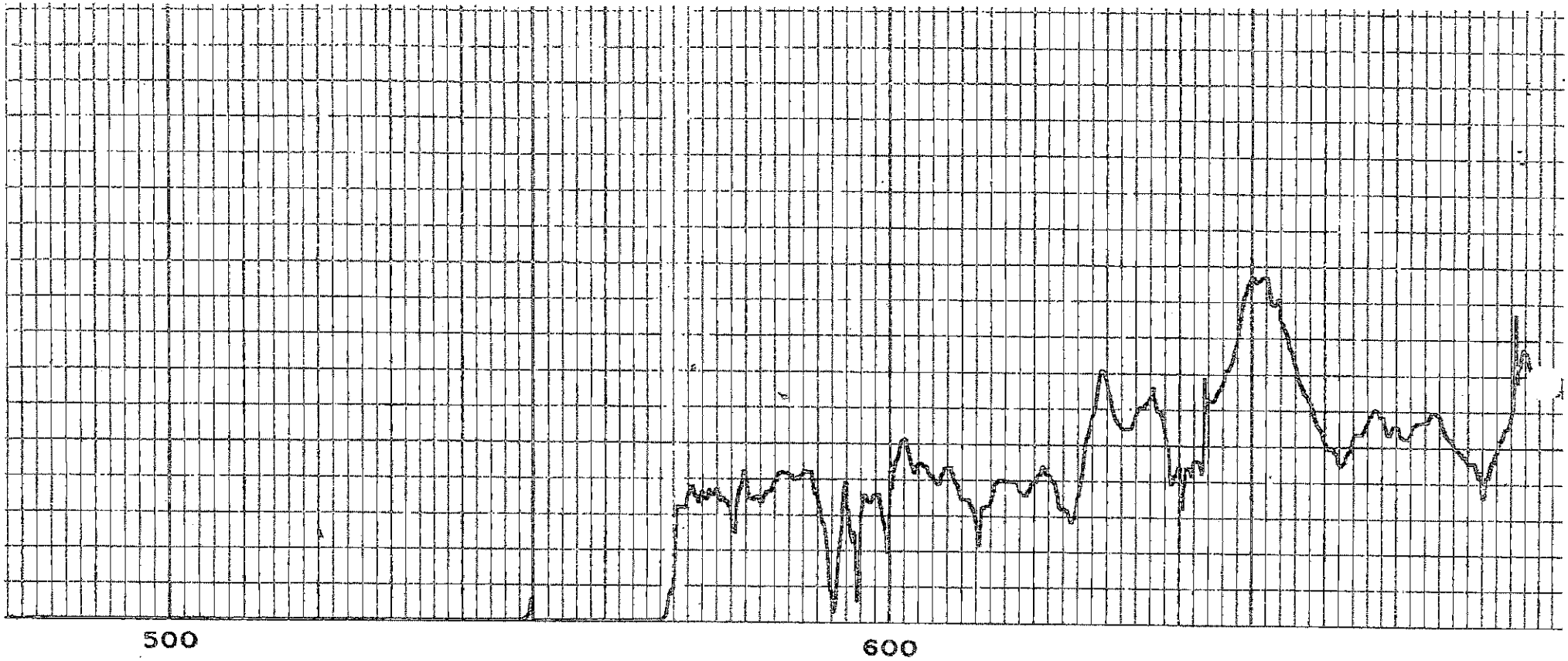
CEMENT BOND LOG

Bonding Decreases

150 ΔT MICRO SECONDS/FOOT 50

P PIPE AMPLITUDE

500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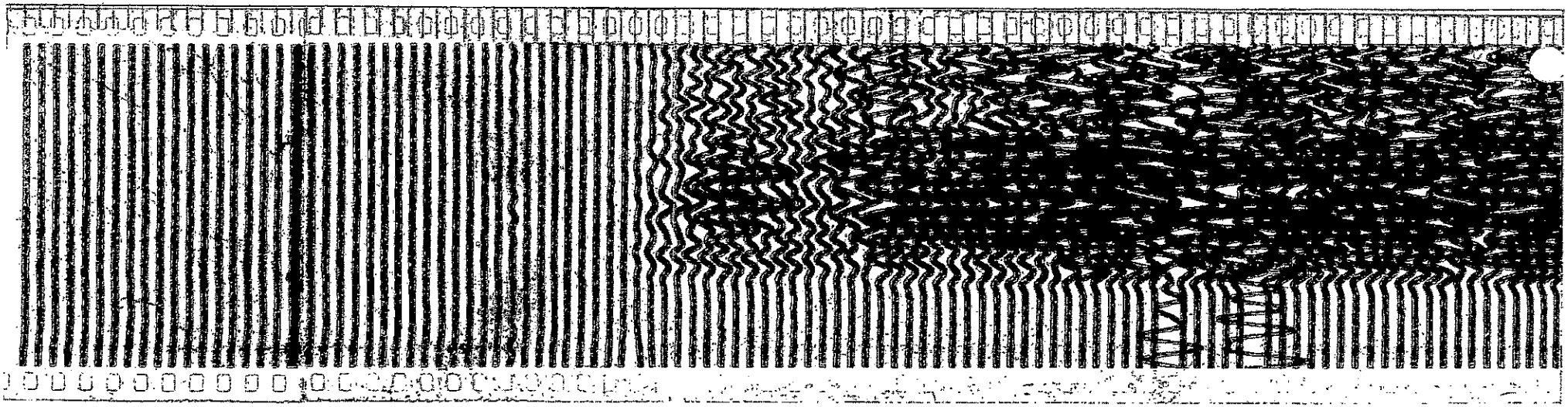

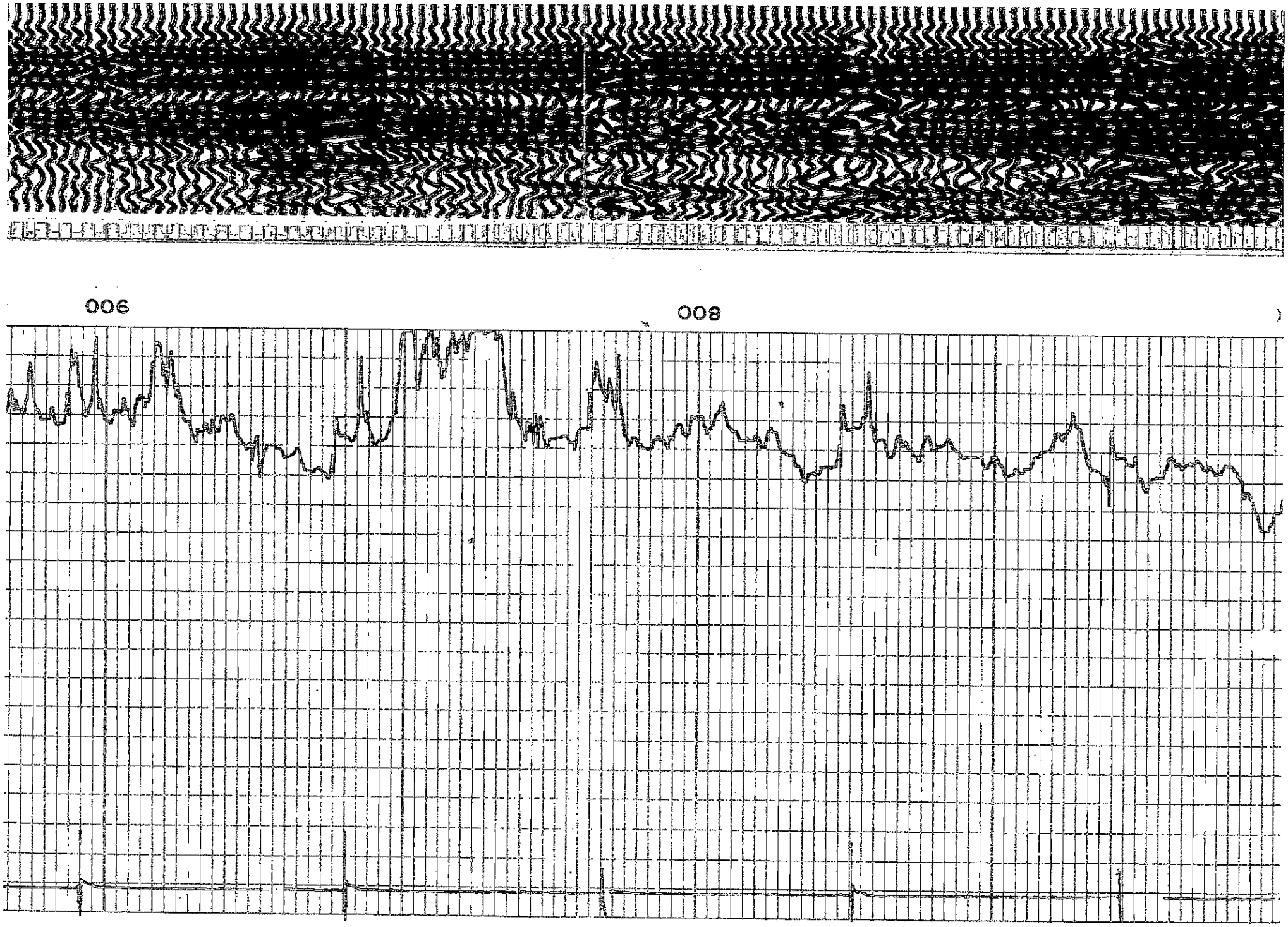
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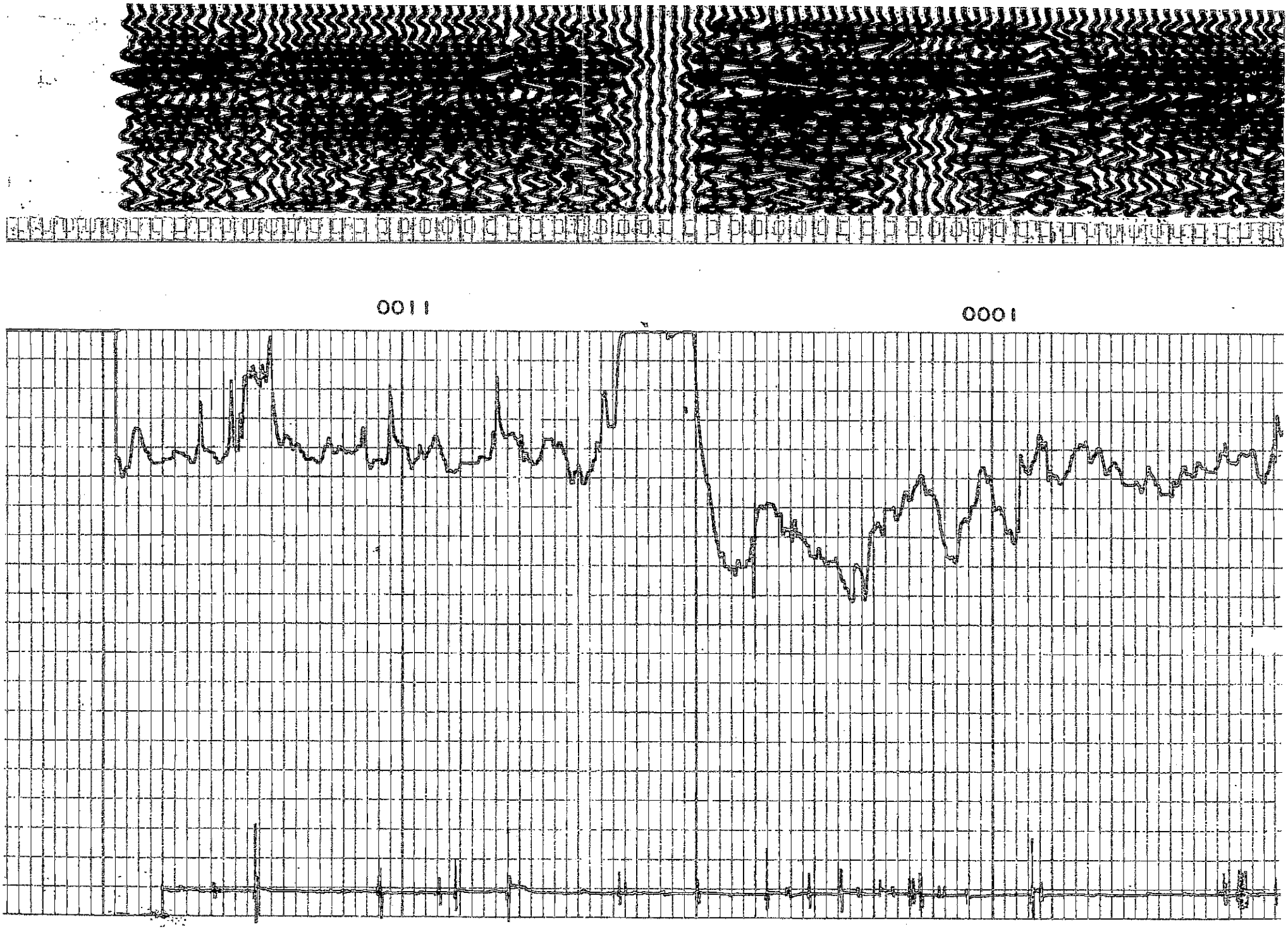
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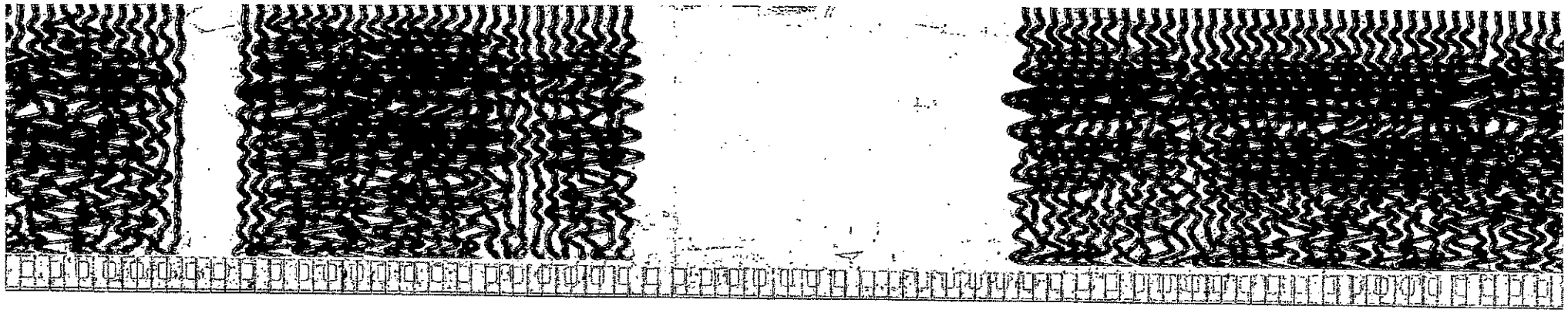

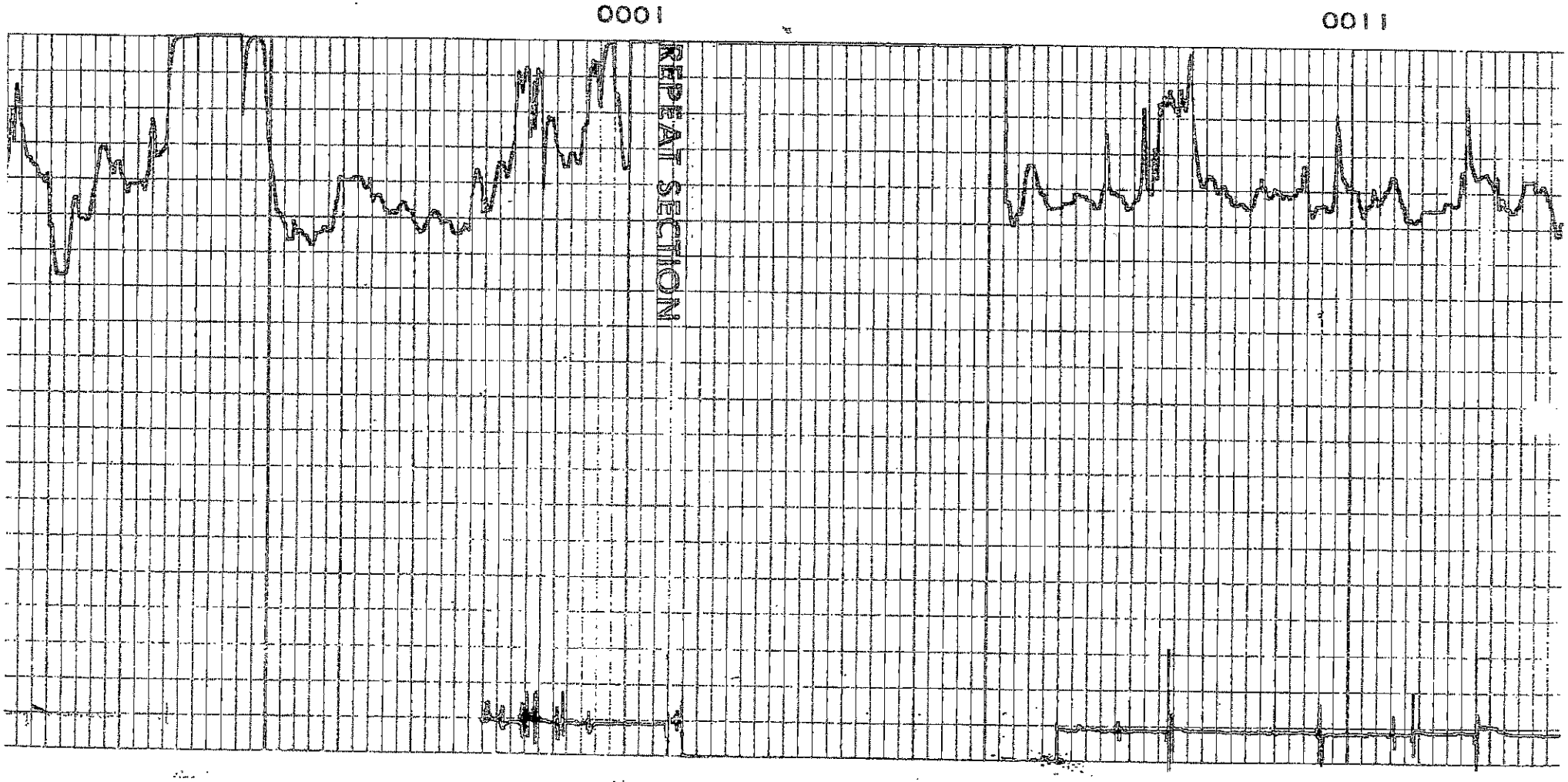
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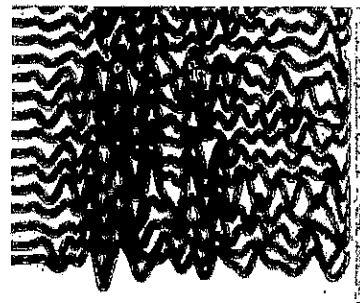
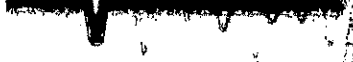
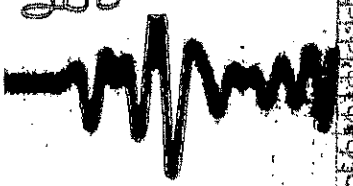
REPEAT SECTION



TE SIGNAL
200'



E PIPE SIGNAL
200'



CALIBRATIONS

100% BOND 0%

PEN SPACING CHECK

CCL

AMP

PRODUCING PROPERTIES, INC.
9990 WILSHIRE BOULEVARD
BEVERLY HILLS, CALIFORNIA

CLARKE N. SIMM
GENERAL MANAGER
WESTERN DIVISION

October Two
1 9 6 1

Mr. William H. Park
Division of Oil and Gas
318 Chester Avenue
Bakersfield, California

Dear Mr. Park:

PPI (Ring Oil Co.) Well No. 3
Section 20, 27S/28E
West Mount Poso Oil Field
Kern County, California

Our records for subject well also indicate bottom of hole effectively abandoned and well suspended June 9, 1955.

Our current program is to sell Ring Oil Company property in Mount Poso, therefore no anticipated well work will be completed by Producing Properties within next 60-days, except joint ventures.

The above information is in reply to your request of September 14th. Our anticipated action is not to be divulged to any source.

Yours very truly,

Frank P. Mondary

FPM daw

MAP & BOOK

STATUS

Completed Producing_____
Recompleted Producing_____
Completed Abandoned_____
Uncompleted Abandoned_____
Idle 6-9-55

RECORDS

Received 9-21-59 Needed

____ Well Summary_____
__2__ History_____
____ Log & Core_____
__Lge__Sm Elec Log(s) __Lge__Sm
____ Direct. Survey_____
____ Other_____

Location_____
Elevation_____
Release bond_____
Hold bond___ Reason_____
Final letter_____
150b_____
~~[illegible]~~_____
121i_____
~~[illegible]~~_____

ENGINEERS

1. Log, history & core record (dupl) ✓
2. Electric log____
3. Operator name & well designation_____
4. Location____
5. Elevation____
6. Signature____
7. Notices____
8. "T" reports____
9. Casing record____
10. Plugs____
11. Production____
12. Wildcat cards____
13. Map and Book____
14. Surface Inspection____

APPROVED_____ NOT APPROVED FOR THE FOLLOWING REASON_____

Records O.K.
A.B.H.
10-8-59

Form 19-4T

TRANSFER DATA

Former Owner The Ohio Oil Co. & Frank L. Ihrig
New Owner Producing Corporation of America
Transfer Date 9-1-59
Form 156 Dated 9-11-59

* There was a bond card in dbase as asked 9-7. & send one

January 10 1962

E R MURRAY-AARON

Bakersfield

Founders' Insurance Company Bond No. 9687 accompanied with a Notice to Redrill George W. Ring and Frank L. Ring well No. 20-3, Sec. 20, T. 27 S., R. 28 E., M. D. B. & M., Mount Poso field, was filed in 1955. The redrilling operations were never performed and the property has been transferred to another operator who is not interested in redrilling the well.

Since the bond has never been obligated and it will be necessary for the present operator to file a new notice in the event any future work is done on the well, I recommend bond No. 9687 be released.

Form 150b is attached for this bond.

G. F. Lewis

Deputy Supervisor

WHP:cw

FORM 109-X
03916 9-58 1500 SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
or
Special Report on Operations Witnessed

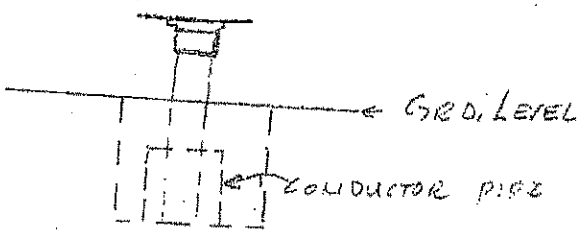
No. T._____

Page_____

Well No._____, Sec._____, T._____, R._____, _____B. & M.

MEMO

ON 10-31-61 ENGR. LUZA VISITED THE LOCATION AND NOTED THAT ALL SURFACE EQUIPMENT HAD BEEN REMOVED FROM THE WELL SITE. A HOME-MADE BULL PLUG WAS SCREWED INTO THE TOP OF 7" CASING. THERE WAS FILL IN THE ANNULUS BETWEEN THE CONDUCTOR PIPE & THE 7" CASING AT A DEPTH OF APPROXIMATELY 15 FEET.



E. H. MUSSER
State Oil and Gas Supervisor

October 3, 1961

Messrs. George W. Ring and
Frank L. Ring
2975 Wilshire Blvd.
Suite 501
Los Angeles 5, California

Gentlemen:

On May 5, 1955 a Notice of Intention to Redrill and a drilling bond were filed by you with this office for well No. 20-3, Sec. 20, T. 27S., R. 28E., M.D.B.&M. Mount Poso field.

According to our records the bottom of the hole has been effectively abandoned, but the well was never redrilled. Since your bond is still in effect and the well is in a deserted condition, please inform me of your intentions as to final abandonment.

Yours truly,

G. G. PEIRCE
Deputy Supervisor
By William H. Park
W. H. Park
Associate Oil and Gas Engineer

WHP:cw

FORM 109

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations

No. T 475-101

Mr. L. C. Fiedler
THOMAS OIL COMPANY
2401 Eric Way, #45
Bakersfield, Calif. 93306

Bakersfield Calif.
January 15, 1975

DEAR SIR:

Operations at well No. "Ring 20" 3, API No. 029-14064, Sec. 20, T. 27S, R. 28E, M.D., B & M. Mount Poso Field, in Kern County, were ~~witnessed~~ review on Jan. 15, 1975 by Mr. T. Reamer, representative of the supervisor. ~~was present~~

Present condition of well: 7" cem. 2272', perf. at intervals 920'-1130', T.D. 2317'. Effec. depth 2100'±.

The operations were performed for the purpose of demonstrating that the injection fluid is confined to strata below 920'.

DECISION: THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT ALL OF THE INJECTION FLUID IS CONFINED TO THE FORMATIONS BELOW 920' AT THIS TIME.

TR/lr
cc: Co. - Encino

JOHN F. MATTHEWS, Jr.
State Oil and Gas Supervisor

By A. B. Hughes Deputy

FORM 109 (REV. 1-73)

19190-705 11-73 20M ⓑ OSP

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: Sac. 044132

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: --

7. UNIT AGREEMENT NAME: --

1. OIL WELL [X] GAS WELL [ ] OTHER: Suspended 5-22-1956

8. FARM OR LEASE NAME: U.S.L. Section 20

2. NAME OF OPERATOR: Thomas Oil Company

9. WELL NO.: 20-3

3. ADDRESS OF OPERATOR: P. O. Box 6356, Bakersfield, Calif. 93306

10. FIELD AND POOL, OR WILDCAT: West Mt. Poso Field

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2320' South and 600' East from Cor. Sec. 20. T. 27S., R. 28E., MDB&M

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 949' KB

12. COUNTY OR PARISH: Kern

13. STATE: Calif.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[X]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)				(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

1. Well was suspended 5-22-56 after cmt. plug 2316'-2100' + 7" O.D. 2272'-0' 17# & 20# Smls. in 10-3/4" hole w/350 sx. 5-1/2" liner 2316'-2227' 17# smls. 80 mesh
2. Enter well and determine static fluid level and locate top of cmt plug.
3. Bail fluid below Olcese 1050'+ & jet 2 - 1/2" H.F. at 1000' KB
4. Bail sample of fluid entry from Olcese for analysis, Evaluate.
5. Jet 4 - 1/2" H.F. 1130-1095', 1090'-970', & 955-920'.
6. Install pressure & metering equipment.
7. Inject produced water down csg.

18. I hereby certify that the foregoing is true and correct

SIGNED F. P. Mondary TITLE Production Engineer DATE Nov. 14, 1974

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

NOV 15 1974
DIVISION OF OIL & GAS
BAKERSFIELD

WORK CONVERT TO WATER DISPOSAL

DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Bakersfield, Calif. November 14, 1974

029-14004

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging~~ or altering casing at Well No. "Ring" 20 3
(Cross out unnecessary words)

Sec. 20, T. 27S, R. 28E, M.D. B. & M.

West Mt. Poso Oil Field, Kern County.

The present condition of the well is as follows:

1. Total depth. 2317'

2. Complete casing record, including plugs:
7" O.D. 2272' - Surface 17# & 20# N. Smls. in 10-3/4" hole w/350 sx.
W..S.O. in 7" 2250' D.K. Sqz'd. away 250 sx.
5-1/2" 2316'-2227' 17# N. Smls. in 11" hole - 80 M 2261'-2316'

Suspended 5-22-1956

Plug 2316'-2100'+ - Witnessed by D.O.G. (?) Remove all surface equipment & screw in 7" bull-plug at surface.

3. Last produced. 5-22-56(?) (Date) 5 (Oil, B/D) 105 (Water, B/D) 0 (Gas Mcf/D)

The proposed work is as follows:

1. Enter well and locate static fluid level and locate cmt. plug.
2. Bail fluid below 1050' KB & collect well fluid sample.
3. Jet 2 - 1/2" holes at 1000' KB.
4. Bail sample of fluid from Olcese Sand, Evaluate water analysis.
5. Jet 4 - 1/2" H.F. 920'-955', 970'-1090', & 1095'-1130'.
6. Inject oilwell produced waters into csg.
7. Metering & pressure equipment shall be installed.

2401 Eric Way, Apt. #45
P. O.. Box 6356
Bakersfield, California 93306
(Address)
805 872-0613
(Telephone No.)

Thomas Oil Company
(Name of Operator)
By F. P. Mondary, Prod. Engr.

SR428-708 6-69 15M OGP

FORM 107

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

WATER INJECTION WELL
SQUEEZE CEMENT

DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Bakersfield, Calif. August 11, 1975

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. Ring 20-3
(Cross out unnecessary words)

, Sec. 20, T. 27S, R. 28E, M.D. B. & M.

West Mount Poso Field, Kern County.

The present condition of the well is as follows: 949' KB KB = 8'

1. Total depth. 2317'

2. Complete casing record, including plugs:
7" Cmt'd 2272' with 350 sx. in 10-3/4" hole.
Liner 5-1/2" 2316-2227' 11" hole perf'd 2261-2316'

Found hard mud plug at 1130' KB.
Jet 4 - 1/2" H.F. 920 - 1130' 23 gram D.M.L.

3. Last produced. 00 (Date) (Oil, B/D) (Water, B/D) (Gas Mcf/D)

The proposed work is as follows:

1. Set bridge plug at 900'.
2. Jet squeeze holes in 7" at 895'.
3. Squeeze cement (10 sx.) away.
4. Jet squeeze holes in 7" at 885'.
5. Squeeze away cement.
6. Drill out cement and pressure test holes.
7. Drill out plug and clean out to bottom.
8. Return to water injection.
9. Run R/A log.

P. O. Box 5368
Oildale, California 93308
(Address)

(805)393-3204
(Telephone No.)

Thomas Oil Company
(Name of Operator)

By W. P. Mondary, Production Engineer

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

15683-705 8-67 15M OSP

SUBMIT IN DUPLICATE

20790-705 1-74 6M ⓓ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Thomas Oil Company FIELD West Mt. Poso

Well No. Ring 20-3, Sec. 20, T. 27S, R. 28E, M.D.B.&M. B. & M.

Date August 11, 1975 Signed F. P. Mondary

P. O. Box 5368
Oildale, California 93308 (805)393-3204 Title Production Engineer

(Address) (Telephone Number) (President, Secretary or Agent)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
7-20-74	Ran in bailer and bailed drilling mud to 900'. Made up bit on 2-7/8" tubing and ran in. Circulated out hard drilling mud down to 1130'.
8-1-74	Mud plug took all weight of 1130' + Kelly 2-7/8" tbg. Hole remained full of fluid.
10-1-74	Ran in and jet perforated 7" casing w/2 - 1/2" H.F. (23 gram D.M.L.) 920 - 1130' K.B. (8')
12-13-74	Installed surface water injection line and placed well into water disposal well service at 1300 B/D rate.
12-4-74	

OG 103

8/11/75

Thomas Oil Co Section 20 Ring #3

Purpose: Squeeze cement query to exclude vertical water migration above injection zone. Injection water surfaces at 80 ASK

1. Run in fluid bailer & tag bottom
2. Run in & set CAMCO 7" Bridge plug AT 900' GROUND
3. Run in & jet 2 - ½" holes in 7" casing AT 895' (5' above CAMCO plug)
4. Bottom dump in 5 SX CLASS "G" cement mixed 5 gal water per sack as rapidly as possible. LOCATE FLUID LEVEL.
5. Displace WATER down 7" casing. Displacement to be determined at Location:
   (Cement = 25' in 7" CSG = 166l = 5.6 cu ft)
6. Dump in 1 SX per gravel
7. JET 2 — ½" holes in 7" CASING Appx. 885±
8. Dump in 55 SX CLASS "G" cement mixed 5 gal water per sack cement Rapidly. Locate fluid Level
9. Displace (Squeeze cement) as directed
10. Test pressure on 7" casing min of 7hrs

11. Make up 6¼" clean out tricone bit on tubing & clean out cement to below jet holes AT 895', but do not drill-up CAUTION bridge plug. CIRCULATE clean.

12. Pressure test holes AS directed IF O.K. drill up bridge plug

13. Drill up & CIRCULATE OUT TO BOTTOM

14. Run injection tests as directed

Monday 8/11/75

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 475-2472

WATER DISPOSAL PROJECT
MOUNT POSO FIELD
WEST AREA
OLCESE ZONE

Mr. L. C. Fiedler
THOMAS OIL COMPANY
2401 Eric Way, #45
Bakersfield, CA 93306

Bakersfield, Calif.
August 15, 1975

DEAR SIR:

Your proposal to alter casing in water disposal (029-14064) Well No. "Ring 20" 3, Section 20, T. 27S, R. 28E, M.D. B. & M., Mount Poso Field, Kern County, dated 8/11/75, received 8/14/75, has been examined in conjunction with records filed in this office.

DECISION: THE PROPOSAL IS APPROVED PROVIDED THAT this Division shall be notified to witness, within 30 days after injection is started, sufficient surveys to confirm that the injection fluid is confined to the intended zone of injection.

ALL/ne
Blanket Bond
cc: Co. - Oildale (Frank Mondary)
Dept of Water Resources
RWQCB

THOMAS E. GAY, JR., Acting Chief
~~JOHN MCMARTHEWS, State Oil and Gas Supervisor~~

By A. D. Ulloa, Deputy

25478-705 7-74 50M (1)D GSP
OG 111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. Sec 20 Brig 3, API No. _____,
Sec. 20, T 27S, R 28E, MD B. & M., Mt Poso Field, Kern County.

The present condition of the well is as follows:

1. Total depth. 1920' Mud plug at 1430'

2. Complete casing record, including plugs and perforations:
7" pipe 5920' - 1430' cemented

3. Present producing zone name Olcese Zone in which well is to be recompleted Same

4. Present zone pressure 0 New zone pressure 0

	(Date)	(Oil, B/D)	(Water, B/D)	(Gas, Mcf/D)
5. Last produced	1 - 0			
or				
6. Last injected	current	250	0	0
	(Date)	(Water, B/D)	(Gas, Mcf)	(Surface pressure, psig.)

The proposed work is as follows:

1) C.O. to bottom set bridge plug at 1400'. Place 25 sx cement plug
2) Run packer and swab back fluid
3) Return to injection

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address Post Office Box 5368 (Street)
Oildale, California 93308 (City) (State) (Zip)
Telephone Number (805) 393-3204

Thomas Oil Company (Name of Operator)
By [signature] (Date) 11-13-76
By Monterey (Title)
Type of Organization Individual (Corporation, Partnership, Individual, etc.)

OG107 (8-75—OSR—15M)

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: Sac. #044132

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: --

7. UNIT AGREEMENT NAME: --

1. OIL WELL ☐ GAS WELL ☒ OTHER: Water Injection

8. FARM OR LEASE NAME: Sec. 20 (Ring) Lease

2. NAME OF OPERATOR: Thomas Oil Company

9. WELL NO.: #3

3. ADDRESS OF OPERATOR: P. O. Box 5368, Oildale, California 93308

10. FIELD AND POOL, OR WILDCAT: West Mt. Poso

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: Sec. 20, T. 27S., R. 28E., M.D.B.&.M. SW/4 of NW/4 of Sec. 20 and/or 2320' S. & 600' E. fr. NW Cor. of Sec. 20

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20, T. 27S., R. 28E. M.D.B.&.M.

14. PERMIT NO.: --

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 949' KB KB = 8'

12. COUNTY OR PARISH: 13. STATE:

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING CASING	
SHOOT OR ACIDIZE		ABANDON*		SHOOTING OR ACIDIZING		ABANDONMENT*	
REPAIR WELL	XX	CHANGE PLANS		(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

1. Set bridge plug at 900'.
2. Jet squeeze holes in 7" at 895'.
3. Squeeze cement (10 sx.) away.
4. Jet squeeze holes in 7" at 885'.
5. Squeeze away cement.
6. Drill out cement and pressure test holes.
7. Drill out plug and clean out to bottom.
8. Return to water injection.

CANCELLED 8-11-1977 Letter

18. I hereby certify that the foregoing is true and correct

SIGNED _____ TITLE Production Engineer DATE August 13, 1975

(This space for Federal or State office use)

APPROVED BY J. P. Wagner TITLE Acting District Engineer DATE August 14, 1975

CONDITIONS OF APPROVAL, IF ANY: J. P. Wagner

SEE ATTACHED CONDITIONS AND REQUIREMENTS
See Instructions on Reverse Side

cc: DOG, Bakersfield

GEOLOGICAL SURVEY RECEIVED AUG 14 1975 BAKERSFIELD

Your proposal is approved subject to the following requirements:

1. Compliance with Federal Oil and Gas Operating Regulations.

2. Any change in the approved program must receive prior approval of District Engineer.

3. A Subsequent Report of work performed shall be filed in triplicate promptly upon completion of the work.

Thomas Oil Company
4311 MEADOW VIEW PLACE ENCINO, CALIF. 91316
P. O. BOX 5368 OILDALE, CALIF. 93308
213-981-5979
805-393-3204

February 11, 1977

Division of Oil & Gas
520 Kentucky Street - Rm. 1
Bakersfield, Calif. 93305

Attn: Larry Bright

Re: Thomas Oil Company
Ring 20 #3 WIW (029-14064)
Sec. 20, T. 27S, R. 28E
M.D.B.& M.

Dear Larry:

Please be advised the proposal of August, 1975, to plug well to 900' and squeeze off two holes was not done. Please cancel the proposed operation P-475-2472.

Very truly yours,

THOMAS OIL COMPANY

Frank P. Mondary
Production Engineer

FPM/ajc

~~cc: USGS - Bakersfield~~

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: SAC 044132

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER: Injection Well

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Thomas Oil Company

8. FARM OR LEASE NAME: Ring 20

3. ADDRESS OF OPERATOR: P. O. Box 5368, Oildale, Calif. 93308

9. WELL NO.: 3

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: Sec. 20 - SW/4 of NW/4

10. FIELD AND POOL, OR WILDCAT: Mount Poso

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 20/27S/28E MDB&M

14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISH	13. STATE
	949' KB KB 8'	Kern	Calif.

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☒	CHANGE PLANS	☐	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Total Depth: 1900', mud plug at 1130'.
Casing: 7" perf'd 920-1130'. Olcese Sand.

PROPOSED:

1. C.O. to bottom, set bailer CAVINS plug at 1400'. Place 2 sx. cement on plug.
2. Set packer and swab back fluid.
3. Return to injection.

18. I hereby certify that the foregoing is true and correct

SIGNED: [signature] TITLE: Production Engineer DATE: 2/1/77

(This space for Federal or State office use)

APPROVED BY: [signature] TITLE: Dist. Dst. Engr DATE: 2-4-77

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

WELL TOOLS
DRILLING & PRODUCTION

PHONE 424-8564
AREA CODE 213
TELEX NO. 65-634

CAVINS INTERNATIONAL

2853 CHERRY AVENUE
LONG BEACH, CALIF. 90806, U.S.A.

FROM THE DESK OF 80 PSI - 140 BBLS. P.H Date

1974

PSI RATE

62 15 MIN START 2105.4
FINISH 2143.9 } 38.5

1ST 30 MIN

60 START 2143.97
FINISH 2176.6 } 32.7

2ND 30 MIN

70 START 2176.67
FINISH 2225.4

3RD 30 MIN.

80 START 2236.9
FINISH 2320.35

83.9

2320.35

60. 2381.0

60.7

206

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 477-141

WATER DISPOSAL PROJECT
MOUNT POSO FIELD
WEST AREA
OLCESE ZONE

Mr. L. C. Fiedler
THOMAS OIL COMPANY
P. O. Box 5368
Oildale, CA 93308

Bakersfield, Calif.
January 6, 1977

(029-14064)

DEAR SIR:

Your proposal to rework Well No. "Ring 20" 3, Section 20, T. 27S., R. 28E., M.D.B. & M., Mount Poso Field, Kern County, dated 12-27-76, received 12-30-76, has been examined in conjunction with records filed in this office.

DECISION: THE PROPOSAL IS APPROVED.

NOTES:

1. The proposed work shall not be considered as fulfilling the requirements of this Division for the abandonment of the lower portion of the hole without further consideration.

2. The Public Resources Code requires well records to be filed within 60 days of the completion of the proposed work.

Thomas Oil Company
4311 MEADOW VIEW PLACE ENCINO, CALIF. 91316
P. O. BOX 5368 OILDALE, CALIF. 93308
213-981-5979
805-393-3204

February 14, 1977

U.S.G.S.
800 Truxtun Avenue
Bakersfield, California 93301

Attn: J. D. Hintoul

Gentlemen:

In reply to your letter of February 11, 1977, Division of Oil and Gas 110-3 (water disposition) report copies are herewith supplied.

You requested the May 1975 report for Ring 20 #3 and the 1976 reports from February, 1976, to present. Outside of your request, I doubt that we have submitted our reports on water disposition for Bishop #6 and Tribe A #10 for 1976, so they are included also.

Also please note that we have mailed to you a copy of the history on the proposal to convert Ring 20 #3 to a water injection well.

The records that we have of the work done in May, 1976 are also being sent along as per your request.

Sincerely,

THOMAS OIL COMPANY

Jane J. Ariz
Production Clerk

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
309 Federal Building
800 Truxtun Avenue
Bakersfield, California 93301

February 11, 1977

Thomas Oil Company
P.O. Box 5368
Oildale, CA 93308

Attention: Mr. Frank Mondary

Gentlemen:

Enclosed are approved Sundry Notices for work on wells Ring 20 #3 and 16, section 20, T. 27 S., R. 28 E., MDM, lease Sac. 044132, Mount Poso Field, Kern County, California.

In regard to well Ring 20 #3, we have not been receiving the monthly reports of injection. Please supply these in duplicate plus duplicate copies back to and including that for February 1976 and duplicate copies of the May 1975 report. Also in regard to well Ring 20 #3, please provide us with duplicate copies of the subsequent report of operations (histories) of: ~~the work done in~~ May 1956 when the well was plugged and suspended, the November 14, 1974 proposal to convert to water injection, and the casing repair proposal of August 13, 1975. This proposal called by letter to USGS dtd 2-11-77

May we please hear from you in regard to these requests?

Sincerely yours,

J. D. Rintoul
Acting District Engineer

Enclosures

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Thomas Oil Company Field or County West Mount Poso
Well name and No. "Ring 20" 3, Sec. 20, T 27S, R 28E, M.D.B. & M.
A.P.I. well No. 029-14064 Name Frank P. Mondary (Person submitting report) Title Agent (President, Secretary or Agent)
Date April 12, 1977.

Signature F. P. Mondary/lgr

P. O. Box 5368, Oildale, Calif. 93308 (Address) (805) 393-3204 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
/20/74	Ran in bailer and bailed drilling mud to 900'. Made up bit on 2-7/8" tubing and ran in. Circulated out hard drilling mud down to 1130'.
/01/74	Mud plug took weight of 1130' 2-7/8" tubing and Kelly. Hole remained full of fluid.
0/1/74	Ran in and jet perforated 23 g. D.M.L. jets in 7" casing. 2-1/2" H.F. 920-1130' KB. KB 8'.
2/13/74	Installed surface water injection lines and placed well into disposal service at 1300 B/D rate, zero surface pressure.
2/21/74	Ran Go International Migration Survey, copy sent to D.O.G.
/21/77	Ran Go International Injection Profile Survey. OK at 583 B/D rate injection (copy (2) enclosed).

Thomas Oil Company

4311 MEADOW VIEW PLACE ENCINO, CALIF. 91316
P. O. BOX 5368 OILDALE, CALIF. 93308

213-981-5979
805-393-3204

April 12, 1977

U. S. G. S.
800 Truxtun Avenue - Room 1
Bakersfield, California 93301

Attention: Mr. J. D. Rintoul

Re: Thomas Oil Company Ring 20 #3
Mt. Poso Field, Sec. 20/27S/28E MDB&M
Kern County, California

Dear Sir:

Please advise if you have received copies of Go International Injection Profile Survey for captioned well dated 1/21/77 and 12/21/74.

Also, advise if you received Sundry Notice and Reports on well when workover completed to convert Ring 20 #3 to an injector well 12/13/74.

Our records do not indicate transmittal of any of the above listed materials.

Very truly yours,

THOMAS OIL COMPANY

Frank P. Mondary/ajc
Frank P. Mondary

FPM/ajc

cc: Well File

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
309 Federal Building
800 Truxtun Avenue
Bakersfield, California 93301

April 22, 1977

Thomas Oil Company
P. O. Box 5368
Oildale, CA 93308

Attention: Mr. Frank P. Mondary

Gentlemen:

The following is in reply to your letter of April 12, 1977 requesting information on whether or not we have received certain data on your well Ring 20 #3 Mt. Poso Field, section 20, T. 27 S., R. 28 E., MDM, lease Sac. 044132, Kern County,

We have received the Go International Injection Profile Survey of January 21, 1977 and a Division of Oil and Gas History of the work of converting to water disposal in the Olcese which was done between the dates of July 20, 1974 to December 13, 1974.

We have not received the Go International Survey of December 12, 1974 so please send us two copies of that. Also the Division of Oil and Gas History did not show which specific intervals of the Olcese were perforated. We assume they were 1130-1095, 1090-970, and 955-920 as proposed. Please advise us whether or not these were the intervals actually perforated.

Sincerely yours,

D. F. Russell

D. F. Russell
District Engineer

4/19/77

Well # 20-3

Circulation washer program (tbg. will run)

(1) Make up either single or double heavy duty casing cups top boring down & bottom looking up on about 3" panel mandrel. Run in on 2 3/8" or 2 7/8" tubing.

(2) Test cups by setting below perfs in blank casing approx 10' and pressure to 100# on surface. Hold 5 min to drop off. If O.K. proceed to step #3. If not O.K. determine cause of leak & correct. Retest.

(3) Pull up into bottom of perfs & displace K.C. water out tubing — approx 100 gal — (say 2 bbls). Do not exceed 500# on surface. Advise Mondary of pressure.

(4) Mix Acid treat material (SFR) 25:1 ratio in clean mud tank. ~~(Solution will be ...)~~ Displace SF80 mix down tubing to clear washer — say 2 bbls — & inject not less than 25 gal/ft for each stage from 1120-970' and 950-920. TOTAL mix use is 5,000 gal (100 bbls ~~LEAVE~~ water & 4 bbls SF80) LET STAND overnight or MINIMUM OF 12 hrs

(5) Run in & set 7" production packer at 1050. Displace 50 bbls KCl mix. (Mix 5000 gal fresh water w/ 800# KCl = 100 BBLS

Pull up & set PKR AT 900'. DISPLACE 50 bbls of KCl MIX OR THE REMAINDER.

⑥ INJECT LEASE WATER — APPX 500 bbls — with RIG PUMP down CASING. KEEP RECORD OF VOLUME & PRESSURE AS FOLLOWS & ADVISE MONDARY PRIOR TO #7

1. 50# = _____ Bbls
   100# = _____ Bbls
   150# = _____ Bbls

⑦ Rig down & MOVE TO EITHER Thomas #9 OR K.C.L. #21-12 AS directed.

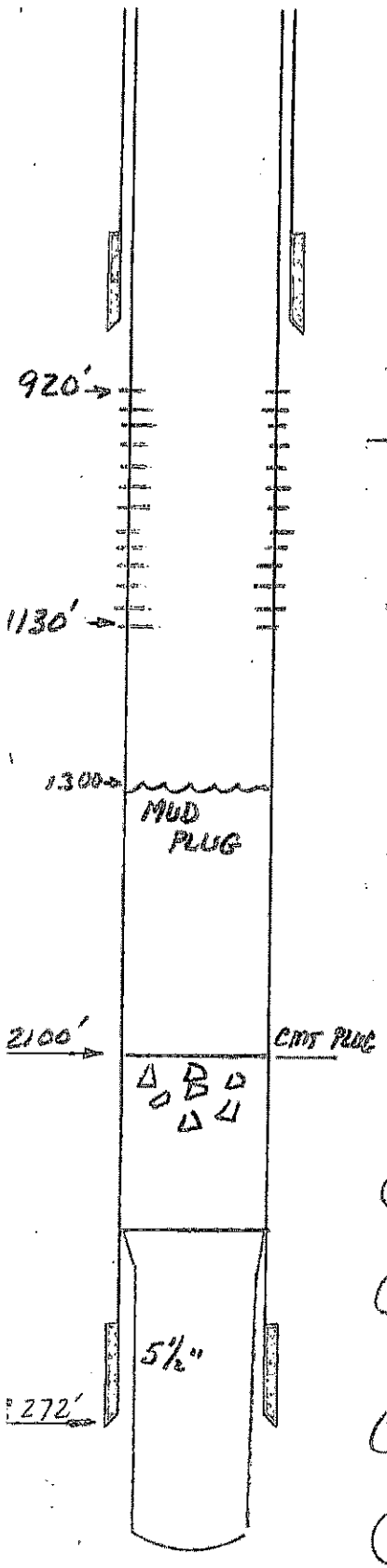
F.P. MONDARY 4-25-77

cc Gordon Hill
J. Feeney

BAKER OIL TOOLS, INC.

SERVING THE WORLD

DATE 9-18-1977 WELL NO. King 20-3 LEASE King Sec. 20 FIELD West Mt. Poso



CASING: 7" 23#
PLUG: MUD PLUG @ 1300', CMT PLUG @ 2100'
PERFS: 920 — 1130 in 7" CASING.

PURPOSE OF WORK:

Present injection rate is 580 B/D. Need to increase rate to Appx. 3,000 BD

---

1. Enter well & locate top of fill & static fluid level.
2. Bail fill if any & bail out mud plug to about 1258 — 1300'. Collect samples.
3. Make up Baker Roto-vert scrapper on 2⅞" tubing with tricone bit under scrapper & scrap to minimum of 1300'
4. Make up rig pump, tank & shaker table & run in 7" cups 2 down 2-up on 2⅞" tubing. Space cups about 4' apart. Mix chemicals as directed & wash perfs 1130 — 920. Break down each interval & note circulation up annulus if any.
5. Hook up 2" meter between pump & well head. Injection trials. If unfavorable go to step 6.
6. Run in Jet cutter & perforate 920 - 1130' OR AS DIRECTED
7. Run 7" casing scrapper over jetted interval. Retest injection rate.
8. Inject H.C. acid as needed based on step 7.

Monday

BRIDGE PLUG | PACKER | CENTRALIZER | SCRATCHER | BASKET | PERFORATION

Form 20-27 (Use reverse side for additional remarks & sketches.)

Thomas Oil Company

4311 MEADOW VIEW PLACE ENCINO, CALIF. 91316
P. O. BOX 5368 OILDALE, CALIF. 93308

213-981-5979
805-393-3204

April 27, 1977

U. S. Department of Interior
Geological Survey
800 Truxtun Avenue
Bakersfield, California 93301

Attention: Mr. D. F. Russell

Re: Thomas Oil Company Ring 20-3
Water Disposal Well

Gentlemen:

Please find enclosed two copies of Go-International Migration Survey dated December 21, 1974.

The Olcese sand was perforated as follows:

10-1-74 2-1/2" H.F. D.M.L. jet (23 gram) zone continuous 920'-1130'.

Please advise if you require supplementary notice for the above perforated interval.

Very truly yours,

THOMAS OIL COMPANY

Frank P. Mondary/aja

Frank P. Mondary

FPM/aja

cc: DOG Bakersfield
Well File ✓
Water Disposition Book

MEMO

To: L. C. Fiedler Date: 4/26/77

From: Frank P. Mondary

Subject: Maximum Pressure of Injection Well Ring 20-3

Based on overburden requirements, the maximum surface injection pressure for well Ring 20-3 is 398 psig.

Tabulations:

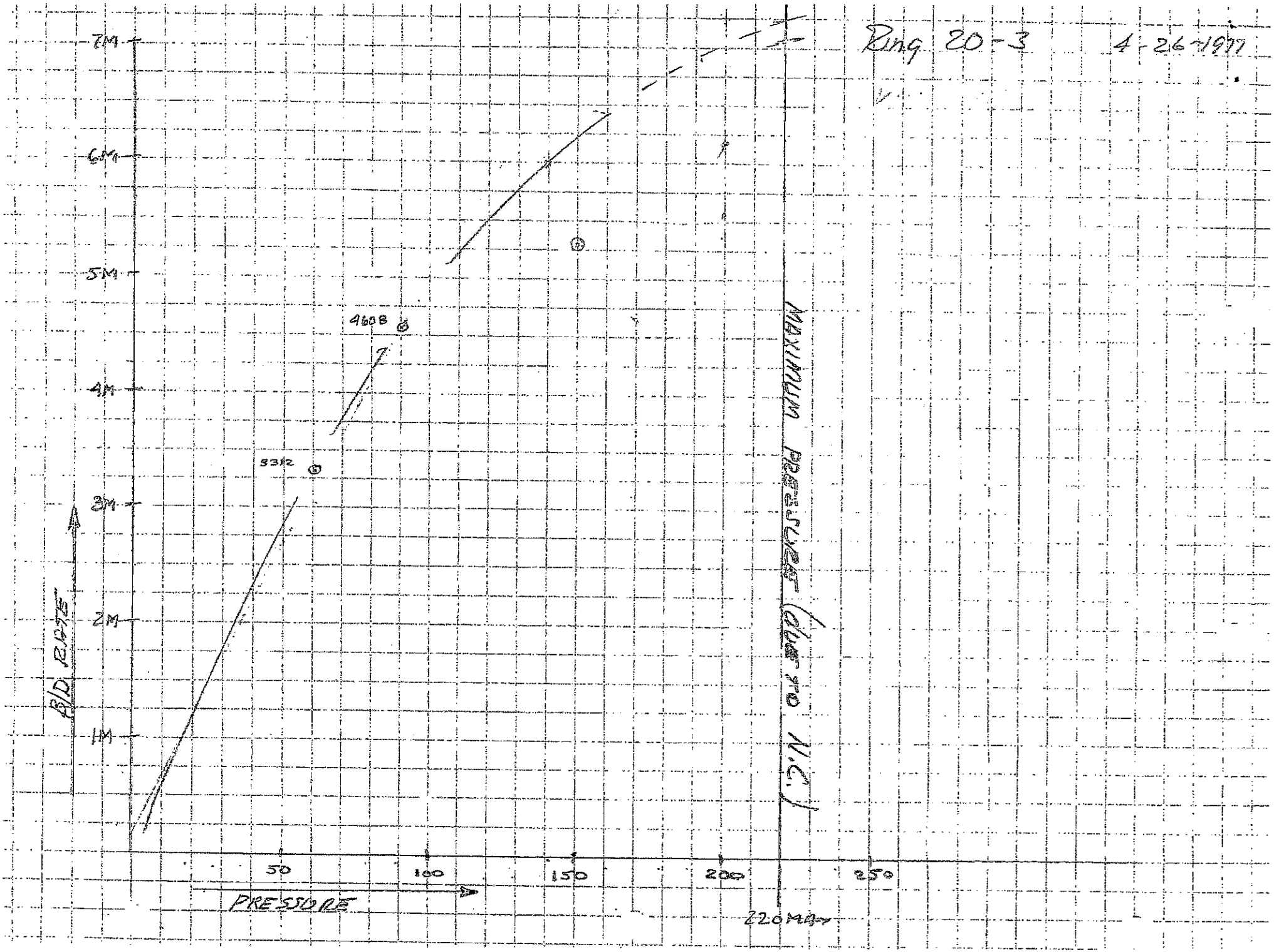
Top of Injection Interval =	920'
Frac Gradient =	0.8#/ft.
Max. Pressure at Top of Zone =	793 psi
Max Surface Pressure =	398 psig

However, we may witness communication between the casing and formation, upward. Should this occurr, regardless of pressures, we will be required to prevent fluid movement upward by cement squeezing.

The pumpers should be directed to moniter the surface of this well for evidence of water communication to surface.

Frank P. Mondary/aja
Frank P. Mondary

cc: Jack Gilpin
Well File ✓
Water Disposition Book


Eng 20-3 4-26-1977
7M
6M
5M
4M
3M
2M
1M
B/D 12.75"
4608
5312
50
100
150
200
250
PRESSURE
220 MAX
MAXIMUM PRESSURE (PSI) TO W.C.

SUBMIT IN DUPLICATE

20748-708 1-74 BM ⓒ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR THOMAS OIL COMPANY FIELD West Mount Poso

Well No. "Ring 20" 3 (029-14064), Sec. 20, T. 27S, R. 28E, M.D. B. & M.

Date April 28, 1977 Signed Frank C. Monday, Jr.

P.O. Box 5368, Oildale, Ca. 93308 (805)393-3204 Title Production Engineer
(Address) (Telephone Number) (President, Secretary or Agent)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
4-20-77	Moved in Ideco rig. Bailed to bottom 1130', no fill.
4-21-77	Bailed out mud plug to 1300' and swabbed well clean.
4-22-77	Ran in close spaced cups to wash perfs and stuck washing tool.
4-23-77	--
4-24-77	Circulated out 60' sand over top washer tool with 1" stinger and pulled out washer tool.
4-25-77	Made up 7" production packer on 2-7/8" tubing and set at 900'±. Displaced 2000 gal. water premixed with 150 gal. solvent chemical and let set over night.
4-26-77	Displaced away solvent mixture with 2% K.Cl. mixture and lease water; tested injection rates up to 8,000 B/D.
4-27-77	Re-tested rates. Rig down and prepared move out.

OG 103

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: SAC 044132

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER: Injection Well

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: THOMAS OIL COMPANY

8. FARM OR LEASE NAME: "Ring 20"

3. ADDRESS OF OPERATOR: P. O. Box 5368, Oildale, Ca. 93308

9. WELL NO.: 3

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: Sec. 20 - SW/4 of NW/4

10. FIELD AND POOL, OR WILDCAT: Mount Poso

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 20/27S/28E MDB&M

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 949' KB, KB 8'.

12. COUNTY OR PARISH: Kern

13. STATE: Calif.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	XX
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

4/20/77 Moved in Ideco Rig. Bailed to bottom 1130' no fill.

4/21/77 Bailed out mud plug to 1300' and swabbed well clean.

4/22/77 Ran in close spaced cups to wash perfs and stuck washing tool.

4/23/77 --

4/24/77 Circulated out 60' sand over top washer tool with 1" stinger and pulled out washer tool.

4/25/77 Made up 7" production packer on 2-7/8" tubing and st at 900'±. Displaced with 2000 gal. water, premixed with 150 gal. solvent chemicals and let set over night.

4-26-77 Displaced away solvent mixture with 2% K.Cl. mixture and lease water; tested injection rates up to 8,000 B/D.

4-27-77 Re-tested rates. Rig down and prep. move out.

18. I hereby certify that the foregoing is true and correct

SIGNED: Frank P Mendoza, Jr. TITLE: Production Engineer DATE: 4-28-77

(This space for Federal or State office use)

APPROVED BY: D. F. Russell TITLE: District Engineer DATE: April 29, 1977

CONDITIONS OF APPROVAL, IF ANY: D. F. Russell

cc: DOG, Bakersfield

*See Instructions on Reverse Side

RECEIVED
MAY 2 1977

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

FOR DIVISION USE ONLY		
BOND	FORMS	
	114	121

DIVISION OF OIL AND GAS

Bakersfield Calif.

A notice to you dated December 27, 1977, stating the intention to

Rework (Drill, rework, abandon), Well No. "Ring 20" 3, API No. 029-14064,

Sec. 20, T. 27S, R. 28E, M.D. B. & M., West Mount Poso Field,

Kern County, should be amended because of changed conditions.

The present condition of the well is as follows:

Total depth 1900'. Mud Plug 1130'.

Complete casing record including plugs and perforations:

7" cemented at 2272'. Perf'd. 920-1130' (Olcese Sand).
Liner 5-1/2" 2316-2227' perf'd. 2261-2316'.
Cmt. plug 2316-2100'.
Mud Plug 1130'.

We now propose

1) Baile out mud plug to approx. 1300'.
2) Do Not set Davins Bridge Plug.
3) Swab back fluid until clear.
4) Spot solvent adjacent to perforations. Let set 8 hrs.
5) Displace solvent - 2% KCl water.
6) Inject test and return to injector status.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address P. O. Box 5368 (Street)

Bakersfield, California 93308 (City) (State) & (Zip)

Telephone Number (805) 393-3204

THOMAS OIL COMPANY (Name of Operator)

By [signature] 12-28-77 (Name) (Title)

Type of Organization Individual (Corporation, Partnership, Individual)

OG 123 (4-75-GSR-3M)

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: SAC 084132

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ø

1. OIL WELL ☐ GAS WELL ☐ OTHER: Injection Unit

7. UNIT AGREEMENT NAME: Ø

2. NAME OF OPERATOR: Thomas Oil Company

8. FARM OR LEASE NAME: King 20

3. ADDRESS OF OPERATOR: P.O. Box 5368 Oildale, Ca. 93308

9. WELL NO.: 3

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: Sec 20 SW/4 of NW/4

10. FIELD AND POOL, OR WILDCAT: West Mt Poso

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 20 27S 28E MDB&M

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 949 KB KB=8'

12. COUNTY OR PARISH: Kern

13. STATE: Calif

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☒	CHANGE PLANS	☐	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

1) Run CBL Log
2) Place sand plug to appx 850'
3) Set 4 - ½" Holes 830-829
4) Squeeze away appx 50 sx cement in 2 - 3 stages
5. C.O. cmt to 831 & test casing 200# 15 min
6. C.O. cmt & sand to bottom.
7. Test injectivity either return to injection or treat zone then return to injection

18. I hereby certify that the foregoing is true and correct

SIGNED: Monday TITLE: Prod. Engr. DATE: 9-2-77

(This space for Federal or State office use)

APPROVED BY: John P Wagner TITLE: District Engineer DATE: September 6, 1977

CONDITIONS OF APPROVAL, IF ANY: John P. Wagner

cc: DOG, Bakersfield

SEE ATTACHED CONDITIONS AND REQUIREMENTS

See Instructions on Reverse Side

GEOLOGICAL SURVEY RECEIVED SEP 6 1977

Your proposal is approved subject to the following requirements:

1. Compliance with Federal Oil and Gas Operating Regulations.

2. Any change in the approved program must receive prior approval of District Engineer.

3. A Subsequent Report of work performed shall be filed in triplicate promptly upon completion of the work.

Gone Eng

HOLE IN CASING
DR - NO CMT BOND

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

BOND

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121

DIVISION OF OIL AND GAS

Files

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. Ring 20 - 3, API No. _____,

Sec. 20, T. 27S, R. 28E, MD B. & M., West Mt Poso Field, Kern County.

The present condition of the well is as follows:

1. Total depth. 1900' Mud plug at 1140'

2. Complete casing record, including plugs and perforations:

7" perforated pipe at 920 - 1130 4-½" holes

3. Present producing zone name Olcese Zone in which well is to be recompleted Same

4. Present zone pressure 0 New zone pressure 0

5. Last produced 4-27-77 (Date) _____ (Oil, B/D) _____ (Water, B/D) _____ (Gas, Mcf/D)

or

6. Last injected 9-5-77 (Date) 3,000 (Water, B/D) 0 (Gas, Mcf) 15" vacuum (Surface pressure, psig.)

The proposed work is as follows:

1) Pull pump and rods
2) Clean out sand to 1900'
3) Set 4½" liner @ 920 - 1130'
4) Squeeze perfs 920 - 1130 with 2 - 3 yards
5) Clean out sand to 1900' and run tubing and pump
6) Put on production

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address Box 5368 (Street)
Bakersfield CA 93308 (City) (State) (Zip)
Telephone Number 805 - 393 - 2204

Texaco Inc (Name of Operator)
By W Woodard (Name) 9/6/77 (Date)
Type of Organization _____ (Corporation, Partnership, Individual, etc.)

OG197 (8-75—GSRI—15M)

FILE COPY

NOTIFIED OF CHANGE BY PHONE
Dec. 1970 Brown
Well: Sun Oil Company

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
[redacted]

SUPPLEMENTARY NOTICE

FOR DIVISION USE ONLY		
BOND	FORMS	
	114	121

DIVISION OF OIL AND GAS

[redacted] Calif.

A notice to you dated September 30, 1970, stating the intention to rework, Well No. Pac 20-3, API No. _____,
(Drill, rework, abandon)
Sec. 20, T. 6 S., R. 28 E., M.D. B. & M., West Mt. Poso Field,
Kern County, should be amended because of changed conditions.

The present condition of the well is as follows:

Total depth 1900' MUD PLUG AT 1148±'

Complete casing record including plugs and perforations:

7" perfs 920 w/30 sx cement

We now propose (Plug found in 7" csg. at approx. 580'±)

1. Run casing caliper (3) arm 2¼" range & set approx 640'±
2. Perforate well as necessary. Evaluate log for casing leaks
3. Casing leaks to be squeeze cemented. Drill out cement, test casing, resume production.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address Box 5368 (Street)
Oildale (City) Ca. (State) 93308 (Zip)
Telephone Number 805-393-3024

Sun Oil Company (Name of Operator)
By [redacted] (Name) (Date)
Type of Organization [redacted] (Corporation, Partnership, Individual, etc.)

OG123 (4-74-GSR1-5M)

DR16. SEND TO [illegible] 9/29/72

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER

2. NAME OF OPERATOR: Thomas Oil Co.

3. ADDRESS OF OPERATOR: Box 5368 Oildale, CA 93308

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: NW 20 T 29 S R 27 E MDB&M

5. LEASE DESIGNATION AND SERIAL NO.: SAC 044132

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ø

7. UNIT AGREEMENT NAME: Ø

8. FARM OR LEASE NAME: Ring 20

9. WELL NO.: 3

10. FIELD AND POOL, OR WILDCAT: West Mt Poso

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 20 - 29S/28E MDB&M

12. COUNTY OR PARISH: KERN

13. STATE: CA

14. PERMIT NO.: #

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 949 KB KB-8

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☒	CHANGE PLANS	☐	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

1) Csg placed on vacuum failed to exclude water to surface. Telephone discussion on 9-20-72
2) Plug 7" w/ sand to 920± Inject Dowell chemical plug for 14 day set time.
3) Sand fill to 620 & cap w/ 25x class G cement
4) Squeeze away 168 sx class G + 32 Calcium Chloride
5) D.O. to 590± & test casing
6) If test OK. drill out cmt & C.O. gravel/sand to Bottom.
7) Place well back on

18. I hereby certify that the foregoing is true and correct

SIGNED Monday TITLE Prod. Engr. DATE 9/29/72

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations

No. T 477-1370

Mr. L. C. Fiedler
THOMAS OIL CO.
P. O. Box 5368
Oildale, Ca. 93308

Bakersfield, Calif.
November 18, 1977

DEAR SIR:

Operations at well No. "Ring 20" 3, API No. 029-14064, Sec. 20, T. 27S, R. 28E, M.D., B & M. Mount Poso Field, in Kern County, were ~~witnessed~~ review on 11-17-77. Mr. Larry S. Bright, representative of the supervisor ~~was present from~~ ~~not~~. ~~There were also present~~

Present condition of well: 7" cem. 2272', perf. 920' - 1130', hole in casing 545' - 590'. E.D. 2100'. T.D. 2317'.

The operations were performed for the purpose of demonstrating that the injection fluid is confined to strata below 920'.

DECISION: THE OPERATIONS, ARE APPROVED AS INDICATING THAT THE INJECTION FLUID IS CONFINED TO STRATA BELOW 920' AT THIS TIME.

dm 11/29/77

LSB/bj

M. G. MEFFERD
~~MORRISON, MAXWELL, WILSON~~
State Oil and Gas Supervisor

By G. W. Hunter Deputy

SUBMIT IN DUPLICATE

20798-705 1-74 6M ⓗ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Thomas Oil Company FIELD West Mt. Poso

Well No. Ring 20-3, Sec. 20, T. 27S, R. 28E, MD B. & M.

Date January 26, 1978 Signed [signature]

P.O. Box 5368 Oildale, Calif. 93308 (805)393-3204 Title Production Engineer
(Address) (Telephone Number) (President, Secretary or Agent)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
	Cement squeeze holes in csg. Found fluid communicated outside casing and entered casing above cups. (Dye Test). Holes at 550-560 by R.A. Log 9-13-77
9/19/77	Taged bottom with bailer & dumped in crse. sand & pea gravel to fill casing to 600'
9/20/77	SQUEEZE Mixed & displaced 168 sx glaso G + 3% calcium chloride (6 gal/sx water mix). Displaced with one top rubber plug W/88 cu ft salt water. Left plug at 400' in (calculated). Located plug at 376' in 4 hrs. Did not have any returns to surface.
9/21/77	Move in D.O. Equipment & D.O. to 400'
9/22/77	Drill out to 590'
9/26/77	Pressure test 7" csg at 190# surface pressure for 15 min. O.K. Test approved by D.O.G.
9/27/77	C.O. cmt & sand
9/28/77	C.O. Bottom 1130'
9/29/77	Swab well back into tank & displace 2% KCL water into formation and continue injection
11/4/77	Ran injection rate/temperature log. All injected water entering perferations.

OG 103

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other

2. NAME OF OPERATOR
Thomas Oil Company

3. ADDRESS OF OPERATOR
P.O. Box 5368 Oildale, Calif. 93308

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.) 2320' S & 600' E from NW cor sec. 20
AT SURFACE:
~~AT TOP PROD. INTERVAL:~~
~~AT TOTAL DEPTH:~~

5. LEASE SAC ~~USA~~ 044132

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
None

7. UNIT AGREEMENT NAME
None

8. FARM OR LEASE NAME
Ring Sec. 20

9. WELL NO.
Ring 20-3

10. FIELD OR WILDCAT NAME
West Mt. Poso

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 20 T27S28E MDB&M

12. COUNTY OR PARISH: Kern | 13. STATE: California

14. API NO.
029-14064

15. ELEVATIONS (SHOW DF, KDB, AND WD)
949 KB KB=8'

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☒		☒
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other)			

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

1) Cement hole in csg. (see report attached)

Subsurface Safety Valve: Manu. and Type None Set @ 0 Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE Prod. Engineer DATE Jan. 30, 1978

(This space for Federal or State office use)

APPROVED BY J P Wagner TITLE District Engineer DATE February 2, 1978
CONDITIONS OF APPROVAL, IF ANY:

cc: DOG, Bakersfield

*See Instructions on Reverse Side

GEOLOGICAL SURVEY
RECEIVED
FEB 01 1978
BAKERSFIELD

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations
WATER DISPOSAL PROJECT
Mount Poso Field
West Area
Olcese Zone

No. T 478-596

Mr. L. C. Fiedler
THOMAS OIL COMPANY
P. O. Box 5368
Oildale, CA 93308

Bakersfield, Calif.
June 2, 1978

DEAR SIR:

Operations at well No. "Ring 20" 3, API No. 029-14064, Sec. 20, T. 27S, R. 28E, M.D., B & M. Mount Poso Field, in Kern County, were ~~witnessed~~ reviewed on 3-31-78 by Mr. H. Bopp, representative of the supervisor. ~~was present~~

Present condition of well: 7" cem. 2272', perf. 2250' WSO, perf. 920'-1130', hole in casing 545'-590'. T.D. 2317'. E.D. 2100'±.

The operations were performed for the purpose of demonstrating that the injection fluid is confined to strata below 920'.

DECISION: THE OPERATIONS ARE APPROVED AS INDICATING THAT THE INJECTION FLUID IS CONFINED TO STRATA BELOW 920' AT THIS TIME.

HB:mjh

cc: F. Mondary
DWR
RWQCB

M. G. MEFFERD
State Oil and Gas Supervisor

By J. W. Hunter AM Deputy

RECEIVED
5/18/

W.D. Well

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☒ gas well ☐ other

2. NAME OF OPERATOR
Thomas Oil Co.

3. ADDRESS OF OPERATOR
P.O. Box 5368 Bakersfield CA 93388

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 2320' S. & 600' E fm. NW cor Sec 20
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
King (SAC. 044152)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
0

7. UNIT AGREEMENT NAME
0

8. FARM OR LEASE NAME
King

9. WELL NO.
King 20-3

10. FIELD OR WILDCAT NAME
West Mt. Poso

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
20 T. 27S., R. 28E., M.D.B.M.

12. COUNTY OR PARISH
Kern

13. STATE
CA

14. API NO.
029-14064

15. ELEVATIONS (SHOW DF, KDB, AND WD)
749 KB

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☒		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other)			

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

NOTE CONVERTED TO W.I.W. IN OLCESE SD.

① OVERLAY PERFORATE @ 4-½" H.F. 970' - 1050'

② JET 4-½" H.F. @ 1090' - 1203' (NEW)

Subsurface Safety Valve: Manu. and Type 0 Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED M Mondary TITLE MGR. AGENT DATE 4-13-81

(This space for Federal or State office use)

APPROVED BY J. P. Wagner TITLE Dist. Supervisor DATE 4-13-81
CONDITIONS OF APPROVAL, IF ANY: J. P. Wagner (VERBAL APPROVAL)

cc: DOG, Bakersfield

*See Instructions on Reverse Side

CANCELLED 3-9-83 after 90 days

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 480-1066

DIVISION OF OIL AND GAS

Report on Operations
WATER DISPOSAL PROJECT
Mount Poso Field
West Area
Olcese Zone

Mr. Frank P. Mondary
THOMAS OIL COMPANY
P.O. Box 5368
Bakersfield, CA 93308

Bakersfield, Calif.
September 25, 1980

Your operations at well "Ring 20" 3, API No. 029-14064, Sec. 20, T27S, R28E M.D., B.& M. Mount Poso Field, in Kern County, were reviewed on 9-23-80 by Mr. David Mitchell, representative of the supervisor.

Present condition of well: 7" cem. 2272', perf. 2250', WSO perf. 920' - 1130', hole in casing 545' - 590'. (cem. off). T.D. 2317'. E.D. 2100'+.

The operations were performed for the purpose of demonstrating that the injection fluid is confined to strata below 920'.

DECISION: THE OPERATIONS ARE APPROVED AS INDICATING THAT THE INJECTION FLUID IS CONFINED TO STRATA BELOW 920' AT THIS TIME.

DM/vk
cc: DWR
RWQCB

M.G. MEFFERD
State Oil and Gas Supervisor
By G.W. Hunter
Deputy Supervisor
G.W. Hunter

OG109 (10-78-GSRI-15M)

2-20-81

FORM OG111 (7/80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

RECEIVED 4-22-81

No. P 481-2028

488 (field code)
18 (area code)
05 (pool code)

REPORT ON PROPOSED OPERATIONS

Water Disposal Project
Mount Poso Field
West Area
Olcese Zone

Mr. Frank P. Mondary
THOMAS OIL COMPANY
P. O. Box 5368
Oildale, CA 93388

Bakersfield, California
April 20, 1981

Your proposal to rework well "Ring 20" 3,
A.P.I. No. 029-14064, Section 20, T. 27S., R. 28E., MD B. & M.,
Mt. Poso field, West area, Olcese pool,
Kern County, dated 4/13/81, received 4/14/81 has been examined in conjunction with records filed in this office.

DECISION: THE PROPOSAL IS APPROVED PROVIDED THAT:

1. In all other respects the well is to be reworked in accordance with provisions outlined in our letter dated December 6, 1974, approving the water disposal project.

PJK/tm
Bond #5041879I
Dated 4/6/81

cc: DWR
RWQCB

M. G. MEFFERD, State Oil and Gas Supervisor

By G. W. Hunter
Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 481-1226

DIVISION OF OIL AND GAS

Report on Operations
WATER DISPOSAL PROJECT
Mount Poso Field
West Area
Olcese Zone

Mr. Donald R. Macperson, Jr.
THOMAS OIL COMPANY
P. O. Box 5368
Oildale, CA 93388

Bakerafield Calif.
October 14, 1981

Your operations at well "Ring 20" 3, API No. 029-14064
Sec. 20 T. 27S R. 28E MD B.& M. Mount Poso Field, in Kern County,
were ~~witnessed~~ reviewed on 10/9/81 by Mr. David Mitchell, representative of
the supervisor, ~~was present from~~ to ~~. There were also present~~

Present condition of well: (see Report No. T 480-1066 dated Sept. 25, 1980)

The operations were performed for the purpose of demonstrating that the injection fluid is confined to strata below 920'.

DECISION: THE OPERATIONS ARE APPROVED AS INDICATING THAT THE INJECTION FLUID IS CONFINED TO STRATA BELOW 920' AT THIS TIME.

10-16-81

DM/tm
cc: RWQCB

M. G. MEFFERD
State Oil and Gas Supervisor
By G. W. Hunter
Deputy Supervisor

OG109(12-80-15M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 482-1329

DIVISION OF OIL AND GAS

Report on Operations
WATER DISPOSAL PROJECT
Mount Poso Field
West Area
Olcese Zone

Mr. Donald R. Macpherson, Jr.
MACPHERSON OIL COMPANY
P.O. Box 5368
Oildale, CA 93388

Bakersfield, Calif.
December 24, 1982

Your operations at well "Ring 20" 3, API No. 029-14064
Sec. 20, T27S R28E, M.D.B.& M. Mount Poso Field, in Kern County,
were reviewed on 12/23/82 by Mr. David Mitchell, representative of
the supervisor.

Present condition of well: (See Report No. T480-1066 dated Sept. 25, 1980).

The operations were performed for the purpose of demonstrating that the injection fluid is confined to strata below 920'.

DECISION: THE OPERATIONS ARE APPROVED AS INDICATING THAT THE INJECTION FLUID IS CONFINED TO STRATA BELOW 920' AT THIS TIME.

DM/vk
Blanket Bond
cc: RWQCB

OG109(12-80-15M)

RECEIVED
12-28-82

M.G. MEFFERD
State Oil and Gas Supervisor
By A.G. Hliza, Deputy Supervisor