GL01379



SHELL OIL COMPANY

P. O. BOX 831 HOUSTON, TEXAS 77001

April 26, 1979

Dr. Robert W. Bamford Earth Science Laboratory University of Utah Research Institute 420 Chipeta Way, Suite 120 Salt Lake, Utah 84108

Dear Dr. Bamford:

Your request for drill cutting samples and other data from two Shell geothermal wells at the Geysers has been approved. Additionally Shell would be interested in participating in the next stage of your studies at the Geysers outlined in your letter of March 11, 1979. However cutting samples from many of our wells were not collected prior to running the surface casing (generally set at ± 125 feet) nor were cuttings from Shell's shallow temperature gradient holes retained.

The samples for wells B-3R2 and C-5 are being shipped from our Bakersfield storage facility. The samples consist of a washed, dry cut with a \pm 10-foot sample frequency. The intervals being sent are as follows:

B-3 140'-3000' B-3R2 3000'-7016' C-5 120'-5626'

If samples from B-3R2 for the interval 2110 to 3000 feet are located they will be forwarded.

The well data which you requested are attached and include the following:

1. Geologic map showing location of the two wells;

2. Data summary sheets with steam entry locations;

3. Geothermal data logs (lithologic/mud logs) by R. F. Smith Corporation; B-3 140'-3000' B-3R2 2110'-7016' C-5 120'-5626'

Schlumberger Dual Induction - Laterolog Logs
B-3 127'-2354'

C-5 121'-2489'

Dr. Robert W. Bamford

5. Schlumberger Compensated Neutron-Formation Density Logs B-3 127'-2369' B-3R2 2072'-4083' C-5 122'-3545'

Although we have requested and you have agreed to maintain confidentiality of the data we do grant permission to publish a generalized graphical lithologic log showing the steam entry locations and geochemical results in the same format as the Aminoil well data of your earlier paper. However, we ask that Shell have the opportunity to review a draft of that portion of any report containing Shell data prior to publication. We also request that the Shell data be returned upon completion of the study.

Yours very truly,

W.m. marshee

W. M. Marshall Division Production Manager Western Division

JJS:YL

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Attachments



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Union Geothermal Division

Union Oil Company of California 2099 Range Ave., P.O. Box 6854 Santa Rosa, Ca. 95406 Telephone: (213) 486-6600, (707) 542-9543

UNIBN

March 14, 1979

Richard F. Dondanville

University of Utah Research Institute Earth Science Laboratory 391 Chipeta Way, Suite A Salt Lake City, Utah 84108

ATTN: Dr, Robert W, Bamford

Gentlemen:

You have requested samples from certain Geysers wells for trace element analysis as well as generalized lithologic logs and steam entry location data to facilitate evaluation of the geochemical results. Permission is hereby granted, subject to the following:

- 1. Insofar as the research is not funded by Union, it is in the public domain.
- 2. With the exception of the above stated lithologic logs and steam entry data, any information gained directly or indirectly by individuals connected with these studies from Union personnel or company records will be regarded as confidential and may be disclosed only upon prior written consent of Union Oil.
- 3. Information developed from the research program will be available at all times to Union, and a copy of the research results, including basic data, will be supplied to Union prior to the release of such research to any other party or the general public.
- 4. No identification of wells, either by name, number, or specific location will be included in any publication.
- 5. Samples from the wells are to be loaned to U.U.R.I. and will be returned to Union within one year of shipment to U.U.R.I.
- 6. The samples are not to be loaned to or examined by, any other agency, company or individual other than U.U.R.I. without prio written permission from Union.
- 7. The permission granted herein may be revolked at any time, and samples will be returned promptly to Union.

If this agreement is in accordance with your understanding, please indicate your approval by having the agreement signed on behalf of the University of Utah, and return the signed original.

Very truly yours,

UNION OIL COMPANY OF CALIFORNIA

by:

Richard F. Dondanville District Geologist Geothermal Division

Agreed to and approved this 21^{51} day of March, 1979.

UNIVERSITY OF UTAH RESEARCH INSTITUTE Earth Science Laboratory

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