

GL00789

AMENDMENT OF SOLICITATION

SCAP DE-SC07-80ID12139

USER-COUPLED CONFIRMATION

DRILLING PROGRAM

STANDARD FORM 30, JULY 1966 GENERAL SERVICES ADMINISTRATION FED. PROC. REG. (41 CFR) 1-16.101		AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		PAGE 1	OF
1. AMENDMENT/MODIFICATION NO. 001		2. EFFECTIVE DATE 7/16/80		3. REQUISITION/PURCHASE REQUEST NO.	
5. ISSUED BY U. S. Department of Energy Idaho Operations Office 550 Second Street Idaho Falls, Idaho 83401		6. ADMINISTERED BY (If other than block 5)		4. PROJECT NO. (If applicable)	
7. CONTRACTOR NAME AND ADDRESS  Prospective Proposers User-Coupled Confirmation Drilling Program  <small>(Street, city, county, state, and ZIP Code)</small>		8. AMENDMENT OF SOLICITATION NO. SCAP DE-SC07-80ID12139 DATED 6/11/80 (See block 9) MODIFICATION OF CONTRACT/ORDER NO. DATED (See block 11)		FACILITY CODE	
9. THIS BLOCK APPLIES ONLY TO AMENDMENTS OF SOLICITATIONS <input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in block 12. The hour and date specified for receipt of Offers <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offerors must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation, or as amended, by one of the following methods: (a) By signing and returning _____ copies of this amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE ISSUING OFFICE PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If, by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
10. ACCOUNTING AND APPROPRIATION DATA (If required)					
11. THIS BLOCK APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS (a) <input type="checkbox"/> This Change Order is issued pursuant to _____ The Changes set forth in block 12 are made to the above numbered contract/order. (b) <input type="checkbox"/> The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in block 12. (c) <input type="checkbox"/> This Supplemental Agreement is entered into pursuant to authority of _____ It modifies the above numbered contract as set forth in block 12.					
12. DESCRIPTION OF AMENDMENT/MODIFICATION 1. The closing date is hereby extended to September 15, 1980, and proposals must be received at the above address by 4:00 p.m. local time. 2. Attachment A, consisting of four (4) pages of answers to written questions submitted in response to this SCAP. 3. Attachment B, draft Cooperative Agreement showing proposed contractual form, terms and conditions. 4. Attachment C, mailing list for this SCAP.					
Except as provided herein, all terms and conditions of the document referenced in block 8, as heretofore changed, remain unchanged and in full force and effect.					
13. <input checked="" type="checkbox"/> CONTRACTOR/OFFEROR IS NOT REQUIRED TO SIGN THIS DOCUMENT <input type="checkbox"/> CONTRACTOR/OFFEROR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _____ COPIES TO ISSUING OFFICE					
14. NAME OF CONTRACTOR/OFFEROR BY _____ <small>(Signature of person authorized to sign)</small>			17. UNITED STATES OF AMERICA BY <i>Nell W. Fraser</i> <small>(Signature of Contracting Officer)</small>		
15. NAME AND TITLE OF SIGNER (Type or print)		16. DATE SIGNED		18. NAME OF CONTRACTING OFFICER (Type or print) Nell W. Fraser	
				19. DATE SIGNED 7/16/80	

USER-COUPLED CONFIRMATION DRILLING PROGRAM

SOLICITATION FOR COOPERATIVE AGREEMENT NO. DE-SC07-80ID12139

QUESTIONS AND ANSWERS

1. Q. Should the drilling team be selected prior to the proposal submission? If not, what level of specificity concerning the drilling specifications and driller selection process is required?  
A. The drilling team should be responsible for the drilling plan and costs associated with the drilling phase for the proposal. The selection of the drilling contractor would not be required prior to drilling. See SCAP P.6 Project Management. The preliminary drilling plan must be comprehensive enough to determine realistic costs and contain sufficient detail in design and scope of work to provide a good basis for evaluation. It is reasonable to assume the more detail the better the evaluation. See SCAP P.35 Drilling Guidelines.
2. Q. Can project funds be spent on market development activities beyond the use identified in the proposal?  
A. No. The Cooperative Agreements will only support activities for resource exploration as itemized on P.2 of the SCAP.
3. Q. What is considered a reasonable level of project funding toward institutional problem solving and coordination?  
A. The level of funding should be appropriate for the institutional problems involved and in the coordination required to complete the resource confirmation. See SCAP. P.40, Institutional Guidelines.
4. Q. Is it possible for DOE to share costs up front rather than after they are incurred?  
A. No. One goal for the User Coupled Drilling Program is to develop a self-sustaining industry. Having the participant responsible for his own funding develops contacts between users and lenders that will continue once the government has stepped out of the program.
5. Q. When will DOE make payments? Is there a schedule of payouts based upon completion of project milestones?  
A. DOE will pay 20 percent of allowable costs as the project progresses. These payments will be made throughout the project and will be in accordance with the provisions negotiated into

the Cooperative Agreement. Upon completion of the project, DOE will make a final lump-sum payment on any remaining portion of its cost share determined by the degree of success of the well. See P.3 of the SCAP.

6. Q. Is DOE only interested in financing projects which private investors would not find attractive?
  - A. Because infrastructure currently is lacking for development of geothermal resources, DOE is stimulating resource confirmation and infrastructure development through this SCAP. Proposals which will be selected for support must demonstrate economic feasibility and would presumably be of interest to private investors if such an infrastructure were developed.
  
7. Q. Could you please define more precisely how far advanced a project must be before DOE would consider issuing a Cooperative Agreement? How much exploration must be completed? Will a higher evaluation be given to projects with most of the exploration already completed?
  - A. DOE will support the full exploration phase for drill site selection through the testing of a new or an existing well. See SCAP P.2 and 3. The proposer must select a specific site area with a good likelihood of producing the volume of fluid and temperatures needed for the proposed direct heat end use. This must be based on geology, geophysics and geochemistry. See SCAP P.8.5.b. Resource potential is one of the evaluation factors. At sites for which there is expectation of equal resources, the greater knowledge available on the resource, the more likely the proposal will be graded higher on this factor.
  
8. Q. Are you encouraging small projects such as heating greenhouses or larger ones which could provide space heat for numerous homes, offices or process heat for manufacturing, etc?
  - A. Projects which put more "BTU's-on-line" for the amount of DOE dollars at risk are preferred. The impact of the project on local and regional energy needs is also an evaluation factor. See SCAP P.18 and 20. Technical and Economic Feasibility and Program Policy and Preference Factors.
  
9. Q. The single use of electrical generation is not encouraged. Does this mean that a large electrical generation plant or any size electrical generation system will not be supported.
  - A. The solicitation does not address single electric generation end use of any size and proposals for such are not appropriate.

10. Q. In our project the produced hydrothermal fluid will be used to dehydrate the product (direct application) which will then be burned in conventional boilers to produce power. Does this type of project have applicability for submission under this SCAP?
- A. Yes. Your project identifies the direct use of hydrothermal fluid to produce a dried product which will later be used to produce electric power. It is acceptable under this SCAP.
11. Q. What do you consider adequate (length of time, etc.) for the flow test?
- A. The long-term testing must be of sufficient duration to obtain thermal equilibrium conditions, indicate reservoir characteristics and permit reasonably confident prediction of behavior over the life of the intended use. See SCAP P.37, Well Testing Guidelines.
12. Q. It is anticipated that the proposer under this SCAP will be a private corporation, but will the involvement of the USFS in other portions of the feasibility study impact our consideration?
- A. Assistance to the proposer by another Federal agency would not disqualify a proposal made by a qualified proposer. If a proposer obtains grants from other Federal or State agencies the percentage of funding in any Cooperative Agreement would apply only to the "at risk" investment of the proposer.
13. Q. We are investigating, in substantial detail, the engineering aspects of a proposed project. Most of this work will be performed during and after the drilling of the deep exploration well. What degree of engineering feasibility is needed to insure consideration under the SCAP?
- A. The proposer should complete whatever degree of engineering feasibility work he feels necessary to develop a proposal and obtain his financing. The only factors which are prerequisites for consideration under this SCAP are the Qualification Criteria listed on Page 6 of this SCAP. The evaluation criteria do address technical feasibility and sufficient information should be presented for this evaluation.
14. Q. The feasibility should of our proposed project will hinge on two major components:
- a. The long run cost of the raw materials delivered to the plant.
  - b. The flow rate, temperature and reservoir characteristics of the geothermal resource.

In determining the variable cost share formula, what provisions can be made to reflect the fact that the feasibility of the project is greatly dependent on the delivered raw material?

- A. The cost of raw material and the overall economic feasibility of your project have only an indirect bearing on the nature of the cost-share formula, but these factors are important in the overall economic feasibility of the project which is a technical evaluation factor. The cost-share formula is based on the value of the resource to you as a substitute for a traditional power source such as electricity or natural gas, and is a function of resource characteristics such as temperature, flow, or water quality.



U.S. DEPARTMENT OF ENERGY  
IDAHO OPERATIONS OFFICE

**COOPERATIVE AGREEMENT**

ID FORM-182  
(Rev. 05-80)

Ref: CMD

PURSUANT TO AUTHORITY OF PL 93-410, PL 93-438,  
PL 93-473, PL 93-577, and PL 95-91

<p>1.a. Agreement No. DE-FC07-</p>		<p>1.b. Modification No.</p>									
<p>2. Agreement Period</p> <p>From: _____ To: _____</p>											
<p>3. Participant Name and Address</p>		<p>4. Participant Type</p> <p><input type="checkbox"/> Educational <input type="checkbox"/> Nonprofit <input type="checkbox"/> State or Local Government <input type="checkbox"/> Profit</p>									
<p>5. Project Title User-Coupled Confirmation Drilling Program</p>		<p>6. Project Will be Conducted per See Article _____</p>									
		<p>7. Technical Reports Are Required See Article _____</p>									
<p>8. Principal Investigator(s) or Program Director(s) Name and Address</p>		<p>9. DOE Program Officer (Name and Address)</p> <p>Telephone No. _____</p>									
<p>10. Accounting and Appropriation Data</p>		<p>11. Method of Payment</p> <p><input type="checkbox"/> % At Award, % When Requested, 5% Upon <input type="checkbox"/> Letter of Credit Receipt of Final Report <input type="checkbox"/> Reimbursement <input type="checkbox"/> Other (specify) See Article _____</p>									
<p>12. Submit Vouchers to Director, Contracts Mgmt. U. S. Dept. of Energy, 550 2nd St. Idaho Falls, Idaho 83401</p>		<p>14. Remarks:</p> <p style="text-align: center;"><b>DRAFT</b></p> <p>DATE <u>JUL 1 6 1980</u></p>									
<p>13. Funding Sources</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Source</th> <th style="text-align: right; border-bottom: 1px solid black;">Amount</th> </tr> </thead> <tbody> <tr> <td>DOE: _____</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>Participant: _____</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>Total Funding: _____</td> <td style="text-align: right;">\$ _____</td> </tr> </tbody> </table>		Source	Amount	DOE: _____	\$ _____	Participant: _____	\$ _____	Total Funding: _____	\$ _____		
Source	Amount										
DOE: _____	\$ _____										
Participant: _____	\$ _____										
Total Funding: _____	\$ _____										
<p>15. Amount Obligated By This Action: \$ _____</p>											
<p>16. DOE Issuing Office (Name and Address) Idaho Operations Office 550 Second Street Idaho Falls, Idaho 83401</p>											
<p>17. DOE Contracting Officer</p> <p>_____ Signature of Contracting Officer (Date)</p> <p>Name (typed) _____</p> <p>Telephone No. _____</p>		<p>18. Participant Acceptance</p> <p>By _____ Signature of Authorized Official (Date)</p> <p>Name (typed) _____</p> <p>Title _____</p>									

(Replaces ID F-182 (11-79) which may be used)

SCHEDULE

ARTICLE I - STATEMENT OF JOINT OBJECTIVE

The purpose of this Cooperative Agreement between the United States Department of Energy (DOE or Government) and \_\_\_\_\_ (Participant) is to develop and demonstrate \_\_\_\_\_

\_\_\_\_\_. This action is authorized by Federal law and is in furtherance of the U.S. Government's objective to \_\_\_\_\_. The Participant will receive the benefit of \_\_\_\_\_, and DOE will obtain data pertaining to the design, construction and operation of such unit.

ARTICLE II - THE PROJECT MANAGEMENT PLAN

A. Participant's Responsibilities. The Participant shall furnish the materials, facilities, equipment, personnel, services, and all other necessary and related items for the design, construction and operation of an inert anode for aluminum smelting. The work includes all that is necessary to provide a complete operating facility and, further, for the collection and dissemination of data and other information concerning the construction, operation and maintenance costs, engineering characteristics, and maintenance requirements of the facilities for a period of operation of the facilities. Requirements of the project are further set forth in Appendix B to this Agreement which is titled "PROJECT TASKS, SCHEDULE BACKGROUND, AND REPORTING REQUIREMENTS" and which is made a part hereof by this reference. The Participant shall provide the funding and reports as specifically provided for elsewhere in this Agreement, and obtain all necessary licenses and permits.

B. DOE's Responsibilities. DOE will provide a specified amount of financial assistance, and will monitor the project to observe the progress. In addition, DOE will act upon the Participant's requests for approval in those instances in which DOE's approval is required.

ARTICLE III - FINANCIAL SUPPORT

A. Estimated Cost. The total estimated cost of the work under this Agreement is \_\_\_\_\_ Dollars (\$\_\_\_\_\_). If at any time the Participant has reason to believe that this or any revised estimate is in error by more than ten percent (10%), the Participant shall so notify DOE in writing and provide DOE with a new estimate.

B. DOE's Financial Support. The total cost to DOE for all the work under this project is \_\_\_\_\_ Dollars (\$\_\_\_\_\_), and under no circumstances will DOE's support exceed this amount. This limitation includes termination costs, if any. The initial increment available is \_\_\_\_\_ Dollars (\$\_\_\_\_\_).



ARTICLE III - FINANCIAL SUPPORT (Cont'd)

C. Participant's Financial Support. All costs in excess of the \_\_\_\_\_ Dollars (\$\_\_\_\_\_) to be provided by DOE, will be borne by the Participant. The estimated cost to the Participant is \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

D. Obligated Funds. The amount of funds presently obligated to this Agreement by DOE is \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

ARTICLE IV - METHOD OF PAYMENT

A. DOE will make incremental payments by Treasury check to the Participant in the amounts set forth below at such times as the specified milestones are achieved and upon receipt of invoices or vouchers and a cost statement from the Participant. Such invoices or vouchers must be supported by a statement that the costs are allowable as defined in ARTICLE VIII of this Agreement.

B. At any time or times prior to final payment under this Agreement, the Contracting Officer may have the costs incurred under this Agreement audited. The total of DOE payments cannot exceed the total, actual, allowable costs incurred. If the Contracting Officer finds, on the basis of audit or otherwise, that allowable costs as defined in ARTICLE VIII do not equal or exceed the amount of funds DOE has agreed to provide, total payments shall be reduced accordingly.

C. As more definitive project cost and schedule data become available, the parties may review the milestone and payment schedule and, by written agreement, make adjustments. Under no circumstances, however, will DOE's costs exceed the amounts provided for in ARTICLE III.

ARTICLE V - TERM OF THE AGREEMENT

The work under this Agreement shall be completed by \_\_\_\_\_ or within any extension of time as may be mutually agreed to in writing by the parties.

ARTICLE VI - PROJECT INFORMATION SYSTEM

Reporting Requirements. The Participant shall furnish to DOE the reports and information identified in Appendix B.

ARTICLE VII - RESPONSIBLE PERSONS AND PERSONNEL

A. The Participant agrees to permit any specified DOE personnel to have necessary access to the Participants and/or major subcontractor's facilities, personnel, and records pertaining to the project. Such DOE personnel may be used to assist the Program Officer in carrying out his responsibilities.

B. (1) The Program Officer for DOE under this Agreement, and the person who shall be the Participant's contact for all technical matters pertaining to this Agreement shall be the person named below or such other person as may be designated in writing by the Contracting Officer:

(2) The representative for the Participant for the purposes of this Agreement shall be the person named below or such other person as may be designated in writing by the Participant:

ARTICLE VIII - ALLOWABLE COST

Costs shall constitute allowable costs as specified in Subpart 1-15.2 of the Federal Procurement Regulations (41 CFR 1-15) as may be modified by Subpart 9-15.2 of the DOE Procurement Regulations in effect on the date of this Agreement.

ARTICLE IX - ACQUISITION OF GOODS AND SERVICES

A. In furtherance of the work under this Agreement, each subcontract or purchase order for goods or services which, separately, exceeds \_\_\_\_\_, shall require the written approval of the Contracting Officer. The Participant may request such approval by submitting to the Contracting Officer a copy of the proposed subcontract document along with justification for the selection of the proposed subcontractor. If the Contracting Officer fails to respond to the request for approval within ten (10) days after receiving such request, the Participant may award the subcontract or purchase order.

B. The subcontractors for the goods and services referred to in paragraph A. above, shall be selected competitively except those subcontractors who were specifically identified in the Participant's proposal.

ARTICLE X - TERMINATION

A. It is the express intent of DOE and the Participant to fund their respective cost participation for the project, as such cost participation is set forth under Article III of this Agreement, so as to provide continuity and completion of the project. If, notwithstanding this original intent, it becomes apparent to either party that incremental funding for its cost participation will not be available as needed, either in whole or in part, in order to provide continuity for the completion of work under this Agreement, each party agrees to promptly advise the other of such funding problem, and if practicable and consistent with their mutual interest at the time, the parties may attempt to cooperatively adjust the schedule and/or the content of the work towards best serving the objectives of this Agreement within the available committed and planned funding of each party.

B. Notwithstanding the foregoing, it is understood that DOE may at any time upon giving written notice to the Participant by the Contracting Officer terminate this Agreement for its convenience for any reason.

C. Also, notwithstanding the foregoing, it is understood that the Participant may at any time upon giving written notice to DOE terminate this Agreement for its convenience for reasonable cause. The Participant may not terminate for convenience after seventy-five percent (75%) of DOE's contribution to the project has been committed, and should such termination occur, it will constitute a breach of contract.

D. In the event of termination for convenience by either party, the parties will cooperate to reasonably phase-out the Participant's costs and cost commitments incurred prior to the termination. If the termination is for the convenience of the Government, the termination cost claim may include those costs provided for in paragraph G. of this Article X. If the termination is for the convenience of the Participant, the cost claim may include only those costs incurred prior to termination. In either case, the approved costs will be shared in accordance with the following: \_\_\_\_\_ percent (\_\_\_\_) Government and \_\_\_\_\_ percent (\_\_\_\_) Participant; provided; however, that the total amount obligated by the Government under this Agreement shall not be exceeded.

E. In the event of termination for convenience by either party, the Participant shall:

(1) Place no further orders or subcontracts for materials, services, or facilities intended to be invoiced to the Government for its contribution.

(2) Terminate all orders and subcontracts to the extent that they relate to the performance of work.

ARTICLE X - TERMINATION (Cont'd)

(3) Notwithstanding subparagraphs E.(1) and (2) above, the Participant has the right to proceed with such orders and subcontracts should it decide to continue performance of the work at its expense only.

F. After a termination for convenience by the Government, the Participant shall submit to the Contracting Officer its termination claim. Such claim shall be submitted promptly but in no event later than one (1) year from the effective date of termination unless one or more extensions in writing are granted by the Contracting Officer.

G. Termination claims:

(1) There shall be included therein the Government's share, as set forth in paragraph D., of the cost of settling and paying claims arising out of the termination of work under subcontracts or orders which are properly chargeable to this Agreement as determined by the Contracting Officer.

(2) There shall be included therein the reasonable costs of settlement, including accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the termination and settlement of subcontracts thereunder, together with reasonable storage, transportation, and other costs incurred in connection with the protection or disposition of termination inventory.

H. Costs claimed, agreed to, or determined pursuant to this article must constitute allowable costs as defined in Article VIII, "Allowable Cost."

I. If in the opinion of DOE, the Participant fails to substantially perform under this Agreement and does not cure such failure within a reasonable time after written notice of such failure by the Contracting Officer, DOE may by written notice to the Participant terminate this Agreement. Such termination notice, signed by the Contracting Officer, shall be effective upon receipt by the Participant. The Government shall not be liable for the incurrence of any obligations under this Agreement from the date of the receipt of such termination notice. Upon any such termination, the Participant agrees to promptly, upon DOE's request, transfer to DOE all information resulting from the work performed to the date of the termination notice.

ARTICLE X - TERMINATION (Cont'd)

J. Except with respect to defaults of subcontractors, the Participant shall not be in default by reason of failure to substantially perform under this Agreement if such failure arises out of causes beyond the control and without the fault or negligence of the Participant. Such causes may include, but are not restricted to, acts of God or of the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, but in every case the failure to perform must be beyond the control and without the fault or negligence of the Participant. If the failure to substantially perform is caused by the failure of a subcontractor to perform or make progress, and if such failure arises out of causes beyond the control of both the Participant and a subcontractor, and without the fault or negligence of either of them, the Participant shall not be deemed to be in default unless the supplies or services to be furnished by the subcontractor were reasonably obtainable from other sources. Upon request of the Participant, if the Contracting Officer shall determine that failure to perform was occasioned by any one or more of the aforementioned causes, this Agreement shall be revised accordingly. This provision does not preclude DOE from exercising its right to terminate for convenience.

K. As used in this article, the term "subcontractor" means subcontractor at any tier.

ARTICLE XI - TITLE TO PROPERTY AND SITE RESTORATION

A. The Government will own and maintain title of all items of materials, supplies, and all tangible property purchased with Government funds provided under this Agreement. The Government will determine disposition of such property at completion of the work under this Agreement or upon termination by either party and agrees that those costs incurred by the Participant in final disposition will be allowable costs.

B. The Participant agrees that the Government shall not be subject to any obligation to restore or rehabilitate any of the premises, facilities or equipment owned and/or leased by the Participant which are altered, improved or otherwise affected by this Agreement.

ARTICLE XII - INDEMNIFICATION

It is recognized that the Participant as title holder of the facilities to be constructed under this Agreement is responsible for the design, installation, operation, repair and maintenance of such facilities. The Government therefore will not be liable for payment of damages for injuries to any person, or loss of life or personal property, or loss suffered or sustained and arising from use or operation of the facilities which are a subject of this Agreement. The Participant agrees to indemnify and save the Government harmless from any and all claims, demands, damages, actions, costs, or charges against the

ARTICLE XII - INDEMNIFICATION (Cont'd)

Government arising as the result of the above-mentioned injuries, damages, or loss, except for any such damages or claims arising out of the negligent act of the Government, its employees or representatives in the course of their official duties.

ARTICLE XIII - PUBLIC INFORMATION RELEASES

The parties agree that public disclosure or dissemination of new data or information arising out of the design, construction or operation of the project will be coordinated by the parties, it being understood that the intent of both the Participant and DOE is to release all data and information to the greatest practicable extent in order to achieve the objective of obtaining maximum public value from the results of this project. It is understood that the foregoing is not intended to afford either party the right to prevent a public release by the other; however, nothing in this article shall impair the rights of the parties set forth elsewhere in this Agreement, including but not necessarily limited to General Provision 19. entitled "Patent Rights."

APPENDIX A - GENERAL PROVISIONS

COOPERATIVE AGREEMENTS

TABLE OF CONTENTS

	<u>Title</u>	<u>Page</u>
1.	DEFINITIONS.....	1
2.	INSPECTION.....	1
3.	ASSIGNMENT OF CLAIMS.....	1
4.	EXAMINATION OF RECORDS BY COMPTROLLER GENERAL.....	2
5.	CONVICT LABOR.....	3
6.	OFFICIALS NOT TO BENEFIT.....	3
7.	COVENANT AGAINST CONTINGENT FEES.....	3
8.	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT..	3
9.	COMPETITION IN SUBCONTRACTING.....	4
10.	AUDIT AND RECORDS.....	4
11.	CLEAN AIR AND WATER.....	5
12.	PREFERENCE FOR U.S. FLAG AIR CARRIERS.....	6
13.	USE OF U.S. FLAG COMMERCIAL VESSELS.....	7
14.	PERMITS AND LICENSES.....	8
15.	REPORTING OF ROYALTIES.....	8
16.	ORDER OF PRECEDENCE.....	9
17.	AUTHORIZATION AND CONSENT.....	9
18.	CIVIL RIGHTS.....	9
19.	PATENT RIGHTS - LONG FORM.....	9
20.	ADDITIONAL TECHNICAL DATA REQUIREMENTS.....	22
21.	RIGHTS IN TECHNICAL DATA - LONG FORM.....	22

TABLE OF CONTENTS (Cont'd)

	<u>Title</u>	<u>Page</u>
22.	PATENT INDEMNITY.....	26
23.	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION.....	26
24.	FLOOD INSURANCE.....	27
<u>ADDITIONAL GENERAL PROVISIONS :</u>		
25.	DISPUTES.....	28
26.	UTILIZATION OF LABOR SURPLUS AREA CONCERNS.....	29
27.	LABOR SURPLUS AREA SUBCONTRACTING PROGRAM.....	30
28.	BUY AMERICAN ACT.....	31
29.	UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS.....	31
30.	SUBCONTRACTING PLAN FOR SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS.....	32



APPENDIX A

GENERAL PROVISIONS

COOPERATIVE AGREEMENTS

1. DEFINITIONS

As used throughout this Agreement, the following terms shall have the meanings set forth below:

A. The term "head of the agency" or "Secretary" as used herein means the Secretary, the Under Secretary, any Assistant Secretary, or any other head or assistant head of the executive or military department or other Federal agency; and the term "his duly authorized representative" means any person or persons or board (other than the Contracting Officer) authorized to act for the head of the agency or the Secretary.

B. The term "Contracting Officer" means the person executing this Agreement on behalf of the Government, and any other officer or civilian employee who is a properly designated Contracting Officer; and the term includes, except as otherwise provided in this Agreement, the authorized representative of a Contracting Officer acting within the limits of his authority.

C. Except as otherwise provided in this Agreement, the term "subcontract" includes purchase orders under this Agreement.

D. The term "DOE" means the U.S. Department of Energy.

2. INSPECTION

The Government, through any authorized representatives, has the right at all reasonable times, to inspect, or otherwise evaluate the work performed or being performed hereunder and the premises in which it is being performed. If any inspection, or evaluation is made by the Government on the premises of the Participant or a subcontractor, the Participant shall provide and shall require its subcontractors to provide all reasonable facilities and assistance for the safety and convenience of the Government representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work.

3. ASSIGNMENT OF CLAIMS

A. Pursuant to the provisions of the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203; 41 U.S.C. 15), if this Agreement provides for payments aggregating \$1,000 or more, claims for moneys due or to become due the Participant from the Government under this Agreement may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency,

### 3. ASSIGNMENT OF CLAIMS (Cont'd)

and may thereafter be further assigned and reassigned to any such institution. Any such assignment or reassignment shall cover all amounts payable under this Agreement and not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing. Unless otherwise provided in this Agreement, payments to assignee of any moneys due or to become due under this Agreement shall not, to the extent provided in said Act, as amended, be subject to reduction or setoff. (The preceding sentence applies only if this Agreement is made in time of war or national emergency as defined in said Act and is with the Department of Defense, the General Services Administration the Department of Energy, the National Aeronautics and Space Administration, the Federal Aviation Administration, or any other department or agency of the United States designated by the President pursuant to Clause 4 of the provision of Section 1 of the Assignment of Claims Act of 1940, as amended by the Act of May 15, 1951, 65 Stat. 41).

B. In no event shall copies of this Agreement or of any plans, specifications, or other similar documents relating to work under this Agreement, if marked "Top Secret," "Secret," or "Confidential," be furnished to any assignee of any claim arising under this Agreement or to any other person not entitled to receive the same. However, a copy of any part or all of this Agreement so marked may be furnished, or any information contained therein may be disclosed, to such assignee upon the prior written authorization of the Contracting Officer.

### 4. EXAMINATION OF RECORDS BY COMPTROLLER GENERAL

A. This clause is applicable if the amount of this Agreement exceeds \$10,000 and was entered into by means of negotiation, including small business restricted advertising, but is not applicable if this Agreement was entered into by means of formal advertising.

B. The Participant agrees that the Comptroller General of the United States or any of his duly authorized Government employees shall, until the expiration of three (3) years after final payment under this Agreement, unless DOE authorizes their prior disposition, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Participant involving transactions related to this Agreement.

C. The Participant further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized Government employees shall, until the expiration of three (3) years after final payment under the subcontract, unless the DOE authorizes their prior disposition, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (1) purchase orders not exceeding \$10,000 and (2) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

4. EXAMINATION OF RECORDS BY COMPTROLLER GENERAL (Cont'd)

D. The periods of access and examination described in paragraphs A. and B., above, for records which relate to (1) appeals under the "Disputes" clause of this Agreement, (2) litigation or the settlement of claims arising out of the performance of this Agreement, or (3) costs and expenses of this Agreement as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims or exceptions have been disposed of.

E. Nothing in this Agreement shall be deemed to preclude an audit by the General Accounting Office of any transaction under this Agreement.

5. CONVICT LABOR

In connection with the performance of work under this Agreement, the Participant agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1965 [18 U.S.C. 4082(c)(2)] and Executive Order 11755, December 29, 1973.

6. OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

7. COVENANT AGAINST CONTINGENT FEES

The Participant warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Participant for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this Agreement without liability or in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

8. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT

(The provisions of this clause shall be applicable only if the amount of this Agreement exceeds \$10,000.)

A. The Participant shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Agreement of which the Participant has knowledge.

8. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (Cont'd)

B. In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this Agreement or out of the use of any supplies furnished or work or services performed hereunder, the Participant shall furnish to the Government when requested by the Contracting Officer, all evidence and information in possession of the Participant pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Participant has agreed to indemnify the Government.

C. This clause shall be included in all Subcontracts.

9. COMPETITION IN SUBCONTRACTING

The Participant shall select subcontractors (including suppliers) on a competitive basis to the maximum practicable extent consistent with the objectives and requirements of the Agreement.

10. AUDIT AND RECORDS

A. The Participant shall maintain, and the Contracting Officer or his representative shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this Agreement. Such right of examination shall include inspection at all reasonable times of the Participant's plants, or such parts thereof, as may be engaged in the performance of this Agreement.

B. The materials described above, shall be made available at the office of the Participant, at all reasonable times, for inspection, audit or reproduction, until the expiration of three (3) years from the date of final payment under this Agreement or such lesser time specified in Title 41, Code of Federal Regulations Part 1-20 and for such lesser period, if any, as is required by applicable statute, or by other clauses of this Agreement, or by subparagraphs B.(1) and (2) below:

(1) If this Agreement is completely or partially terminated, the records relating to the work terminated shall be made available for a period of three (3) years from the date of any resulting final settlement.

(2) Records which relate to appeals under the "Disputes" clause of this Agreement, or litigation or the settlement of claims arising out of the performance of this Agreement, shall be made available until such appeals, litigation, or claims have been disposed of.

11. CLEAN AIR AND WATER

[Applicable only if the Agreement exceeds \$10,000 or the Contracting Officer has determined that orders under an indefinite quantity Agreement in any one year will exceed \$100,000 or a facility to be used has been the subject of a conviction under the Clean Air Act [42 U.S.C. 1857c-8(c)(1)] or the Federal Water Pollution Control Act [33 U.S.C. 1319(c)] and is listed by EPA, or the Agreement is not otherwise exempt.]

A. The Participant agrees as follows:

(1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by Pub. L. 91-604) and section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq., as amended by Pub. L. 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this Agreement.

(2) That no portion of the work required by this Agreement will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this Agreement was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

(3) To use its best efforts to comply with clean air standards and clean water standards at the facility in which the Agreement is being performed.

(4) To insert the substance of the provisions of this clause into any nonexempt subcontract, including this subparagraph A.(4).

B. The terms used in this clause have the following meanings:

(1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by P. L. 91-604).

(2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by P. L. 92-500).

(3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in section 110(d) of the Clean Air Act [42 U.S.C. 1857c-5(d)], an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act [42 U.S.C. 1857(c)-6(c) or (d)], or an approved implementation procedure under section 112(d) of the Air Act [42 U.S.C. 1857c-7(d)].

## 11. CLEAN AIR AND WATER (Cont'd)

(4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act (33 U.S.C. 1317).

(5) The term "compliance" means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirements of the Air Act or Water Act and regulations issued pursuant thereto.

(6) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a contractor or subcontractor, to be utilized in the performance of an agreement or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

## 12. PREFERENCE FOR U. S. FLAG AIR CARRIERS

A. Pub. L. 93-623 requires that all Federal agencies and Government contractors and subcontractors will use U.S. flag air carriers for international air transportation of personnel (and their personal effects) or property to the extent service by such carriers is available. It further provides that the Comptroller General of the United States shall disallow any expenditure from appropriated funds for international air transportation on other than a U.S. flag air carrier in the absence of satisfactory proof of the necessity therefor.

B. The Participant agrees to utilize U.S. flag air carriers for international air transportation of personnel (and their personal effects) or property to the extent service by such carriers is available.

C. In the event that the Participant selects a carrier other than a U.S. flag air carrier for international air transportation, he will include a certification on vouchers involving such transportation which is essentially as follows:

### CERTIFICATION OF UNAVAILABILITY OF U.S. FLAG AIR CARRIERS

I hereby certify that transportation service for personnel (and their personal effects) or property by certificated air carrier was unavailable for the following reasons: (state reasons).

12. PREFERENCE FOR U. S. FLAG AIR CARRIERS (Cont'd)

D. The terms used in this clause have the following meanings:

(1) "International air transportation" means transportation of persons (and their personal effects) or property by air between a place in the United States and a place outside thereof or between two places both of which are outside the United States.

(2) "U.S. flag air carrier" means one of a class of air carriers holding a certificate of public convenience and necessity issued by the Civil Aeronautics Board, approved by the President, authorizing operations between the United States and/or its territories and one or more foreign countries.

(3) The term "United States" includes the fifty states, Commonwealth of Puerto Rico, possessions of the United States, and the District of Columbia.

E. The Participant shall include the substance of this clause, including this paragraph E., in each subcontract or purchase hereunder which may involve international air transportation.

13. USE OF U.S. FLAG COMMERCIAL VESSELS

A. The Cargo Preference Act of 1954 [Pub. L. 664, August 26, 1954, 68 Stat. 832, 46 U.S.C. 1241(b)], requires that Federal departments or agencies shall transport at least 50 percent of the gross tonnage (computed separately for day bulk carriers, dry cargo liners, and tankers) of equipment, materials, or commodities which may be transported on ocean vessels on privately owned United States flag commercial vessels. Such transportation shall be accomplished whenever:

(1) Any equipment, materials, or commodities, within or outside the United States, which may be transported by ocean vessel, are:

(i) procured, contracted for, or otherwise obtained for the agency's account; or

(ii) furnished to or for the account of any foreign nation without provision for reimbursement.

(2) Funds or credits are advanced or the convertibility of foreign currencies is guaranteed in connection with furnishing such equipment, materials, or commodities which may be transported by ocean vessel.

Note: This requirement does not apply to small purchases as defined in 41 CFR 1-3.6 or to cargoes carried in the vessels of the Panama Canal Company.

13. USE OF U.S. FLAG COMMERCIAL VESSELS (Cont'd)

B. The Participant agrees as follows:

(1) To utilize privately owned United States flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved whenever shipping any equipment, material, or commodities under the conditions set forth in A. above pursuant to this Agreement to the extent such vessels are available at fair and reasonable rates for United States flag commercial vessels.

Note: Guidance regarding fair and reasonable rates for United States flag vessels may be obtained from the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, D.C. 20230, Area Code 202, phone 377-3449.

(2) To furnish, within 15 working days following the date of loading for shipments originating within the United States or within 25 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill of lading in English for each shipment of cargo covered by the provisions in A. above to both the Contracting Officer (through the prime Participant in the case of subcontractor bills of lading) and to the Division of National Cargo, Officer of Market Development, Maritime Administration, Washington, D.C. 20230.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this Agreement except for small purchases as defined in 41 CFR 1-3.6.

14. PERMITS AND LICENSES

Except as otherwise directed by the Contracting Officer, the Participant shall procure all necessary permits or licenses and abide by all applicable laws, regulations, and ordinances of the United States and of the State, territory, and political subdivision in which the work under this Agreement is performed.

15. REPORTING OF ROYALTIES

If this Agreement is in an amount which exceeds \$10,000 and if any royalty payments are directly involved in the Agreement or are reflected in the Agreement price to the Government, the Participant agrees to report in writing to the Contracting Officer or Patent Counsel during the performance of this Agreement and prior to its completion or final settlement the amount of any royalties or other payments paid or to be paid by it directly to others in connection with



#### 15. REPORTING OF ROYALTIES (Cont'd)

the performance of this Agreement together with the names and addresses of licensors to whom such payments are made and either the patent numbers involved or such other information as will permit the identification of the patents or other basis on which the royalties are to be paid. The approval of DOE of any individual payments or royalties shall not stop the Government at any time from contesting the enforceability, validity or scope of, or title to, any patent under which a royalty or payments are made.

#### 16. ORDER OF PRECEDENCE

In the event of an inconsistency between the provisions of this Agreement, the inconsistency shall be resolved by giving precedence as follows: (a) schedule; (b) statement of work; (c) the general provisions; (d) other provisions of the Agreement, whether incorporated by reference or otherwise; and (e) Participant's technical proposal, if incorporated in the Agreement by reference or otherwise.

#### 17. AUTHORIZATION AND CONSENT

The Government hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this Agreement or any part hereof or any amendment hereto or any contract hereunder (including any lower-tier subcontract).

#### 18. CIVIL RIGHTS

No person shall on the ground of race, color, national origin, sex, handicap, or age be excluded from participation in, be denied the benefits of, be subjected to discrimination under, or be denied employment, where the main purpose of the program or activity is to provide employment or when the delivery of program services is affected by the recipient's employment practices, in connection with any program or activity receiving Federal assistance from the DOE.

#### 19. PATENT RIGHTS - LONG FORM

##### A. Definitions.

(1) "Subject Invention" means any invention or discovery of the Participant conceived or first actually reduced to practice in the course of or under this Agreement, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented under the Patent Laws of the United States of America or any foreign country.

(2) "Contract" means any contract, grant, agreement, understanding or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.

19. PATENT RIGHTS - LONG FORM (Cont'd)

(4) "Government agency" includes an executive department, independent commission, board, office, agency, administration, authority, Government corporation, or other Government establishment of the Executive Branch of the Government of the United States of America.

(5) "To the point of practical application" means to manufacture in the case of a composition or product, to practice in the case of a process, or to operate in the case of a machine and under such conditions as to establish that the invention is being worked and that its benefits are reasonably accessible to the public.

(3) "States and domestic municipal governments" means the States of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Trust Territory of the Pacific Islands, and any political subdivision and agencies thereof.

(6) "Patent Counsel" means the DOE Patent Counsel assisting the procuring activity.

B. Allocation of Principal Rights.

(1) Assignment to the Government. The Participant agrees to assign to the Government the entire right, title, and interest throughout the world in and to each Subject Invention except to the extent that rights are retained by the Participant under subparagraph B.(2) and paragraph C. of this clause.

(2) Greater Rights Determinations. The Participant or the employee-inventor with authorization of the Participant may request greater rights than the nonexclusive license and the foreign patent rights provided in paragraph C. of this clause on identified inventions, in accordance with 41 CFR 9-9.109-6. Such requests must be submitted to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) at the time of the first disclosure pursuant to subparagraph E.(2) of this clause, or not later than nine (9) months after conception or first actual reduction to practice, whichever occurs first, or such longer period as may be authorized by Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Participant.

C. Minimum Rights to the Participant.

(1) Participant License. The Participant reserves a revocable, nonexclusive, paid-up license in each patent application filed in any country on a Subject Invention and any resulting patent

19. PATENT RIGHTS - LONG FORM (Cont'd)

in which the Government acquires title. The license shall extend to the Participant's domestic subsidiaries and affiliates, if any, within the corporate structure of which the Participant is a part and shall include the right to grant sublicenses of the same scope to the extent the Participant was legally obligated to do so at the time the Agreement was awarded. The license shall be transferable only with approval of DOE except when transferred to the successor of that part of the Participant's business to which the invention pertains.

(2) Revocation Limitations. The Participant's nonexclusive license retained pursuant to subparagraph C.(1) of this clause and sublicenses granted thereunder may be revoked or modified by DOE, either in whole or in part, only to the extent necessary to achieve expeditious practical application of the Subject Invention under DOE's published licensing regulations (10 CFR 781), and only to the extent an exclusive license is actually granted. This license shall not be revoked in that field of use and/or the geographical areas in which the Participant, or its sublicensee, has brought the invention to the point of practical application and continues to make the benefits of the invention reasonably accessible to the public, or is expected to do so within a reasonable time.

(3) Revocation Procedures. Before modification or revocation of the license or sublicense, pursuant to subparagraph C.(2) of this clause, DOE shall furnish the Participant a written notice of its intention to modify or revoke the license and any sublicense thereunder, and the Participant shall be allowed thirty (30) days, or such longer period as may be authorized by the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Participant, after such notice to show cause why the license or any sublicense should not be modified or revoked. The Participant shall have the right to appeal, in accordance with 10 CFR 781, any decision concerning the modification or revocation of its license or any sublicense.

(4) Foreign Patent Rights. Upon written request to Patent Counsel (with notification by Patent Counsel to the Contracting Officer), in accordance with subparagraph E.(2)(i) of this clause, and subject to DOE security regulations and requirements, there shall be reserved to the Participant, or the employee-inventor with authorization of the Participant, the patent rights to a Subject Invention in any foreign country where the Government has elected not to secure such rights provided:

19. PATENT RIGHTS - LONG FORM (Cont'd)

(i) The recipient of such rights, when specifically requested by DOE and three (3) years after issuance of a foreign patent disclosing said Subject Invention, shall furnish DOE a report setting forth:

(A) The commercial use that is being made, or is intended to be made, of said invention, and

(B) The steps taken to bring the invention to the point of practical application or to make the invention available for licensing.

(ii) The Government shall retain at least an irrevocable, nonexclusive, paid-up license to make, use, and sell the invention throughout the world by or on behalf of the Government (including any Government agency) and States and domestic municipal governments, unless the Secretary or his designee determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments.

(iii) Subject to the rights granted in subparagraphs C.(1), (2), and (3) of this clause, the Secretary or his designee shall have the right to terminate the foreign patent rights granted in this subparagraph C.(4) in whole or in part unless the recipient of such rights demonstrates to the satisfaction of the Secretary or his designee that effective steps necessary to accomplish substantial utilization of the invention have been taken or within a reasonable time will be taken.

(iv) Subject to the rights granted in subparagraphs C.(1), (2), and (3) of this clause, the Secretary or his designee shall have the right, commencing four (4) years after foreign patent rights are accorded under this subparagraph C.(4), to require the granting of a nonexclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances and in appropriate circumstances to terminate said foreign patent rights in whole or in part, following a hearing upon notice thereof to the public, upon a petition by an interested person justifying such hearing:

(A) If the Secretary or his designee determines, upon review of such material as he deems relevant, and after the recipient of such rights, or other interested person, has had the opportunity to provide such relevant

19. PATENT RIGHTS - LONG FORM (Cont'd)

and material information as the Secretary or his designee may require, that such foreign patent rights have tended substantially to lessen competition or to result in undue market concentration in any section of the United States in any line of commerce to which the technology relates; or

(B) Unless the recipient of such rights demonstrates to the satisfaction of the Secretary or his designee at such hearing that the recipient has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

D. Filing of Patent Applications.

(1) With respect to each Subject Invention in which the Participant or the inventor requests foreign patent rights in accordance with subparagraph C.(4) of this clause, a request may also be made for the right to file and prosecute the U.S. application on behalf of the U.S. Government. If such request is granted, the Participant or inventor shall file a domestic patent application on the invention within six (6) months after the request for foreign patent rights is granted, or such longer period of time as may be approved by the Patent Counsel for good cause shown in writing by the requester. With respect to the invention, the requester shall promptly notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) of any decision not to file an application.

(2) For each Subject Invention on which a domestic patent application is filed by the Participant or inventor, the Participant or inventor shall:

(i) Within two (2) months after the filing or within two (2) months after submission of the invention disclosure if the patent application previously has been filed, deliver to the Patent Counsel a copy of the application as filed including the filing date and serial number;

(ii) Within six (6) months after filing the application or within six (6) months after submitting the invention disclosure if the application has been filed previously, deliver to the Patent Counsel a duly executed and approved assignment to the Government, on a form specified by the Government;

19. PATENT RIGHTS - LONG FORM (Cont'd)

(iii) Provide the Patent Counsel with the original patent grant promptly after a patent is issued on the application; and

(iv) Not less than thirty (30) days before the expiration of the response period for any action required by the Patent and Trademark Office, notify the Patent Counsel of any decision not to continue prosecution of the application.

(3) With respect to each Subject Invention in which the Participant or inventor has requested foreign patent rights, the Participant or inventor shall file a patent application on the invention in each foreign country in which such request is granted in accordance with applicable statutes and regulations and within one of the following periods:

(i) Eight (8) months from the date of filing a corresponding United States application, or if such an application is not filed, six (6) months from the date the request was granted;

(ii) Six (6) months from the date a license is granted by the Commissioner of Patents and Trademarks to file the foreign patent application where such filing has been prohibited by security reasons; or

(iii) Such longer periods as may be approved by the Patent Counsel for good cause shown in writing by the Participant or inventor.

(4) Subject to the license specified in subparagraphs C.(1), (2) and (3) of this clause, the Participant or inventor agrees to convey to the Government, upon request, the entire right, title, and interest in any foreign country in which the Participant or inventor fails to have a patent application filed in accordance with subparagraph D.(3) of this clause, or decides not to continue prosecution or to pay any maintenance fees covering the invention. To avoid forfeiture of the patent application or patent the Participant or inventor shall, not less than sixty (60) days before the expiration period for any action required by any Patent Office, notify the Patent Counsel of such failure or decision, and deliver to the Patent Counsel the executed instruments necessary for the conveyance specified in this paragraph.

19. PATENT RIGHTS - LONG FORM (Cont'd)

E. Invention Identification, Disclosures, and Reports.

(1) The Participant shall establish and maintain active and effective procedures to ensure that Subject Inventions are promptly identified and timely disclosed. These procedures shall include the maintenance of laboratory notebooks or equivalent records and any other records that are reasonably necessary to document the conception and/or the first actual reduction to practice of Subject Inventions, and records which show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Participant shall furnish the Contracting Officer a description of these procedures so that he may evaluate and determine their effectiveness.

(2) The Participant shall furnish the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) on a DOE-approved form:

(i) A written report containing full and complete technical information concerning each Subject Invention within six (6) months after conception or first actual reduction to practice whichever occurs first in the course of or under this Agreement, but in any event prior to any on sale, public use or public disclosure of such invention known to the Participant. The report shall identify the Agreement and inventor and shall be sufficiently complete in technical detail and appropriately illustrated by sketch or diagram to convey to one skilled in the art to which the invention pertains a clear understanding of the nature, purpose, operation, and to the extent known, the physical, chemical, biological, or electrical characteristics of the invention. The report should also include any request for foreign patent rights under subparagraph C.(4) of this clause and any request to file a domestic patent application under subparagraph D.(1) of this clause. However, such requests shall be made within the period set forth in subparagraph B.(2) of this clause. When an invention is reported under this subparagraph E.(2)(i), it shall be presumed to have been made in the manner specified in Section 9(a)(1) and (2) of 42 U.S.C. 5908 unless the Participant contends it was not so made in accordance with subparagraph G.(2)(ii) of this clause.

(ii) Upon request, but not more than annually, interim reports on a DOE-approved form listing Subject Inventions and subcontracts awarded containing a Patent Rights article for that period and certifying that:

(A) The Participant's procedures for identifying and disclosing Subject Inventions as required by this paragraph E. have been followed throughout the reporting period;

19. PATENT RIGHTS - LONG FORM (Cont'd)

(B) All Subject Inventions have been disclosed or that there are no such inventions; and

(C) All subcontracts containing a Patent Rights clause have been reported or that no such subcontracts have been awarded.

(iii) A final report on a DOE-approved form within three (3) months after completion of the Agreement work listing all Subject Inventions and all subcontracts awarded containing a Patent Rights clause and certifying that:

(A) All Subject Inventions have been disclosed or that there were no such inventions; and

(B) All subcontracts containing a Patent Rights article have been reported or that no such subcontracts have been awarded.

(3) The Participant shall obtain patent agreements to effectuate the provisions of this clause from all persons in its employ who perform any part of the work under this Agreement except nontechnical personnel, such as clerical employees and manual laborers.

(4) The Participant agrees that the Government may duplicate and disclose Subject Invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause. If the Participant is to file a foreign patent application on a Subject Invention, the Government agrees, upon written request, to use its best efforts to withhold publication of such invention disclosures until the expiration of the time period specified in subparagraph D.(1) of this clause, but in no event shall the Government or its employees be liable for any publication thereof.

F. Publication. It is recognized that during the course of the work under this Agreement, the Participant or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this Agreement. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Participant, patent approval for release or publication shall be secured from Patent Counsel prior to any such release or publication.

G. Forfeiture of Rights in Unreported Subject Inventions.

(1) The Participant shall forfeit to the Government, at the request of the Secretary or his designee, all rights in any



19. PATENT RIGHTS - LONG FORM (Cont'd)

Subject Invention which the Participant fails to report to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) within six (6) months after the time the Participant:

(i) Files or causes to be filed a United States or foreign patent application thereon; or

(ii) Submits the final report required by subparagraph E.(2)(iii) of this clause, whichever is later.

(2) However, the Participant shall not forfeit rights in a Subject Invention if, within the time specified in (1)(i) or (1)(ii) of this paragraph G., the Participant:

(i) Prepares a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the Agreement and delivers the same to Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(ii) Contending that the invention is not a Subject Invention the Participant nevertheless discloses the invention and all facts pertinent to this contention to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(iii) Establishes that the failure to disclose did not result from the Participant's fault or negligence.

(3) Pending written assignment of the patent applications and patents on a Subject Invention determined by the Secretary or his designee to be forfeited (such determination to be a final decision under the "Disputes" clause of this Agreement), the Participant shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph G. shall be in addition to and shall not supersede other rights and remedies which the Government may have with respect to Subject Inventions.

H. Examination of Records Relating to Inventions.

(1) The Contracting Officer or his authorized representative, until the expiration of three (3) years after final payment under this Agreement, shall have the right to examine any books (including laboratory notebooks), records, documents, and other supporting data

19. PATENT RIGHTS - LONG FORM (Cont'd)

of the Participant which the Contracting Officer or his authorized representative reasonably deems pertinent to the discovery or identification of Subject Inventions or to determine compliance with the requirements of this clause.

(2) The Contracting Officer or his authorized representative shall have the right to examine all books (including laboratory notebooks), records and documents of the Participant relating to the conception of first actual reduction to practice of inventions in the same field of technology as the work under this Agreement to determine whether any such inventions are Subject Inventions, if the Participant refuses or fails to:

- (i) Establish the procedures of subparagraph E.(1) of this clause; or
- (ii) Maintain and follow such procedures; or
- (iii) Correct or eliminate any material deficiency in the procedures within thirty (30) days after the Contracting Officer notifies the Participant of such a deficiency.

I. Withholding of Payment (Not Applicable to Subcontracts).

(1) Any time before final payment of the amount of this Agreement, the Contracting Officer may, if he deems such action warranted, withhold payment until a reserve not exceeding \$50,000 or 5 percent of the amount of this Agreement, whichever is less, shall have been set aside if in his opinion the Participant fails to:

- (i) Establish, maintain and follow effective procedures for identifying and disclosing Subject Inventions pursuant to subparagraph E.(1) of this clause; or
- (ii) Disclose any Subject Invention pursuant to subparagraph E.(2)(i) of this clause; or
- (iii) Deliver the interim reports pursuant to subparagraph E.(2)(ii) of this clause; or
- (iv) Provide the information regarding subcontracts pursuant to subparagraph J.(5) of this clause; or
- (v) Convey to the Government in a DOE-approved form the title and/or rights of the Government in each Subject Invention as required by this clause.

19. PATENT RIGHTS - LONG FORM (Cont'd)

(2) The reserve or balance shall be withheld until the Contracting Officer has determined that the Participant has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by the clause.

(3) Final payment under this Agreement shall not be made by the Contracting Officer before the Participant delivers to Patent Counsel all disclosures of Subject Inventions and other information required by subparagraph E.(2)(i) of this clause, the final report required by subparagraph E.(2)(iii) of this clause, and Patent Counsel has issued a patent clearance certification to the Contracting Officer.

(4) The Contracting Officer may, in his discretion, decrease or increase the sums withheld up to the maximum authorized above. If the Participant is a nonprofit organization, the maximum amount that may be withheld under this paragraph shall not exceed \$50,000 or 1 percent of the amount of this Agreement, whichever is less. No amount shall be withheld under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the Agreement. The withholding of any amount or subsequent payment thereof shall not be construed as a waiver of any rights accruing to the Government under this Agreement.

J. Subcontracts.

(1) For the purpose of this paragraph the term "Participant" means the party awarding a subcontract and the term "subcontractor" means the party being awarded a subcontract, regardless of tier.

(2) Unless otherwise authorized or directed by the Contracting Officer, the Participant shall include the Patent Rights clause of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6 as appropriate, modified to identify the parties in any subcontract hereunder having as a purpose the conduct of research, development, or demonstration work. In the event of refusal by a subcontractor to accept this clause, or if in the opinion of the Participant this clause is inconsistent with DOE's patent policies, the Participant:

(i) Shall promptly submit written notice to the Contracting Officer setting forth reasons for the subcontractor's refusal and other pertinent information which may expedite disposition of the matter; and

(ii) Shall not proceed with the subcontract without the written authorization of the Contracting Officer.

19. PATENT RIGHTS - LONG FORM (Cont'd)

(3) Except as may be otherwise provided in this clause, the Participant shall not, in any subcontract or by using a subcontract as consideration therefor, acquire any rights in its subcontractor's Subject Invention for the Participant's own use (as distinguished from such rights as may be required solely to fulfill the Participant's Agreement obligations to the Government in the performance of this Agreement).

(4) All invention disclosures, reports, instruments, and other information required to be furnished by the subcontractor to DOE, under the provisions of a Patent Rights clause in any subcontract hereunder may, in the discretion of the Contracting Officer, be furnished to the Participant for transmission to DOE.

(5) The Participant shall promptly notify the Contracting Officer in writing upon the award of any subcontract containing a Patent Rights clause by identifying the subcontractor, the work to be performed under the subcontract, and the dates of award, and estimated completion. Upon the request of the Contracting Officer the Participant shall furnish him a copy of the subcontract.

(6) The Participant shall identify all Subject Inventions of the subcontractor of which it acquires knowledge in the performance of this Agreement and shall notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) promptly upon the identification of the inventions.

(7) It is understood that the Government is a third party beneficiary of any subcontract clause granting rights to the Government in Subject Inventions, and the Participant hereby assigns to the Government all rights that the Participant would have to enforce the subcontractor's obligations for the benefit of the Government with respect to Subject Inventions. The Participant shall not be obligated to enforce the agreements of any subcontractor hereunder relating to the obligations of the subcontractor to the Government regarding Subject Inventions.

K. Background Patents.

(1) "Background Patent" means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Participant at any time through the completion of this Agreement:

19. PATENT RIGHTS - LONG FORM (Cont'd)

(i) Which the Participant, but not the Government, has the right to license to others without obligation to pay royalties thereon; and

(ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this Agreement.

(2) The Participant agrees to and does hereby grant to the Government a royalty-free, nonexclusive, license under any Background Patent for purposes of practicing a subject of this Agreement by or for the Government in research, development, and demonstration work only.

(3) The Participant also agrees that upon written application by DOE, it will grant to responsible parties for purposes of practicing a subject of this Agreement, nonexclusive licenses under any Background Patent on terms that are reasonable under the circumstances. If, however, the Participant believes that exclusive or partially exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Participant.

(4) Notwithstanding the foregoing subparagraph K.(3), the Participant shall not be obligated to license any Background Patent if the Participant demonstrates to the satisfaction of the Secretary or his designee that:

(i) A competitive alternative to the subject matter covered by said Background Patent is commercially available or readily introducible from one or more other sources; or

(ii) The Participant or its licensees are supplying the subject matter covered by said Background Patent in sufficient quantity and at reasonable prices to satisfy market needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

L. Atomic Energy.

(1) No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be

19. PATENT RIGHTS - LONG FORM (Cont'd)

asserted by the Participant or its employees with respect to any invention or discovery made or conceived in the course of or under this Agreement.

(2) Except as otherwise authorized in writing by the Contracting Officer, the Participant will obtain patent agreements to effectuate the provisions of subparagraph L.(1) of this clause from all persons who perform any part of the work under this Agreement, except nontechnical personnel, such as clerical employees and manual laborers.

M. Limitation of Rights. Nothing contained in this Patent Rights clause shall be deemed to give the Government any rights with respect to any invention other than a Subject Invention except as set forth in the Patent Rights article of this Agreement with respect to Background Patents and the Facilities License.

20. ADDITIONAL TECHNICAL DATA REQUIREMENTS

A. In addition to the technical data specified elsewhere in this Agreement to be delivered, the Contracting Officer may at any time during the Agreement performance or within one (1) year after final payment call for the Participant to deliver any technical data first produced or specifically used in the performance of this Agreement except technical data pertaining to items of standard commercial design.

B. The provisions of the "Rights in Technical Data" clause included in this Agreement are applicable to all technical data called for under this Additional Technical Data Requirements clause. Accordingly, nothing contained in this clause shall require the Participant to actually deliver any technical data, the delivery of which is excused by paragraph E. of the "Rights in Technical Data" clause.

C. When technical data are to be delivered under this clause, the Participant will be compensated for appropriate costs for converting such data into the prescribed form, for reproduction, and for delivery.

21. RIGHTS IN TECHNICAL DATA - LONG FORM

A. Definitions.

(1) "Technical Data" means recorded information regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research, experimental, developmental, or demonstration, or engineering work, or be usable or used to define a design or process, or to procure, produce, support, maintain, or operate materiel. The data may be graphic or

21. RIGHTS IN TECHNICAL DATA - LONG FORM (Cont'd)

pictorial delineations in media such as drawings or photographs, text in specifications or related performance or design type documents or computer software (including computer programs, computer software data bases, and computer software documentation). Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical data as used herein does not include financial reports, cost analyses, and other information incidental to Agreement administration.

(2) "Proprietary Data" means technical data which embody trade secrets developed at private expense, such as design procedures or techniques, chemical composition of materials, or manufacturing methods, processes, or treatments, including minor modifications thereof, provided that such data:

(i) Are not generally known or available from other sources without obligation concerning their confidentiality;

(ii) Have not been made available by the owner to others without obligation concerning its confidentiality; and

(iii) Are not already available to the Government without obligation concerning their confidentiality.

(3) "Contract Data" means technical data first produced in the performance of the Agreement, technical data which are specified to be delivered in the Agreement, technical data that may be called for under the "Additional Technical Data Requirements" clause of the Agreement, if any, or technical data actually delivered in connection with the Agreement.

(4) "Unlimited Rights" means rights to use, duplicate, or disclose technical data, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so.

B. Allocation of Rights.

(1) The Government shall have:

(i) Unlimited rights in contract data except as otherwise provided below with respect to proprietary data.

21. RIGHTS IN TECHNICAL DATA - LONG FORM (Cont'd)

(ii) The right to remove, cancel, correct or ignore any marking not authorized by the terms of this Agreement on any technical data furnished hereunder, if in response to a written inquiry by DOE concerning the propriety of the markings, the Participant fails to respond thereto within sixty (60) days or fails to substantiate the propriety of the markings. In either case DOE will notify the Participant of the action taken.

(iii) No rights under this Agreement in any technical data which are not Agreement data.

(2) The Participant shall have:

(i) The right to withhold proprietary data in accordance with the provisions of this clause.

(ii) The right to use for its private purposes, subject to patent, security or other provisions of this Agreement, contract data it first produces in the performance of this Agreement provided the data requirements of this Agreement have been met as of the date of the private use of such data. The Participant agrees that to the extent it receives or is given access to proprietary data or other technical, business or financial data in the form of recorded information from DOE or a DOE contractor or subcontractor, the Participant shall treat such data in accordance with any restrictive legend contained thereon, unless use is specifically authorized by prior written approval of the Contracting Officer.

(3) Nothing contained in this "Rights in Technical Data" clause shall imply a license to the Government under any patent or be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

C. Copyrighted Material.

(1) The Participant shall not, without prior written authorization of the Contracting Officer, establish a claim to statutory copyright in any Agreement data first produced in the performance of the Agreement. To the extent such authorization is granted, the Government reserves for itself and others acting on its behalf a royalty-free, nonexclusive, irrevocable, worldwide license for Governmental purposes to publish, distribute,



21. RIGHTS IN TECHNICAL DATA - LONG FORM (Cont'd)

translate, duplicate, exhibit and perform any such data copyrighted by the Participant.

(2) The Participant agrees not to include in the technical data delivered under the Agreement any material copyrighted by the Participant and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in subparagraph C.(1) above. If such royalty-free license is unavailable and the Participant nevertheless determines that such copyrighted material must be included in the technical data to be delivered, rather than merely incorporated therein by reference, the Participant shall request the written authorization of the Contracting Officer to include such copyrighted material in the technical data without a license.

D. Subcontracting. It is the responsibility of the Participant to obtain from its contractors technical data and rights therein, on behalf of the Government, necessary to fulfill the Participant's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept an article affording the Government such rights, the Participant shall:

(1) Promptly submit written notice to the Contracting Officer setting forth reasons for the subcontractor's refusal and other pertinent information which may expedite disposition of the matter; and

(2) Not proceed with the contract without the written authorization of the Contracting Officer.

E. Withholding of Proprietary Data. Notwithstanding the inclusion of the "Additional Technical Data Requirements" clause in this Agreement or any provision of this Agreement specifying the delivery of technical data, the Participant may withhold proprietary data from delivery, provided that the Participant furnishes in lieu of any such proprietary data, so withheld technical data disclosing the source, size, configuration, mating and attachment characteristics, functional characteristics and performance requirements ("Form, Fit and Function" data, e.g., specification control drawings, catalog sheets, envelope drawings, etc.) or a general description of such proprietary data where "Form, Fit and Function" data are not applicable. The Government shall acquire no rights to any proprietary data so withheld except that such data shall be subject to the "Inspection Rights" provisions of paragraph F., and if included, the "Limited Rights in Proprietary Data" provisions of paragraph G. and the "Participant Licensing" provisions of paragraph H.

21. RIGHTS IN TECHNICAL DATA - LONG FORM (Cont'd)

F. Inspection Rights. Except as may be otherwise specified in this Agreement for specific items of proprietary data which are not subject to this paragraph, the Contracting Officer's representatives, at all reasonable times up to three (3) years after final payment under this Agreement, may inspect at the Participant's facility any proprietary data withheld under paragraph E. and not furnished under paragraph G. for the purposes of verifying that such data properly fell within the withholding provision of paragraph E., or for evaluating work performance.

22. PATENT INDEMNITY

The Participant shall indemnify the Government and its officers, agents, and employees against liability, including costs, for infringement of U.S. Letters Patent (except U.S. Letters Patent issued upon an application which is now or may hereafter be kept secret or otherwise withheld from issue by order of the Government) resulting from the Participant's: (a) furnishing or supplying standard parts or components which have been sold or offered for sale to the public on the commercial open market; or (b) utilizing its normal practices or methods which normally are or have been used in providing goods and services in the commercial open market, in the performance of the Agreement; or (c) utilizing any parts, components, practices, or methods to the extent to which the Participant has secured indemnification from liability. The foregoing indemnity shall not apply unless the Participant shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement, and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in the defense thereof; and further, such indemnity shall not apply to a claimed infringement which is settled without the consent of the Participant, unless required by final decree of a court of competent jurisdiction or to an infringement resulting from addition to or change in such supplies or components furnished or construction work performed for which addition or change was made subsequent to delivery or performance by the Participant.

23. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION

[This Agreement, to the extent that it is of a character specified in the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), is subject to the following provisions and to all other applicable provisions and exceptions of such Act and the regulations of the Secretary of Labor thereunder.]

23. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION (Cont'd)

A. Overtime Requirements. The Participant or contractor contracting for any part of the Agreement work, which may require or involve the employment of laborers, mechanics, apprentices, trainees, watchmen, and guards, shall require or permit any laborer, mechanic, apprentice, trainee, watchman, or guard, in any workweek in which he is employed on such work, to work in excess of eight (8) hours in any calendar day, or in excess of forty (40) hours in such workweek, on work subject to the provisions of the Contract Work Hours and Safety Standards Act, unless such laborer, mechanic, apprentice, trainee, watchman, or guard receives compensation at a rate not less than one and one-half times his basic rate of pay for all such hours worked in excess of eight (8) hours in any calendar day, or in excess of forty (40) hours in such workweek, whichever is the greater number of overtime hours.

B. Violation; Liability for Unpaid Wages; Liquidated Damages. In the event of any violation of the provisions of paragraph A., the Participant and any contractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such Participant and contractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, apprentice, trainee, watchman, or guard employed in violation of the provisions of paragraph A. in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of eight (8) hours or in excess of his standard workweek of forty (40) hours without payment of the overtime wages required by paragraph A.

C. Withholding for Unpaid Wages and Liquidated Damages. The Contracting Officer may withhold from the Government Prime Participant, from any moneys payable on account of work performed by the Participant or contractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Participant or contractor for unpaid wages and liquidated damages as provided in the provisions of paragraph B.

D. Subcontracts. The Participant shall insert paragraphs A. through D. of this clause in all subcontracts, and shall require their inclusion in all subcontracts of any tier.

E. Records. The Participant shall maintain payroll records containing the information specified in 29 CFR 516.2(a). Such records shall be preserved for three (3) years from the completion of the Agreement.

24. FLOOD INSURANCE

The Participant shall comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976, Section 102(a) requires, on and after March 2, 1975, the Purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal

24. FLOOD INSURANCE (Cont'd)

financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards and provisions prescribed by the Federal Insurance Administration in 24 CFR Chapter X, Subchapter B., will be complied with.

ADDITIONAL GENERAL PROVISIONS

25. DISPUTES

A. This Agreement is subject to the Contract Disputes Act of 1978 (Pub. L. 95-563).

B. Except as provided in the Act, all disputes arising under or relating to this Agreement shall be resolved in accordance with this clause.

C. (1) As used herein, "claim" means a written demand or assertion by one of the parties seeking, as a legal right, the payment of money, adjustment or interpretation of agreement terms, or other relief, arising under or relating to this Agreement.

(2) A voucher, invoice, or request for payment that is not in dispute when submitted is not a claim for the purposes of the Act. However, where such submission is subsequently not acted upon in a reasonable time, or disputed either as to liability or amount, it may be converted to a claim pursuant to the Act.

(3) A claim by the Participant shall be made in writing and submitted to the Contracting Officer for decision. A claim by the Government against the Participant shall be subject to a decision by the Contracting Officer.

D. For Participant claims of more than \$50,000, the Participant shall submit with the claim a certification that the claim is made in good faith; the supporting data are accurate and complete to the best of the Participant's knowledge and belief; and the amount requested accurately reflects the agreement adjustment for which the Participant believes the Government is liable. The certification shall be executed by the Participant, if an individual. When the Participant is not an individual, the certification shall be executed by a senior company official in charge at the Participant's plant or location involved, or by an officer or general partner of the Participant having overall responsibility for the conduct of the Participant's affairs.

E. For Participant claims of \$50,000 or less, the Contracting Officer must render a decision within 60 days. For Participant claims in excess of \$50,000, the Contracting Officer must decide the claim within 60 days or notify the Participant of the date when the decision will be made.

25. DISPUTES

F. The Contracting Officer's decision shall be final unless the Participant appeals or files a suit as provided in the Act.

G. The authority of the Contracting Officer under the Act does not extend to claims or disputes which by statute or regulation other agencies are expressly authorized to decide.

H. Interest on the amount found due on a Participant claim shall be paid from the date the claim is received by the Contracting Officer until the date of payment.

I. Except as the parties may otherwise agree, pending final resolution of a claim by the Participant arising under the contract, the Participant shall proceed diligently with the performance of the Agreement in accordance with the Contracting Officer's decision.

26. UTILIZATION OF LABOR SURPLUS AREA CONCERNS

(The following clause is applicable if this Agreement exceeds \$10,000.00)

A. It is the policy of the Government to award contracts to labor surplus area concerns that agree to perform substantially in labor surplus areas, where this can be done consistent with the efficient performance of the Agreement and at prices no higher than are obtainable elsewhere. The Participant agrees to use its best efforts to place its subcontracts in accordance with this policy.

B. In complying with paragraph A. of this clause and with paragraph B. of the clause of this Agreement entitled "Utilization of Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals," the Participant in placing its subcontracts shall observe the following order of preference: (1) Small business concerns that are labor surplus area concerns, (2) other small business concerns, and (3) other labor surplus area concerns.

C. (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.

(2) The term "labor surplus area concern" means a concern that together with its first-tier subcontractors will perform substantially in labor surplus areas.

(3) The term "perform substantially in a labor surplus area" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the Agreement price.

27. LABOR SURPLUS AREA SUBCONTRACTING PROGRAM

A. The Participant agrees to establish and conduct a program which will encourage labor surplus area concerns to compete for subcontracts within their capabilities. In this connection, the Participant shall:

- (1) Designate a liaison officer who will (a) maintain liaison with duly authorized representatives of the Government on labor surplus area matters, (b) supervise compliance with the "Utilization of Labor Surplus Area Concerns" clause and (c) administer the Contractor's Labor Surplus Area Subcontracting Program;
- (2) Provide adequate and timely consideration of the potentialities of labor surplus area concerns in all "make-or-buy" decisions;
- (3) Assure that labor surplus area concerns will have an equitable opportunity to compete for subcontracts, particularly by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of labor surplus area concerns;
- (4) Maintain records showing the procedures which have been adopted to comply with the policies set forth in this clause and report subcontract awards (see 41 CFR 1-16.804-5 regarding use of Optional Form 61). Records maintained pursuant to this clause will be kept available for review by the Government until the expiration of one (1) year after the award of this contract, or for such longer period as may be required by any other clause of this contract or by applicable law or regulations; and
- (5) Include the "Utilization of Labor Surplus Area Concerns" clause in subcontracts which offer substantial labor surplus area subcontracting opportunities.

B. (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.

(2) The term "concern located in a labor surplus area" means a labor surplus area concern.

(3) The term "labor surplus area concern" means a concern that, together with its first-tier subcontractors, will perform substantially in labor surplus areas.

(4) The term "perform substantially in labor surplus areas" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the contract price.

27. LABOR SURPLUS AREA SUBCONTRACTING PROGRAM (Cont'd)

C. The Participant further agrees to insert, in any subcontract hereunder which may exceed \$500,000.00 and which contains the "Utilization of Labor Surplus Area Concerns" clause, provisions which shall conform substantially to the language of this clause, including this paragraph C., and to notify the Contracting Officer of the names of such subcontractors.

28. BUY AMERICAN ACT

A. In acquiring end products, the Buy American Act (41 U.S. Code 10a-10d) provides that the Government give preference to domestic source end products. For the purpose of this clause:

(1) "Components" means those articles, materials, and supplies which are directly incorporated in the end products;

(2) "End products" means those articles, materials, and supplies which are to be acquired under this contract for public use; and

(3) "A domestic source end product" means (i) an unmanufactured end product which has been mined or produced in the United States, and (ii) an end product manufactured in the United States if the cost of the components thereof which are mined, produced, or manufactured in the United States exceeds 50 percent of the costs of all its components. For the purpose of this subparagraph (a)(3)(ii), components of foreign origin of the same type or kind as the products referred to in subparagraphs (b)(2) or (3) of this clause shall be treated as components mined, produced, or manufactured in the United States.

B. The Participant agrees to give preference in all purchases under this Cooperative Agreement to domestic source end products.

29. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS

A. It is the policy of the United States and the Department of Energy that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals shall have the maximum practicable opportunity to participate in the performance of contracts let by DOE.

B. The Participant hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with the efficient performance of this Agreement. The Participant further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the Department of Energy as may be necessary to determine the extent of the Participant's compliance with this clause.

29. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS (Cont'd)

C. As used in this Agreement, the term "small business concern" shall mean a small business as defined pursuant to Section 3 of the Small Business Act (15 U.S.C. 632) and relevant regulations promulgated pursuant thereto, including §1-1.701 of the Federal Procurement Regulations. The term "small business concern owned and controlled by socially and economically disadvantaged individuals" shall mean a small business concern:

(1) Which is at least 51 per centum owned by one or more socially and economically disadvantaged individuals; or in the case of any publicly-owned business at least 51 per centum of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

(2) Whose management and daily business operations are controlled by one or more of such individuals.

The Participant shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans and other minorities, or any other individual found to be disadvantaged by the Small Business Administration pursuant to Section 8(a) of the Small Business Act.

D. Participants acting in good faith may rely on written representations by their subcontractors regarding their status as either a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals.

30. SUBCONTRACTING PLAN FOR SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS

A. The Participant agrees to comply in good faith with the small business and small disadvantaged business concerns subcontracting plan approved by the Contracting Officer which is hereby incorporated in and made a part of this Cooperative Agreement. In this connection, the Contractor shall:

(1) Use its best effort to attain such percentage goals as may be set forth in the plan.

(2) Designate an individual who will: (i) maintain liaison with the Government on matters relating to small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals; (ii) supervise compliance with the clause entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" and (iii) administer the Participant's plan.



30. SUBCONTRACTING PLAN FOR SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS (Cont'd)

(3) Provide adequate and timely consideration of the potentialities of small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals in all "make-or-buy" decisions.

(4) Assure that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals will have an equitable opportunity to compete for subcontracts, particularly by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of such concerns. Where the Participant's lists of potential subcontractors which are small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals are excessively long, reasonable effort shall be made to give all such concerns an opportunity to compete over a period of time.

(5) Maintain records showing: (i) whether each prospective subcontractor is a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals; (ii) procedures which have been adopted to comply with the plan and the policies set forth in this clause; and (iii) with respect to the letting of any subcontract (including purchase orders) exceeding \$10,000, information substantially as follows:

- (A) Whether the award went to large business, small business, or small business owned and controlled by socially and economically disadvantaged individuals.
- (B) Whether small business concerns or small business concerns owned and controlled by socially and economically disadvantaged individuals were solicited.
- (C) The reason for nonsolicitation of small business concerns or small business concerns owned and controlled by socially and economically disadvantaged individuals if such was the case.
- (D) The reason for failure of small business concerns or small business concerns owned and controlled by socially and economically disadvantaged individuals to receive the award if such was the case when such firms were solicited.

30. SUBCONTRACTING PLAN FOR SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS (Cont'd)

The records maintained in accordance with (5)(iii) above may be in such form as the Participant may determine, and the information shall be summarized quarterly and submitted by the purchasing department of each individual plant or division to the Participant's cognizant liaison officer for small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals. Such quarterly summaries will be considered to be management records only and need not be submitted routinely to the Government; however, records maintained pursuant to this clause will be kept available for review by the Government until the expiration of one year after the expiration of this contract, or for such longer period as may be required by any other clause of this contract or by applicable law or regulation.

(6) Notify the Contracting Officer before soliciting bids or quotations on any subcontract (including purchase orders) in excess of \$10,000 if (i) no small business concern or small business concern owned and controlled by socially and economically disadvantaged individuals is to be solicited, and (ii) the Contracting Officer's consent to the subcontract (or ratification) is required by a "Sub-contracts" clause in this contract. Such notice will state the Participant's reasons for nonsolicitation of small business concerns or small business concerns owned and controlled by socially and economically disadvantaged individuals and will be given as early in the procurement cycle as possible so that the Contracting Officer may give the Small Business period to suggest potentially qualified small business concerns or small business concerns owned and controlled by socially and economically disadvantaged individuals through the Contracting Officer. In no case will the procurement action be held up when to do so would, in the Participant's judgment, delay performance under the contract.

(7) Include the "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" clause in all subcontracts which offer further subcontracting opportunities.

(8) Cooperate in any studies or surveys of the Participant's subcontracting procedures and practices as may be required by the Department of Energy or the Small Business Administration.

30. SUBCONTRACTING PLAN FOR SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS (Cont'd)

(9) Submit quarterly reports of subcontracting to small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals on such forms as may be specified by the Contracting Officer.

B. The Participant agrees that, in the event it fails to comply in good faith with its contractual obligations concerning the plan or the clause entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" this Agreement may be terminated, in whole or in part, for default.

C. The Participant further agrees to insert in all subcontracts hereunder (except those with small business concerns) which contain the article entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" and which may exceed \$1,000,000 in the case of a subcontract for the construction of any public facility or in excess of \$500,000 in the case of all other subcontracts, provisions which shall conform substantially to the language of this clause, including this paragraph (c), and to notify the Contracting Officer of the names of such subcontractors.

D. The provisions of this clause shall not apply to small business concerns.

JUL 0 9 1980

AEROJET NUCLEAR CO  
550 SECOND STREET

IDAHO FALLS

ID 83401

AMOCO PRODUCTION COMPANY  
DIVISION LANDMAN-FRONTIERAMOCO PRODUCTION COMPANY  
ATTN: DIVISION LANDMAN FRONTIER

DENVER

CO 80202

DENVER

CO 80202

C F BRAUN AND COMPANY

CITIBANK  
PETR DEPT 4TH FLOOR

ALHAMBRA

CA 91802

NEW YORK

NY 10043

DECUNNINGHAM-CENTER FOR PUBLIC ISS.  
1714 POPLAR STREETDISTRICT GEOTHERMAL OFFICE  
CONSERVATION DIVISION

DENVER

CO 80220

SANTA ROSA

CA 95402

EARTH SCIENCE LAB  
UURIGEO-HEAT CENTER  
O I T

SALT LAKE CITY

UT 84108

KLAMATH FALLS

OR 97601

GEO-HEAT CENTER  
O I TGEOTHERMAL COMMERCIALIZATION OFFICE  
P O BOX 4096

KLAMATH FALLS

OR 97601

LARAMIE

WY 82071

GEOTHERMAL RESOURCES INTL, INC  
4676 ADMIRALTY WAYGETTY OIL COMPANY  
EXPLORATION DEPARTMENT

MARINA DEL RAY

CA 90291

BAKERSFIELD

CA 93388

IDAHO STATE OFFICE OF ENERGY  
STATEHOUSEJOHN GRAHAM & COMPANY  
ENERGY MANAGEMENT DEPT

BOISE

ID 83720

SEATTLE

WA 98101

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0002

LAWRENCE LIVERMORE LABS  
P.O. BOX 5507, L-453MATERI EXPLORATION  
P O BOX 515

LIVERMORE

CA 94550

UPTON

WY 82730

MEIDAV ASSOCIATES  
1419 BROADWAY, SUITE 612MERCY MEDICA CENTER  
1512 12TH AVENUE RD

OAKLAND

CA 94612

NAMPA

ID 83651

J D  
PETROLEUM INVESTMENT CO.  
231 WEST 800 SOUTHD J ABBOTT  
P O BOX 94

SALT LAKE CITY

UT 84101

NAMPA

ID 83651

E ACHURRA  
ACHURRA CONSTRUCTION  
153 ASH STREETA J ADDUCI  
US DEPARTMENT OF ENERGY  
1333 BROADWAY

ELKO

NV 89801

OAKLAND

CA 94598

R ADKINS  
SCIENCE APPLICATIONS, INC.  
1710 GOODRIDGE DR.U AHMED  
TERRA TEK, INC.  
420 WAKARA WAY

MCLEAN

VA 22102

SALT LAKE CITY

UT 84108

R H ALBRECHTSEN  
MOUNTAIN STATES RESOURCES  
1399 S 7TH EASTM ALLDREDGE  
1550 S PEARL STREET

SALT LAKE CITY

UT 84121

DENVER

CO 80210

J E ALLEN  
C BREWER & COMPANY, LIMITED  
P O BOX 1826E ALLEN  
ELIOT ALLEN & ASSOC., INC.  
1257 HIGH STREET, SUITE 7

HONOLULU

HI 96805

EUGENE

OR 97401

T ALLISON  
THE BOVARD SUPPLY COMPANY  
4290 LONG BEACH BLVDD D ALT  
6223 ROUND LAKE RD

LONG BEACH

CA 90807

KLAMATH FALLS

OR 97601

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0003

K.	ANANIA		DR J K	APPLEGATE
2618 ETNA STREET			COLORADO SCHOOL OF MINES	GEOPHYSICS RESEARCH
BERKELEY		CA 94704	GOLDEN	CO 80401
W S	ARCHIBALD		T	ARENZ
2009 KORKSTOWN AVE			U S NAVAL WEAPONS STATION	ENSIGN
FT COLLINS		CO 80526	SEAL BEACH	CA 90740
W A	ARMSTRONG		R	ASHBAUGH
VICTOR EXPLORATION			RANDY ASHBAUGH, INC	P O BOX 1183
901 N CARANCAHUA #709				
CORPUS CHRISTI		TX 78401	TRUTH OR CONSEQUENCES	NM 87901
C	ASHTON		C	ASPINWALL
SANDYLAND NURSERY			GEOTHERMAL COMMERCIALIZATION OFFICE	P O BOX 4096
P.O. BOX 546				
MESILLA PARK		NM 88047	LARAMIE	WY 82071
D J	ATKINSON		R	ATKINSON
2519 HORSESHOE CANYON ROAD			SERRIA PACIFIC POWER CO	100 E MOANA LANE
LOS ANGELES		CA 90046	RENO	NE 89510
W H	ATTLESFY		J. C.	AUSTIN
OCCIDENTAL PETROLEUM CORP			CH2M HILL	700 CLEARWATER LANE
5000 STOCKDALE HWY				
BAKERSFIELD		CA 93309	ROISE	ID 83707
R A	BABIONE		C F	BACON
COURY & ASSOCIATES			CALIF. DIV. OF MINES & GEOLOGY	2815 O STREET
7525 W. 5TH AVENUE				
LAKWOOD		CO 80226	SACRAMENTO	CA 95816
D	BACON		DR S	BAHADUR
NATIONAL WATER WELL ASSOC.			ACRES AMERICAN INC.	329 CLARK BUILDING
500 W. WILSON BRIDGE RD.				
WORTHINGTON		OH 43085	COLUMBIA	MD 21044

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0004

W J	BAILEY	N R	BAIRD
ATTORNEY AT LAW		SIERRA COUNTY SENTINEL	1725 E THIRD
NAPA	CA 94558	TRUTH OR CONSEQUENCES	NM 87901
M S	BAKER	T A	BALMER
SOLAR ENERGY CENTER		WKM DIV ACF IND	
UNIVERSITY OF OREGON		P O BOX 1095	
EUGENE	OR 97403	SHREVEPORT	LA 71163
J K	BALZHISER	K L	BARCLAY
BALZHISER/HUBBARD & ASSOCIATES		P O BOX 3809	
EUGENE	OR 97402	BUTTE	MT 59701
H C	BARKER	R C	BARR
P O BOX 190		P O BOX 15665	
MOOSE	WY 83012	TULSA	OK 74101
N K	BARRETT	A E	BARTHOLEMY
1530 CHESTNUT ST., SUITE 606		7102 S W 152ND AVENUE	
PHILADELPHIA	PA 19102	BEAVERTON	OR 97007
W A	BARTLETT	N	BASELU
1276 LAKESHORE DRIVE		OREGON INSTITUTE OF TECHNOLOGY	7TH FLOOR MACKAY BLDG
KLAMATH FALLS	OR 97601	ANCHORAGE	AK 99501
T	BATERIDGE	T	BAYLISS
GEOSERVICES WEST		310 TURNER ROAD	
MISSOULA	MT 59807	RICHMOND	VA 23225
W E	BEAVER	H	BELL
ENVIRONMENTAL PROTECTION LEAGUE		ARIZONA PUBLIC SERVICE CO	P O BOX 21666
418 E. MAIN STREET			
SPARTA	WI 54656	PHOENIX	AZ 85036

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0005

R L US DEPARTMENT OF ENERGY 915 2ND AVE., ROOM 1992	BENDIXEN	WA 98714	SIERRAVILLE	CA 96126
SEATTLE				
R A 1424 1/2 LINCOLN AVE.	BENNETT		E R 2307 PENDLETON	BENTLEY
CALISTOGA		CA 94515	BOISE	ID 83705
T C 4852 PESCADERO AVE.	BENTON		F E P O BOX 283	BENTON
SAN DIEGO		CA 92107	MONTPELIER	ID 83254
J L 420 WAKARA WAY	BERGOSH		G W 600 SPRUCE ST	BERRY
SALT LAKE CITY		UT 84108	BOULDER	CO 80302
F F AMERICAN POTATO COMPANY P O BOX 592	BERRY		A R P O BOX 5348	RICKER
BLACKFOOT		ID 83221	JACKSON	MS 39216
R E SCIENTIFIC SOFTWARE CORPORATION FIRST OF DENVER PLAZA	BICKHAM		P UNIVERSITY OF WYOMING DEPT OF PETR. ENGR.	BIGGS
DENVER		CO 80202	LARAMIE	WY 82071
J GEOTHERMAL OFFICE ONRC 32 SOUTH ERVING	BIRKLY		J GEOTHERMAL OFFICE ONRC 32 SOUTH EWING	BIRKLY
HELENA		MT 59601	HELENA	MT 59601
J GEOTHERMAL OFFICE ONRC 32 SOUTH EWING	BIRKLY		J GEOTHERMAL OFFICE ONRC 32 SOUTH EWING	BIRKLY
HELENA		MT 59601	HELENA	MT 59601



## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0006

J BIRKLY  
GEOTHERMAL OFFICE ONRC  
32 SOUTH EWING

B BIRMAN  
GEOTHERMAL SURVEYS, INC  
99 PASADENA AVE

HELENA MT 59601 SO PASADENA CA 91030

A B BISHOP A BLACK  
AGENCY BLDG. 2 GEGPRODUCTS CORP.  
1330 BROADWAY, SUITE 1400

ALBANY NY 12203 OAKLAND CA 94612

J BLACKBURY V H BLACKMAN  
9-MILE FARMS INC  
RT 2, BOX 221 BOX 1620

VALE OR 97916 LA JOLLA CA 92037

J P BLAKE G F BLASER  
INTERNATIONAL DIRECTIONAL CONSULTAN IDAHO FUEL ALCOHOL PRODUCERS  
P.O. BOX 9651 P O BOX 3023

BAKERSFIELD CA 93309 BOISE ID 83703

G F BLAZER N F BLINSTRUP  
IDAHO FUEL ALCOHOL PRODUCERS  
P.O. BOX 3023 79 WASHINGTON

BOISE ID 83703 KLAMATH FALLS OR 97601

DR G BLOOMQUIST G M BOOTH III  
7223 GLEN ANNIE GEOTHERMAL DEVELOPMENT ASSOCIATES  
4275 HACKAMORE DRIVE

OLYMPIA WA 98502 RENO NV 89509

R S ROSWELL B S ROSWELL  
WESTEC SERVICES INC WESTEC SERVICES, INC  
3211 FIFTH AVENUE 3211 FIFTH AVENUE

SAN DIEGO CA 92103 SAN DIEGO CA 92103

R G BOWEN R C BOWSER  
825 N W ALBEMARLE TERR. AE ASSOCIATES  
P O BOX 1353

PORTLAND OR 97210 EUGENE OR 97440

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE007

I	BRACY		R F	BRADLEY	
INTERNATL DESIGN & DEVELOPMENT CORP			KIDDE CONSULTANTS, INC		
403 G HIGHWAY 43			UNIVERSITY OFFICE PLAZA		
SARALAND		AL 36571	NEWARK		DE 19702
R	BRANDT		F O	BRASWELL	
THE ROBERT DOLLAR CO.			ALABAMA DEPARTMENT OF ENERGY		
P O BOX C			3734 ATLANTA HIGHWAY		
GLENDALE		OR 97442	MONTGOMERY		AL 36130
K	BRAY		R P	BREEN	
GEOTHERMAL COMMERCIALIZATION OFFICE			RESEARCH-COTTRELL BIPHASE		
P O BOX 4096			17332 IRVINE BLVD.		
LARAMIE		WY 82071	TUSTIN		CA 92680
W	BRINK		M D	BRINKLEY	
C & L			CITY OF LEWISTON		
ONE BUSH STREET			P O BOX 617		
SAN FRANCISCO		CA 94104	LEWISTON		ID 83501
C A	BROTT		A R	BROWN	
TELEDYNE - GEOTECH			ENGINEERING GEOLOGIC SERVICES		
3401 SHILOH RD			296 COLLEGE PARK DRIVE		
GARLAND		TX 75041	SEAL BEACH		CA 90740
W	BROWN		T	BROWN SR	
OWYHEE ENERGY PRODUCES, INC			CALIFORNIA THERMOHOL CO., INC		
P O BOX 152			1457 FLEET STREET		
ADRIAN		OR 97901	VENTURA		CA 93003
H	BRUNSDON		H	BRUNSDON	
WASH. STATE SENATE ENERGY & UTILITIES COMMITTEE			WASHINGTON STATE SENATE ENERGY & UTILITIES COMMITTEE		
OLYMPIA		WA 98504	OLYMPIA		WA 98504
R W	BRYSON		A C	BUCK	
P O BOX 810			DETROIT TESTING LAB., INC.		
			8720 NORTHEND AVENUE		
BATTLE MOUNTAIN		NV 89820	OAK PARK		MI 48237

LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0008

C G	BUEFE	J	BUNKLES
U S GEOLOGICAL SURVEY		MT DEPT OF NATRL RESOURCES & CONSRV	
345 MIDDLEFIELD RD		32 SOUTH EWING	
MENLO PARK	CA 94025	HELENA	MT 59601
D	BURGETT	D	BURMEISTER
P.O. BOX 265-A		DONA ANA COUNTY OFF. OF	
ANIMAS	NM 88020	PLANNING & BLDG. INSPECTION	
		LAS CRUCES	NM 88001
R.	BURNSIDE	R D	BUTLER
U.S. GEOTHERMAL CORP.		292 MAIN ST. SOUTH	
501 WINGED FOOT RD.			
PHOENIX	AZ 85022	VALE	OR 97918
R T	BUTLER	D	BUTLER
342 S W 3RD ST		MICROGEOPHYSICS CORP	
		10900 W 44TH	
ONTARIO	OR 97914	WHEATRIDGE	CG 80033
J	BUTZ	J A	CABRAL
DENVER RESEARCH INSTITUTE		THE CEDA CORPORATION	
P O BOX 10127		1623 FOREST DR., SUITE 205	
DENVER	CO 80210	ANNAPOLIS	MD 21403
B	CAHILL	M J	CALE
ENERGYLOG CORPORATION		2618 TUSCAN CT.	
3277 2ND AVENUE			
SACRAMENTO	CA 95817	SANTA ROSA	CA 95405
J	CALLON	W S	CAMPBELL
PACIFIC ENERGY CORP.		P O BOX 3722	
P.O. BOX 1287			
NATCHEZ	MS 39120	SAN FRANCISCO	CA 94119
D	CAMPBELL	T	CAMPBELL
GILA HOT SPRINGS		REPUBLIC GEOTHERMAL, INC	
RT. 11, BOX 80		P O BOX 3388	
SILVER CITY	NM 88061	SANTA FE SPRINGS	CA 90670

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0009

R B	CAMPBELL	R B	CAMPBELL
SOUTHERN TIER WEST REGIONAL P&D BD		SOUTHERN TIER WEST REG*NL PLANNING	
41 MAIN STREET		& DEVELOPMENT BOARD	
SALAMANCA	NY 14779	SALAMANCA	NY 14779
-----			
V P	CANIZARO	D D	CARDA
SPERRY VICKERS AMD DIVISION		SDSM&T	
5353 HIGHLAND DR.		EXFT STATION	
-----			
JACKSON	MS 39206	RAPID CITY	SD 57701
-----			
J D	CARPENTER	M D	CARPENTER
C F BROWN & COMPANY		LAKE COUNTY ASSESSORS OFFICE	
SERIOR SPACE ENGINEER		255 N FORBES ST	
-----			
ALHAMBRA	CA 91802	LAKEPORT	CA 95453
-----			
T P	CASTOR	E J	CATANZARO
ENG. INC.		FAIRLEIGH DICKINSON UNIV.	
37 OLIVER ROAD			
-----			
BELMONT	MA 02178	TEASNECK	NJ 07666
-----			
J R	CENTORINO	D J	CERINI
23 PARSONS ST		BIPHASE ENERGY SYSTEMS	
		GECTHERMAL PROGRAM MANAGER	
-----			
WEST NEWTON	MA 02165	SANTA MONICA	CA 90405
-----			
D	CHAMBERS	D	CHAMBERS
6385 HEATHER RIDGE WAY		6385 HEATHER RIDGE WA	
-----			
OAKLAND	CA 94611	OAKLAND	CA 94611
-----			
K	CHAMPLIN	T J	CHANCELLOR
JAY HILL & ASSOCIATES		DOUGLAS AIRCRAFT CO	
P.O. BOX 2707		INTERNAL MAIL CODE 1881	
-----			
SILVER CITY	NM 88061	LONG BEACH	CA 90846
-----			
P B	CHANDLER	M	CHAPMAN
2615 MARQUETTE DR.		DNRC	
		32 S BEWING	
-----			
TOPANGA	CA 90290	HELENA	MT 59601
-----			

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0010

L	CHATURVEDI	J G	CHERIM
NEW MEXICO STATE UNIV		CENTER FOR METROPOLITAN PLANNING &	
BOX 3 CE		RESEARCH/JOHNS HOPKINS UNIV.	
LAS CRUCES	NM 88003	BALTIMORE	MD 21218
G F	CHESSE	G D	CHOUINARD
PEABODY FLOWAY INC.		AG WEST INC	
P O BOX 164		33853 PALOMARES	
FRESNO	CA 93727	CASTRO VALLEY	CA 94546
J	CHRISTIANSON	F	CIANCANELLI
NORTHWEST DEVELOPMENT GROUP		3358 APOSTOL ROAD	
422 E. MAIN, SUITE 300			
BISMARCK	ND 58501	ESCONDIDO	CA 92025
E V	CIANCANELLI	J P	CLARK
CASCADIA EXPLORATION CORP.		COLLEGE OF THE SISKIYOU	
3358 APOSTOL ROAD		800 COLLEGE AVE	
ESCONDIDO	CA 92025	WFED	CA 96094
L D	CLARK	L D	CLARK
ENERGETICS CORP.		ENERGETICS CORPORATION	
833 E ARAPAHO ROAD		833 E. ARAPAHO ROAD	
RICHARDSON	TX 75081	RICHARDSON	TX 75081
J H	CLAY	S W	CLEMENTS
618 FAIR FOUNDATION BLDG		2109 6TH AVE SO	
TYLER	TX 75702	PAYETTE	ID 83661
E	CLEVELAND	N W	COFFEE
LELCO, INC.		3833 CLARLEE ST	
P O BOX 70			
BEND	OR 97701	OAKLAND	CA 94609
B A	COLE	A D	COLLIER
LAW OFFICES OF RONALD HOTHEN		SWAN LAKE MOULDING COMPANY	
332 PINE ST., 4TH FLOOR		P O BOX 428	
SAN FRANCISCO	CA 94123	KLAMATH FALLS	OR 97601

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0011

F	COLLINS	F	COLLINS
US DOE REGION IV		US DOE REGION IV	
1655 PEACHTREE STREET NE		1655 PEACHTREE STREET NE	
ATLANTA	GA 30367	ATLANTA	GA 30367
A G	COMER	C T	CONDY
MAPCO PRODUCTION COMPANY		CALIFORNIA ENERGY CO., INC	
1800 S BALTIMORE AVE		PRESIDENT	
TULSA	OK 74119	SANTA ROSA	CA 95402
W R	CONNOLLY	E J	CONNOLLY
ROUTE 1, BROOKSIDE LANE		P O BOX 1553	
BOISE	ID 83702	BOISE	ID 83701
E J	CONNOLLY	F R	CONWELL
P O BOX 1553		WOODWARD-CLYDE CONSULTANTS	
		THREE EMBARCADERO CENTER	
BOISE	ID 83701	SAN FRANCISCO	CA 94111
K	CORGEL	C H	CORWIN
ELIOT ALLEN & ASSOC., INC.		BOX 689	
1257 HIGH STREET, SUITE 7			
EUGENE	OR 97401	KETCHUM	ID 83340
R F	CORWIN	K	CORY
HEARST MINING BLVD		2555 MENDOCINO AVE	
UNIVERSITY OF CALIFORNIA			
BERKELEY	CA 94720	SANTA ROSA	CA 95401
R M	COSTELLO	G E	COURY
BURNS & ROE INDUSTRIAL SRVICES CORP		COURY AND ASSOCIATES, INC.	
283 ROUTE 17 SOUTH		7625 W 5TH AVENUE	
PARAMUS	NJ 07652	LAKWOOD	CO 80226
G D	COUTTS	E	CRADDICK
THE SINGER CO. CLIMATE CONTROL		GEOTHERMAL EXPLORATION & DEV. CORP	
62 COLUMBUS ST		2828 PAA STREET	
AUBURN	NY 13021	HONOLULU	HI 96819

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0012

R A OCCIDENTAL GEOTHERMAL 5000 STOCKDALE HWY	CREWDSON	CA	93309	D 4301 SOUTH 1500 EAST	CROCKETT	UT	84108
BAKERSFIELD		CA	93309	SALT LAKE CITY		UT	84108
D VELLEY-HIGH OIL, GAS & MINERALS 230 WEST 4TH SOUTH	CROCKETT			R A NEW MEXICO STATE UNIV BOX 3 PSL	CUNNIFF		
SALT LAKE CITY		UT	84111	LAS CRUCES		NM	88001
A B VRS/JOHN A BLUME & ASSOC. ENGINEERS 130 JESSIE ST.	CUNNINGHAM			R INTERNAT'L RESEARCH & EVALUATION 2109P IRE CONTROL CTR.	DANFORD		
SAN FRANCISCO		CA	94105	EAGAN		MN	55121
W E GEO ENERGY, INC. 3200 SCOTT BOULFVARD	DANIELS			M P O BOX 91	DANIELSON		
SANTA CLARA		CA	95051	FAIRFIELD		ID	83327
S S P O BOX 268	DASHEVSKY			R 1411 CANBY STREET	DAVIS		
CONWAY		MA	01108	KLAMATH FALLS		OR	97601
J RT. 3, BOX 3752	DAVIS			L L BRUSH WELLMAN INC 2950 SOUTH 67 WEST	DAVIS		
JUNEAU		AK	99801	SALT LAKE CITY		UT	84115
A NATIONAL GEOTHERMAL CORP 4285 SNOWSHOE LANE	DAVLIN, JR			P H 112 ORM STREET	DAWSON		
RENO		NV	89502	MT SHASTA		CA	96067
G. L. GLOBAL GEOTHERMAL TECH. INC. 320 COLLEGE AVE., SUITE 305	DAY			F 2634 WILKES AVE	DEARBORN		
SANTA ROSA		CA	95401	DAVENPORT		IA	52804

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0013

E R DEPARTMENT OF GEOLOGY UNIVERSITY OF WYOMING	DECKER	WY 82071	LARAMIE	J W 484 PANAMA AVENUE	DELAPP, JR.	CA 95926	CHICO
F O'BRIEN RESOURCES CORPORATION 154 HUGHES ROAD, SUITE 4	DELLECHAIE	CA 95945	GRASS VALLEY	J SOUTHLAND ROYALTY CO. 1000 FORT WORTH CLUB TOWER	DENTON	TX 76102	FORT WORTH
H CITY OF KLAMATH FALLS P.O. BOX 237	DERRAH	OR 97601	KLAMATH FALLS	J L WRIGHT ENERGY NEVADA CORP. 777 W. SECOND ST., SUITE 220-230	DEUBLE	NV 89503	RENO
J WRIGHT ENERGY, NEVADA CORP. 777 W 2ND ST 230	DEUBLE	NV 89503	RENO	R G FEDERAL BUILDING MS:3344 12TH & PENN N W	DI BONA	DC 20461	WASHINGTON
J D CHAFFEE GEOTHERMAL, LTD. 1361 SOUTH GLENCOE	DICK	HI 96820	DENVER	J PARSONS, HAWAII P O BOX 29909	DITTMAR	CA 95406	SANTA ROSA
P J MECHANICAL TECHNOLOGY INC. 968 ALBANY-SHAKER ROAD	DIVIRGILIO	CO 80222	DENVER	R F UNION OIL CO GEOTHERMAL DIV. P O BOX 6854	DONDANVILLE	CA 95406	SANTA ROSA
L APPROPRIATE TECHNOLOGIES, INC BOX 1016	DOVNOV	ID 83401	IDAHO FALLS	R D 7200 E DRY CREEK	DOOLEY	CO 80112	ENGLEWOOD
D V DOWNES ASSOCIATES, INC. RT. 6, BOX 688, DELMAR ROAD	DOWNES	MD 21801	SALISEURY	T J INTERNATIONAL BUS. SERVICES, INC 1424 K STREET, NW, 3RD FLOOR	DUESTERBERG	DC 20005	WASHINGTON



LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0014

J	DUMEYER		J R	DUNN
BOX 11223			DUNN GEOSCIENCE	5 NORTHWAY LANE N
PUEBLO		CO 81001	LATHAM	NY 12110
C S	DUNN		C S	DUNN
FENIX & SCISSON, INC.			FENIX & SCISSON, INC.	
1401 SOUTH BOULDER			P.O. BOX 15609	
TULSA		OK 74119	TULSA	OK 74112
F D	DUNN		R B	DURKIN
ROGERS ENGINEERING CO INC			CAS, ASSOCIATES	
111 PINE ST			4710 N 16TH ST., SUITE 107	
SAN FRANCISCO		CA 94111	PHCENIX	AZ 85016
S. L.	EASLEY		W B	EASTLAKE
DESERT ENERGY EQUIPMENT INC.			1107 N 18TH	
P.O. DRAWER 9005				
ODESSA		TX 79762	BOISE	ID 83702
W B	EASTLAKE		F	ERELING
1107 N. 18TH			PAGOSA SPRINGS GEOTHERMAL PROJ.	
			P O BOX 1507	
BOISE		ID 83702	PAGOSA SPRINGS	CO 81147
M T	ECKELS		R C	EDMISTON
3429 COLFAX B PL			ANADARKO PRODUCTION CO.	
			P.O. BOX 1330	
DENVER		CO 80206	HOUSTON	TX 77001
P	EDWARDES		H	EGO
CITY OF SUSANVILLE			CITY OF VALE	
GEOTHERMAL PROJECT OFFICE			CITY MANAGER	
SUSANVILLE		CA 96130	VALE	OR 97918
M	EHRlich		M	EHRlich
WATERGATE TOWER			WATERGATE TOWER	
10TH FLOOR			10TH FLOOR	
EMERYVILLE		CA 94608	EMERYVILLE	CA 94608

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0015

S M	EISENSTAT		S M	EISENSTAT
30 ROCKEFELLER PLAZA			EISENSTAT & GOTTESMAN	
			30 ROCKEFELLER PLAZA	
NEW YORK		NY 10112	NEW YORK	NY 10022
S	ELLINWOOD		R E	ELLIOTT
FRANK E BASIL, INC			LOS ALAMOS CONSULTANTS	
DRAKE CREEKSIDE TWO			103 GRAND CANYON DR.	
FORT COLLINS		CO 80526	LOS ALAMOS	NM 87544
J R	ELLIS		L M	EPPS
U S DEPT OF ENERGY			I CUBED CORPORATION	
GRAND JUNCTION OFFICE			378 NEW YORK AVE	
GRAND JUNCTION		CO 81501	HUNTINGTON	NY 11743
L	ESPOSITO		D J	EVERITTS
INTEGRATED ENERGY SYSTEMS INC			100 OCEANGATE, SUITE 300	
205 N 10TH ST				
BOISE		ID 83702	LONG BEACH	CA 90802
D A	EVERSOLL		P	FAIRCLO
NEBRASKA GEOLOGICAL SURVEY			RT 2, BOX 810	
UNIVERSITY OF NEBRASKA				
LINCOLN		NE 68588	KLAMATH FALLS	OR 97601
R H	FAKUNDINY		L	FALICK
NEW YORK STATE GEOLOGICAL SURVEY			EG&G WASCI	
3140 CEC, ESP			2150 FIELDS ROAD	
ALBANY		NY 12230	ROCKVILLE	MD 20850
D	FEDOR		D	FENTON
NEW MEXICO ENERGY & MINERAL DEPT			SVERDRUP & PARCEL & ASSOC. INC	
P O DRAWER 3-DC			800 N. 12TH BLVD.	
LAS CRUCES		NM 88003	ST LOUIS	MO 63101
D	FINN		J	FIORE
P O BOX 1287			CER CORPORATION	
			P O BOX 15090	
NATCHEZ		MS 39120	LAS VEGAS	NV 89114

L A	FISHER	CA 94114	S L	FLANDERS	CO 80209
3841 25TH STREET			AMERICAN WESTERN SECURITIES, INC.		
SAN FRANCISCO			360 S MONROE		
N H	FLEMING	TX 77041	T	FLEMING	ID 83301
HOUSTON ATLAS, INC.			REGION IV DEVELOPMENT ASSOC. INC.		
9441 BAYTHORNE DRIVE			EXECUTIVE DIRECTOR		
HOUSTON			TWIN FALLS		
J C	FLETCHER	NC 27959	D	FOLTZ	MD 64141
P O BOX 111			P.O. BOX 173		
NAGS HEAD			KANSAS CITY		
I	FONSKILL	ID 83701	W A	FORAKER	CA 95927
FONSKILL & COMPANY			P O BOX 749		
331 WEST IDAHO STREET					
BOISE			CHICO		
G M	FORD	UT 84713	J W	FOSTER	GA 30902
FORMINCO, INC.			HDR ENERGY DEVELOPMENT CORPORATION		
P O BOX 1086			SENIOR VICE PRESIDENT		
BEAVER			AUGUSTA		
C	FOURSTAR	MT 59255	K S	FOX	CA 90017
TRIBAL RESEARCH OFFICE			UNION OIL CENTER, ROOM M 33		
BOX 1338					
POPLAR			LOS ANGELES		
W	FOX	CA 92708	D	FREAR	NV 89431
P O BOX 8127			1058 BRADLEY LANE		
FOUNTAIN VALLEY			SPARKS		
D	FREAR	NV 89431	D	FROLIO	DC 20006
1058 BRADLEY LANE			BRACE, WELL & FATTERSON		
			1850 K STREET N W		
SPARKS			WASHINGTON		

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0017

P E	GAGNARD	M	GALLOWAY
HYDROSCIENCES, INC			
12687 W. CEDAR DR.		3888 S. URAVAN	
LAKWOOD	CO 80226	AURORA	CO 80013
R	GARDNER	R F	GARDNER
10960 WLSHIRE BLVD		STANDARD BRANDS, INC.	
		1899 L STREET, NW	
LOS ANGELES	CA 90024	WASHINGTON	DC 20036
R	GARDNER	B	GAUGLER
STD. BRANDS INC		ENERGY MANAGEMENT & CONSERVATION	
1899 L ST NW		GOVERNORS OFFICE	
WASHINGTON	DC 20036	BISMARCK	ND 58505
R E	GAUNT	D	GEDDES
THE RALPH M PARSONS COMPANY		G P ENGINEERING	
VICE PRESIDENT		BOX 338	
PASADENA	CA 91124	NEW MEADOWS	ID 83654
L	GEOSCHL	G	GERTCH
TEXAS A & M RESEARCH FOUNDATION		ROUTE 5 BOX 195	
ASSOCIATE FOR PROG. DEVELOPMENT			
COLLEGE STATION	TX 77843	IDAHO FALLS	ID 83401
R C	GIRTON	W A	GLASS
SCIENCE APPLICATIONS, INC.		RIG CHIEF DRILLING CO	
P.O. BOX 696		P O BOX 14837	
IDAHO FALLS	ID 83401	OKLAHOMA CITY	OK 73113
G B	CLASSCOCK	R J	GLEASON
BARCROFT COMPANY		DEPT OF GEOLOGICAL SCIENCES	
40 CAPE HENLOPEN DRIVE		GEO THERMAL PROGRAM	
LEWES	DE 19958	BLACKSBURG	VA 24061
S W	GOERING	B	GOFF
COURY AND ASSOCIATES, INC.		WHITE WATER CORP	
7625 WEST 5TH AVENUE		1010 BOOTH	
LAKWOOD	CO 80225	POCATELLO	ID 83201

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0018

R L	GOGIN	D	GOLDMAN
1575 24TH AVE		EG&G IDAHO INC	P O BOX 1625
SAN FRANCISCO	CA 94122	IDAHO FALLS	ID 83401
L H	GOLDSMITH	N F	GOLDSTEIN
INTERNATIONAL ENGINEERING CO. INC.		LAWRENCE BERKELEY LABORATORY	
180 HOWARD STREET		1 CYCLOTRON RD.	
SAN FRANCISCO	CA 94105	BERKELEY	CA 94720
J T	GORMLEY	D B	GORTE
D'APPOLONIA		BANK OF AMERICA	
7400 S. ALTON COURT		555 S. FLOWER STREET	
ENGLEWOOD	CO 80112	LOS ANGELES	CA 90071
W D	GOSNOLD	W D	GOSNOLD JR
DEPT OF GEOGRAPHY-GEOLOGY		DEPARTMENT OF GEOGRAPHY/GEOLOGY	
UNIVERSITY OF NEBRASKA		UNIVERSITY OF NEBRASKA AT OMAHA	
OMAHA	NE 68132	OMAHA	NE
W	GOSSETT	W	GOSSETT
IDAHO DEPT OF WATER RESOURCES		IDAHO DEPT OF WATER RESOURCES	
STATEHOUSE		STATEHOUSE	
BOISE	ID 83720	BOISE	ID 83720
R W	GOULD	R W	GOULD
ENERGY SERVICES INC		ENERGY SERVICES, INC.	
AIRPORT PLAZA #2		TWO AIRPORT PLAZA	
IDAHO FALLS	ID 83401	IDAHO FALLS	ID 83401
M J	GOULD	W F	GRACE
GEOHERMAL FINANCIAL CONSULTANTS		US DEPARTMENT OF ENERGY	
18000 S. SAVARONA WAY		P O BOX 5400	
CARSON	CA 90746	ALBUQUERQUE	NM 87115
D	GRAJZER	P R	GRANT JR
AQUAFARMS INTERNATIONAL, INC.		AMREP CORPORATION	
P.O. BOX 157		3900 SOUTHERN BLVD SE	
MECCA	CA 92254	RIO RANCHO	NM 87124

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0019

P R	GRANT, JR		P R	GRANT, JR	
AMREP CORP.			ENERGY RESOURCES EXPLORATION, INC		
3900 SOUTHERN BLVD., SE			9720-D CANDELARIA NE		
RIO RANCHO		NM 87124	ALBUQUERQUE		NM 87112
P R	GRANT, JR.		R A	GRAY	
ENERGY RESOURCES EXPLORATION, INC			FEDERAL BUILDING, MS:3344		
9720-D CANDELARIA RD., NE			12 AND PENN N W		
ALBUQUERQUE		NM 87112	WASHINGTON		DC 20461
P W	GREAVES		S	GFEN	
AMAX EXPLORATION, INC			DIVISION OF WATER RIGHTS		
7100 W 44TH AVE			DIRECTOR		
WHEATRIDGE		CO 80033	SALT LAKE CITY		UT 84111
P	GREEN		P	GREEN	
TECHNOLOGY ASSOCIATE			TECHNOLOGY INTERNATIONAL INC		
1372 S. FILLMORE			1372 SG FILLMORE		
DENVER		CO 80210	DENVER		CO 80210
R	GREIDFR		M N	GRIFFIN	
GEOTHERMAL RESOURCES INT			3548 MEADOW PLACE		
4676 ADMIRALTY WAY					
MARINA DEL REY		CA 90691	BOISE		ID 83706
M E	GROVE		D C	GROVE	
P O BOX 709			P O BOX 637		
WHITE SULPHUR SPRINGS		MT 59645	GRAND JUNCTION		CO 81502
J M	GRUBB		F D	GRUBER	
AMINOIL USA INC			4930 HIWAY 12 WEST		
P O BOX 94193					
HOUSTON		TX 77018	HELENA		MT 59601
F D	GRUBER		W	GUDGET	
4930 HIWAY 12 WEST			GEYSERGRAM		
			P O BOX 1738		
HELENA		MT 59601	SANTA MONICA		CA 90406

LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0020

W E GUSE  
P O BOX 602

W E GUSE  
P O BOX 602

JEMEZ SPRINGS NM 87025 JEMEZ SPRINGS NM 87025

W GUSTAVSON  
LAYNE WESTERN COMPANY, INC  
P O BOX 336

J W GWYNN  
UTAH GEOLOGICAL & MINERAL SURVEY  
606 BLACK HAWK WAY

MOSES LAKE WA 98837 SALT LAKE CITY UT 84108

W R HAHMAN, SR  
CPGS  
2045 N. FORBES BLVD

W R HAHMAN, SR  
CPGS  
2045 N FORBES BLVD

TUCSON AZ 85705 TUCSON AZ 85705

W R HAHMAN, SR.  
2045 N. FORBES BLVD., SUITE 106

W R HAHMAN, SR.  
2045 N. FORBES BLVD., SUITE 106

TUCSON AZ 85705 TUCSON AZ 85705

A H HALFF  
ALBERT H. HALFF ASSOCIATES, INC  
3636 LEMMON AVE.

R L HALL  
2012 DALMATION DRIVE

DALLAS TX 75219 IDAHO FALLS ID 83401

J W HANKIN  
BECHTEL NATIONAL, INC  
P O BOX 3965

T L HANSON  
CALIFORNIA DWR  
P O BOX 388

SAN FRANCISCO CA 94119 SACRAMENTO CA 95802

R I HARKER  
UNIV OF PENNSYLVANIA  
DEPT. OF GEOLOGY

O E HARRIS  
HARRIS ENGINEERING  
325 TYLER AVE.

PHILADELPHIA PA 19104 EVANSVILLE IN 47715

K L HARRIS  
NORTH DAKOTA GEOLOGICAL SURVEY

R F HARRISON  
EUREKA ENERGY CO  
215 MARKET ST RM 260

GRAND FORKS ND 58202 SAN FRANCISCO CA 94106

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0021

W F HARRISON  
OKLHOMA GEOLOGICAL SURVEY  
UNIVERSITY OF OKLAHOMA

J A HARRISON  
SUPREME SUGAR CO., INC.  
P O BOX 68

NORMAL OK 73019

LABADIEVILLE

LA 70372

J A HARRISON  
SUPREME SUGAR CO., INC.  
P O BOX 68

J A HARRISON  
SUPREME SUGAR INC  
BOX 68

LABADIEVILLE LA 70372

LABADIEVILLE

LA 70372

B HARRISON  
SW NEW MEXICO COUNCIL OF GOV.  
ECONOMIC DEVELOP. COUNCIL  
SILVER CITY

NM 88061

DR R K HART  
BOISE STATE UNIVERSITY  
DIRECTOR, CENTER FOR RESEARCH  
BOISE

ID 83725

D HART  
CITY PLANNING DEPT.  
200 N. CHURCH STREET

L HARVEY  
INTERCOAST RESOURCES  
112 NE 74TH

LAS CRUCES

NM 88001

PORTLAND

OR 97213

W R HATCH  
2690 FIELDSTREAM

K HATTON  
BUREAU OF GEOLOGY, M&M  
P.O. BOX 2860

IDAHO FALLS

ID 83401

SANTA FE

NM 87501

Z HAUK  
CERT  
5660 S. SYRACUSE CIRCLE

H F HEASLER  
UNIVERSITY OF WYOMING  
DEPT OF GEOLOGY

ENGLEWOOD

CO 80111

LARAMIE

WY 80271

T F HEENAN  
DEPARTMENT OF ENERGY  
GEOTHERMAL ENERGY DIVISION

C F HESLEY  
HAWAII INSTITUTE OF GEOPHYSICS  
2525 CORREA RD.

OAKLAND

CA 94612

HONOLULU

HI 96822

B HENDERICKSON  
MAR-RIL ENTERPRISES  
3910 ORANGEWOOD DRIVE

M HENDERSEN  
R W BECK & ASSOCIATES  
669 BANNOCK

FAIR OAKS

CA 95628

DENVER

CO 80204



R	HERMAN	S A	HICKS
HERMAN PROPERTIES		805 N W GEORGIA	
18320 TARZANA DR			
TARZANA	CA 91356	BEND	OR 97701
R	HILKER	D M	HILL
HYDROTHERMAL COMMERCIALIZATION DIV.		CALIF. ENERGY COMMISSION	
EG&G IDAHO, INC		1111 HOWE AVENUE	
IDAHO FALLS	ID 83401	SACRAMENTO	CA 95825
D L	HILLING	H W	HIGTT, JR
BOX 1355		SC GOV DIV OF ENERGY RESOURCES	
BOZEMAN	MT 59715	COLUMBIA	SC 29201
B	HODAM	D T	HODDER
106 K STREET, SUITE 200		GEO SCIENTIFIC SYSTEMS & CONSULTING	
		8405 PERSHING DR., SUITE 402	
SACRAMENTO	CA 95814	PLAYA DEL REY	CA 90291
D	HODDER	D	HODDER
GSC SUITE 402		8405 PERSHING DRIVE	
PLAYA DEL REY	CA 90291	PLAYA DEL REY	CA 90291
M	HOLMES	H H	HOTSON
AL STERN ASSOCIATES		911 WESTERN AVE.	
P O BOX 3458			
INDIALANTIC	FL 32903	SEATTLE	WA 98104
F H	HOULE	C W	HOULIK, JR
BECHTEL NATIONAL, INC		DAMES & MOORE	
P O BOX 3965		6 COMMERCE DRIVE	
SAN FRANCISCO	CA 94119	CRANFORD	NJ 07016
L D	HOUSER	J. H.	HOWARD
BIOMASS ENERGY RESEARCH, INC.		4614 AIMOND CIRCLE	
301 THATCHER BUILDING			
PUEBLO	CO 81003	LIVERMORE	CA 94550

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0023

S M DEPT METALLURGY	HOWARD	SD 57701	S M WII 28TH AVE.	HUEBARD	WA 99203
RAPID CITY			SPCKANE		
C V DEPT. OF NATURAL RESOURCES R&D DIVISION	HUDSON		S L ENERGETICS CORP. 833 E. ARAPAHO RD, SUITE 202	HUDSON	
BATON ROUGE		LA 70804	RICHARDSON		TX 75081
R EOCDC 1007 FOURTH STREET	HUGGINS		D A OREGON DEPT OF GEOLOGY & MINERAL INDUSTRIES	HULL	
LA GRANDE		OR 97850	PORTLAND		OR 97201
R 3823 N 36TH	HUNT		W B WESTERN ENERGY OF CARLSBAD SOUTHERN N M WAREHOUSE	HUNT JR.	
BOISE		ID 83703	CAPLSBAD		NM 88220
G W INTERCONTINENTAL ENERGY CO 7503 MAIN DR	HUTTRER		N M ABC CONCRETE PROG PRESIDENT	HYYTINER	
ENGLEWOOD		CO 80111	RENO		NV 89510
J 3200 SCOTT BLVD	JACKSON		D ENERSUN TECHNOLOGY 19600 LENCHO PL.	JACKSON	
SANTA CLARA		CA 95051	WALNUT		CA 91789
D GERAGHTY & MILLER INC 844 WEST STREET	JACKSON		K NEVADA DEPARTMENT OF ENERGY 400 WEST KING, SUITE 106	JACKSON	
ANNAPOLIS		MD 21401	CARSON CITY		NV 89710
D V WYO-BEN UNITED 1242 NORTH 28TH STREET	JACKSON		J J BATTELE PACIFIC NW LABS EDL BLDG.	JACOBSON	
BILLINGS		MT 59103	RICHLAND		WA 99352

R W	JAMES	0	JAMES
GEOTHERMAL COMMERCIALIZATION OFFICE		SNCCO ENERGY DEVELOPMENT CO	
P O BOX 4096		12700 PARK CENTRAL PL	
LARAMIE	WY 82071	DALLAS	TX 75230
R W	JAMES	I	JAMIESON
WYOMING GEOTHERMAL COMMERCIALIZATION OFFICE		ENTHALPY INC.	
LARAMIE		320 COLLEGE AVE., SUITE 305	
	WY 82071	SANTA ROSA	CA 95401
P	JANSS	W C	JANSS, JR
RT 1 BOX 240		JANSS CORP	
		100 E THOUSAND OAKS BLVD	
BELLEVUE	ID 83313	THOUSAND OAKS	CA 91360
D	JENKINS	B	JENNINGS
BOX 869		BRUCE JENNINGS	
		2386 HWY 6 & 50 WEST	
MINDEN	NV 89423	GRAND JUNCTION	CO 81501
P A	JEZEK	A G	JHAVERI
STONE & WEBSTER ENGR CORP		JOHN GRAHAM & COMPANY	
P O BOX 2325		ENERGY MANAGEMENT SPECIALIST	
BOSTON	MA 02107	SEATTLE	WA 98101
G R	JIRACEK	R L	JODAY
UNIVERSITY OF NEW MEXICO		ENERGY & NATURAL RESOURCE	
DEPT OF GEOLOGY		CONSULTANTS, INC.	
ALBUQUERQUE	NM 87131	RICHARDSON	TX 75080
J	JOHANSEN	T C	JOHNSON
OFFICE OF EMERGENCY & ENERGY SERVICES		CITY OF IDAHO SPRINGS	
		CITY ADMINISTRATOR	
RICHMOND	VA 23225	IDAHO SPRINGS	CO 80452
K R	JOHNSON	K	JOHNSON
GEO PRODUCTS CORPORATION		GEOPRODUCTS CORP.	
1330 BROADWAY		1330 BROADWAY, SUITE 1400	
OAKLAND	CA 94612	OAKLAND	CA 94612

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0025

W R OLD OREGON TRAL REAL ESTATE 387 A ST WEST	JOHNSON JR	V E HYDRONAUTICS, INC. 7210 PINDELL SCHOOL RD.	JOHNSON, JR
VALE	OR 97918	PRINCF GEORGE	MD 20810
L LOWELL N. JONES CO P O BOX 1866	JONES	S JORDAN, APOSTAL, RITTER ASSOC., INC- ADMINISTRATION BUILDING 7	JORDAN
KLAMATH FALLS	OR 97601	DAVISVILLE	RI 02854
B D ENERGETICS CORPORATION 833 E. ARAPAHO RD., SUITE 202	KAISER	J BRCOKHAVEN NATIONAL LABORATCRY BUILDING 129	KARKHECK
RICHARDSON	TX 75081	UPTON	NY 11973
J DOE/SAN GLGD 1333 BROADWAY	KARMENDY	L UTAH GEOPHYSICAL, INC., P O BOX 9344	KATZ
OAKLAND	CA 94612	SALT LAKE CITY	UT 84109
L UTAH GEOPHYSICAL, INC P O BOX 9344	KATZZ	D DEPT OF CHEMICAL & NUCLEAR ENGR UNIVERSITY OF NEW MEXICO	KAUFFMAN
SALT LAKE CITY	UT 84109	ALBUQUERQUE	NM 87131
R NAKASHIMA NURSERY 610 LINCOLN	KFATON	M KIDDER, PEABODY & CO., INC. 10 HANOVER SQUARE	KFEHNER
WATSONVILLE	CA 95076	NFL YORK	NY 10005
R C RADIANT OCRPORATION 8500 SHOAL CREEK BLVD	KEENEY	H W TOWN OF OCEAN CITY P O BOX 158	KFLLEY
AUSTIN	TX 78757	OCEAN CITY	MD 21842
R L TEFFT & KELLY 1225 CONNECTICUT AVE	KFLLY	J M R4/2066 ONE SPACE PARK	KENNEDY
WASHINGTON	DC 20036	REDONDO BEACH	CA 92078

## LISTING OF MTRGCL DRILLING MAILING LIST

PAGE 0026

R	KENT		R	KERBEL	
2309 LINDA VISTA DRIVE			CITY OF ROCHESTER		
			30 CHURCH ST., ROOM 205A		
KLAMATH FALLS	OR	97601	ROCHESTER	NY	14614
F L	KESTER		J C	KIELPINSKI	
INSTITUTE OF GAS TECHNOLOGY			P O BOX 580		
3424 SOUTH STATE ST					
CHICAGO	IL	60616	STEVENSON	WA	98648
R	KIESSIG		K J	KINDBLAD	
800 MERCED STREET			CALIF. PUBLIC UTILITIES COMM.		
			350 MCALLISTER ST.		
PISMO BEACH	CA	93449	SAN FRANCISCO	CA	94507
J	KIRKMAN		J P	KITA	
MAGIC RESOURCE INVESTORS			ROY F WESTON INC		
P.O. BOX 1328			WESTON WAY		
SUN VALLEY	ID	83353	WEST CHESTER	PA	19380
K	KITAYAMA		P	KLAUSSEN	
KITAYAMA BROS.			LAHONTAN INC		
481 SAN ANDREAS RD.			BOX 630		
WATSONVILLE	CA	95076	SACRAMENTO	CA	95803
C W	KLEIN		D W	KLICK	
GEOHERMEX, INC.			U S GEOLOGICAL SURVEY		
901 MENDOCINO			NATIONAL CENTER		
BERKELEY	CA	94707	RESTON	VA	22092
M	KNEBEL		A	KNODEL	
BURNS & ROE INDUSTRIAL SERV. CORP.			EASTMAN WHIPSTOCK INC		
283 ROUTE 17 SOUTH			1610 DENVER CLUB BLDG		
PARAMUS	NJ	07652	DENVER	CO	80202
G F	KOHLER		G F	KOHLER	
11945 WOODLEY A			11945 WOODLEY		
GRANADA HILLS	CA	91344	GRANADA HILLS	CA	91344

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0027

E B	KONECCI		K	KORTEMEIER
6206 HIGHLAND HILLS DR.			YUCCA LODGE & BATH	316 AUSTIN
AUSTIN		TX 78731	TRUTH OR CONSEQUENCES	NM 87901
G C	KOSMOS JR		R	KRAKOW
2440 DELMAR DR. E			NEW YORK STATE ENERGY RESEARCH	AND DEVELOPMENT
SEATTLE		WA 98102	ALBANY	NY 12223
J C	KRONE		J	KRUEGER
ROSES INCORPORATED			CITY PLANNER	BOX 232
1152 HASLETT ROAD				
HASLETT		MI 48840	EDGEMONT	SD 57735
J F	KUNZE		DR J F	KUNZE
RT. 4, BOX 224			ENERGY SERVICES, INC	TWO AIRPORT PLAZA
IDAHO FALLS		ID 83401	IDAHO FALLS	ID 83401
DR J F	KUNZE P E		S	KURSH
ENERGY SERVICES, INC			SOLAR ENERGETICS INC	301 S WEST ST
TWO AIRPORT PLAZA				
IDAHO FALLS		ID 83401	WILLINGHAM	DE 19899
D	KUSTER		J T	KUWADA
BOX 7038			GEO THERMAL KINETICS	50 CALIFORNIA STREET
LONG BEACH		CA 90807	SAN FRANCISCO	CA 94111
H C	L ORANGE		T A	LADD
LAW OFFICES OF RONALD HOTHEM			NAVAL FACILITIES ENGIN*ING CMMAND	200 STOUVAL ST
332 PINE ST., 4TH FLOOR				
SAN FRANCISCO		CA 94123	ALEXANDRIA	VA 22332
J	LAMBIASE		R	LAMSON
VIRGINIA POLYTECHNIC INSTITUTE			KLAMATH RACQUET CLUB	2524 CROSBY AVENUE
GEO THERMAL PROGRAM				
BLACKSBURG		VA 24061	KLAMATH FALLS	OR 97601

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0028

J	LANDRUM		M A	LANE	
375 GLADYS #1			CHEVRON RESOURCES COMPANY		
			P O BOX 3722		
LONG BEACH		CA 90814	SAN FRANCISCO		CA 94119
R N	LANE		J R	LANE	
GRUY FEDERAL INC.			VTA CORP		
2500 TANGLEWILDE, SUITE 150			P O BOX C 19529		
HOUSTON		TX 77063	IRVINE		CA 92713
C K	LANE		R K	LANGSON	
WESTEC SERVICES			CARSON HOT SPRINGS		
3211 FIFTH AVENUE			1500 HOT SPRINGS RD		
SAN DIEGO		CA 92103	CARSON CITY		NV 89701
D A	LARSEN		M K	LARSON	
800 18TH ST., NW, SUITE 300			CITY OF CALIENTE		
			TOWN HALL		
WASHINGTON		DC 20006	CALIENTE		NV 89008
L T	LARSON		K	LARSON	
DEPT GEOLOGICAL SCIENCES			MAYOR		
UNIV OF NEVADA			CITY OF CALIENTE		
RENO		NV 89557	CALIENTE		NV 89008
T	LARSON		W F	LASSETT	
SAI			KEFN POTATO DISTR, INC		
1200 PROSPECT ST			P O BOX 321		
LA JOLLA		CA 92038	KLAMATH FALLS		OR 97601
A L	LATTANNER		R	LAU	
UNION OIL CO. OF CALIFORNIA			ENERGY, INC		
2099 RANGE AVE.			P O BOX 736		
SANTA ROSA		CA 95401	IDAHO FALLS		ID 83401
C	LAWTON		E	LEBER	
ENVIRONMENTAL RESEARCH & DESIGN			AMER. PUB.PWR. ASSOC.		
P O BOX 511			2600 VIRGINIA AVE, NW		
LAKEPORT		CA 95453	WASHINGTON		DC 20037

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0029

P	LEITNER	M	LEVMSON
ST MARY'S COLLEGE		P O BOX 570065	
MORAGA	CA 94575	LOS ANGELES	CA 90057
M	LEVMSON	M	LEVMSON
P O BOX 57065		P O BOX 57065	
LOS ANGELES	CA 90057	LOS ANGELES	CA 90057
P	LIDEL	P J	LTENAU
SOUTH DAK. OFFICE OF ENERGY POLICY		OREGON INSTITUTE OF TECHNOLOGY	
STATE CAPITOL			
PIERRE	SD 57501	KLAMATH FALLS	OR 97601
M A	LIGGETT	G W	LINDLAND
EXPLORATION RESEARCH ASSOCIATES INC		1409 ESPLANADE	
1701 CLINTON ST., SUITE 212			
LOS ANGELES	CA 90026	KLAMATH FALLS	OR 97601
G W	LINDLAND	R	LINNF
14091 ESPLANADE		P O BOX 9669	
KLAMATH FALLS	OR 97601	BAKERSFIELD	CA 93309
N W	LLOYD	C H	LOHAY
ELDORADO EXPLORATION, INC.		1000 CONN. AVENUE, NW	
7001 WEST 117TH AVE.			
BROOMFIELD	CO 80020	WASHINGTON	DC 20036
DR A	LOHSE	M	LONG
GRUY FEDERAL, INC		P.O. BOX M	
2500 TANGLEWILDE			
HOUSTON	TX 77063	KLAMATH FALLS	OR 97601
F G	LONG	B	LONG
COUNCIL OF ENERGY RESOURCE TRIBES		O'BRIEN RESOURCES	
5660 S SYRACUSE CIR		154 HUGHES RD., SUITE #4	
ENGLEWOOD	CO 80111	GRASS VALLEY	CA 95945



## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0030

A B LAHONTAN, INC P O BOX 630 SACRAMENTO CA 95803	LONGYEAR	D J ACIP MINING CO INC 950 17TH ST., SUITE 2200 DENVER CO 80202	LOWELL
D A BROWN & CALDWELL CONS. ENGS. 1501 N. BROADWAY WALNUT CREEK CA 94596	LUNDY	E F MISSISSIPPI DEPT. OF NAT. RESOURCES EUREAU OF GEOLOGY JACKSON MS 39216	LUPER
J F SOMERSET COUNTY PUBLIC SCHOOLS PRINCE WILLIAM ST. PRINCESS ANNE MD 21853	LYNCH	C NEVOPACHE ELECTRIC COOPERATIVE INC P O BOX 308 LAKESIDE AZ 85929	MAC EDDY
J GEOTHERMAL COMMERCIALIZATION OFFICE P O BOX 4096 LARAMIE WY 82071	MACDONALD	C NEVOPACHE ELECTRIC COOPERATIVE INC P O BOX 308 LAKESIDE AZ 85929	MACEDDY
R B GEOTHERMAL ENERGY SYSTEMS 1600 MT. ROSE HWY RENO NV 89511	MACKAY	F L OHIO GEOLOGICAL SURVEY FOUNTAIN SQUARE COLUMBUS OH 43224	MAJCHSZAK
F P CAPITOL TOWER, ROOM 502 PHOENIX AZ 85007	MANCINI	J A DELAWARE ENERGY OFFICE P.O. BOX 1401 DOVER DE 19901	MANCUS
C J OKLAHOMA GEOLOGICAL SURVEY 830 VAN VLEET OVAL, ROOM 163 NORMAN OK 73019	MANKIN	L P O BOX 5377 BEVERLY HILLS CA 90210	MANSDOFF
A J BDM CORPORATION 180 RANDOLPH RD, SE ALBUQUERQUE NM 87106	MANSURE	K GEOTHERMAL COMMERCIALIZATION OFFICE P O BOX 4096 LARAMIE WY 82071	MARCOTTE

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0031

K	MARCOTTE	D R	MARKER
GEOTHERMAL COMMERCIALIZATION OFFICE		DIVISION OF ENERGY	
P O BOX 4096		AND POWER DEVELOPMENT	
LARAMIE	WY 82071	ANCHORAGE	AK 99501
D	MARKLE	G	MARL
DIVISION OF ENERGY & POWER		OJO CALIENTE MINERAL SPRINGS CO	
338 DENALI STREET		P.O. BOX 468	
ANCHORAGE	AK 99501	OJO CALIENTE	NM 88054
T J	MARSHALL	DR R C	MARTIN
CAYUGA CO IND DEV AGENCY		CALIFORNIA DIV OF MINES & GEOLOGY	
ERIE DR		2815 O STREET	
WEEDSPORT	NY 13166	SACRAMENTO	CA 95816
R C	MARTIN	R. C.	MARTIN
CALIFORNIA DIV. OF MINES & GEOLOGY		DIVISION OF MINES & TECH.	
107 SOUTH BROADWAY		1416 NINTH ST, ROOM 1341	
LOS ANGELES	CA 90012	SACRAMENTO	CA 95814
R H	MATHERSON	M	MATHEWS
AG-GRO IND. INC. -		1532 42ND STREET	
GEOTHERMAL AG SYSTEMS			
OAKLAND	CA 94605	LOS ALAMOS	NM 87544
M D	MATTICE	W C	MAURER
HAWAII INST. OF GEOPHYSICS		MAURER ENGINEERING INC.	
2525 CORREA ROAD		2916 WEST T.C. JESTER	
HONOLULU	HI 96822	HOUSTON	TX 77018
R	MAYER, JR	E	MC GINNES
P O BOX 1483		SOUTHWEST TEXAS ELECTRIC COOP, INC	
		P C DRAWER 677	
DALLAS	TX 75221	ELDORADO	TX 76936
R	MC NEAL	H W	MCADEN
KRUCHEK ENGINEERING		SUNEDCO	
3312 S W KELLY AVE		12700 PARK CENTRAL PL	
PORTLAND	OR 97201	DALLAS	TX 75251

W J	MCCABE	T	MCCANTS
2301 S. JEFF DAVIS HWY		P.O. BOX 265	
ARLINGTON	VA 22202	ANIMAS	NM 88020
P M	MCCARTHY	K P	MCCARTHY
ADM ASSOCIATES, INC.		OREGON DEPT. OF ENERGY	
720 HOWE AVENUE, SUITE 105		102 LABOR & INDUSTRIES BLDG	
SACRAMENTO	CA 95825	SALEM	OR 97310
D	MCCLAIN	J W	MCCONNELL
1411 IRENE		ENERGY INC.	
		P.O. BOX 736	
BOISE	ID 83702	IDAHO FALLS	ID 83401
M	MCDANIEL	M	MCDANIEL
P O BOX 488		P O BOX 488	
CIMARRON	NM 87714	CIMARRON	NM 87714
W J	MCDONALD	DR R B	MCEUEN
MAURER ENGINEERING INC		EXPLORATION GEOTHERMICS	
2916 WEST T C JESTER		5202 COLLEGE GARDENS COURT	
HOUSTON	TX 77018	SAN DIEGO	CA 92115
L	MCGARR	E	MCGINNIS
ALABAMA ENERGY MANAGEMENT BOARD		SOUTHWEST TEXAS ELECTRIC CO-OP INC	
STAFF ENGINEER		P O DRAWER 677	
MONTGOMERY	AL 36130	ELDORADO	TX 76936
F J	MCGRATH	C T	MCHUGH
SCIENCE APPLICATIONS INC		CHEVRON RESOURCES	
P O BOX 2351		P O BOX 3722	
LA JOLLA	CA 92038	SAN FRANCISCO	CA 94119
R S	MCINNIS	H	MCLAUGHLIN
MCCULLOCH GEOTHERMAL CORPORATION		NATIONAL GEOTHERMAL CORP	
10880 WILSHIRE BLVD.			
LOS ANGELES	CA 90024	RENO	NV 89502

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0033

B KRUCHEK ENGINEERING 3312 SW KELLY AVE	MCNEAL	OR 97201	S FUEL & MINERAL RESOURCES, INC. P O BOX 2790	MEGBY	VA 22090
PORTLAND		OR 97201	RESTON		VA 22090
DR T MEIDAV ASSOCIATES THE BROADWAY BUILDING	MEIDAV		DR T MEIDAV ASSOCIATES THE BROADWAY BUILDING	MEIDAV	
OAKLAND		CA 94612	OAKLAND		CA 94612
H DEPT OF ENERGY, OFFICE OF INSPECTOR DEPT OF ENERGY, 5A 22B-MS WASHINGTON	MELTON	DC 20585	R J SAI ENGINEERS, INC 3200 SCOTT BOULEVARD SANTA CLARA	MEMBRENO	CA 95051
F G GEOTHERMAL POWER CORPORATION PRESIDENT	METCALFE		R T WESTERN ENERGY PLANNERS, LTD. 2180 SOUTH IVANHOE	MEYER	
NOVATO		CA 94947	DENVER		CO 80222
R T WESTERN ENERGY PLANNERS, LTD 2180 S. IVANHOE, SUITE 4	MEYER		D REPUBLIC GEOTHERMAL, INC. P.O. BOX 3388	MICHELS	
DENVER		CO 80222	SANTA FE SPRINGS		CA 90670
H P SAI ENGINEERS, INC. 3200 SCOTT BLVD.	MIHELIS		H P SAI ENGINEERS, INC. 3200 SCOTT BOULEVARD	MIHELIS	
SANTA CLARA		CA 95051	SANTA CLARA		CA 95051
DR R L BOX 7738 TAHOE CITY	MILLER	CA 95730	SR R L NO 8 ADMIRAL DRIVE EMERYVILLE	MILLER	CA 94608
DR R L WILBUR HOT SPRINGS	MILLER		J C DEPARTMENT OF WATER RESOURCES 450 WASHINGTON STREET	MITCHELL	
WILLIAMS		CA 95987	BOISE		ID 83702

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0034

D K	MOFFATT	W J	MOLLIERE
SUDESIGNS - ARCHITECTS & PLANNERS		OFFICE OF ENVIRONMENTAL AFFAIRS	
1315 GRAND AVENUE		LA DEPARTMENT OF NATURAL RESOURCES	
GLENWOOD SPRNGS	CO 81601	BATON ROUGE	LA 70804
J	MONFORE	M	MONTGOMERY
WEYERHAEUSER COMPANY		INTEGRATED ENERGY SYSTEMS INC	
P O BOX 9		205 N 10TH STREET	
KLAMATH FALLS	OR 97601	BOISE	ID 83702
C	MOORE	J L	MOORE
		CALIFORNIA ENERGY COMPANY, INC.	
BOX 130		P O BOX 3909	
ONTARIO	OR 97914	SANTA ROSA	CA 95404
J	MOREAU	G	MORELLI
HAWAIIAN DREDGING & CONST. CO		DMJM	
P O BOX 3468		3250 WILSHIRE BLVD.	
HONOLULU	HA 96801	LOS ANGELES	CA 90010
R	MORGAN	R. B.	MOSS
1206 N ELM CIRCLE		78-6800 ALII DRIVE	
TWIN FALLS	ID 83301	KAILUA KONA	HI 96740
W S	MOTT	W S	MOTT
EBASCO SERVICES INCORPORATED		EBASCO SERVICES INCORPORATED	
TWO WORLD TRADE CENTER		TWO WORLD TRADE CENTER	
NEW YORK	NY 10048	NEW YORK	NY 10048
N A	MOYER	N A	MOYER
7035 INDIGO COURT		CALIF. ENERGY COMMISSION	
		GEOTHERMAL OFFICE MS 59	
FAIR OAKS	CA 95628	SACRAMENTO	CA 95825
G	MULLER	S	MUNSON
WESTERN DEVELOPMENT		TECHNOLOGY INTERNATIONAL, INC.	
2640 S. CANDELIGHT DRIVE		1372 S. FILLMORE	
LAS CRUCES	NM 88001	DENVER	CO 80206

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0035

S	MUNSON		P J	MURPHY	
TECHNOLOGY INTERNATIONAL, INC.			UTAH GEOLOGICAL & MINERAL SURVEY		
1372 S. FILLMORE			606 BLACK HAWK WAY		
DENVER		CO 80206	SALT LAKE CITY		UT 84108
W G	MURRAY		D E	MYFRS	
TEKNEKRON RESEARCH, INC.			7312 SOUTH 1600 EAST		
1483 CHAIN BRIDGE ROAD					
MCLEAN		VA 22101	SALT LAKE CITY		UT 84121
F W	NANTKER		T L	NEATHERY	
SEHLL OIL COMPANY			GEOLOGICAL SURVEY OF ALABAMA		
260 MAPLE COURT			P O DRAWER 0		
VENTURA		CA 93003	UNIVERSITY		AL 35486
T L	NEATHERY		S I	NFILSEN	
GEOLOGICAL SURVEY OF ALABAMA			177 E OAKRIDGE DRIVE		
P O DRAWER 0					
UNIVERSITY		AL 35486	BOUNTIFUL		UT 84010
DR J H	NEINABER		R	NELSON	
HUNT OIL COMPANY			BOX 263		
P O BOX 1317					
DENVER		CO 80201	KETCHUM		ID 83340
DR D	NFLSON		K L	NEWMAN	
ROSS STATE UNIVERSITY			WESTEC SERVICES, INC.		
DEPT OF GEOLOGY			505 MARQUETTE NW		
ALPINE		TX 79830	ALBUQUERQUE		NM 87102
V T	NGUYEN		R O	NICHOLS	
NVT TECHNOLOGIES, INC.			RESOURCE MANAGEMENT INTERNATIONAL		
9320 ROBNEL PLACF			VICE PRESIDENT		
VIENNA		VA 22180	SACRAMENTO		CA 95815
R W	NICHOLSON		DR R W	NICHOLSON	
WELL PRODUCTION TESTING			WELL PRODUCTION TESTING		
3188-D AIRWAY AVE			3188 D AIRWAY AVENUE		
COSTA MESA		CA 92626	COSTA MESA		CA 92626

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0036

D E	NIELSEN	UT	84025	D	NIELSEN	UT	84111
85 EAST 1470 SOUTH				DIVISION OF WATER RIGHTS			
				231 E. 400 SOUTH			
FARMINGTON		UT	84025	SALT LAKE CITY		UT	84111
G	MIIMI			W E	NORK		
THERMOGENICS, INC.				WILLIAM E. NORK, INC.			
2300 COUNTY CENTER DR., #250				250 E. GREG STREET			
SANTA ROSA		CA	95405	SPARKS		NV	89431
M	NORRIS			L	NORTHROP		
CITY HALL				4312 WESTWAY			
P O BOX 551							
SAFFORD		AZ	85546	DALLAS		TX	75205
P	NORTON			E F	NUCKOLS		
P O BOX 5326				P O BOX 729			
CARSON		CA	90749	LOS ALAMOS		NM	87544
F D	O'BRIEN			W M	O'FELL		
TECHNADRIL, INC.				LAS VEGAS HILTON HOTEL			
1111 FANNIN ST., SUITE 1010				PROPERTY OPERATIONS MANAGER			
HOUSTON		TX	77002	LAS VAGAS		NV	89109
M	O'DONNELL			M	O'DONNELL		
GEOTHERMAL KINETICS				GEOTHERMAL KINETICS, INC			
301 W. INDIAN SCHOOL RD				EXEC.V.P.			
PHOENIX		AZ		PHOENIX		AZ	85013
D	O'HAIRE			J I	O'NEILL, JR.		
BEELINE PARK				P O BOX 2840			
P O BOX 2269							
PAYSON		AZ	85541	MIDLAND		TX	79702
M	ODONNELL			G S	OKI		
GEOTHERMAL KINETICS				OKI NURSERY, INC			
301 W INDIAN SCHOOL RD				P O BOX 7118			
PHOENIX		AZ	85013	SACRAMENTO		CA	95826

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0037

C	OLSON	H J	OLSON
1536 ELDORADO		AMAX EXPLORATION, INC.	7100 WEST 44TH AVE
KLAMATH FALLS	OR 97601	WHEAT RIDGE	CO 80033
R	OLSON	L	OLVER
IHES - GEOTHERMAL DIV.		INDUSTRIAL ECONOMICS DIV	
REDISTRIBUTION OF ENERGY, INC.		DENVER RESEARCH INST	
MARINA DEL REY	CA 90251	DENVER	CO 80208
J	ONEILL	L H	ORRFN
1404 ELDORADO		JET PROPULSION LABRATORY	4800 OAK GROVE DRIVE, MS 506-316
KLAMATH FALLS	OR 97601	PASADENA	CA 91103
M	PACK	M	PACK
1020 HUMBOLDT, NO. 7		1020 HUMBOLDT, NO. 7	
RENO	NV 89509	RENO	NV 89509
M	PACK	F C	PADDISON
1020 HUMBOLDT, NO. 7		APPLIED PHYSICS LABORATORY	JOHNS HOPKINS ROAD
RENO	NV 89509	LAUREL	MD 20810
F C	PADDISON	G R	PARKS
JOHNS HOPKINS UNIV/APL		P G BOX 1908	
83 JOHNS HOPKINS ROAD			
LAUREL	MD 20801	EUGENE	OR 97401
R	PARODI	R H	PEARL
AMERICAN THERMAL RESOURCES INC		COLORADO GEOLOGICAL SURVEY	
950 E. KATELLA AVE, SUITE 9		1313 SHERMAN AVE., ROOM 715	
ORANGE	CA 92667	DENVER	CO 80203
R H	PEARL	E	PEDERSEN
GROUND WATER INVESTIGATIONS		ENERGY INCORPORATED	
716 STATE CENTENNIAL BLDG		P O BOX 736	
DENVER	CO 80203	IDAHO FALLS	ID 83401



E	PEDERSEN	V H	PENDLETON
ENERGY INCORPORATED		5005 DEL MAR DRIVE	
P O BOX 736			
IDAHO FALLS	ID 83401	CENTRAL POINT	OR 97502
L	PETERS	C N	PETTERSON
5778 N. D STREET		NORTHWEST NATURAL GAS CO	
		123 NW FLANDERS ST	
SAN BERNARDINO	CA 92405	PORTLAND	OR 97209
D	PAFF	K W	PFFRD
CANADA NW LAND LIMITED		A-8 CLIFFSIDE APTS	
820 - 355 4TH AVE., SW			
CALGARY ALBERTA CANADA		SUNDERLAND	MA 01375
D	PHILBRICK	A	PITTMAN
OREGON DEPT OF ENERGY		BRIGGS NATIONAL BANK	
RM 102 LATOR INDUSTRIES BLDG		ENERGY SECTION	
SALEM	OR 97310	WASHINGTON	DC 20006
J	POMPLON	B K	POPE
GOOD SAMARITAN VILLAGE		ROUTE 1 BOX 48	
ADMINISTRATOR			
LAS CRUCES	NM 88001	ARCO	ID 83213
B K	POPE	W A	PORTANAVA
ROUTE 1 BOX 48		BOOT ISLAND	
		P O BOX 255	
ARCO	ID 83213	CEDARVILLE	MI 49719
J B	PRICE	R O	PRINDLE
WESTERN WATER WELLS INC		EUREKA RESOURCE ASSOCIATES	
P O BOX 294		2161 SHATTUCK AVE	
BURNS	OR 97720	BERKELEY	CA 94704
W	PRITCHETT	M	PUGSLEY
NRECA		NEV DEPT OF ENERGY	
1800 MASSACHUSETTS AVE NW		400 W KING	
WASHINGTON	DC 20036	CARSON CITY	NV 89710

S	QUIETT		A F	QUIRK	
	1721 PENASCO RD			Q. B. RESOURCES INTERNATIONAL	
				612 S. FLOWER STREET	
EL CAJON		CA 92020	LOS ANGELES		CA 90017
-----					
R	QUIST		I S	RACKLEY	
	516 SMITH TOWER			CHILTON ENGINEERING	
				421 COURT STREET	
SEATTLE		WA 98104	ELKO		NV 89801
-----					
C D	RAINFY		B C	RAINSFORD	
	INTERNATIONAL DEVELOPMENT CORP			HDR ENERGYS DEVELOPMENT CORP.	
	1700 N. MOORE ST.			1500 SOUTHERN FINANCE BLDG.	
ROSSLYN		VA 22209	AUGUSTA		GA 30902
-----					
R R	RANKIN		W H	RANKIN	
	25E BROOKS TOWERS BLDG			3546 ROCKAWAY CT.	
DENVER		CO 80202	CHAMBLEE		GA 30341
-----					
C D	RAO		E W	RASNFR	
	TEXAS ENERGY & NATURAL			KLAMATH HOUSING AUTHORITY	
	RESOURCES ADVISORY COUNCIL			P O BOX 5110	
AUSTIN		TX 78701	KLAMATH FALLS		OR 97601
-----					
R	RASO		L E	RAY	
	ENERGY DEVELOPMENT CORPORATION			FISH BREEDERS OF IDAHO	
	1476 CALIFORNIA ST. SUITE A			RT 3 BOX 193	
SAN FRANCISCO		CA 94109	BUFL		ID 83316
-----					
V	READ		V	READ	
	READ DRILLING & DEV. CORP.			READ DRILLING & DEVELOPMENT CORP.	
	1700 N. MOORE ST., SUITE 1907			1700 NO. MOORE ST.	
ROSSLYN		VA 22209	ROSSLYN		VA 22209
-----					
L L	REDMERSKI		M	RFED	
	AMDRILL, INC.			USGS MS-18	
	P O BOX 15305			345 MIDDLEFIELD ROAD	
ORLANDO		FL 32858	MENLO PARK		CA 94025
-----					

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0040

J W REEDER STATE OF ALASKA DIV. OF GEOLOGICAL & GEOPHYS. SURVEY ANCHORAGE AK 99501	W K REESER COUNCIL OF ENERGY RESOURCE TRIBES 5660 SO SYRACUSE CIRCLE ENGLEWOOD CO 80111
M REZVANI LA. BIO-FUEL, INC. 3630 I-10 SERVICE RD., SUITE 105 METAIRIE LA 70001	A S RICCARDI HENRY J. SEAGROATT CO., INC. BERLIN NY 12022
W RICE DEPARTMENT OF ENERGY DIV. OF GEO. ENERGY WASHINGTON DC 20461	L F RICE SYSTEMS, SCIENCE & SOFTWARE P.O. BOX 1620 LA JOLLA CA 92038
R G RICHARDS SIERRA PACIFIC POWER CO BOX 10100 RENO NV 89510	J RICHARDSON 2190 CALKINS AVE IDAHO FALLS ID 83401
J RICHARDSON 2190 CALKINS AVE IDAHO FALLS ID 83401	R RIDDLE GADSEN SCHOOL DISTRICT DIRECTOR OF SPECIAL SERVICES ANTHONY NM 88021
B RIEDESEL 3811 JOLIET ST DENVER CO 80239	J F RIKER KLAMATH CONSULTING SERVICE, INC. 5127 HIGHWAY 39 KLAMATH FALLS OR 97601
S M ROBERTS MIRADOR CORP. P.O. BOX 1475 SILVER CITY NM 88061	D P ROBERTS ROBERTS GEOLOGICAL SERVICES 1901 KIPLING STREET LAKEWOOD CO 80215
D B ROBERTSON DENISON MINES (US) INC. N 9107 COUNTRY HOMES BLVD., #4 SPOKANE WA 99218	J O ROBERTSON JR REPUBLIC GEOTHERMAL P O BOX 3388 SANTA FE SPRINGS CA 90670

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0041

K S ETEC ELDG T211	ROBINSON	CA 91304	P GEO THERMAL ENERGY CORPORATION PRESIDENT	RODZIANKO	NY 10006
CANOGA PARK			NEW YORK		
P O ROEHL & ASSOCIATES 2601 E CHAPMAN AVE., SUITE 112	ROEHL	CA 92631	E N 3720 STEPHEN M. WHITE	ROSALES	CA 90731
FULLERTON			SAN PEDRO		
R F DEPT OF GEOLOGICAL SCIENCE UNIVERSITY OF TEXAS	ROY	TX 79968	J M THERMAL POWER COMPANY STAFF ENGINEER	RUDISILL	CA 94108
EL PASO			SAN FRANCISCO		
A 20 E 66TH ST	RUHTERFORD		D ST. ANN'S HOSPITAL 800 E. NINTH	RUSH	
NEW YORK		NY 10021	TRUTH OR CONSEQUENCES		NM 87901
G P GEO-HEAT UTILIZATION CENTER OIT	RYAN		J L VIN 2301 CAMPUS DRIVE	SAKAGUCHI	
KLAMATH FALLS		OR 97601	IRVINE		CA 92713
B J TERRA TEK, INC UNIVERSITY RESEARCH PARK	SAKASHITA		B J TERRA TEK, INC 420 WAKARA WAY	SAKASHITA	
SALT LAKE CITY		UT 84108	SALT LAKE CITY		UT 84108
J W FEDERAL BUILDING MS:3344 12TH AND PENN N W	SALISBURY		J O CHEVRON RESOURCES CO. P O BOX 3722	SALVESON	
WASHINGTON		DC 20461	SAN FRANCISCO		CA 94119
S 270 ASH	SARBFR		W U WOODWARD-CLYDE CONSULTANTS THREE EMBARCADERO CENTER	SAVAGE	
ELKO		NV 89801	SAN FRANCISCO		CA 94111

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0042

R G	SCHAFF	E G	SCHEMPF
ALASKA DIV OF GEOLOGICAL & GEOPHYSICAL SURVEYS		EXPLORATION ASSOCIATES 7635 E. 42ND PL.	
ANCHORAGE	AK 99501	TULSA	OK 74145
B	SCHMENK	M F	SCHMIDT
COLUMBIA WILLAMETTE YMCA 2831 SW BARBER BLVD.		9773 STATE ROUTE 59, APT 7	
KLAMATH FALLS	OR 97601	KENT	OH 44242
C	SCHUBERT	C E	SCHUBERT
D*APPALONIA 10 DUFF ROAD		D*APPOLONIA 10 DUFF RD	
PITTSBURG	PA 15235	PITTSBURGH	PA 15235
A C	SCHULTES, III	P	SCHURKE
A.C. SCHULTES & SONS, INC. P O BOX 411		UNIVERSITY OF MINNESOTA DEPT. OF CIVIL & MINERAL ENGR.	
WOODBURY	NJ 08096	MINNEAPOLIS	MN 55455
J F	SCHUSTER	J	SCHUT
WASHINGTON DEPT OF NATRL RESOURCES		EASTERN OREGON STATE COLLEGE PROGRAM DEVELOPMENT OFFICE	
OLYMPIA	WA 98504	LAGRANDE	OR 97850
M	SCOTT	G	SCUDELLA
SENATOR FRANK FERGUSON OFFICE BOX 131		ENERGY RESOURCE & DEVELOPMENT DIV ENERGY & MINERALS DEPARTMENT	
KOTZEBUE	AL 99752	SANTA FE	NM 83401
W S	SEFLIG	J E	SEIPPEL
IHES - GEO. SC. 19032 SHERMAN WAY, B 116		ENERGY SYSTEMS INC P O BOX 182	
RESEDA	CA 91335	CYPRESS	CA 90630
J E	SEIPPEL	E M	SEUELL
ENERGY SYSTEMS INC P O BOX 182		P.O. BOX 130	
CYPRESS	CA 90630	VALE	CO 97918

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0043

W A GETTY OIL CO P O BOX 5237	SHAW		DR J R SHAW LAND & ROYALTY CO 3719 ARLINGTON AVENUE #1	SHAW	
BAKERSFIELD	CA	93308	RIVERSIDE	CA	92506
I I. SHEINBAUM CO., INC. 75 WEST GREEN ST., SUITE 2	SHEINBAUM		F DEPT WATER RESOURCES STATEHOUSE	SHERMAN	
PASADENA	CA	91105	BOISE	ID	83720
P WESTEC SERVICES 405 MARQUETTE AVE, NW	SHERWOOD		A KLAMATH COUNTY ECONOMIC DEV. ASSOC. 127 S. 6TH STREET	SHEW	
ALBUQUERQUE	NM	87102	KLAMATH FALLS	OR	97601
A KLAMATH COUNTY ECONOMIC DEVELOPMENT ASSN.	SHEW		J ELIOT ALLEN & ASSOCIATES P O BOX 2055 ORETECH	SHREVE	
KLAMATH FALLS	OR	97601	KLAMATH FALLS	OR	97601
G GEOTHERMAL POWER COMPANY, INC. PRESIDENT	SHULMAN		J W COLLEGE OF ENGINEERING 2540 OGLE STREET	SHUPE	
ELMIRA	NY	14905	HONOLULU	HI	96822
A IDAHO OFFICE OF ENERGY STATEHOUSE	SIFFORD		D LLTA P O BOX 410	SIMUNDSON	
ROISE	ID	83720	LOS ALAMOS	NM	87544
I L CALIF. THERMOHOL REFINERY 18218 PARADISE MTN RD #81	SMEDLEY		W RT. 1, BOX 57	SMITH	
VALLEY CENTER	CA	92082	BONANZA	OR	97623
M J BOX 1238	SMITH		D W 407 5TH ST	SMITH	
TWIN FALLS	ID	83301	MARYSVILLE	CA	95901

LISTING OF MTRLGL DRILLING MAILING LIST PAGE 0044

C W SMITH 4476 KOLOHALA STREET HONOLULU HI 96816	C. W. SMITH INTERNATIONAL AIR SERVICE CO 1710 GILBRETH RD. BURLINGAME CA 94010
C W SMITH INTERNATIONAL AIR SERVICE 1710 GILBRETH ROAD BURLINGAME CA 94010	C P SMITH INTERNATIONAL ENGINEERING CO P O BOX 4057 BOISE ID 83704
S SMITH L EGG'S PRODUCTS, INC. P.O. BOX 788 MESILLA PARK NM 88047	G SNELL INTERCOMP ENGINEERING 1201 DAIRY ASHFORD HOUSTON TX 77079
J S SNIDER 940 CITY NAT'L TOWER OKLAHOMA CITY OK 73102	D A SOMMERS HYDROSCIENCES, INC. 12687 WEST CEDAR DRIVE LAKESWOOD CO 80228
J SONDEREGGER MONTANA BUREAU OF MINES BUTTE MT 59701	W D SORRELLS 6801 CALMONT AVENUE FORT WORTH TX 76116
G SFENCFR PRC TOUPS P O BOX 5367 ORANGE CA 92667	M I SPERO BROWN AND CALDWELL 71 E. 28TH AVE EUGENE OR 97405
J F SPLETTSTOESSER MINNESOTA GEOLOGICAL SUREY UNIVERSITY OF MINNESOTA ST. PAUL MN 55108	J SPRINKLE MALONE & WILLIAMS ARCHITECTS LLOYD & HANSON STREETS SALISBURY MD 21801
J SPRINKLE MALONE & WILLIAMS, ARCHITECTS LLOYD AND HANSON STREETS SALISBURY MD 21801	R SQUIRES WESTERN DEV. - C.H. INC. 1224 PENNSYLVANIA NE ALBUQUERQUE NM 87110
SALISBURY MD 21801	ALBUQUERQUE NM 87110

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0045

W B GIBBS & HILL, INC 393 7TH AVE NEW YORK NY 10001	STAAB	C WEST COAST DRILLING CO INC 220 ACADEMY ST MT ANSEL OR 97362	STADEL
C WEST COAST DRILLING CO., INC 220 ACADEMY ST MT ANSEL OR 97362	STADEL	A NEW MEXICO ENERGY INSTITUTE NEW MEXICO STATE UNIV LAS CRUCES NM 88003	STARKFY
D W KANSAS GEOLOGICAL SURVEY UNIVERSITY OF KANSAS LAWRENCE KS 66044	STEEPLES	M F PB-KBB INC. 11999 KATY FREEWAY, SUITE 600 HOUSTON TX 77079	STFINER
D ESCATECH CORP 3001 RED HILL AVE COSTA MESA CA 92626	STELLER	A AL STERN ASSOCIATES P O BOX 3458 INDIALANTIC FL 32903	STERN
A AL STERN ASSOCIATES 1170 N. HWY. A1A, SUITE 5 SATELLITE BEACH FL 32937	STERN	R G COOPERS & LYBRAND 110 WEST A STREET SAN DIEGO CA 92101	STEVENS
L D D*APPOLONIA 10 DUFF ROAD PITTSBURGH PA 15235	STEVENS	L D D*APPOLONIA CONSULTING ENG. INC. 10 DEFF RD PITTSBURGH PA 15235	STEVENS
A RIGGER ENGINEERING CORP 550B RIVERDALE DRIVE GLENDALE CA 91204	STEVENSON	T COULTER STEWART & ASSOCIATES, INC 4409 VISTA WAY DAVIS CA 95616	STFWART
T COULTER, STEWART & ASSOC., INC 4409 VISTA WAY DAVID CA 95616	STEWART	D. 1416 NINTH ST., ROOM 1310 SACRAMENTO CA 95814	STOCKTON



## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0046

G W STOKER  
DIVISION OF WATER RIGHTS  
P O BOX 506

N. STOLESEN  
MCCULLOCH GEOTHERMAL CORPORATION  
390 NORTH FORBES STREET

-----  
CEDAR CITY UT 84720 LAKEPORT CA 95453  
-----

DR A M STONE  
APL/JHU  
JOHNS HOPKINS RD.

G STOOKESBURY  
STOOKESBURY DRILLING CO.  
545 N. G STREET

-----  
LAUREL MD 20810 LAKEVIEW OR 97630  
-----

D STOREY  
911 PINE GROVE RD

D STOREY  
PRESIDENT  
911 PINE GROVE ROAD

-----  
KLAMATH FALLS OR 97601 KLAMATH FALLS OR 97601  
-----

R G STRAND  
CALIFORNIA DIV OF MINES & GEOLOGY  
1416 NINTH ST., ROOM 1341

R H STRATEMEYER  
E-B-L ENGINEERS, INC  
P O BOX 407

-----  
SACRAMENTO CA 95814 SALISBURY MD 21801  
-----

H E STRICKMEYER  
DEPT. OF WATER RESOURCES  
P O BOX 388

S S SUGINE  
P O BOX 111, ROOM 1132

-----  
SACRAMENTO CA 95821 LOS ANGELES CA 90051  
-----

H SULLIVAN  
US DEPT. OF ENERGY  
1333 BROADWAY

R F SULLIVAN PF  
KIRKHAM MICHAEL & ASSOC  
9110 WEST DODGE RD

-----  
OAKLAND CA 94612 OMAHA NE 68114  
-----

W K SUMMERS  
BOX 684, 904 CUBA RD.

H SUN  
EXLOG/SMITH  
P O BOX 666

-----  
SOCORRO NM 87801 COEB CA 95426  
-----

H SUNDERLAND  
RIGGER ENGINEERING CORP  
550B RIVERDALE DRIVE

C A SWANBERG  
NEW MEXICO STATE UNIVERSITY  
PHYSICS DEPARTMENT

-----  
GLENDALE CA 91204 LAS CURCES NM 88001  
-----

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0047

W J	TASTLE		W W	TAYLOR	
SOUTHERN TIER E. REGIONAL PLANNING			AQUITAINE COMPANY OF CANADA LTD		
DEVELOPMENT BOARD			1700 SELKIRK HOUSE		
BINGHAMTON		NY 13901			
-----					
N R	TAYLOR		E	TERRY	
INTERNAT'L DISTRICT HEATING ASSOC.			EL CAPITAN		
1735 EYE ST. NW, SUITE 611			P.O. BOX 1187		
-----					
WASHINGTON		DC 20006	HAWTHORNE		NV 89415
-----					
B	THOMA		T R	THOMAS	
WILLMAR COMMUNITY COLLEGE			11823 E SLAUSON AVENUE		
-----					
WILLMAR		MN 56201	SANTA FE SPRINGS		CA 90670
-----					
B L	THOMAS		D M	THOMAS	
ENERGY ANALYSIS, INC			HAWAII INST GEOPHYSICS		
P O BOX 1508			2525 CORREA RD.		
-----					
NORMAN		OK 73070	HONOLULU		HI 96822
-----					
A P	THOMPSON		A P	THOMPSON	
THIOKOL CORPORATION			THIOKOL CORPORATION		
P O BOX 524			2503 N MAIN		
-----					
SALT LAKE CITY		UT 84111	LOGAN		UT
-----					
W	THOMSON		P	THORSON	
P O BOX 748			P O BOX 248		
-----					
SANTA YNEZ		CA 93460	WOODINVILLE		WA 98072
-----					
J	THURSTON		R G	TIGHE	
HUNT OIL COMPANY			ECONOMIC DEVELOPMENT CO		
MINERALS DIVISION SUITE 2820			329 MAIN STREET		
DENVER		CO 80201	WEST SENECA		NY 14224
-----					
DR A B	TIPTON		R	TOPPING	
OCCIDENTAL RESEARCH CORP			P O BOX 4104		
P O BOX 19601					
-----					
IRVINE		CA 92713	SANTA ANA		CA 92702
-----					

DR W J	TOTH	D	TOWSE
APPLIED PHYSICS LAB		DELTA RESEARCH INSTITUTE	
JOHNS HOPKINS ROAD		BOX 3011	
LAUREL	MD 20810	SAN JOSE	CA 95116
C L	TRAYLOR	R P	TREMBLAY
1555 CANDELIGHT DRIVE		STATE OF IDAHO	
LAS CRUCES	NM 88001	MANAGEMENT ANALYST	
		BOISE	ID 83720
C	TRENARY	D	TREXLER
P.O. BOX 16		NEVADA BUREAU OF MINES & GEOLOGY	
		UNIVERSITY OF NEVADA	
CASTELLA	CA 96017	RENO	NV 89557
J J	TRINDLE	J	TROISI
VTN INC		WATER, MINERAL HYDROCARBON OFFICE	
P O BOX C19529		P O BOX 100	
IRVINE	CA 92713	EAGLE BUTTE	SD 57625
E S	TULLIS	D L	TURNER
P O BOX 614		GEOPHYSICAL INSTITUTE	
		UNIVERSITY OF ALASKA	
NEW CASTLE	UT 84756	FAIRBANKS	AK 99701
J R	TURNER	F	TURPIN
IDAHO POWER CO		MORRISON KNUDSEN CO., INC.	
P O BOX 70		P O BOX 7808	
BOISE	ID 83707	BOISE	ID 83729
R	ULRICH	S	VADER
PARSONS-BRINKERHOFF		MORRISON-KNUDSEN COMPANY, INC	
8301 GREENBORO DR		P O BOX 7808	
MC CLAIN	VA 22102	BOISE	ID 83729
L	VAN DER HARST	O J	VAN ECK
CER CORPORATION		IOWA GEOLOGICAL SURVEY	
P O BOX 15090		123 N. CAPITOL STREET	
LAS VEGAS	NV 89114	IOWA CITY	IA 52242

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0049

R F GRIPS COMMISSION 2628 MENDOCINO AVENUE	VAN HORN CA 95401	A T 29456 INDIAN VALLEY RD.	VAN HUISEN CA 90274
SANTA ROSA J AQUACULTURE SYSTEMS INTERNATIONAL 11211 SORRENTO VALLEY ROAD	VANOLST CA 95401	J W 1200 18TH STREET N W	ROLLING HILLS ESTATES CA 90274
SAN DIEGO J W 1200 18TH STREET N W	VARLFY CA 92121	T GRUY FEDERAL, INC. 2001 JEFFERSON DAVIS HIGHWAY	WASHINGTON DC 20036
WASHINGTON F P P O BOX 789	VERLING DC 20036	S D BONNEVILLE POWER ADMINISTRATION P O BOX 3621	ARLINGTON VA 22202
KLAMATH FALLS M COURY & ASSOCIATES, INC 7625 W 5TH AVE	VORUM OR 97633	D CITY ADMINISTRATOR P O BOX 385	PORTLAND OR 97208
LAKWOOD K K.W.'S GEOTHERMAL, INC 2730 CHERRY AVE	CO 80226	E L CENTRAL TEXAS SAVINGS & LOAN ASSOC. 418 COLEMAN STREET	OAKRIDGE OR 97463
LONG BEACH F B PATTERSON TOWER PARTNERSHIP 300 PATTERSON PLACE	CA 90806	M W PADEL, INC 1299 N FIRST ST	MARLIN TX 76661
RISMARCK R SOLAR ENERGETICS, INC 301 S WEST ST	ND 58501	B. SOLAR ENERGETICS, INC. 301 S. WEST ST.	SAN JOSE CA 95112
WILMINGHAM	DE 19801	WILMINGTON	DE 19801

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0050

J B WEINRESS  
BANK OF AMERICA NT & SA  
555 SOUTH FOWER STREET #5154

E B WELCH  
PACIFIC INTERMTN MINERALS, INC.  
4393 W 5615 S

LOS ANGELES CA 90071 KEARNS UT 84118

M WERT B WESTON  
CH2M HILL SCIENCE APPLICATIONS, INC.  
200 SW MARKET ST P O BOX 2351

PORTLAND OR 97201 LA JOLLA CA 92038

W H WESTPHAL C L WHEELER  
4398 S. AKRON WATER RESOURCES DEPARTMENT  
555 13TH STREET NE

ENGLEWOOD CO 80111 SALEM OR 97310

DR. J WHELAN D WHITE  
CODE 26601 DEPT OF CHEMICAL ENGINEERING  
NAVAL WEAPONS CENTER UNIVERSITY OF ARIZONA

CHINA LAKE CA 93555 TUCSON AZ 85721

D M WHITE DR C WHITTLE  
TEXAS ENERGY & NATURAL RESOURCES INSTITUTE FOR ENERGY ANALYSIS  
ADVISORY COUNCIL OAK RIDGE ASSOCIATED UNIVERSITIES

AUSTIN TX 78701 OAK RIDGE TN 37830

J WIEGAND J WILGAND  
ALTERNATIVE ENERGY INC ALTERNATIVE ENERGY DIV  
BOX 961 BOX 961

RANCHO SANTA FE CA 92067 RANCHO SANTA FE CA 92067

R WILL S WILLARD  
5715 SW 176TH AVE CALIF. ENERGY COMMISSION  
GEOTHERMAL OFFICE MS-59

ALOHA OR 97007 SACRAMENTO CA 99825

R E WILLIAMS R WILMOT  
DENVER RESEARCH INSTITUTE BOX 3355  
UNIVERSITY OF DENVER

DENVER CO 80208 LARAMIE WY 82071

## LISTING OF MTRLGL DRILLING MAILING LIST

PAGE0051

K	WILSON	G V	WILSON
FUGRO, INC		GEOLOGICAL SURVEY OF ALABAMA	
3777 LONG BEACH BLVD		P O DRAWER 0	
LONG BEACH	CA 90807	UNIVERISTY	AL 35486
J L	WILSON	DR E J	WITTERHOLT
NEW ALBION RESOURCES CO.		CITIES SERVICE COMPANY	
P O BOX 168		ENERGY RESOURCES GROUP	
SAN DIEGO	CA 92112	TULSA	OK 74150
L	WOITKF	K A	WONSTOLEN
PACIFIC GAS & ELECTRIC COMPANY		NATL CONFERENCE STATE LEGISTATURES	
GERERATION PLANNING DEPT. ROOM 1382		GEOHERMAL POLICY PROJECT	
SAN FRANCISCO	CA 94106	DENVER	CO 80202
J	WOODRUFF	C M	WOODRUFF, JR
DEPT OF PLANNING & ECONOMIC		UNIVERSITY STATION	
DEVELOPMENT		AUSTIN	
HONOLULU	HA 90804		TX 78712
D J	WOOLLEY	F D	WORMAN
FACILITY ENGR SHELL OIL CO		SRG/COG	
P O BOX 527		575 S. ALAMEDA	
HOUSTON	TX 77001	LAS CRUCES	NM 88001
T C	WRIGHT	J	YFATES
148 WEST 73RD STREET		REGION IV DEVELOPMENT ASSOC	
		725 SHOSHONE ST SOUTH	
NEW YORK	NY 10023	TWIN FALLS	ID 83301
J N	YORDT	F J	ZAIS
NATIONAL GEOTHERMAL SERVICE		ELLIOT ZAIS & ASSOC., INC	
PETROLEUM INFORMATION		7915 NW SISKIN DRIVE	
DENVER	CO 80201	CORVALLIS	OR 97330
M G	ZEISLOFT	T	ZELLER
P O BOX 1107		RE/SPEC INC	
		P O BOX 725	
COLFAX	CA 95713	RAPID CITY	SD 57709