

P-60

CONFIDENTIAL

Release Date April 3, 1975



CAM-ROY R & D CORP. (Geoth. Kinetics)
#1 Power Ranches

COUNTY Maricopa AREA Higley LEASE NO. Power Ranches

WELL NAME CAM-ROY RESEARCH & DEV. CORP. (GEOTHERMAL KINETICS) #1 Power Ranches

LOCATION NE/SE SEC 1 TWP 2S RANGE 6E FOOTAGE 1980 FSL - 660 FEL
 STATUS T&A TOTAL
 ELEV 1338 GR 1358 KB SPUD DATE 1-31-73 COMP. DATE 4-8-73 DEPTH 9207

CONTRACTOR Geo. Drilling Corp.

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
20"	204'	400 Sx	-	<input checked="" type="checkbox"/>
13-3/8"	3117' 2903'/	2050 Sx	-	DRILLED BY CABLE TOOL
9-5/8"	5404'	650 Sx	-	PRODUCTIVE RESERVOIR
7" Ld. 5201'-9064'				INITIAL PRODUCTION

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
				Est top of basement rocks 9207

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG <u>Am Strat</u>
GRN-2, IE-3, Acoustic-2	6167'-6168', 6309'-6313'		SAMPLE DESCRP.
Form. Den-1-Caliper-2	7006'-7014', 7752'-7760'		SAMPLE NO. #1727
Temp. Logs-1 Temp Survey-1	8148'-8150', 7027'-9025'		CORE ANALYSIS
			DSTs <input checked="" type="checkbox"/>

REMARKS * Both liners required squeeze jobs.
Transfer of well effective 3-5-87.
 APP. TO PLUG
 PLUGGING REP.
 COMP. REPORT 2-27-74

WATER WELL ACCEPTED BY _____

BOND CO. Cash Bond, CD BOND NO. CD NO. 2506289
 DATE 3-4-87
 BOND AMT. \$ 5,000.00 CANCELLED _____ ORGANIZATION REPORT 3-9-87
 FILING RECEIPT _____ LOC. PLAT WELL BOOK PLAT BOOK
 API NO. 02-013-9009 DATE ISSUED 1-15-73 DEDICATION SE/4 160 A.

PERMIT NUMBER 605

DRILL STEM TEST

NO.	FROM	TO	RESULTS
1	4626	4636	Rec approx. 2078 slightly gas & mud cut salty water est. temp 230° F IFP 328.8 FFP 1272.8-SIP 1541, HP 2499- (above mentioned gas was inert.)

CORE RECORD

NO.	FROM	TO	RECOVERY	REMARKS
				This well was cored. No infor. available 9-18-73.

REMEDIAL HISTORY

DATE STARTED - COMPLETED	WORK PERFORMED	NEW PERFORATIONS

ADDITIONAL INFORMATION

See files for water analysis & temp. surveys. Max recorded temp. 262.2° F. observed flowline temp. 206° F. Reda Pump used to test well.

DRILL STEM TEST

NO.	FROM	TO	RESULTS
1	4626	4326	Rec approx. 2078 slightly gas & mud cut salty water est. temp 230°F IFP 328.8 FFP 1272.8- SIP 1541, HP 2499- (above mentioned gas was inert.)

CORE RECORD

NO.	FROM	TO	RECOVERY	REMARKS
				This well was cored. No infor. available 9-18-73

REMEDIAL HISTORY

DATE STARTED - COMPLETED	WORK PERFORMED	NEW PERFORATIONS

ADDITIONAL INFORMATION

See files for water analysis & temp. surveys. Max recorded temp. 262.2°F, observed flowline temp. 206°F. Reda Pump used to test well.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:
 NEW WELL WORK OVER DEEPEN PLUG BACK SAME RESERVOIR DIFFERENT RESERVOIR DRY STEAM HOT WATER DRY

DESCRIPTION OF WELL AND LEASE

OPERATOR: Geothermal Kinetics Inc. ADDRESS: suite 117 301 West Indian School Phoenix, Ariz. 85013

FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: _____ WELL NUMBER: 1 FIELD & RESERVOIR: Power Geothermal Prospect

LOCATION: 1980 ft N. & 660 ft W. of SE cor COUNTY: MARICOPA

SEC. TWP-RANGE OR BLOCK & SURVEY: 1 T2S R6E

DATE SPUDDED: Jan 31, 1973 DATE TOTAL DEPTH REACHED: April 8, 1973 DATE COMPLETED, READY TO PRODUCE: _____ ELEVATION (DF, RKB, RT, OR GR.): 1358 WD FEET ELEVATION OF CASING HD. FLANGE: _____ FEET

TOTAL DEPTH: 9207 ft. P.B.T.D.: _____ AIRDRIILLED (INTERVAL): 5404-6153 FLUIDDRIILLED (INTERVAL): 0-5404 mwd 6153 to 9207 AERATED WATER.

PRODUCING INTERVAL (S) FOR THIS COMPLETION: 6167-8998' ROTARY TOOLS USED (INTERVAL): Entire Hole CABLE TOOLS USED (INTERVAL): _____

WAS THIS WELL DIRECTIONALLY DRILLED? _____ WAS DIRECTIONAL SURVEY MADE? _____ WAS COPY OF DIRECTIONAL SURVEY FILED? _____ DATE FILED: _____

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): JES, Gamma Ray, Neutron, Cement Bond Temp., Acoustic DATE FILED: _____

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)						
PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED
SURFACE	26"		41#	0-204'	4005x	270 CaCl
INTERMED	17 1/2"	13 3/8"	60#	0-311'	20505x	3070 SiO2
Set on top pay	12 1/4"	9 5/8"	40#	2903-5404	650 5x	3070 SiO2 - 2 1/2% H2O
Blank Prod Line	8 1/2"	7"	29#	5201-9064	825 5x	2070 SiO2 - 1 1/2% H2O

TUBING RECORD

LINER RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.	SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL	AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL
20 bullets		6154-6174	4 bullets 6360-6363	8 jets 8148-8152
21 bullets		6212-6232	8 bullets 6314-6322	8 jets 7752-7760
			10 jets 6140-6150	2 jets 7006-7014
25 bullets		6323-6347	INITIAL PRODUCTION 10 jets 6174-6184	4 jets 6309-6313
				2 jets 6167-6168
				4 jets 8998-6168

DATE: _____ STATIC TEST SHUT IN WELL HEAD: _____ ANALYSES OF FLUIDS & GASES: Testing

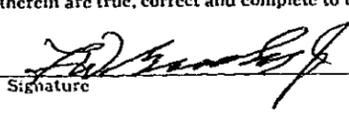
TOTAL MASS FLOW DATA						SEPARATOR DATA				
TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Exec. Vice Pres. OF THE Geothermal Kinetics Inc. (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

February 27, 1974 DATE: _____ SIGNATURE: Mike O'Donnell

RECEIVED MAR 10 1974 PERMIT NO. <u>605</u> O & G CONS. COMM.	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG FILE ONE COPY
	FORM No. G-4 (COMPLETE REVERSE SIDE)

PLUGGING RECORD

Operator Power Enterprises & Power Road Properties Joint Venture		Address John Schneider 1707 E. Highland Suite 190 Phoenix, AZ 85016			
Federal, State, or Indian Lease Number, or lessor's name if fee lease. Power		Well No. 1	Field & Reservoir Unnamed		
Location of Well 1980' FSL & 660' FEL (NE/4 of SE/4 Sec. 1 TWP 25, R 6E)		Sec-Twp-Rge or Block & Survey	County Maricopa		
Application to drill this well was filed in name of Geothermal Kinetics Inc.	Has this well ever produced GEOTHERMAL RESOURCES? NO	Date plugged: October 19, 1994	Total depth 9207'		
NAME OF EACH FORMATION CONTAINING GEOTHERMAL RESOURCES. INDICATE WHICH FORMATION OPEN TO WELL-BORE AT TIME OF PLUGGING	DEPTH INTERVAL OF EACH FORMATION	SIZE, KIND & DEPTH OF PLUGS USED INDICATE ZONES SQUEEZE CEMENTED, GIVING AMOUNT CEMENT			
Tertiary Volcanics	6140' to 8998 Perfs	Halliburton 13 3/8" Bridge Plug at 2892'			
	Top of 9 5/8" Casing at 2892' Could not get in 9 5/8".	Put 4 sacks cement on top of this plug. Set top plug from 150' to surace in 13 3/8" casing with 40 sacks cement			
CASING RECORD					
Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped, etc.)	Packers and shoes
20"	204'	-0-	204'		Cement circulate
13 3/8"	3117'	-0-	3117"		Cement circulated
9 5/8"	2903-5404		2903-5404		Cement circulated
7"	5170-9064	-0-	5170-9064		Cement Circulated
Was well filled with mud-laden fluid, according to regulations? Water left in hole-all pipe in hole cemented				Indicate deepest formation containing fresh water. @700'	
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
Name	Address		Direction from this well:		
Lennar Homes	1610 W. Camelback Phoenix		West		
U-Haul, Inc.	2727 N. Central Phoenix		North		
Tom Dugan	20200 S. Higley Rd, Higley, AZ		East		
In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.					
Use reverse side for additional detail.					
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the L.W. Brooks, Jr. Agent of the Power Enterprises & Power Road Properties Joint Venture (company) and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.					
Date October 20, 1994		Signature 			
AZ OIL & GAS CONSERVATION COMMISSION			STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Copy		
Permit No #605			OCT 25 1994		
			FORM NO. G-10		

APPLICATION TO ABANDON AND PLUG

FIELD Unnamed Address See below
 OPERATOR Power Enterprises & Power Road Properties-Joint Venture
 Federal, State, or Indian Lease Number _____
 or Lessor's Name if Fee Lease Arizona State Permit #605 WELL NO. Power#1
 SURVEY TWP 25 - Rge 6E SECTION 1 COUNTY Maricopa
 LOCATION 1980' FSL & 660' FEL (NE/4 of SE/4)

The present condition of the well is:

1. Total depth: 9207' PBT D 9065'
2. Complete casing record, including plugs:
 20" 91-lb set 204' Cement circulated
 13 3/8" 61-lb set 3117' Cement circ.
 9 5/8" 47-lb Liner set 2903'-5404'
 Cemented & bottom squeezed
 7" 29-lb Liner set 5170'-9064'
 Cemented & top squeezed.
 Perforations 610 shots 6140'-8998'
3. Last produced: Tested only, never produced
 Date _____

Additional data for dry hole -

4. Results of tests: (include analysis of effluent)
Salt water
 - a. Bottom hole temperature: 261°
 - b. Maximum temperature: 261° Depth: 8998'
5. Stratigraphic markers and depths:
On file with commission
6. Formation at bottom Volcanics
7. Base of fresh water sands: @ 800'

8. FULL DETAILS OF PROPOSED PLAN OF WORK Set Halliburton Permanent Bridge Plug
at 6000' Halliburton will set cement seal plug on top of permanent plug.
A 20' cement plug will be place in 13 3/8' casing at surface to 20'.
Well is being plugged where it can be reentered at later date for completion
as a fresh water well.

Abandonment marker shall be installed in accordance with R12-7-232(A)(6)

If well is to be abandoned, does proposed work conform with requirements of Rule G202? yes If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS @ October 17, 1994

NAME OF PERSON DOING WORK L.W. Brooks, Jr. ADDRESS see below

CORRESPONDENCE SHOULD BE SENT TO DMS Holding Company

**AZ OIL & GAS
 CONSERVATION COMMISSION**

SEP 8 1994

Name L.W. Brooks, Jr.

Title _____

Address 7585 East Redfield Suite 212 Scottsdale, AZ

Address _____

85260

Date Sept. 2, 1994

Date _____

Date Approved SEP 16 1994
 STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 By: S. L. Rawitz

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Application to Abandon and Plug
 File Two Copies
 FORM NO. G-9

Permit No. 605

GEOTHERMAL KINETICS SYSTEMS POWER RANCHES NO. 1
Casing Perforations - 7" Casing

<u>DEPTH</u>	<u>NO. OF HOLES & TYPE</u>	<u>REMARKS</u>
6140 - 6150	10 Jets	Little or no Results
6154 - 6174	21 Bullets	Small Results
6167 - 6168	2 Jets	No Results
6174 - 6184	10 Jets	Slight Results
6212 - 6232	20 Bullets	Good Results
6310 - 6314	4 Jets	Slight Results
6314 - 6322	8 Bullets	Slight Results
6323 - 6347	25 Bullets	Small Results
6360 - 6363	4 Bullets	Good Results
7006 - 7014	8 Jets	Small to no Results
7752 - 7760	8 Jets	Large Results
8148 - 8150	4 Jets	No Results
8995.5 - 8998.5	4 Jets	Fluid level increased from approximately 500' to 2000', then no further evidence of fluid entering hole from these perforations.

(Perforating results estimated from temperature survey)

5-7-73

SUMMARY REPORT
POWER RANCHES WELL NO. 1

Spud Date 1-31-73 - 7 P.M.
2-02-73 20" csg. @ 204 K.B. w/400 sks 2% C.C.
2-14-73 13 3/8" @ 3117 w/ 2050 sks reg. w/30%
Silica Flour Cement Circ.

2-26-73 D.S.T. #1 4626 to 4326
Rec approx. 2078 slightly
Gas & Mud Cut Salt Water - Est. Temp. 230°
IFP 328.8 - FFP 1272.8 - SIP.1541 HP 2499

3-01-73 Ran 61 JTS of 9 5/8" Liner
3-06-73 Bottom of Liner 5404-Top of Liner 2903'
Cemented w/650 sks. Reg cement w/30%
Silica Flour, 4/10 of 1% HR-4 Retardar

3-13-73 Squeezed Bottom of liner w/550 sks reg.
w/ 8/10 of 1% Hollad No. 9 & 4/14% of HR4

3-14-73 Tested liner w/1000 PSI, OK

3-30-73 T.D. 9065' - Ran 3863 of 7"
29# N-80 csg. Bottom of liner 9064
top of liner 5201 - Cemented w/825 sks
Class A Cement w/3% gel, 600 sks posmix,
1 1/8% CFR-2 8% Salt, 1% HR-12, 6% Pevlite
20% Silica Flour

4-02-73 Squeezed top of liner w/200 sks class A
Cement (30% Silica Flour) 8/10% Hollad No.9,
4/10% HR4 Tested OK

4-09-73 T.D. 9207 Top of Basement by log 9165'

4-10-73 Ran logs, perforated w/ 4 shots @ 8998 - Not enough fluid

4-11-73 Perforated
8148-8152 (8 shots) 7752-7760
(8 shots); 7006-7014 (8 shots);
6309-6313 (4 shots); 6167-6168 (2 shots)

6-18,19-73 Perforated 9025-7027
Total 610 shots (See attached sheet for details.)

DEPARTMENTAL CORRESPONDENCE

DATE April 2, 1973

SUBJECT DRILLING REPORT

TO Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

MONDAY, APRIL 2, 1973

9065' T.D. Hit cement level, 7" casing at 7261'. Pulled out and run easy drill plug. Set at 5170'. Squeezed with 200 sacks of Class "A" cement (30% Silica flour; 8/10% Hallad #9; 4/10% HR4).

Job completed at 11:30 p.m.; looks good.

RECEIVED
APR 21 1973
O & G COMM. COMM

DEPARTMENTAL CORRESPONDENCE

DATE March 30, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FRIDAY, MARCH 30, 1973

9065' T.D. Ran 3863' of 7", 29 lb. N-80 Armco casing. Casing set at 9064' and hung at 5201'. Cemented with 825 sacks of Class "A" cement, 3% jell; 600 sacks of Posmix, 1.1/8% CFR-2, 8% salt, 1% HR-12, 6% Pearlite, 20% Silica flour.

Plug down at 0230 hours, March 30th; WOC.

Acted like squeeze job during cementing. Pearlite may have bridged, but believe cement probably circulated up and out at 5201'.

RECEIVED

APR 20 1973

O & G CONS. COMM.

DEPARTMENTAL CORRESPONDENCE

DATE March 8, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

THURSDAY, MARCH 8, 1973

Drilling at 5405'. Hit cement at 2543' on top of liner. Had 360' on top of liner; cemented bottom at 5349'. Had 55' of cement on top of shoe; unloading hole with air.

FRIDAY, MARCH 9, 1973

Drilling at 5938' through volcanics. #10 bit drilling 533' in 20 hours (started at 11:00 a.m. on the 8th).

SATURDAY, MARCH 10, 1973

Drilling at 6153' through volcanics; trying to blow hole (unload water with air), unsuccessful. Bit #10 made 748' in 28½ hours. Temperature up 40° in last 30'; too much water to drill with air.

DEPARTMENTAL CORRESPONDENCE

DATE March 5, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell Dep't Management

FROM Bert McComack Dep't Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

MONDAY, MARCH 5, 1973

Circulating in preparation to run
9 5/8 intermediate pipe.

Note: Air compressors to be on
location by Wednesday, March
7th.

TUESDAY, MARCH 6, 1973

Drilling at 5405', WOC (waiting on cement).
Ran 61 joints (9 5/8, 40 lb.). Bottom of
liner, 5404'; top of liner, 2903'. Cemented
with 650 sacks of regular cement; 300 silica
flour, 4/10 of 1# of HR-4 retarder.

Plugging down at 12:30 a.m.

WEDNESDAY, MARCH 7, 1973

Drilling at 5405'; WOC.

DEPARTMENTAL CORRESPONDENCE

DATE February 14, 1973

SUBJECT DRILLING REPORT

TO Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 13

Total depth, 3118', and logging.

FEBRUARY, 1973

Feb. 14

Down 79 joints, 13 3/8" intermediate casing, 68 lb. weight set at 3117'; concreted with 2,050 sacks of clear cement, regular, 30% silica flour.

Plugging down at 1:00 p.m.; good circulation in cement.

FEBRUARY, 1973

Feb. 15

Waiting on cement; nipping up.

FEBRUARY, 1973

Feb. 16

Nipping up.

DEPARTMENTAL CORRESPONDENCE

DATE February 5, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McCormack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 1

Drilling at 200', 17½" hole; drilling conglomerate. 17½" completed at 10:00 a.m.; pull and reamed at 26" hole.

FEBRUARY, 1973

Feb. 2

220' T.D., 26" hole; ran 8 joints of 20" casing set at 204' K.B., cemented with 400 sacks of regular 2½ calcium chloride. Plugging down at 8:30 a.m., February 2, 1973.

FEBRUARY, 1973

Feb. 3

Waiting on cement; nipple up.

FEBRUARY, 1973

Feb. 4

Drilling at 575', #2 bit; started under surface at 7:00 p.m., February 3, 1973.

DEPARTMENTAL CORRESPONDENCE

DATE February 5, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell

DEPT Management

FROM Bert McComack

DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

JANUARY, 1973

Jan. 28

Set 22' of 30" conductor pipe, cemented
4 yds. of redi mix.

JANUARY, 1973

Jan. 29

Rigging up.

JANUARY, 1973

Jan. 30

Rigging up.

JANUARY, 1973

Jan. 31

Preparing to drill; spudded hole at 7:00 p.m.

**SUNDRY NOTICES AND REPORTS ON WELLS
GEOHERMAL RESOURCES**

1. NAME OF OPERATOR Cam-Roy Research Corp.
 2. GEOTHERMAL RESOURCES WELL OTHER (Specify) _____
 3. WELL NAME Power No. 1
 LOCATION _____
 SEC. 1 TWP. 25 RGE. 6E COUNTY Maricopa ARIZONA.
 4. FEDERAL, STATE OR INDIAN LEASE NUMBER, OR LESSOR'S NAME IF FEE LEASE. Power Ranches Inc. / or - Gilbert, ARIZONA - Power Road Properties Joint Venture
 5. FIELD OR POOL NAME. Higley Basin
 6. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) _____	ABANDONMENT <input type="checkbox"/>
(OTHER) _____			

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

In January, 1988, measured static water level at 570 feet below ground surface.

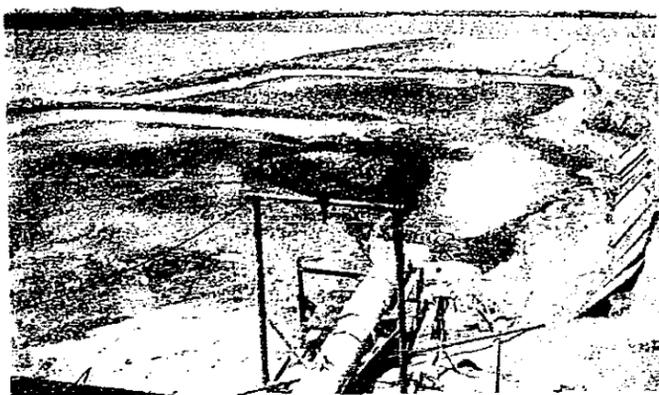
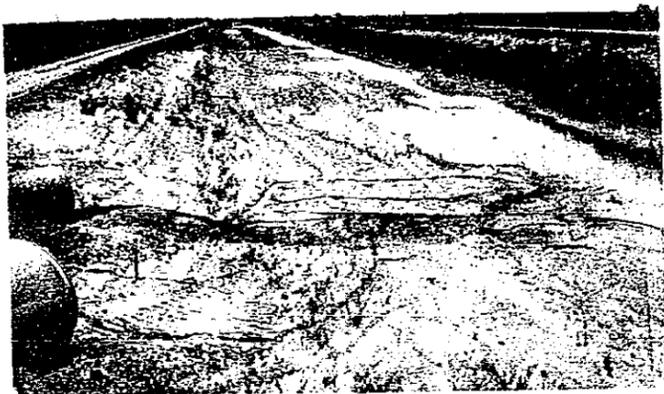
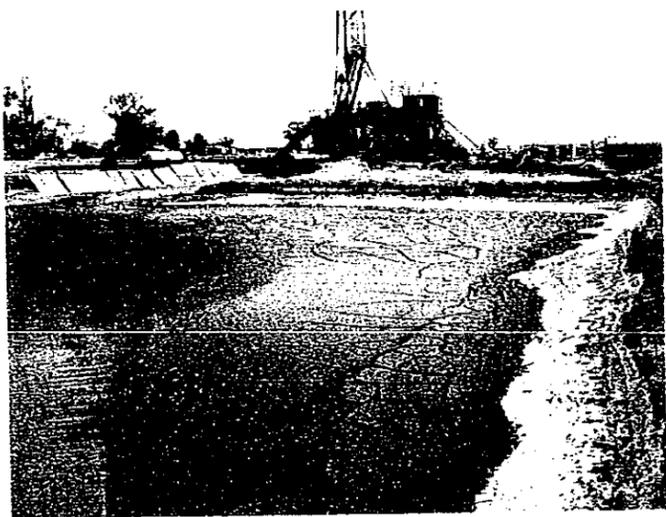
The well is equipped with a single 12-inch diameter gate valve at surface which turns freely.

8. I hereby certify that the foregoing is true and correct.

Signed Ronald G. Huemer Title Hydrogeologist Date 3-15-88

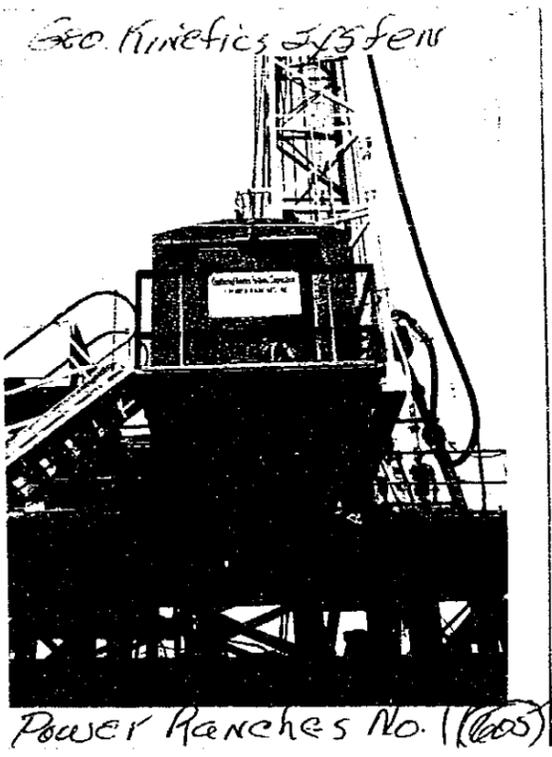
Permit No. _____

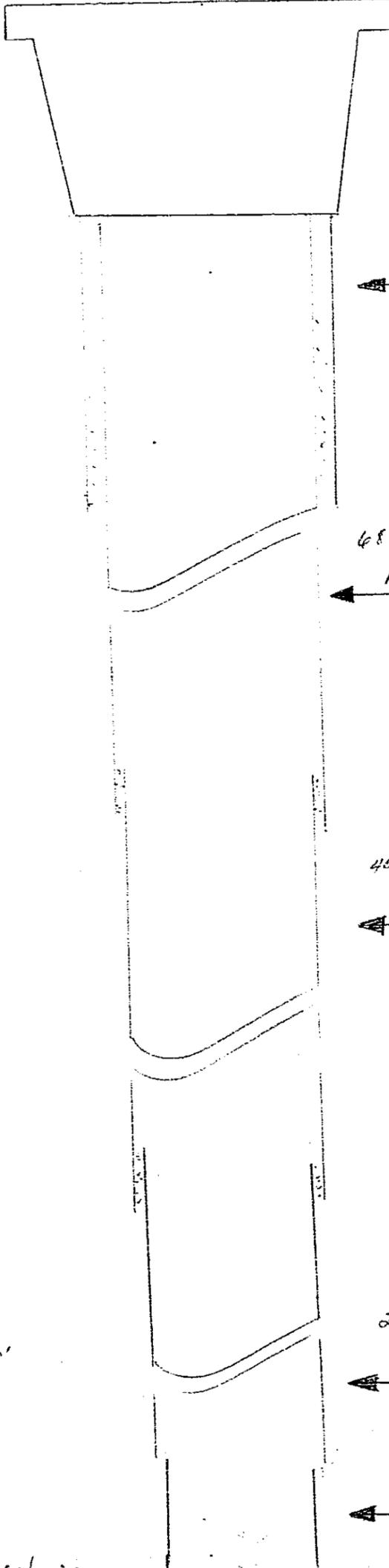
STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Sundry Notices and Reports On Wells File This Copy Form No. G-12



Views of RESERVE Pit. Power Ranches No. 1,

605





149.7 bbls per 1000'

20" O.D @ 204'

75.8 bbls per 1000'

13 3/4" O.D. @ 3117'

9 5/8" O.D. Liner
Top 2903' Bottom 5404'

39.1 bbls per 1000'

7" O.D. Liner
Top 5201' Bottom 9064'

Geo. Thermal Kinetics
POWER RANCHES No 1
605

SUMMARY REPORT
POWER RANCHES WELL NO. 1

Spud Date	1-31-73 - 7 P.M.
2-02-73	20" csg. @ 204 K.B. w/400 sks 2% C.C.
2-14-73	13 3/8" @ 3117 w/ 2050 sks reg. w/30% Silica Flour Cement Circ.
2-26-73	D.S.T. #1 4626 to 4326 Rec approx. 2078 slightly Gas & Mud Cut Salt Water - Est. Temp. 230° IFP 328.8 - FFP 1272.8 - SIP.1541 HP 2499
3-01-73	Ran 61 JTS of 9 5/8" Liner
3-06-73	Bottom of Liner 5404-Top of Liner 2903' Cemented w/650 sks. Reg cement w/30% Silica Flour, 4/10 of 1% HR-4 Retardar
3-13-73	Squeezed Bottom of liner w/550 sks reg. w/ 8/10 of 1% Hollad No. 9 & 4/14% of HR4
3-14-73	Tested liner w/1000 PSI, OK
3-30-73	T.D. 9065' - Ran 3863 of 7" 29# N-80 csg. Bottom of liner 9064 top of liner 5201 - Cemented w/825 sks Class A Cement w/3% gel, 600 sks posmix, 1 1/8% CFR-2 8% Salt, 1% HR-12, 6% Pevlite 20% Silica Flour
4-02-73	Squeezed top of liner w/200 sks class A Cement (30% Silica Flour) 8/10% Hollad No.9, 4/10% HR4 Tested OK
4-09-73	T.D. 9207 Top of Basement by log 9165'
4-10-73	Ran logs, perforated w/ 4 shots @ 8998 - Not enough fluid
4-11-73	Perforated 8148-8152 (8 shots) 7752-7760 (8 shots); 7006-7014 (8 shots); 6309-6313 (4 shots); 6167-6168 (2 shots)
6-18,19-73	Perforated 9025-7027 Total 610 shots (See attached sheet for details.)

gpe

State of Arizona
Bureau of Geology and Mineral Technology

Geological Survey Branch
Geothermal Group
2045 N. Forbes Blvd., Suite 106
Tucson, Arizona 85705
(602) 626-4391



Permit #605
RECEIVED
MAR 29 1979
D & G CONS. COMM.

DRILL HOLE CUTTINGS SKIM LOG
W.R. HAHMAN, SR.
MARCH 15, 1979

POWERS RANCH #1

Interval	Description
6370-80	Red sltstn, gyp. mag., biotite, halloysite?, quartz
6380-90	Same as above
6400-10	Red sltstn, cht, bio. halloy?, gyp., quartz
6430-40	Red sltstn, w/white biotite tuff? halloy, qtz & gyp.
6460-70	Red sltstn., red ark., bio., pink wht xl tuff, gyp. & halloy
6580-90	Red brn sltstn, halloy mag. bio., clear dolo? or calc in gyp. frags.
6590-00	Red brn sltstn, red brn xl tuff, bio., gyp?, mag.
6600-10	Red brn sltstn., red brn tuff & xl tuff, mag., bio., halloy, wht tuff.
6610-20	Red brn sltstn., pink & wht. xl tuff, mag., musc.
6620-30	Contact Dacite, probable top Superstition volcanics
6630-40	Red brn. sltstn. minr. tuff, bio., halloy, musc., gyp.
6640-50	Drilling mud & vfg. vol. gray in color, dacite?
6650-60	Gray brn. dacite? copious drilling mud
6670-80	Gray dacite xl tuff, minr. red. brn. sltstn.
6680-90	Pulverized discrete angular min. grains, minor dacite tuff frags.
6690-00	Same as above, cave from up hole, probably dacite.
6710-20	95% cave, 5% dacite
6720-30	Same as above to 6750.
6750-60	60% gray white dacite, 40% cave.

DRILL HOLE CUTTINGS SKIM LOG
POWERS RANCH #1

Page 2



<u>Interval</u>	<u>Description</u>
6760-70	Same as above.
6770-80	Same as above, 50-50.
6780-90	Same as above, 20% dacite, 80% cave.
6790-6800	80% dacite, 20% cave.
6800-10	80-20 to 90-10 cave over dacite.
6810-7010	Cave & dacite.
7010-20	50% dacite, 20% vfg. ss., 30% cave; dacite & cave?
7020-70	Cave and dacite.
7070-80	50% vfg. pink ss., 20% dacite, 30% cave.
7080-90	Dacite vfg. pink ss. & cave.
7090-7100	Dacite vfg. ss cave? Mostly volcanics.
7100-10	Same as above, abdt. drilling mud.
7200-10	Volcanics and sedimentary rock, vf. particles, considerable cave.
7300-10	Dacite, volcanics, arkose, not much cave.
7400-10	No sample.
7410-20	Pink & red seds. and volcanics; caving.
7500-10	Shale, pink & red, red-pink ss. and red & gray volcanics, abundant cave; grays are dacite.
7600-10	Red & gray dacite tuffs, mn. red sh. & sltstn, abdt. cave.
7700-10	Red gray pink dacite tuff & wlded. tuff, abdt. cave.
7800-10	Same as 7700-7710.
7900-10	Same as 7700-7710, but with tuffaceous argillites.
8000-8010	Red & pink tuff & welded tuff, dacite, abundant cave.
8100-10	Red tuff with abundant cave.
8200-10	Pink xl tuff, abdt. cave, latite to dacite, in comp.

DRILL HOLE CUTTINGS SKIM LOG
POWERS RANCH #1

Page 3



<u>Interval</u>	<u>Description</u>
8300-10	Reddish brn., pink & white tuff & xl tuff, abdt. cave.
8400-10	Same as 8300-8310, very little cave.
8500-10	Same as 8400-8410.
8600-10	Same as 8500-8510.
8700-10	Same as 8600-8610.
8800-10	Same as 8700-8710, mostly dacite.
8900-10	Same as 8800-8810.
9000-9010	Same as above. Mostly gray dacite xl tuff, very little cave.
9100-10	Same as 9000-9010.
9200-9207 TD	Gray, gray brn. dacite xl. tuff., biotite to chlorite, (propylitic alteration.)

DEPARTMENTAL CORRESPONDENCE

DATE September 28, 1973

SUBJECT PROGRESS REPORT -- DRILLING (Sept. 21 - 28th, 1973)

TO Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling #605

NO. 1 WELL:

Sept. 21st

thru 28th

SHUT IN

NO. 2 WELL:

Sept. 21st

thru 28th

Running temperature surveys at given intervals from 10,454' up the hole.

DEPARTMENTAL CORRESPONDENCE

DATE September 26, 1973

SUBJECT PROGRESS REPORT -- DRILLING (Sept. 14 - 20, 1973)

TO Mike O'Donnell DEPT: Management

FROM Bert McComack DEPT: Drilling -1605

NO. 1 WELL:

Sept. 14th
thru 20th SHUT IN

NO. 2 WELL:

Sept. 14th Pumping with Reda Pump approximately 120 - 150 Gallons per minute. Chloride: 18,000 (at 9:00 A.M.); PH: 6.8; Calcium Magnesium: Saturated; Temperature: 189°.

Laid water line from #2 well to #1 reserve pit.

Sept. 15th Pumping well. Chloride: 16,000; PH: 6.8; Calcium Magnesium: Saturated; Temperature: 190° (at 7:00 A.M.).

Salt Content check for Chloride: 17,500; PH: 6.8; Calcium Magnesium: Saturated; Temperature: 190° (at 10:00 P.M.).

Sept. 16th Pumping well. Chloride: 18,000; PH: 6.1; Calcium Magnesium: Saturated; Temperature: 190° (at 7:00 A.M.).

Sept. 17th Pumping well. Chloride: 17,000 (at 8:30 A.M.); PH: 6.4; Calcium Magnesium: Saturated; Temperature: 191° (at 7:00 A.M.).

Sept. 18th Pumping well. Chloride: 18,000; PH: 6.4; Calcium Magnesium: Saturated; Temperature: 191.5° (at 7:00 A.M.) - 192° (at 9:00 P.M.).

Sept. 19th Pumping water to 6:00 A.M.; Shut down pump to pull same. Temperature: 192° (at 6:00 A.M.).

Sept. 20th Rigged up to pull Reda Pump. 9:00 A.M. - 5:00 P.M., pulled Reda Puma and serviced same. Rigged up starting temperature surveys.

DEPARTMENTAL CORRESPONDENCE

DATE September 10, 1973

SUBJECT PROGRESS REPORT -- DRILLING (Sept. 1 - 9)

TO Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling # 605

NO. 1 WELL:

Sept. 1st
thru 9th SHUT IN

NO. 2 WELL:

Sept. 1st WOC; Waiting on rig repair.

Sept. 2nd Same as Above

Sept. 3rd Received cement on location at 1:00 P.M. on 2nd; working on rig. Went in hole with drill pipe; conditioning hole to run casing.

Sept. 4th Pulled out of hole; rigging up to run 7" casing.

~~Sept. 5th~~ Running 7" casing to 4,979'; set hanger at 5,253'; shoe at 10,229'; ran 2,378' of blanks and 2,473' of slotted. Cemented with 250 sacks of Class G + 30% silica flour, 5/10 of 1% D-13 retarder, 3/4% of D-65 TIC; job completed at 4:30 p.m.

Sept. 6th 10,454 T.D.; WOC.

Sept. 7th Checked liner with 1,000 lbs. of pressure for 30 minutes; o.k. - went in hole with drill pipe, washing slotted pipe.

Sept. 8th Laid down drill pipe.

Sept. 9th Rigged up to run Reda Pump.

DEPARTMENTAL CORRESPONDENCE

DATE August 31, 1973

SUBJECT PROGRESS REPORT -- DRILLING (August 21 - 31)

TO Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling *No. 605*

NO. 1 WELL:

August 21st
thru 31st SHUT IN

NO. 2 WELL:

August 21st Drilling in volcanics at 10,125'. Bit #16 made 136' in 22 hours.

August 22nd Drilling in volcanics at 10,288'. Bit #16 made 299' in 45 1/2 hours.

August 23rd 10,454' T.D.; Circulating in volcanics. Bit #16 made 465' in 66 3/4 hours.

~~August 24th~~ 10,454' T.D.; laid down 4 1/2" drill pipe to 5,289'; running temperature surveys - At 7,500', 12:00 A.M.: 224°; 230°; 230°; 236°. At 9,140', 3:00 A.M.: 254°; 254°; 252°; 260°. At 9,963', 6:30 A.M.: 274°; 278°; 278°; 280°.

August 25th 10,454' T.D., running temperatures - At 7,500', 3:00 P.M.: 236°; 236°; 236°; 242. At 9,140', 6:00 P.M.: 268°; 270°; 270°; 278°. At 10,450', 10:30 P.M.: 309°; 309°; 312°; 316°.

August 26th 10,454' T.D., running temperatures - At 10,450', 11:00 A.M.: 318°; 320°; 320°; 326°. At 3:00 P.M.: 322°; 322°; 322°; 330°.

August 27th 10,454' T.D.; temperatures would not go below 6,125' - mud setting up.

August 28th 10,454' T.D.; Waiting on casing, repairing on rig.

August 29th Same As Above

August 30th Same As Above

August 31st 10,454' T.D.; received casing at 1:00 P.M. on the 30th. Waiting to get drum out of machine shop.

DEPARTMENTAL CORRESPONDENCE

DATE August 20, 1973

SUBJECT PROGRESS REPORT -- DRILLING (August 16 - 20)

TO Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling *N. 605*

NO. 1 WELL:

August 16th
thru 20th SHUT IN

NO. 2 WELL:

August 16th Drilling in volcanics at 9389'. Bit #14 made 246' in 28½ hours.

August 17th Drilling in volcanics at 9500'. Bit #14 made 317' in 37½ hours; Bit #15 made 40' in 6½ hours.

August 18th Drilling in volcanics at 9690'. Bit #15 made 230' in 30½ hours.

August 19th Drilling in volcanics at 9898'. Bit #15 made 438' in 54 hours.

August 20th 9989' T.D. and tripping for Bit #16. Bit #15 made 529' in 68½ hours; drilling in 75% red volcanics.

DEPARTMENTAL CORRESPONDENCE

DATE August 15, 1973

SUBJECT PROGRESS REPORT -- DRILLING (July 31 - August 15)

TO Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling No. 605

NO. 1 WELL:

July 31

thru Aug. 15 SHUT IN

NO. 2 WELL:

July 31st

Went in with wash pipe, washed over 116'; pulled out and went in with overshot; backed off three collars; pulled out and pushed up wash pipe.

Aug. 1st

Went in with wash pipe, washing over fish - going very slow.

Aug. 2nd

Washed over with 116' of collars; pulled out, laid down wash pipe; pushed up 7½" collars, went in with sub, screwed on fish, jarring on same.

Aug. 3rd

No luck jarring; backed off three drill collars; pulled out, laid down same; pushed up wash pipe, went in washing over at 6,284'.

Aug. 4th

Finished washing over; pulled out and went in with jar; couldn't jar fish loose; backed off three drill collars; pulled out, laid down same; went in with wash pipe, washed approximately 30'.

Aug. 5th

Finished washing over fish at 6,384'; pulled out, laid down wash pipe; went in with sub, screwed in fish; recovered all fish -- THANK THE LORD!

Aug. 6th

Laid down fish and fishing tools; went in with maximum thermometers. Temperatures at 6,375': 202°; 204°; 206°. Went in with bit, reamed to 7,000'. Ran temperatures at 7,300': 260°; 260°; 256°; 258°. Started in with bit again.

Aug. 7th

Washed down to 9,143'; circulating and conditioning hole.

DEPARTMENTAL CORRESPONDENCE

DATE August 15, 1973

SUBJECT PROGRESS REPORT -- DRILLING (July 31 - August 15)

TO Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

No 605

NO. 1 WELL:

July 31

thru Aug. 15 SHUT IN

NO. 2 WELL:

July 31st

Went in with wash pipe, washed over 116'; pulled out and went in with overshot; backed off three collars; pulled out and pushed up wash pipe.

Aug. 1st

Went in with wash pipe, washing over fish - going very slow.

Aug. 2nd

Washed over with 116' of collars; pulled out, laid down wash pipe; pushed up 7 1/2" collars, went in with sub, screwed on fish, jarring on same.

Aug. 3rd

No luck jarring; backed off three drill collars; pulled out, laid down same; pushed up wash pipe, went in washing over at 6,284'.

Aug. 4th

Finished washing over; pulled out and went in with jar; couldn't jar fish loose; backed off three drill collars; pulled out, laid down same; went in with wash pipe, washed approximately 30'.

Aug. 5th

Finished washing over fish at 6,384'; pulled out, laid down wash pipe; went in with sub, screwed in fish; recovered all fish -- THANK THE LORD!

Aug. 6th

Laid down fish and fishing tools; went in with maximum thermometers. Temperatures at 6,375': 202°; 204°; 206°. Went in with bit, reamed to 7,000'. Ran temperatures at 7,300': 260°; 260°; 256°; 258°. Started in with bit again.

Aug. 7th

Washed down to 9,143'; circulating and conditioning hole.

DEPARTMENTAL CORRESPONDENCE

DATE July 23, 1973

SUBJECT PROGRESS REPORT -- DRILLING (July 18th - 23rd)

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling *No. 605*

NO. 1 WELL:

July 18th Shut Down pump.
 July 19th Shut pump down at 7:00 a.m. Temperature, 212°F; pump-
 ing 150 gallons/min.
 July 20th Running pressure bombs.
 July 21st Running maximum thermometers.
 July 22nd Rig shut down; laid all hands off but two watchmen.

NO. 2 WELL:

July 18th Washing over top. Ran tap; no luck, pulled out.
 July 19th Fished out wash pipe and built up shoe on inside.
 Went in with three joints of wash pipe to try to
 get through badspot; washing bottom.
 July 20th Washed over three joints; pulled out and going in
 with overshot; started out.
 July 21st Pulled out with two collars.
 July 22nd Went in with wash pipe; washing over -- slow progress.
 July 23rd Pulled out wash pipe and went in; couldn't screw in
 fish. Pulled out and picked up overshot.

DEPARTMENTAL CORRESPONDENCE

DATE July 30, 1973

SUBJECT PROGRESS REPORT -- DRILLING (July 24th - 30th)

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling #605

NO. 1 WELL:

July 24th Ran temperatures -- 306°; 308°; 308°; 313°
 July 25th Shut In
 thru 30th " "

NO. 2 WELL:

July 24th Went in with overshot and caught fish but couldn't get back off shot through junk and tool joint. Pulled out to run taper temperatures. Pushed junk through tool joint; pulled out and went back in with overshot; caught fish. Trying to drive junk down with sinker bars.

July 25th Trying to drive junk out of tool joint - no luck. Ordered down-hole jets to try.

July 26th Tried down-hole jets and spuding - no luck. Made 33' bar on tool joint and went in to try to knock out obstruction.

July 27th No luck with homemade tool. Went in with McCulloch to spud on fish - no luck. Pulled out and laid down jars and bumper sub. Went back in with overshot; waiting on 1.90 drill pipe.

July 28th Picked up 1.90 drill pipe and mill - breaking circulation.

July 29th Milled out junk and drill collar. Tried to back off - no luck. Tried to back off overshot - no luck. Pulled out and pushed up bumper sub and jar.

July 30th Went in with bumper sub and jar. Couldn't screw into drill collar. Pulled out and made guide on sub. Went in and recovered drill collar and overshot; pulled out and picked up wash pipe.

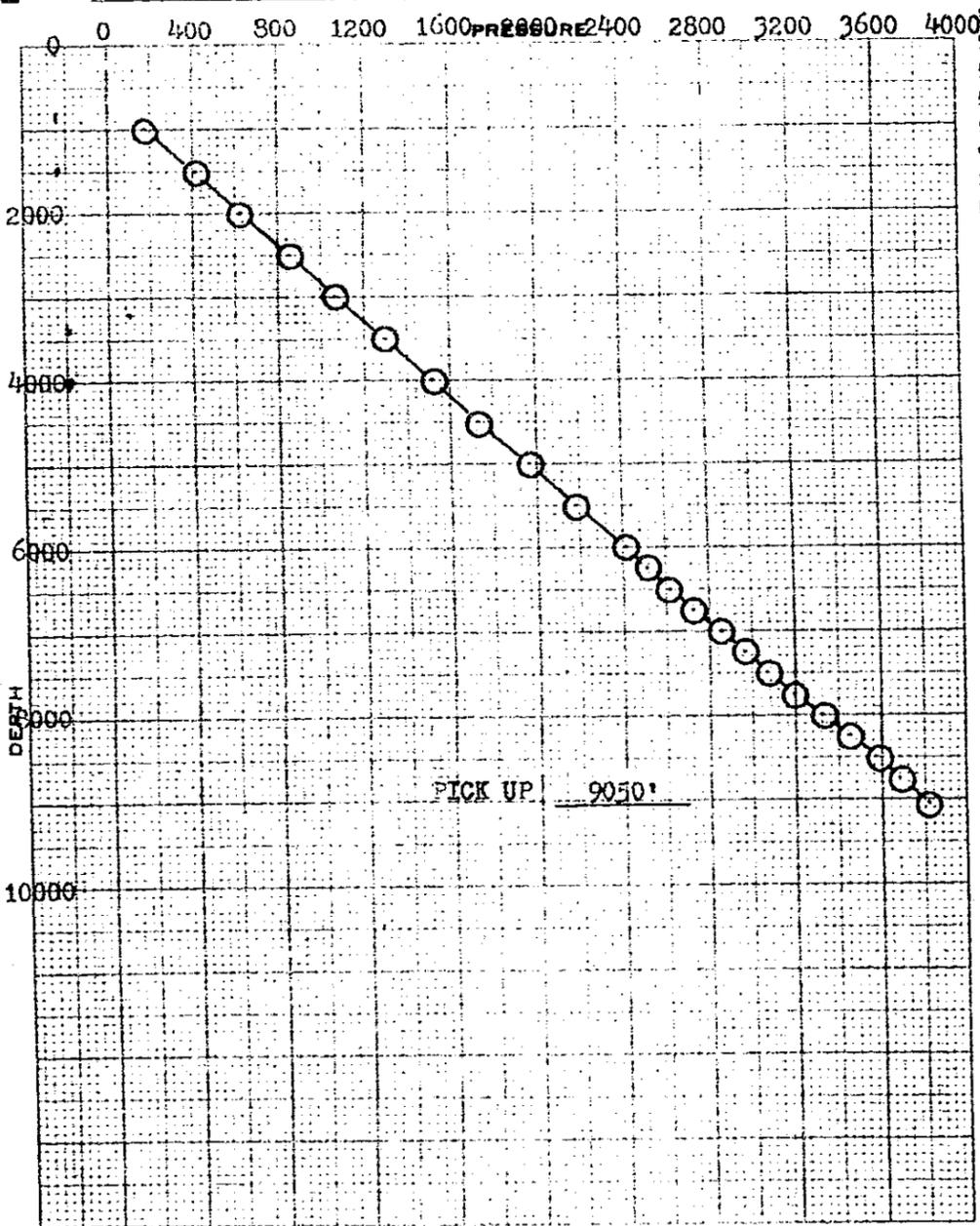
Production
Specialists

AGNEW AND SWEET
3914 GILMORE AVENUE
BAKERSFIELD, CALIFORNIA
93308

24 HOUR PHONE 327-2267
AREA CODE 805

SUBSURFACE PRESSURE SURVEY

OWNER GEOGRAPHICAL KINETICS FIELD HICKEY WELL NAME POWER NO. 1
 CASING _____ ELEV _____ DATE JULY 20, 1973
 LINER DESCRIPTION _____ ZERO POINT AT KELLEY
 _____ DEPTH _____
 _____ ZONE _____
 TUBING DETAIL _____ INSTRUMENT 4400 PSIG
 _____ SERIAL NO 4833N
 _____ PUMP SHOE _____ GAS ANCHOR _____ INTAKE 12 Hour 7 1/2 Turns
 PURPOSE STATIC PRESSURE GRADIENT SURVEY MAX TEMP 262.2 °F @ 9050'
 REMARKS PICK UP AT 9050'



STABILIZATION PERIOD _____
 GROSS OIL RATE B/D _____
 NET OIL RATE B/D _____
 FORMATION GAS MCF/D _____
 GOR CFT/BBL _____
 CIRCULATED GAS MCF/D _____
 OIL DRY GRAVITY °API _____
 PRESSURES: OBS _____ COR _____
 CASING PSI _____
 TUBING PSI _____

DEPTH	PRESSURE	GRADIENT
500	---	---
1000	180	.180
1500	402	.444
2000	627	.450
2500	849	.444
3000	1072	.446
3500	1297	.450
4000	1536	.476
4500	1753	.434
5000	1973	.440
5500	2193	.440
6000	2406	.426
6250	2514	.432
6500	2624	.440
6750	2743	.476
7000	2860	.468
7250	2971	.449
7500	3089	.472
7750	3200	.444
8000	3320	.480
8250	3441	.484
8500	3561	.480
8750	3680	.476
9050	3823	.477

TEE ON BOTTOM _____
 1:55 P.M. 7-20-73
 TIME OFF BOTTOM _____
 2:05 P.M. 7-20-73

BY: HILDERBRAND HLM

605

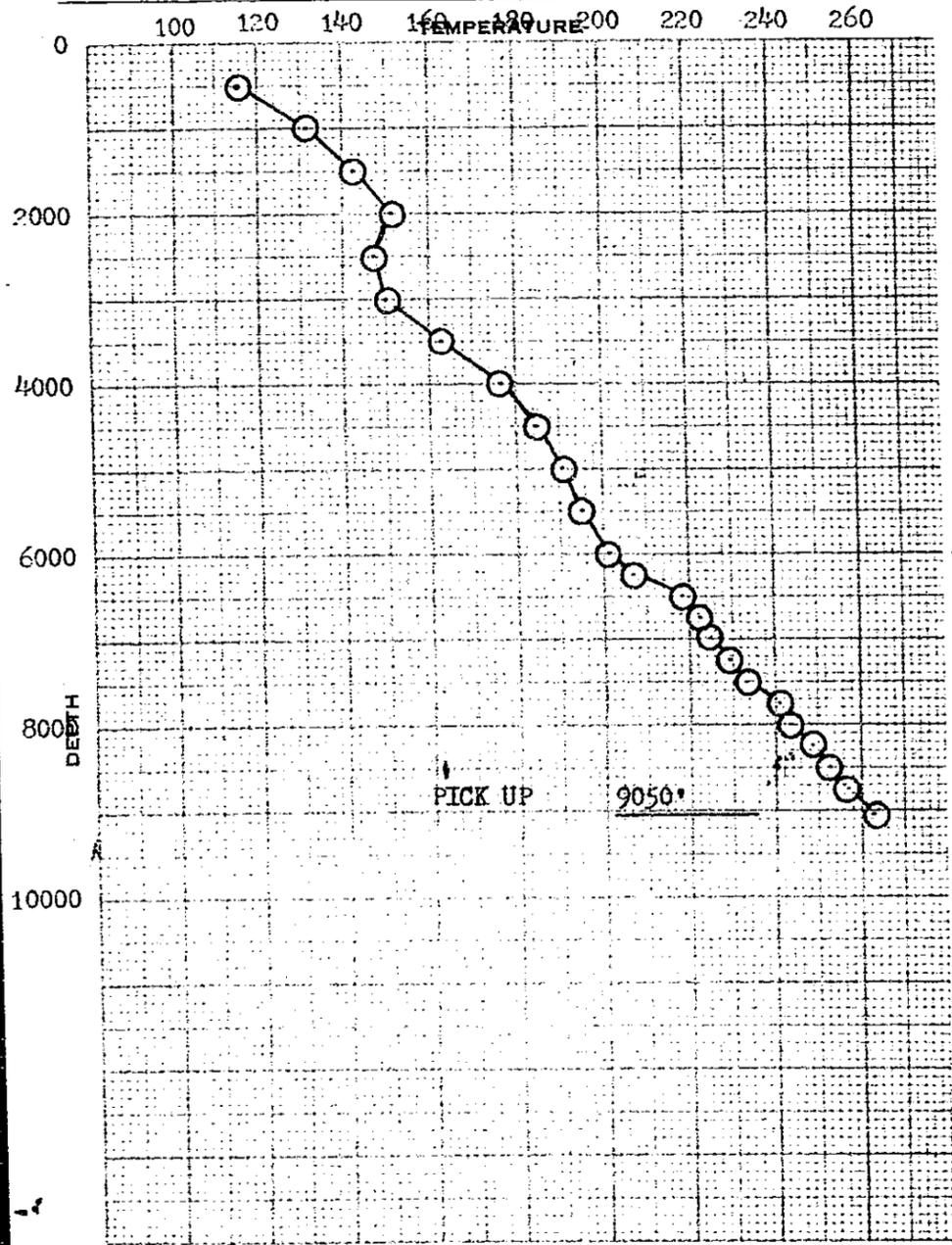
Production
Specialists

AGNEW AND SWARTZ
3914 GILMORE AVENUE
BAKERSFIELD, CALIFORNIA
93308

24 HOUR PHONE 327-2267
AREA CODE 805

SUBSURFACE TEMPERATURE SURVEY

OWNER: GEOTHERMAL KINETICS FIELD: HICLEY WELL NAME: POWER NO. 1
 CASING: ELEV.: DATE: JULY 20, 1973
 LINER DESCRIPTION: ZERO POINT: AT KELLEY
 DEPTH: ZONE: TUBING DETAIL: INSTRUMENT: 96° - 662° FAHR.
 SERIAL NO: 10025
 PUMP SHOE: GAS ANCHOR: INTAKE: 12 Hour 7 1/2 Turns
 PURPOSE: STATIC TEMPERATURE GRADIENT SURVEY MAX. TEMP: 262.2 °F @ 9050'
 REMARKS: PICK UP AT 9050'



DEPTH	TEMP.	DEPTH	TEMP.
500	115.3		
1000	131.9		
1500	142.2		
2000	151.3		
2500	147.4		
3000	150.0		
3500	162.9		
4000	176.4		
4500	184.1		
5000	190.5		
5500	195.2		
6000	201.7		
6250	206.9		
6500	213.2		
6750	222.5		
7000	225.2		
7250	229.6		
7500	233.6		
7750	240.7		
8000	243.8		
8250	248.8		
8500	252.8		
8750	256.8		
9050	262.2		

STABILIZATION PERIOD
 GROSS OIL RATE B/D
 NET OIL RATE B/D
 FORMATION GAS MCF/D
 GOR CFT/BBL
 CIRCULATED GAS MCF/D
 OIL DRY GRAVITY °API
 PRESSURES: OBS COR
 CASING PSIG
 TUBING PSIG
 TIME ON BOTTOM
 1:55 P.M. 7-20-73
 TIME OFF BOTTOM
 2:05 P.M. 7-20-73

BY: HILDERBRAND HLM

605

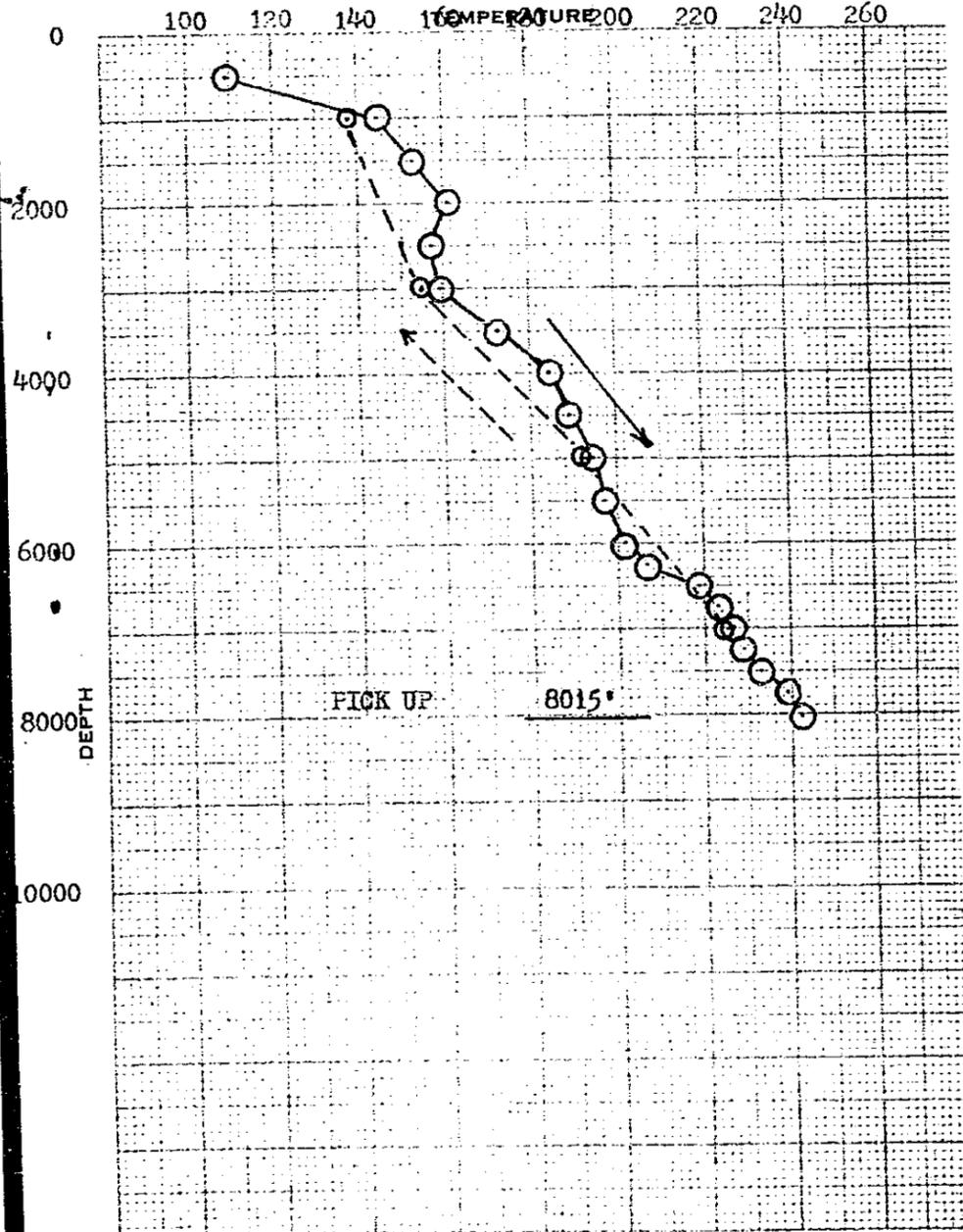
Production
Specialists
12/12

AGNEW AND SWENSON
3914 GILMORE AVENUE
BAKERSFIELD, CALIFORNIA
93308

24 HOUR PHONE 327-2267
AREA CODE 805

SUBSURFACE TEMPERATURE SURVEY

OWNER	GEOTHERMAL KINETICS	FIELD	HIGLEY	WELL NAME	POWER NO. 1
CASING		ELEV.		DATE	JULY 19, 1973
LINER DESCRIPTION:				ZERO POINT	AT KELLEY
				DEPTH	
				ZONE	
TUBING DETAIL:				INSTRUMENT	96° - 662° ° FAHR.
				SERIAL NO	10025
PUMP SHOES	GAS ANCHOR	INTAKE:			12 Hour 12 Turns
PURPOSE	STATIC TEMPERATURE GRADIENT SURVEY			MAX TEMP	242.3 °F @ 8015'
REMARKS:	PICK UP AT 8015'				



STABILIZATION PERIOD			
GROSS OIL RATE B/D			
NET OIL RATE B/D			
FORMATION GAS MCF/D			
GOR CFT/BBL			
CIRCULATED GAS MCF/D			
OIL DRY GRAVITY °API			
PRESSURES	OBS	COR	
CASING PSIG			
TUBING PSIG			
DEPTH	TEMP.	DEPTH	TEMP.
500	109.7		
1000	143.9		
1500	152.9		
2000	161.6		
2500	157.1		
3000	159.4		
3500	172.9		
4000	184.4		
4500	189.9		
5000	194.3		
5500	197.1		
6000	202.0		
6250	206.3		
6500	219.7		
6750	223.4		
7000	226.2		
7250	229.3		
7500	232.7		
7750	239.8		
8015	242.3		
COMING OUT OF HOLE			
7000	225.5		
5000	192.8		
3000	154.8		
1000	138.0		
BY:	HILDERBRAND	HLM	

605

DEPARTMENTAL CORRESPONDENCE

DATE July 17, 1973

SUBJECT PROGRESS REPORT -- DRILLING (July 9th - 17th)

To Mike O'Donnell DEPT. Management
 FROM Bert McComack DEPT. Drilling *No. 605*

NO. 1 WELL:

Pump started on bottom at 2:30 a.m., July 9th, pumping 300 gallons/min. Temperature was approximately 85° when started; came up to 206° in two hours; 208° on Monday, July 9th ~~flowing~~ *Pumping* 200 gallons/min. up to 211° by Monday evening (around 6:30 p.m.). Has remained there since Tuesday, July 10th, flowing 200 gallons/min. Salinity on the 9th was 38,000 ppm; the 10th, 37,000 ppm.

On July 11th through the 14th, temperature remained the same; flow decreased to 150 gallons/min. Salinity on the 11th was 36,000 ppm and 33,000 ppm on the 12th, 13th and 14th.

On July 15th, temperature up to 212°, pumping 250 gallons/min. with no change. At 5:45 p.m., overloaded and kicked pump out. Salinity, 33,000 ppm.

July 16th, kicked off at 7:00 a.m. Temperature, 105°; after three hours back to 210°; eight hours, 212°. Salinity, 33,000 ppm.

July 17th, still pumping 150 gallons/min. at 212°. A lot of steam vapor. Salinity down to 31,000 ppm.

NO. 2 WELL:

Spotted oil around fish; 75 barrels of oil at 4:45 p.m., July 8th. Started out of hole at 1:00 a.m., July 9th. Went in with spear and recovered six joints of wash pipe. Went back in and tried to screw into fish: unsuccessful. Pulled out and went back in with overshot to try to jar fish; wore slips out in overshot. Pulled out and ran small overshot graffel; caught fish and backed off with six joints of drill pipe. Pulled out, laid down same; went in with spear and recovered last joint of wash pipe. Laid down part of joint of wash pipe following in hole to screw in to try to jar fish out. Three joints of drill pipe and 15 drill collars.

July 9th 75 barrels, 60 gallons, scott free at 4:00 p.m. Pulled out at 4:00 a.m., went in with spear.

July 10th Recovered six joints of wash pipe; one still in hole. Went in with overshot to jar on fish.

DEPARTMENTAL CORRESPONDENCE

DATE September 17, 1973

SUBJECT PROGRESS REPORT -- DRILLING (Sept. 10 - 13, 1973)

To Mike O'Donnell DEP'T Management

FROM Bert McComack DEP'T Drilling *No. 400*

NO. 1 WELL:

Sept. 10th
thru 13th SHUT IN

NO. 2 WELL:

Sept. 10th Running Reda Pump. Chloride: 1,500 ppm;
Temperature: 166°F.

Sept. 11th Pumping well at approximately 150 gallons
per minute. Chloride: 9,000 ppm; Tempera-
ture: 173°F.

Sept. 12th Pumping well. Chloride: 17,000 ppm;
Temperature: 184°F.

Sept. 13th Pumping well. Chloride: 17,000 ppm;
Temperature: 189°F.

ARIZONA STATE HEALTH LABORATORY
REPORT OF CHEMICAL EXAMINATION OF WATER

July 17, 1973

DATE RECEIVED

JUL 11 2 54 PM '73

EXISTING WATER SOURCE PUBLIC
NEW WATER SOURCE PRIVATE

LABORATORY NUMBER

W. S.

CODE NUMBER

Name of Water System GEOTHERMAL KINETICS SYSTEMS CORP. Coal & Gas Conservation Com 5761

Nearest City HIGLEY County MARICOPA Mr. Allen 7-19-73

Mailing Address 4515 N. 7th Avenue City PHOENIX

Source Number or Name POWER RANCHES #1 Sec. 1 TWP 2S RGE 6E Well Surface Spring

WELL - Depth 9207 Ft. Static Level _____ Ft. Capacity (GPM) 75-100

Sample Collected By Oil & Gas Commission Date July 17, 1973 SOURCE: Treated Untreated

Describe Treatment _____

REMARKS Please notify the Oil & Gas Commission of results as soon as possible.

A. CHEMICAL EXAMINATION

ROUTINE ELEMENTS (mg/l)

SPR _____
Soluble Solids (500) 80,663
Total Hardness 8100
Calcium 3160
Magnesium 48
Sodium 17,000
Total Iron (0.3) 0.8
Alk. P 0
Alk. MP 30
Chlorides (250) 34,300
Nitrates (45) 21
Sulfates (250) 2250
Manganese (.05) 1.4
pH 7.2
Copper (1.0) 0.06
Zinc (5.0) 0.14

TRACE ELEMENTS (mg/l)

Arsenic (0.05) _____
Silver (0.05) _____
Chromium (.05) <.01
Cadmium (0.01) _____
Lead (.05) _____
Barium (1.0) _____
Cyanide (0.2) _____
Selenium (0.01) _____
Fluoride (var.) 3.8
Mercury (.005) _____

B. PHYSICAL EXAMINATION

Color (15) _____
Taste (3) _____
Odor (3) _____
Turbidity (5) _____
Sediment _____

CHEMIST REMARKS _____

By DR Date 7/19/73

FOR DEPARTMENT USE ONLY

Emergency INITIAL _____

Rush INITIAL _____

C. SPECIAL TESTS AS CHECKED

Radiological MBR (ABS) (0.5) Petroleum Residue CCE (0.2) Phenols (0.001) Pesticide

INTERPRETATION OF RESULTS, WATER SUPPLY DIVISION, ENVIRONMENTAL HEALTH SERVICE, ARIZONA STATE DEPARTMENT OF HEALTH

Acceptable for Public Usage Rejected for Public Usage (see comments below)
 Provisionally Acceptable for Public Usage See Attached Sheet for Further Interpretation on excessive chemicals noted

COMMENTS

RECEIVED

JUL 20 1973

O & G CONS. COMM.

By _____ Date _____

DEPARTMENTAL CORRESPONDENCE

DATE June 18, 1973

SUBJECT DRESSER ATLAS TESTS -- NO. 1 WELL (June 18 & 19, 1973)

TO Mike O'Donnell DEPT: Management

FROM Bert McComack DEPT: Drilling

JUNE 18 -- 7:00 P.M.

Shot 8980 - 9025'

All jets fired; no junk left in hole.

8:20 P.M.

Shot 8950 - 8980 (Total: 151, - 80 Gram jets -- Zone #1).

(Depth counter on Dresser Atlas failed -- shut down for repair)

All jets fired; no junk left in hole.

JUNE 19 -- 1:48 A.M.

Shot 8110 - 8150'

All jets fired; no junk left in hole.

2:45 A.M.

Shot 8110 - 8075'

Mis-run; prima cord broke.

4:00 A.M.

Shot 8110 - 8075'

All jets fired; no junk left in hole. (Total: 151 jets -- Zone #2).

6:05 A.M.

Shot 7736 - 7735'

5 bottom jets did not fire; added 5 jets to top of next run; no junk left in hole.

7:13 A.M.

Shot 7697 - 7697 1/2'

Lost 35' of steel strip in hole; good bang heard on surface; believe all jets fired. (Zone #3)

8:10 A.M.

Shot 7697 - 7697 1/2'

First 9 jets fired; 1 mis-run; next 5 jets fired; 1 mis-run; 1 jet fired; 1 mis-run; 8 jets fired; 1 mis-run; all rest fired. Total: 23 jets fired (plan to re-shoot).

DRESSER ATLAS TESTS -- NO. 1 WELL
June 18, 1973
Page 2

9:30 A.M.

Shot 7067 1/2 - 7039'

Lost 28' of steel strip but
believe all jets fired. (Zone #4)

10:35 A.M.

Last shot hung at 2934'; fished
100' of junk and then shot last
strip at 7067 - 7039'. Total:
35 shots. Believe total jets
fired over all 4 zones: 610 jets.

ARIZONA STATE HEALTH LABORATORY
REPORT OF CHEMICAL EXAMINATION OF WATER

May 10, 1973
DATE RECEIVED
MAY 10 1 56 PM '73

M 252
EXISTING WATER SOURCE PUBLIC
NEW WATER SOURCE PRIVATE

LABORATORY NUMBER (Sample No. 2) 53322

Name of Water System Geothermal Kinetics Systems, Inc. Power Ranches No. 1
Nearest City Higley County Maricopa
Mailing Address 4515 N. 7th Avenue, Phx. 85013 City Phoenix
Source Number or Name Power Ranches #1 Sec. 1 TWP 2 South RGE 6 East Well Surface Spring
WELL - Depth 9207' Ft. Static Level unknown Ft. Capacity (GPM) Pumping 75 GPM
Sample Collected By William E. Allen Date May 8, 1973 SOURCE: Treated Untreated
Describe Treatment
REMARKS This sample taken from a geothermal resources test well.

A. CHEMICAL EXAMINATION

<input type="checkbox"/> ROUTINE ELEMENTS (mg/l)	<input type="checkbox"/> TRACE ELEMENTS (mg/l)
SPR _____	Arsenic (0.05) _____
Soluble Solids (500) _____	Silver (0.05) _____
Total Hardness 2520	Chromium (.05) _____
Calcium 964	Cadmium (0.01) _____
Magnesium 36	Lead (.05) _____
Sodium 8600	Barium (1.0) _____
Total Iron (0.3) _____	Cyanide (0.2) _____
Alk. P _____	Selenium (0.01) _____
Alk. MP _____	Fluoride (var.) _____
Chlorides (250) 16,200	Mercury (.005) _____
Nitrates (45) _____	
Sulfates (250) 1600	
Manganese (.05) _____	
pH _____	
Copper (1.0) _____	
Zinc (5.0) _____	
Conductivity 30,000 mho	

B. PHYSICAL EXAMINATION

Color (15) _____
Taste (3) _____
Odor (3) _____
Turbidity (5) _____
Sediment _____

CHEMIST REMARKS _____

By *EAR* Date MAY 14 1973

FOR DEPARTMENT USE ONLY

Emergency INITIAL _____ Rush INITIAL _____

C. SPECIAL TESTS AS CHECKED

Radiological MBR (ABS) (0.5) Petroleum Residue CCE (0.2) Phenols (0.001) Pesticide

INTERPRETATION OF RESULTS, WATER SUPPLY DIVISION, ENVIRONMENTAL HEALTH SERVICE, ARIZONA STATE DEPARTMENT OF HEALTH

Acceptable for Public Usage Rejected for Public Usage (see comments below)
 Provisionally Acceptable for Public Usage See Attached Sheet for Further Interpretation on excessive chemicals noted.

COMMENTS _____

RECEIVED

JUN 14 1973

By _____ Date O & G CONS. COMM.

605

ARIZONA STATE HEALTH LABORATORY
REPORT OF CHEMICAL EXAMINATION OF WATER

RECEIVED
MAY 14 2 01 PM '73

EXISTING WATER SOURCE PUBLIC
NEW WATER SOURCE PRIVATE

58703
LABORATORY NUMBER

W. S. CODE NUMBER

Name of Water System GEOTHERMAL KINETICS SYSTEMS INC. POWER RANCHES #1

Nearest City Highway County MARICOPA

Mailing Address 4515 WITBEAVER AVE. APT 85013 City PHOENIX

Source Number or Name POWER RANCHES #1 Sec. 1 TWP 2 SOUTH RGE 6 EAST Well Surface Spring

WELL - Depth 2207 Ft. Static Level Ft. Capacity (GPM) 75 GPM

Sample Collected By FERRY BOONE Date 5-14-73 SOURCE: Treated Untreated

Describe Treatment

REMARKS Sample from geothermal resources test well

A. CHEMICAL EXAMINATION

ROUTINE ELEMENTS (mg/l)

SPR	<400
Soluble Solids (500)	28,229
Total Hardness	3400
Calcium	1016
Magnesium	206
Sodium	7300
Total Iron (0.3)	0.2
Alk. P	0
Alk. MP	34
Chlorides (250)	15,900
Nitrates (45)	21
Sulfates (250)	1450
Manganese (.05)	0.4
pH	7.4
Copper (1.0)	<.05
Zinc (5.0)	0.3

TRACE ELEMENTS (mg/l)

Arsenic (0.05)	0.03
Silver (0.05)	<.01
Chromium (.05)	<.01
Cadmium (0.01)	<.01
Lead (.05)	<.05
Barium (1.0)	
Cyanide (0.2)	
Selenium (0.01)	<.01
Fluoride (var.)	6.8
Mercury (.005)	<.0005

B. PHYSICAL EXAMINATION

Color (15)	
Taste (3)	RECEIVED
Odor (3)	
Turbidity (5)	JUN 20 1973
Sediment	

CHEMIST REMARKS Preliminary report

O & G CONS. COMM.
MAY 31 1973
By JBR Date MAY 25 1973
Rev. 5-31

FOR DEPARTMENT USE ONLY

Emergency INITIAL Rush INITIAL

C. SPECIAL TESTS AS CHECKED

Radiological MBR (ABS) (0.5) Petroleum Residue CCE (0.2) Phenols (0.001) Pesticide

INTERPRETATION OF RESULTS, WATER SUPPLY DIVISION, ENVIRONMENTAL HEALTH SERVICE, ARIZONA STATE DEPARTMENT OF HEALTH

Acceptable for Public Usage Rejected for Public Usage (see comments below)
 Provisionally Acceptable for Public Usage See Attached Sheet for Further Interpretation on excessive chemicals noted.

COMMENTS This water chemistry does not comply with the 1962 Drinking Water Standards, U.S. Public Health Service as the: Soluble solids exceed the recommended limit of 500 mg/l. and may affect the taste of coffee, Chlorides exceed the recommended limit of 250 mg/g and may affect the taste of the water, sulfates exceed the recommended limit of 250 mg/l. A laxative effect may be noted by newcomers and casual users of this water.
Date 6-6-73
605

Manganese exceeds the recommended limit of 0.05 mg/l.
Fluoride exceeds the mandatory limit of 1.4 mg/l.
The water from this source is not acceptable for a domestic water supply without approved treatment.

copy sent to : Geothermal Kinetics Systems 6/18/73

GEOTHERMAL KINETICS SYSTEMS POWER RANCHES NO. 1
Casing Perforations - 7" Casing

<u>DEPTH</u>	<u>NO. OF HOLES & TYPE</u>	<u>REMARKS</u>
6140 - 6150	10 Jets	Little or no Results
6154 - 6174	21 Bullets	Small Results
6167 - 6168	2 Jets	No Results
6174 - 6184	10 Jets	Slight Results
6212 - 6232	20 Bullets	Good Results
6310 - 6314	4 Jets	Slight Results
6314 - 6322	8 Bullets	Slight Results
6323 - 6347	25 Bullets	Small Results
6360 - 6363	4 Bullets	Good Results
7006 - 7014	8 Jets	Small to no Results
7752 - 7760	8 Jets	Large Results
8148 - 8150	4 Jets	No Results
8995.5 - 8998.5	4 Jets	Fluid level increased from approximately 500' to 2000', then no further evidence of fluid entering hole from these perforations.

(Perforating results estimated from temperature survey)

5-7-73

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. MCLEAN & SON LABORATORIES, INC.
 817 WEST MADISON ST. PHOENIX, ARIZONA 85007 PHONE 254-6181

For: Geothermal Kinetics
 301 West Indian School Road
 Phoenix, Arizona 85013

Date: April 19, 1973
 Lab. No.: 4237

Sample: Water

Marked: GKSC #1 Power

Received: 4-13-73

Submitted by: same

REPORT OF LABORATORY TESTS

	No HF 4-10-73 8997'	HF	No HF 4140' 5th Blow	HF 4140' 5th Blow
Total Dissolved Solids	244,000	193,000	43,000	36,000
Lithium	43	43	17	18
Iron	5	4,300	16	13
Calcium	30,000	10,000	2,100	13
Magnesium	42	62	24	3
Sodium	61,200	54,400	13,800	12,000
Potassium	2,220	2,080	300	260
Chloride	150,000	122,000	25,200	22,400
Carbonate	46	0	0	0
Bicarbonate	164	0	7	0
Sulphate	165	6	1,520	1,350
Nitrate	1	1	1	1
Fluoride	1.0	-----	4.7	-----
Boron	21	13	8	5
pH	8.2	0.4	4.8	1.8
Silica	14	61	8	17
Mercury	0.001*	0.001*	0.001*	0.001*

*=Less Than

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.
 Claude E. McLean, Jr.

RECEIVED

APR 25 1973

O & G CONS. COMM.

**Production
Specialists**

AGNEW and SWEET

3914 Gilmore Avenue
Bakersfield, California 93308

24-Hour Phone: 327-2267

SUBSURFACE SURVEY

Field Work Sheet

OWNER Geothermal Kinetics FIELD _____ WELL NAME Powder #1
 CASING _____ ELEV. _____ DATE: 4-16-73
 LINER DESCRIPTION: _____ ZERO POINT At Kelly
 TUBING DETAIL: _____ DEPTH _____ ZONE _____
 PUMP SHOE _____ GAS ANCHOR _____ INTAKE _____
 PURPOSE _____
 REMARKS: _____

ELEMENT	SERIAL NO.	CLOCK	TURN	STABILIZATION PERIOD
ENGAGE STYLUS		DISENGAGE STYLUS		GROSS OIL RATE B/D
OBS. TBG. PRESS.		OBS. CSG. PRESS.		NET OIL RATE B/D
COR. TBG. PRESS.		COR. CSG. PRESS.		FORMATION GAS MCF/D
PICKUP @ <u>7180</u>		TIME ON BOTTOM	MAX. °F	GOR CFT/BBL.
WELL STATUS				CIRCULATED GAS MCF/D
SHUT IN:		ON PRODUCTION:		OIL DRY GRAVITY °API
				BEAN SIZE

Press						Press					
TIME	DEPTH	DEFL.	P-T	GRAD.	/D	TIME	DEPTH	DEFL.	P-T	GRAD.	/D
	0						8900	3764	44.0		
	400		0				9000	3811	47.0		
	450		13				9100	3859	48.0		
	1000		231	41.4			9180	3893	42.5		
	2000		651	42.0							
	3000		1117	46.6			1000	291	47.6		
	4000		1576	46.1			450	27	44.0		
	5000		2007	43.9			400	7			
	6000		2439	43.2							
	6100		2487	43.0							
	6200		2527	43.0							
	6300		2570	43.0							
	6400		2613	43.0							
	6500		2660	47.0							
	6600		2707	47.0							
	7000		2894	46.8							
	7100		2939	45.0							
	7200		2986	47.0							
	7700		3223	47.4							
	7800		3268	45.6							
	7900		3314	48.0							
	8000		3366	50.0							
	8100		3411	45.0							
	8200		3452	41.0							
	8500		3720	41.3							

COMMENTS:

RECEIVED

APR 20 1973

O & G CONS. COMM.

BY:

DEPARTMENTAL CORRESPONDENCE

DATE April 15, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

SUNDAY, APRIL 15, 1973

Came out of hole blowing hole down to 5000' to perforate to check fluid level. Perforation depths are as follows:

- 6154' - 6174' (20 bullets)
- 6212' - 6232' (21 bullets)
- 6323' - 6347' (25 bullets)
- 6360' - 6363' (4 bullets)

MONDAY, APRIL 16, 1973

Blowed hole from 4100' - 4140'; alot of water with steam flashes; temperature, 166°.

Running Almarada temperature bomb, seeking a gradient on temperature from around 5000' to T.D.

DEPARTMENTAL CORRESPONDENCE

DATE April 13, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FRIDAY, APRIL 13, 1973

Blowing hole at a depth of 5470';
alot of water and steam flashes.

Temperature, 160°.

SATURDAY, APRIL 14, 1973

Blowing hole at 5490'. Went in to
bottom to aerate to check water out-
put; estimated at 150 gallons/minute.

DEPARTMENTAL CORRESPONDENCE

DATE April 11, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEP'T Management

FROM Bert McComack DEP'T Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

WEDNESDAY, APRIL 11, 1973

Perforated at following depths:

8148 - 8152' (8 shots)

7752 - 7760' (8 shots)

7006 - 7014' (8 shots)

6309 - 6313' (4 shots)

6167 - 6168' (2 shots)

Went in unloading hole; some steam
flashes, not enough fluid.

THURSDAY, APRIL 12, 1973

Pulled out of hole to re-perforate at
following depths:

6314 - 6322' (8 bullets)

6140 - 6150' (10 jets)

6174 - 6184' (10 jets)

Went in to unload. Doing good; blow-
ing from 5490' at 7:00 a.m. and un-
loading periodically.

DEPARTMENTAL CORRESPONDENCE

DATE April 10, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEP'T Management

FROM Bert McComack DEP'T Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

TUESDAY, APRIL 10, 1973

9207' T.D. Logged and perforated with 4 shots at 8998'. Went in with bit and hit fluid at approximately 3000'; blew hole down, not enough fluid. Pulled out preparing to re-perforate.

MONDAY, APRIL 9, 1973

9207' T.D. Logging; top of basement according to log, 9165'.

SUNDAY, APRIL 8, 1973

9707' T.D. Hit basement at approximately 9181'. Pulled out and running temperature surveys.

DEPARTMENTAL CORRESPONDENCE

DATE April 6, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FRIDAY, APRIL 6, 1973

Drilled cement to 8971'; pulled out
and ran in button bit with 20 stands.

Ready to unload hole with air.

SATURDAY, APRIL 7, 1973

Unloading hole. Backed drill collar
off; went in and plugged in same with
bit plug and pulled out of hole un-
plugging drill collar.

DEPARTMENTAL CORRESPONDENCE

DATE April 3, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

TUESDAY, APRIL 3, 1973

9065' T.D. Pressured up on squeeze job; everything o.k. Picked up drill powers and went in with 8 3/4" bit; drilling with Haliburton easy drill plug.

WEDNESDAY, APRIL 4, 1973

Drilled in plug with 8 3/4" bit to top of 7/8" liner. Made trip and ran 6" bit drilling in plug.

Twisted off at 500'; went in and caught fish, coming out to check bit.

Everything o.k. so far.

THURSDAY, APRIL 5, 1973

7932' T.D. Drilling in cement, Bit #14.

DEPARTMENTAL CORRESPONDENCE

DATE April 2, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

MONDAY, APRIL 2, 1973

9065' T.D. Hit cement level, 7" casing at 7261'. Pulled out and run easy drill plug. Set at 5170'. Squeezed with 200 sacks of Class "A" cement (30% Silica flour; 8/10% Hallad #9; 4/10% HR4).

Job completed at 11:30 p.m.; looks good.

RECEIVED
APR 26 1973
O & G CONS. COMM.

DEPARTMENTAL CORRESPONDENCE

DATE April 1, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. DRILLING

REPORTED AS OF 7:00 a.m.

EACH MORNING

SUNDAY, APRIL 1, 1973

9065' T.D. WOC.

Laid down 4½" drill pipe; started picking up 3½" drill pipe.

MONDAY, APRIL 2, 1973

9065' T.D. Hit cement level, 7" casing at 7261'. Pulled out and run easy drill plug. Set at 5170'. Squeezed with 200 sacks of Class "A" cement (30% Silica flour; 8/10% Hallad #9; 4/10% HR4).

Job completed at 11:30 p.m.; looks good.

DEPARTMENTAL CORRESPONDENCE

DATE March 30, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FRIDAY, MARCH 30, 1973

9065' T.D. Ran 3863' of 7", 29 lb. N-80 Armco casing. Casing set at 9064' and hung at 5201'. Cemented with 825 sacks of Class "A" cement, 3% jell; 600 sacks of Posmix, 1.1/8% CFR-2, 8% salt, 1% HR-12, 6% Pearlite, 20% Silica flour.

Plug down at 0230 hours, March 30th; WOC.

Acted like squeeze job during cementing. Pearlite may have bridged, but believe cement probably circulated up and out at 5201'.

RECEIVED

APR 26 1973

O & G CONS. COMM.

DEPARTMENTAL CORRESPONDENCE

DATE March 29, 1973

SUBJECT DRILLING REPORT

TO Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

THURSDAY, MARCH 29, 1973

9065' T.D. Recovered all cones.

Waiting on casing; preparing to run 7/8" casing.

FRIDAY, MARCH 30, 1973

9065' T.D. Ran 3863' of 7", 29 lb. N-80 Armco casing. Casing set at 9064' and hung at 5201'. Cemented with 825 sacks of Class "A" cement, 3% jell; 600 sacks of Posmix, 1.1/8% CFR-2, 8% salt, 1% HR-12, 6% Pearlite, 20% Silica flour.

Plug down at 0230 hours, March 30th; WOC.

Acted like squeeze job during cementing. Pearlite may have bridged, but believe cement probably circulated up and out at 5201'.

SATURDAY, MARCH 31, 1973

9065' T.D. WOC.

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. MCLEAN & SON LABORATORIES, INC.
 817 WEST MADISON ST. PHOENIX, ARIZONA 85007 PHONE 254-6181

For: Geothermal Kinetics
 301 West Indian School Road
 Phoenix, Arizona 85013

Date: March 27, 1973

Lab. No.: 4059

Sample: Water

Marked:

Received: ---

Submitted by: Same

REPORT OF LABORATORY TESTS

GKSC #L Power	0230 hrs.	0835 hrs.	0900 hrs.
Td 6163 ft Sample taken with fluid level of 4183 ft+ Air drilling only.	2nd blow 22 stands off bottom	just after blow	3/4 point in blow and at end
Total Dissolved Solids	17,000	16,100	18,200
Lithium	15	14	16
Fluorides	5.0	5.2	5.5
Calcium	460	450	450
Magnesium	1	4	4
Potassium	93	84	93
Sodium	5,600	5,300	6,100
Chlorides	8,700	8,350	9,250
Carbonates	48	0	0
Bicarbonates	0	12	22
Sulphates	1,970	1,870	2,280
Nitrates	*Lt 1		
Boron	7	7	8
pH	10.0	5.7	7.5
Hydroxide	1		

*Lt = less than

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.
 Claude E. McLean, Jr.

RECEIVED

APR 26 1973

O & G CONS. COMM.

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. MCLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007 PHONE 254-6181

For: Geothermal Kinetics
301 West Indian School Road
Phoenix, Arizona 85013

Date: March 27, 1973

Lab. No.: 4059

Sample: Water

Marked:

Received: ---

Submitted by: Same

REPORT OF LABORATORY TESTS

GKSC #1 Power	0956 hrs. just at end of blow	1236 hrs. near end of blow
Total Dissolved Solids	18,300	17,900
Lithium	15	15
Fluorides	5.4	5.4
Calcium	470	450
Magnesium	4	4
Potassium	94	94
Sodium	6,300	5,900
Chlorides	9,250	9,250
Carbonates	0	0
Bicarbonates	20	15
Sulphates	2,150	2,150
Nitrates		
Boron	8	8
pH	7.2	6.9
Hydroxide		
less		
*Lt= than		

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.
Claude E. McLean, Jr.

RECEIVED

APR 26 1973

O & G CONS. COMM.

DEPARTMENTAL CORRESPONDENCE

DATE March 26, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

MONDAY, MARCH 26, 1973

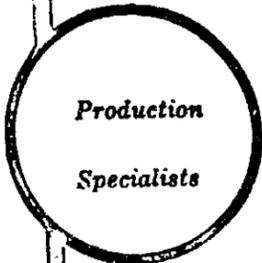
9065' T.D. Finished logging at 4:00 a.m.; going in with magnet.

TUESDAY, MARCH 27, 1973

9065' T.D. Fishing for one cone, recovered two; ordered 7/8" casing.

WEDNESDAY, MARCH 28, 1973

9065' T.D. Fishing for cone; made two blank runs. Went in with bit and stirred up cone. Went in with bowder basket; coming out of hole.

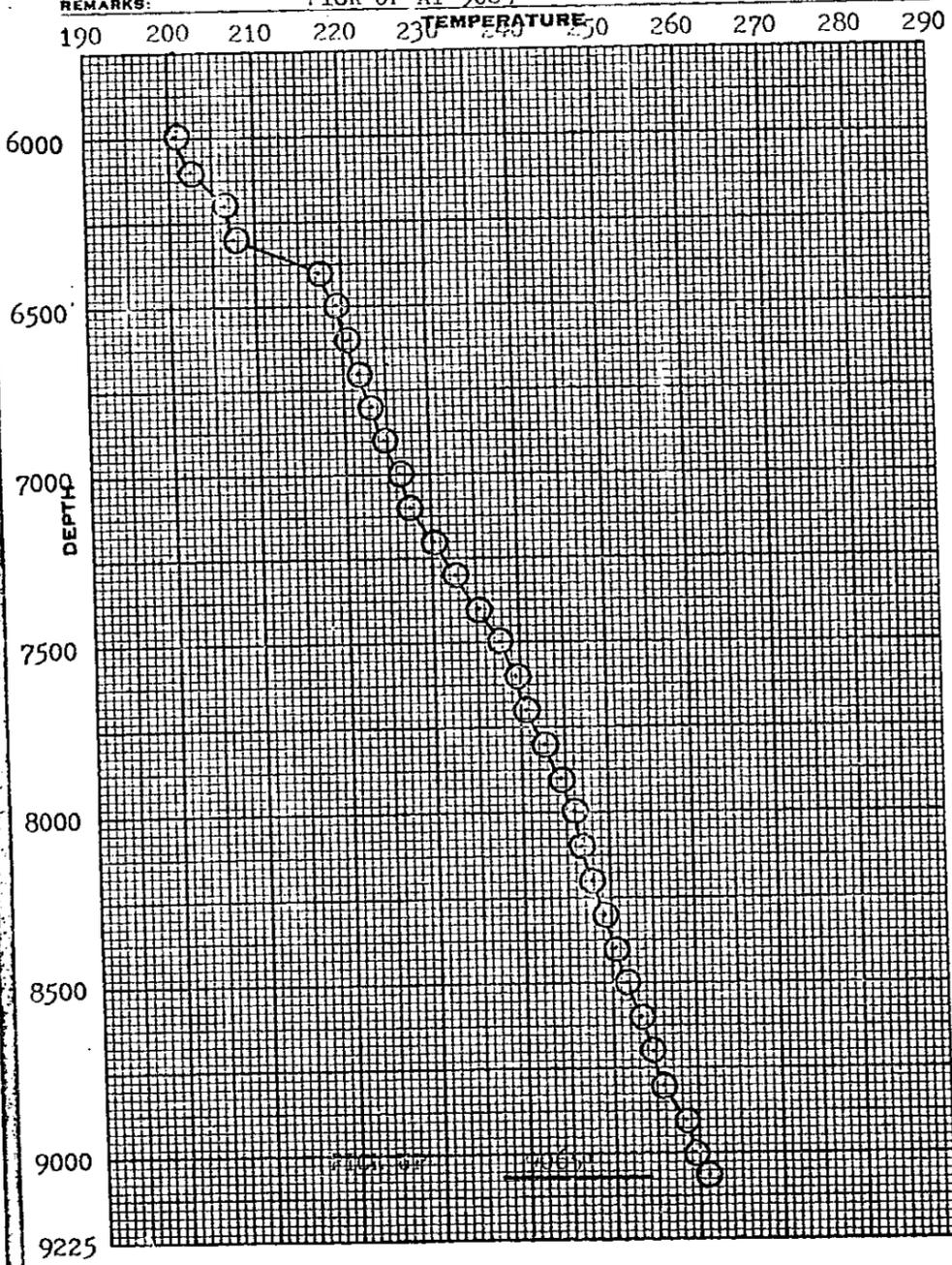


AGNEW AND SWEET
 3914 GILMORE AVENUE
 BAKERSFIELD, CALIFORNIA 93308

24 HOUR PHONE 327-2267
 AREA CODE 805

SUBSURFACE TEMPERATURE SURVEY

OWNER: GEOTHERMAL KINETICS FIELD: HIGLEY WELL NAME: POWERS NO. 1
 CASING: ELEV. DATE: MARCH 24, 1973
 LINER DESCRIPTION: ZERO POINT: AT KELLEY
 DEPTH: 9065'
 ZONE:
 TUBING DETAIL: None INSTRUMENT: 96° - 662° FAHR.
 SERIAL NO. 10025
 PUMP SHOE: GAS ANCHOR: INTAKE: 12 Hour 7 1/2 Turns
 PURPOSE: STATIC TEMPERATURE GRADIENT SURVEY MAX. TEMP. 261.0 °F @ 9065'
 REMARKS: PICK UP AT 9065'



STABILIZATION PERIOD
 GROSS OIL RATE B/D
 NET OIL RATE B/D
 FORMATION GAS MCF/D
 GOR CFT/BBL
 CIRCULATED GAS MCF/D
 OIL DRY GRAVITY °API
 PRESSURES: OBS COR
 CASING, PSIG: OPEN OPEN
 TUBING, PSIG:

DEPTH	TEMP.	DEPTH	TEMP.
6000	200.7	7600	239.8
6100	202.6	7700	240.7
6200	206.6	7800	242.9
6300	207.5	7900	244.5
6400	217.3	8000	246.0
6500	219.4	8100	246.6
6600	220.6	8200	247.9
6700	221.9	8300	249.1
6800	223.4	8400	250.3
6900	224.6	8500	251.6
7000	226.2	8600	253.1
7100	227.7	8700	254.7
7200	230.2	8800	255.9
7300	232.7	8900	258.3
7400	235.2	9000	259.2
7500	237.9	9065	261.0

 TIME ON BOTTOM: 12:26 A.M. 3-25-73
 TIME OFF BOTTOM: 1:26 A.M. 3-25-73
 RECEIVED
 APR 26 1973
 O & G CONS. COMM.
 BY: HILDERBRAND HLM

DEPARTMENTAL CORRESPONDENCE

DATE March 23, 1973

SUBJECT DRILLING REPORT
To Mike O'Donnell DEPT. Management
FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FRIDAY, MARCH 23, 1973

Drilling at 9065'. Bit #13 made
868' in 26 hours.

Pulled out of hole; left three cones;
preparing to log.

SATURDAY, MARCH 24, 1973

9065' T.D. Waiting on logging equip-
ment.

SUNDAY, MARCH 25, 1973

9065' T.D. Preparing to log; ran temp-
erature surveys. Pumping water in to
cool hole.

DEPARTMENTAL CORRESPONDENCE

DATE March 20, 1973

SUBJECT DRILLING REPORT

TO Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

TUESDAY, MARCH 20, 1973

Drilling at 8197'; tripping for new bit. Bit #12 made 2034' in 70 hours.

Preparing to go into hole with Bit #13.

WEDNESDAY, MARCH 21, 1973

Drilling at 8312'. Bit #13 made 113' in 3½ hours; drilling 40'/hour.

S.O.S.

THURSDAY, MARCH 22, 1973

Drilling at 8997' through volcanics; Bit #13 made 800' in 23 hours.

DEPARTMENTAL CORRESPONDENCE

DATE March 17, 1973

SUBJECT DRILLING REPORT

TO Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

SATURDAY, MARCH 17, 1973

Drilling at 6548' through volcanics and aerating. Bit #12 made 385' in 15 hours. Bit #11 drilled through 700' of cement after squeeze job at approximately 30'/hour.

SUNDAY, MARCH 18, 1973

Drilling at 7050' through volcanics approximately 15'/hour with splashes of steam and alot of water. Bit #12 made 987' in 38 hours.

MONDAY, MARCH 19, 1973

Drilling at 7878' through volcanics. Bit #12 made 1715' in 35 hours.

DEPARTMENTAL CORRESPONDENCE

DATE March 14, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

WEDNESDAY, MARCH 14, 1973

Total depth, 6163'.

Tested, squeezed out with 1,000 lbs; everything o.k. Pulled out, laid down tool, pulled up bit and drilled packer.

Drilling cement at 5700'.

THURSDAY, MARCH 15, 1973

Drilling through cement at total depth of 6100'; 20'/hr.

FRIDAY, MARCH 16, 1973

Drilling at 6163'. Trying to blow hole down with straight air; 19 stands off bottom.

In hole, looking good.

DEPARTMENTAL CORRESPONDENCE

DATE March 9, 1973

SUBJECT CHANDLER WELL -- OFFICIAL RELEASE

To All Personnel

DEPT

FROM Mike O'Donnell

DEPT

Management

Geothermal Kinetics Systems Corporation's initial geothermal well appears to have encountered the top of a super heated water zone which is causing some steam flash.

The hole is being deepened toward its major objective at which time the necessary detailed tests will be made to determine if economic steam production will be developed.

Mike O'Donnell

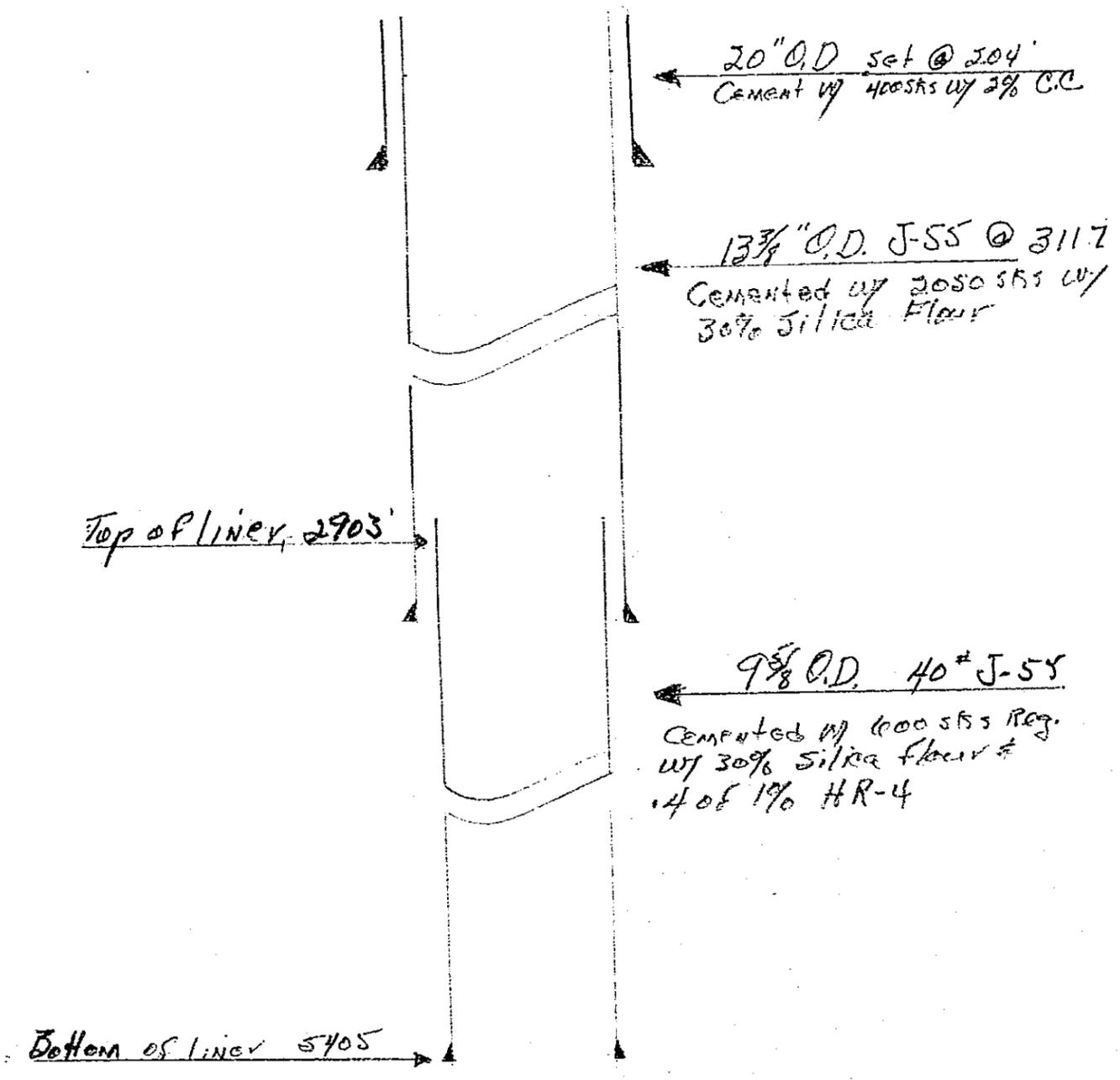
MOD/leb

RECEIVED

MAR 15 1973

O & G CONS. COMM.

605



DEPARTMENTAL CORRESPONDENCE

DATE March 11, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

SUNDAY, MARCH 11, 1973

Drilling at 6153'. Running temperature and deviation surveys; deviation survey at 6130', 1 $\frac{1}{2}$ ^o. Ran drillable packer -- preparing to squeeze off water.

MONDAY, MARCH 12, 1973

Drilling at 6153'. Set bridge plug and cemented with 200 sacks regular cement (8/10% with Hallad #9; 4/14% HR4). Broke circulation and packer; job unsuccessful. Reversed out cement; drilling plug in preparation to cement again.

TUESDAY, MARCH 13, 1973

Drilling at 6163'; WOC.

Drilled out 90' of cement in bottom of hole; pulled out of hole to go in with packer set at 5360'. Cemented with 550 sacks of regular cement (8/10%, Hallad #9; 4/14% HR4).

Job completed at 12:15 a.m.; looks good.

DEPARTMENTAL CORRESPONDENCE

DATE March 8, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

THURSDAY, MARCH 8, 1973

Drilling at 5405'. Hit cement at 2543' on top of liner. Had 360' on top of liner; cemented bottom at 5349'. Had 55' of cement on top of shoe; unloading hole with air.

FRIDAY, MARCH 9, 1973

Drilling at 5938' through volcanics. #10 bit drilling 533' in 20 hours (started at 11:00 a.m. on the 8th).

SATURDAY, MARCH 10, 1973

Drilling at 6153' through volcanics; trying to blow hole (unload water with air), unsuccessful. Bit #10 made 748' in 28½ hours. Temperature up 40° in last 30'; too much water to drill with air.

DEPARTMENTAL CORRESPONDENCE

DATE March 5, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

MONDAY, MARCH 5, 1973

Circulating in preparation to run
9 5/8 intermediate pipe.

Note: Air compressors to be on
location by Wednesday, March
7th.

TUESDAY, MARCH 6, 1973

Drilling at 5405', WOC (waiting on cement).
Ran 61 joints (9 5/8, 40 lb.). Bottom of
liner, 5404'; top of liner, 2903'. Cemented
with 650 sacks of regular cement; 30% silica
flour, 4/10 of 1% of HR-4 retarder.

Plugging down at 12:30 a.m.

WEDNESDAY, MARCH 7, 1973

Drilling at 5405'; WOC.

DEPARTMENTAL CORRESPONDENCE

DATE March 1, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

THURSDAY, MARCH 1, 1973

Drilling at 4866' through volcanics;
#9 bit drilling 100' in 9 hours; drill-
ing 1' / 3-4 minutes.

Viscosity, 47; weight, 9.9.

FRIDAY, MARCH 2, 1973

Drilling at 5138' through volcanics and
clay with streaks of basalt; #9 bit drill-
ing 472' in 35 hours.

Viscosity, 41; weight, 9.8.

SATURDAY, MARCH 3, 1973

Drilling at 5405' and circulating;
#9 bit drilled 123' of volcanics and
conglomerate.

SUNDAY, MARCH 4, 1973

Circulating in preparation to run
9 5/8 intermediate pipe.

DEPARTMENTAL CORRESPONDENCE

DATE February 27, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEP'T Management

FROM Bert McComack DEP'T Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

TUESDAY, FEBRUARY 27, 1973

Drilling at 4743' through clay,
volcanics and silt stone; #8 bit
drilling 727' in 45 hours; drilling
15 - 20 feet/hour.

Viscosity, 40; weight, 9.3.

WR

Mr. Allan

DEPARTMENTAL CORRESPONDENCE

DATE February 27, 1973

SUBJECT DRILLING INFORMATION

TO All Personnel DEPT

FROM Mike O'Donnell DEPT Management

As of 4500 feet, the well has gone "tight" and no drilling information, including formation description, temperature tests or depths are to be given out until further notice.

Mike O'Donnell

MOD/leb

RECEIVED
MAR 02 1973
O & G CONS. COMM.

DEPARTMENTAL CORRESPONDENCE

DATE February 26, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEP'T Management

FROM Bert McComack DEP'T Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

MONDAY, FEBRUARY, 26, 1973

Drilling at 4463' through volcanics
and clay; #8 bit drilling 448' in
26 hours. (DST report attached).

ATTACHMENT - DRILLING REPORT
February 26, 1973

DST:

Open at 1300 hrs., immediate light steady blow; increasing in three minutes to strong steady blow. Blow weakened at 1446 hrs. Shut-in at 1530 hrs. for 30 minutes. At 2548', rise of fluid in pipe consisted initially of water cut, gas cut and drilling mud; sampled at 450' intervals which gradually became slightly mud cut, gas cut, brackish water. Salinity of mud per Baroid was 111,000 ppm; estimated salinity of brackish water at base of fluid rise was 20,000 ppm. This will be checked in the laboratory.

It is estimated that the gas was carbon dioxide, but this cannot be proven except that it is non-flammable.

A very fine grained, angular quartz grained (probably from volcanic ash) flowed into the tool and went up into the base of the last drill collar. Haliburton, 250° degree chart, did not go off scale so the formation temperature was, therefore, between the 160° measured with the Taylor maximum reading thermometer on Totco line and 252° F is necessary to activate the Haliburton chart thermometer. It is estimated that our formation temperature at this depth was approximately 230°.

On a 24 hour clock, Device #4357, at TD of 4359', the initial hydrostatic pressure was 2403.1 psi; initial flow pressure, 54.1 (?) psi; final flow pressure, 1233.3 psi. 30 minute shut-in pressure, 1500.0 psi; final hydrostatic pressure, 2403.1 psi.

On a 12 hour clock, Device #786, initial hydrostatic pressure was 2449.2 psi; initial flow pressure, 328.8 (?) psi; final flow pressure, 1272.8 psi. 30 minute shut-in pressure, 1541.4 psi; final hydrostatic pressure, 2499.2 psi.

February 25, 1973

Memo to file: Geothermal Kinetics Power Ranches Inc. No. 1
NE/SE Sec 1-T2S-R6E
Maricopa County
Permit No. 605

Memo from W. E. Allen, Director
Enforcement Section

Drill Stem Test No. 1

From 4363 to 4326
The initial hydrostatic pressure is 2449 PSI
FHP 2499 PSI
IFP 328 PSI
FFP 1072 PSI
SIP 1541 PSI
Recovered 2430 supply mud cut brakish water

DEPARTMENTAL CORRESPONDENCE

DATE February 23, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEP'T Management

FROM Bert McComack DEP'T Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 23

Drilling at 4016' through coarse sandstone, basalt, volcanics; #7 bit drilling 469' in 65 hrs. Coming out of hole with 26 stands, preparing to run temperature check; inlet temperature, 116°; outlet temperature, 121°.

SATURDAY, FEBRUARY 24, 1973

Drilling at 4328' through volcanics, sand and clay; #8 bit drilling 312' in 15 hrs.

SUNDAY, FEBRUARY 25, 1973

Drilling at 4363'; circulating short tripping to condition hole for temperature check and DST.

Ran Almarado Temperature Bomb at 4361' - Temperature, 133.8°; ran maximum thermometer at 4350', temperature 160°.

DEPARTMENTAL CORRESPONDENCE

DATE February 20, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEP'T Management

FROM Bert McComack DEP'T Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 20

Drilling at 3626' in volcanics, #7 bit.
Bit #6 drilling 429' in 36¼ hrs.

Slope Test - At 3545' was 3/4°; tempera-
ture, 112½°; Vis., 40; weight,
10; drilling approximately 12
minutes/foot.

FEBRUARY, 1973

Feb. 21

Drilling at 3749' through silt stone,
shale and dark brown silky shale.
Inlet temperature, 105°; outlet temp-
erature, 118°. Drilling 8 minutes/foot.

FEBRUARY, 1973

Feb. 22

Drilling at 3889' through green shale,
5-6 minutes/foot; 340' in 47¼ hrs.

DEPARTMENTAL CORRESPONDENCE

DATE February 17, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEP'T Management

FROM Bert McConack DEP'T Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 17

Nippling up; started drilling at 6 p.m.;
drilled 70' of cement. We checked the
BOP stack at 1600 lbs. for 30 minutes; ok.

FEBRUARY, 1973

Feb. 18

We are drilling at 3252'; bit #6 did 134'
in 7½ hours.

FEBRUARY, 1973

Feb. 19

Drilling at 3493'; bit #6 made 375' in
35 hours, drilling 4 to 5 minutes per
foot. Drilling in dark igneous material,
volcanics.

DEPARTMENTAL CORRESPONDENCE

DATE February 14, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 13

Total depth, 3118', and logging.

FEBRUARY, 1973

Feb. 14

Down 79 joints, 13 3/8" intermediate casing, 68 lb. weight set at 3117'; concreted with 2,050 sacks of clear cement, regular, 30% silica flour.

Plugging down at 1:00 p.m.; good circulation in cement.

FEBRUARY, 1973

Feb. 15

Waiting on cement; nipping up.

FEBRUARY, 1973

Feb. 16

Nipping up.

DEPARTMENTAL CORRESPONDENCE

DATE February 9, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT. Management

FROM Bert McComack DEPT. Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 9

Drilling at 2569' coming out of hole,
#3 bit drilling 903' in 59½ hrs.

FEBRUARY, 1973

Feb. 10

Drilling at 2718' (15'/hr.) through
anhydrite, #4 bit drilling 149' in
11½ hrs. Jetted mud pit, drilling in
new mud.

FEBRUARY, 1973

Feb. 11

Drilling at 2929' through anhydrite and
silt, #4 bit drilling 360' in 34 3/4 hrs.
Lost 150 barrels of mud.

FEBRUARY, 1973

Feb. 12

Drilling at 3060' through besalt and
sandstone; last 6' from 3054', 25'/
minute, #4 bit drilling 459' in 54½ hrs.
coming out of hole.

DEPARTMENTAL CORRESPONDENCE

DATE February 5, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 5

Drilling at 1163' through conglomerate and clay, #2 bit; deviation at 288', 1/2°; at 650', 1/4°; and at 1025', 3/4°.

FEBRUARY, 1973

Feb. 6

Going in hole with bit #3, 1666'. Bit #2 made 1666'; deviation at 1650', 3/4°.

FEBRUARY, 1973

Feb. 7

Drilling at 1945' (30'/hr.) through clay and shale, #3 bit drilling 279' in 14 1/2 hrs.; temperature, 96°.

FEBRUARY, 1973

Feb. 8

Drilling at 2322' (15'/hr) through anhydrite & clay, #3 bit drilling 650' in 37 1/2 hrs. Deviation 3/4° at 2225'; weight, 40,000 lbs.

DEPARTMENTAL CORRESPONDENCE

DATE February 5, 1973

SUBJECT DRILLING REPORT

TO Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

FEBRUARY, 1973

Feb. 1

Drilling at 200', 17½" hole; drilling conglomerate. 17½" completed at 10:00 a.m.; pull and reamed at 26" hole.

FEBRUARY, 1973

Feb. 2

220' T.D., 26" hole; ran 8 joints of 20" casing set at 204' K.B., cemented with 400 sacks of regular 2% calcium chloride. Plugging down at 8:30 a.m., February 2, 1973.

FEBRUARY, 1973

Feb. 3

Waiting on cement; nipple up.

FEBRUARY, 1973

Feb. 4

Drilling at 575', #2 bit; started under surface at 7:00 p.m., February 3, 1973.

DEPARTMENTAL CORRESPONDENCE

DATE February 5, 1973

SUBJECT DRILLING REPORT
To Mike O'Donnell DEPT Management
FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

JANUARY, 1973

Jan. 28

Set 22' of 30" conductor pipe, cemented
4 yds. of redi mix.

JANUARY, 1973

Jan. 29

Rigging up.

JANUARY, 1973

Jan. 30

Rigging up.

JANUARY, 1973

Jan. 31

Preparing to drill; spudded hole at 7:00 p.m.

DEPARTMENTAL CORRESPONDENCE

DATE February 5, 1973

SUBJECT DRILLING REPORT

To Mike O'Donnell DEPT Management

FROM Bert McComack DEPT Drilling

REPORTED AS OF 7:00 a.m.

EACH MORNING

JANUARY, 1973

Jan. 2 - 15

Tearing down and loading out rig for move to Arizona.

Jan. 15 - Jan. 16

Moving to Arizona.

Jan. 17 - Jan. 19

Unloading trucks.

Jan. 20 - Jan. 28

Rigging up.

**APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOHERMAL RESOURCES WELL**

APPLICATION TO DRILL

RE-ENTER OLD WELL

GEOHERMAL KINETICS SYSTEMS CORPORATION

NAME OF COMPANY OR OPERATOR

301 WEST INDIAN SCHOOL RD. PHOENIX ARIZONA

ADDRESS

CITY

STATE

GEO DRILLING INC.

DRILLING CONTRACTOR

301 WEST INDIAN SCHOOL RD. PHOENIX ARIZONA

ADDRESS

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE,
NAME OF LESSOR
POWER RANCHES INC.

WELL NUMBER

1

ELEVATION (GROUND)

1338'

NEAREST DISTANCE FROM PROPOSED LOCATION
TO PROPERTY OR LEASE LINE:

660

FEET

DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING,
COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:

None

FEET

NUMBER OF ACRES IN LEASE:

1791

NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL,
COMPLETED IN OR DRILLING TO THIS RESERVOIR:

None

IF LEASE, PURCHASED WITH ONE OR MORE
WELLS DRILLED, FROM WHOM PURCHASED:

NAME

ADDRESS

-0-

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)
980' N. & 660' W. of SE corner of
Sec. 1

SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY
C NE/4 SE/4 Sec. 1 T2S R6E

DEDICATION
(COMPLY WITH RULE G-105
SE/4 Sec 1-2S-6E

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)
Wildcat

COUNTY

Maricopa

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

2 miles SE of Higley

PROPOSED DEPTH:

6000'

ROTARY OR CABLE TOOLS

Rotary

APPROX. DATE WORK WILL START

Jan. 22, 1973

BOND STATUS

AMOUNT 5000.00 ATTACHED

ORGANIZATION REPORT

ON FILE OR (ATTACHED)

FILING FEE OF \$25.00

(ATTACHED)

REMARKS: We have shown the SE/4 of Section 1-T2S-R6E dedicated to the well and after completion it might be desirable based upon the information obtained to adjust the dedication either up or down. Diagram of blowout equipment attached.

(TIGHT HOLE) MOD

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Vice-President
Corp.

OF THE Geothermal Kinetics Systems (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT;
AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE,
CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

CONFIDENTIAL

Mike O'Donnell
SIGNATURE

Release Date _____

Jan 15, 1973
DATE

PERMIT NUMBER: 605

APPROVAL DATE: 1-15-73

APPROVED BY: *UB*

NOTICE:

BEFORE SENDING IN THIS FORM BE SURE THAT YOU HAVE GIVEN
ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPOND-
ENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES

FORM NO. G-3

RECEIVED

JAN 15 1973

(COMPLETE REVERSE SIDE)

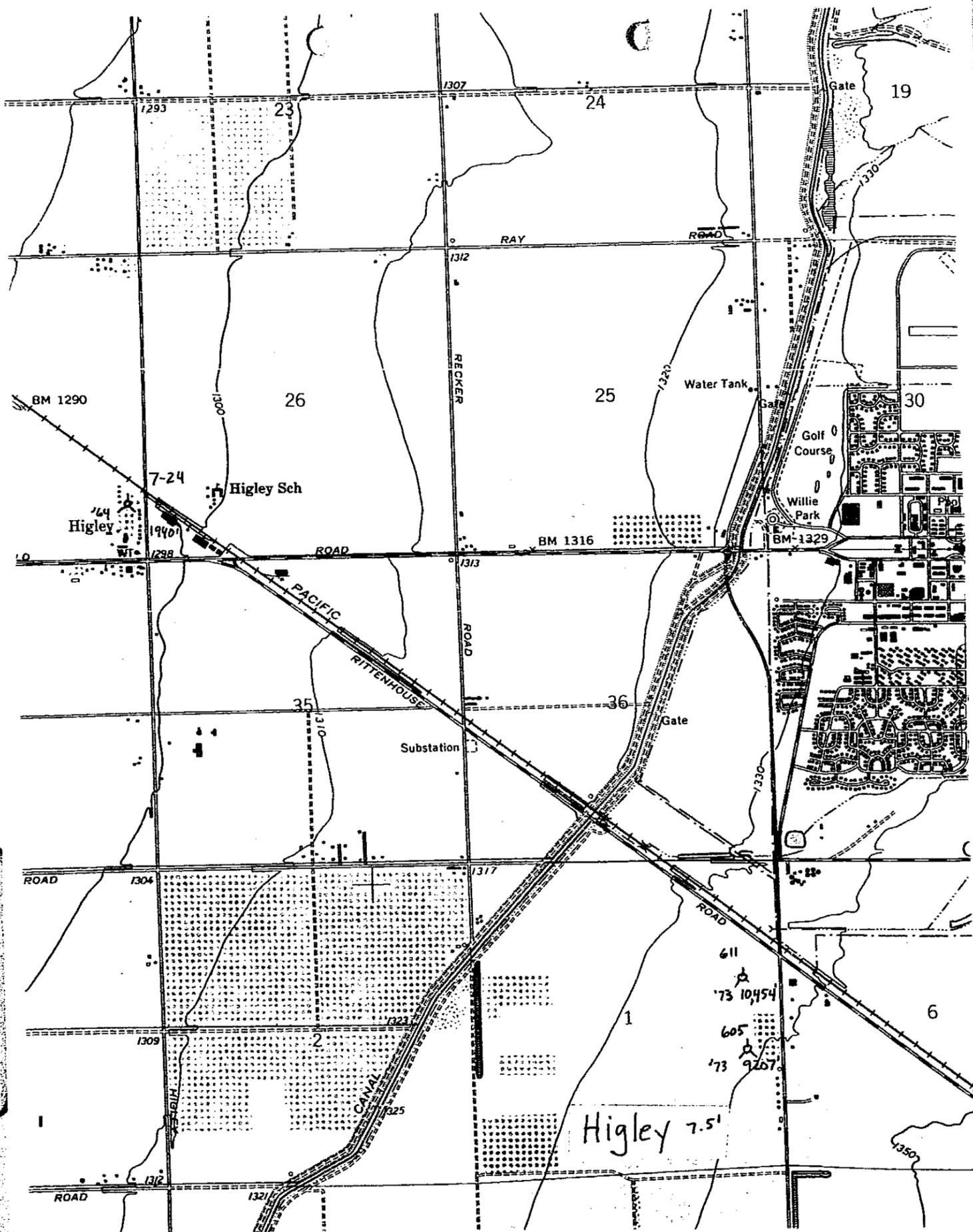
O & G CONS. COMM.

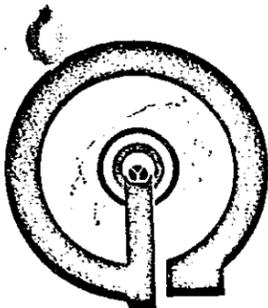
- OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.
- A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.
- ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.
- IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES NO
- IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES NO IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____
- IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner Powers Ranches Inc.	Land Description In NE 1/4 SE 1/4 Sec. 1 T25 R6E Maricopa County Arizona
<p>CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>Name: <i>Mike O'Donnell</i> Position: <i>Vice President</i> Company: <i>Westland Horstler Systems Corp</i> Date: <i>Jan 15, 1973</i></p> <p>I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p>Date Surveyed: <i>Jan 11, 1973</i> Registered Professional Engineer and/or Land Surveyor: <i>George C. Blount PE</i> Certificate No. <i>1000 4519</i></p>	

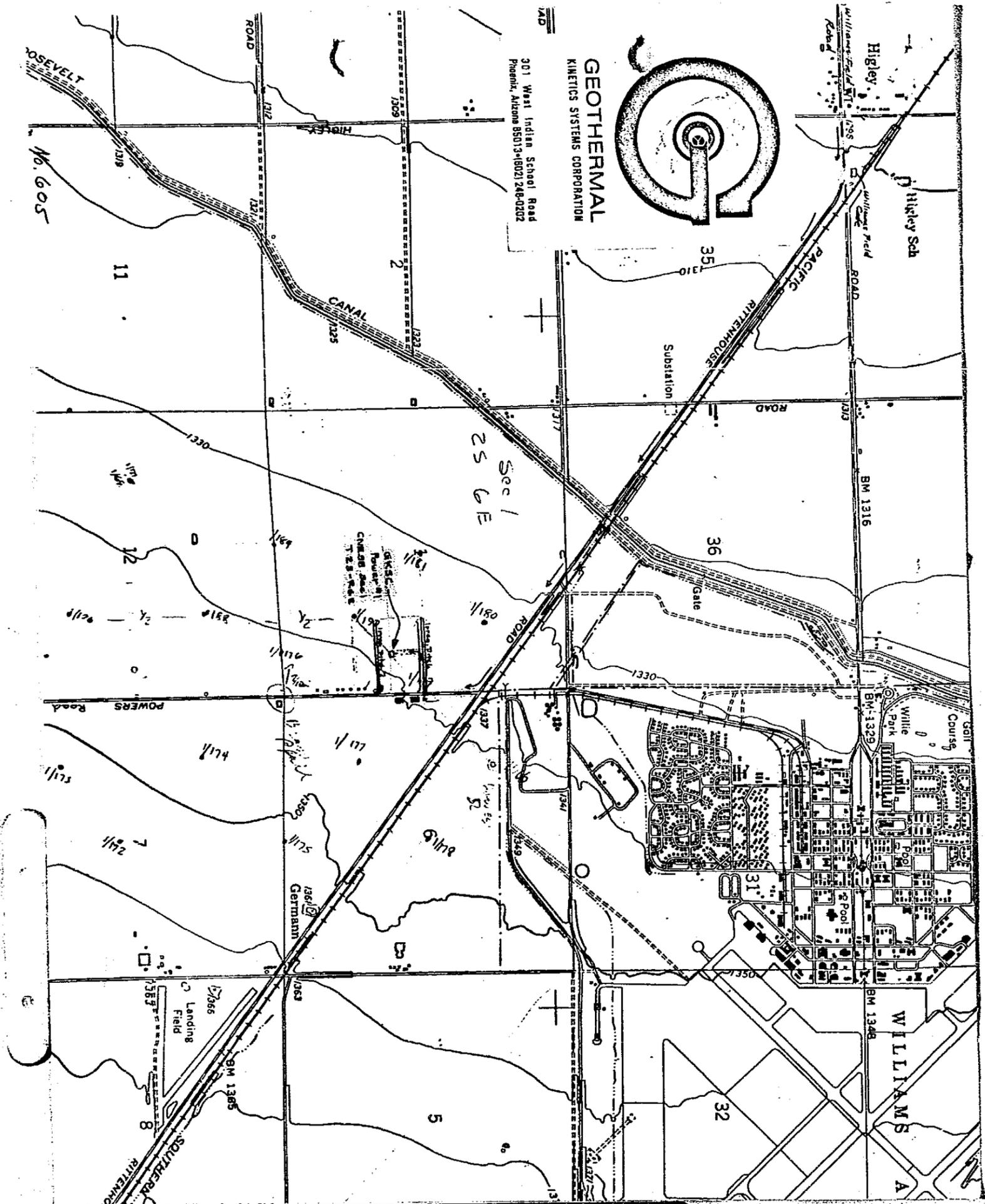
PROPOSED CASING PROGRAM

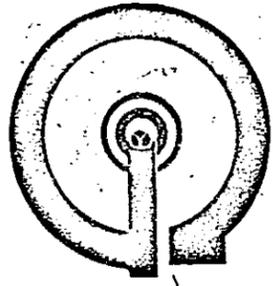
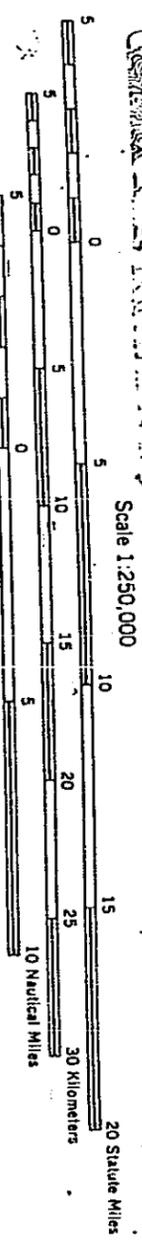
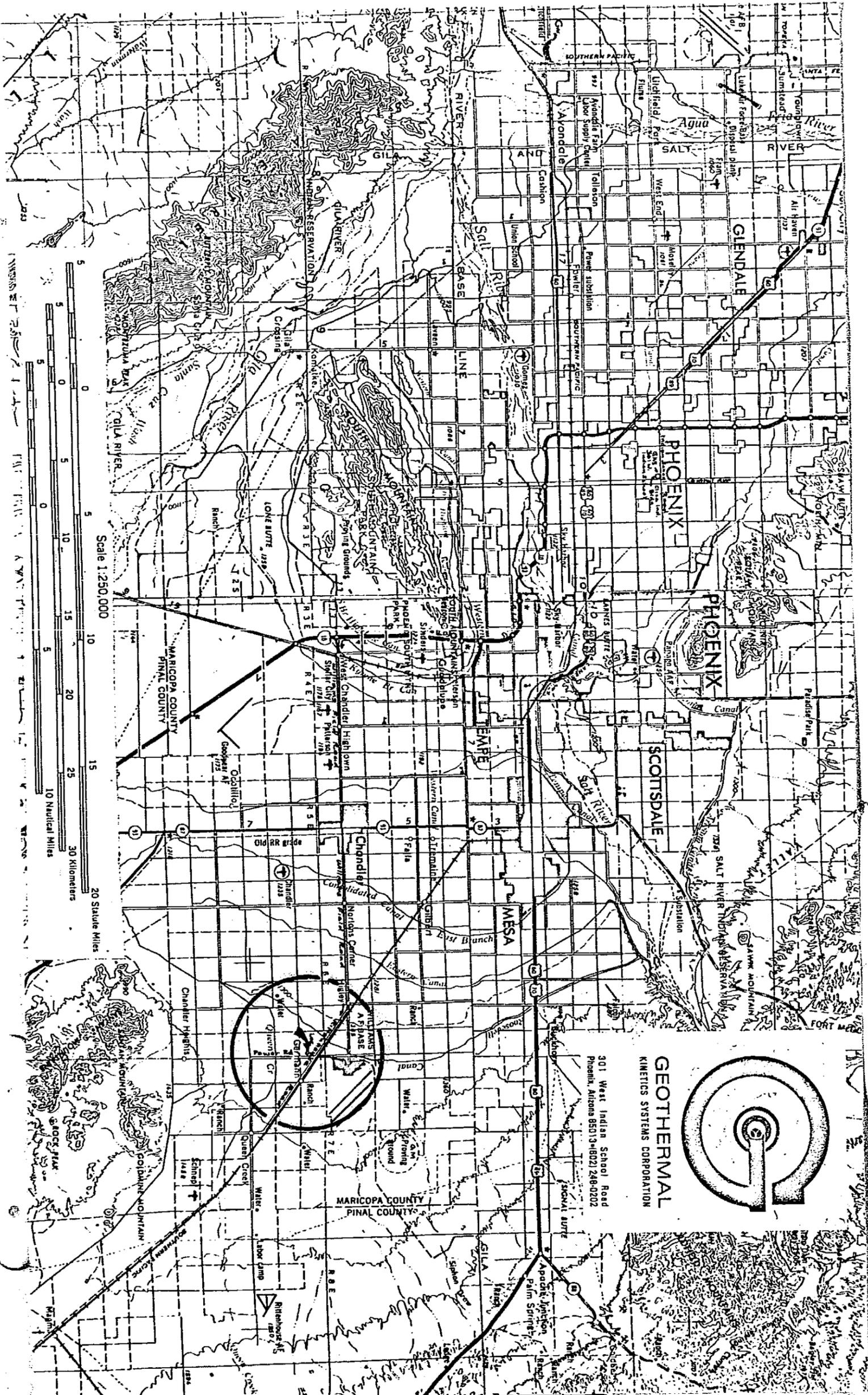
Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
20"	94.0#	H-40	0	200	200	Circulate
13 3/8"	61.0#	T-55	0	3,500	3,500	Circulate
9 5/8"	36.0#	-55	3,300	4,500	4,500	500
	49.0#	N-80				





**GEOTHERMAL
KINETICS SYSTEMS CORPORATION**
301 West Indian School Road
Phoenix, Arizona 85013-1802 248-0202





GEOTHERMAL
KINETICS SYSTEMS CORPORATION

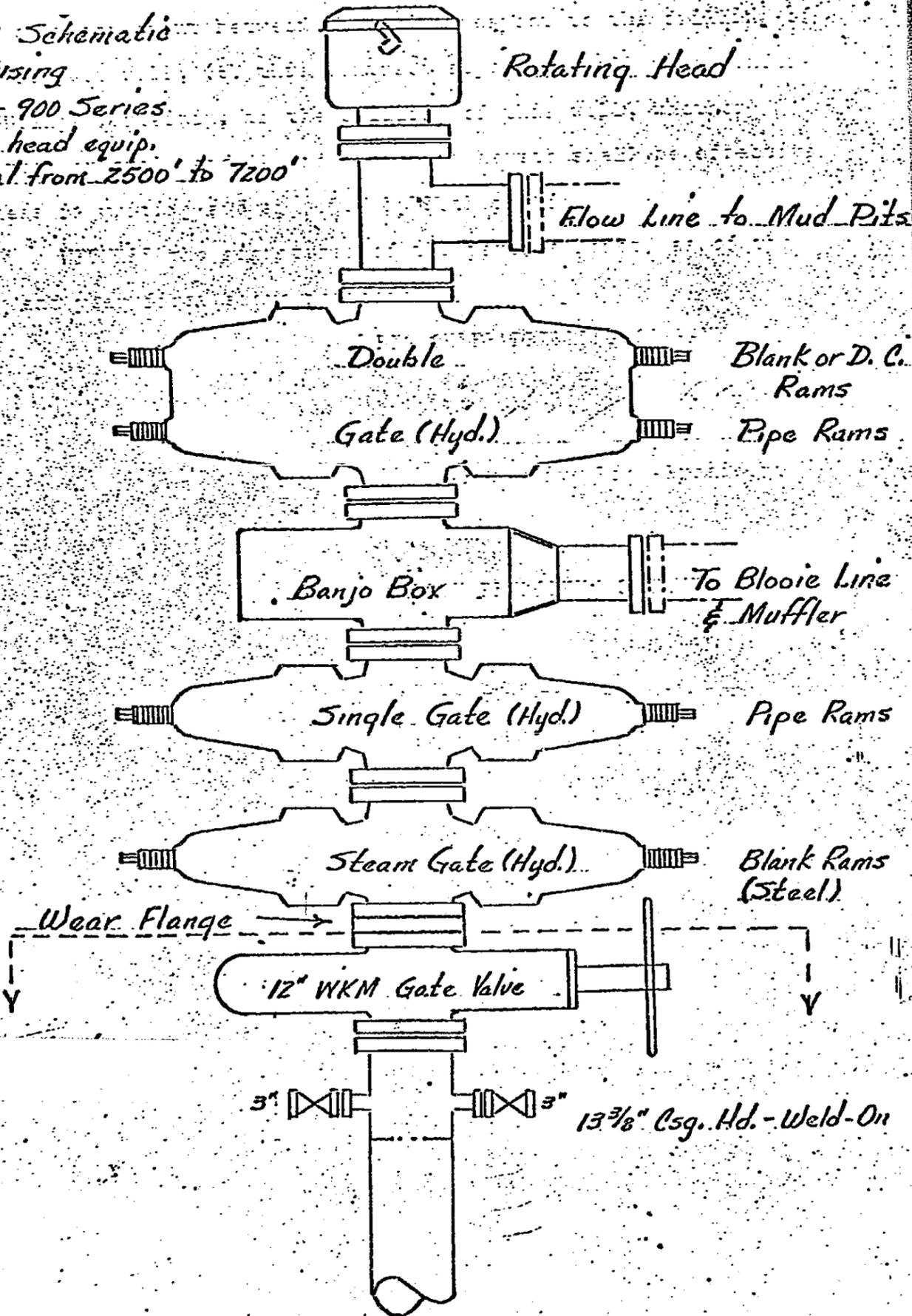
301 West Indian School Road
Phoenix, Arizona 85013-9822 248-0202

MARICOPA COUNTY
PINAL COUNTY

EXHIBIT "A"

GEOTHERMAL KINETICS
SYSTEMS CORPORATION

B.O.P. Schematic
using
600 or 900 Series
well head equip.
interval from 2500' to 7200'



PLEASE DETACH BEFORE DEPOSITING CHECK

DATE	INVOICE NO.	DESCRIPTION	GROSS	DISC. OR DEDUC.	NET
		Well Permit	25.00		

CONFIDENTIAL

Release Date _____

605

GEOHERMAL — KINETICS SYSTEMS CORPORATION



PERMIT TO DRILL

This constitutes the permission and authority from the
OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: GEO THERMAL KINETICS SYSTEMS CORP.
(OPERATOR)

to drill a well to be known as

POWER RANCHES INC. NO. 1
(WELL NAME)

located 1980 N & 660 W of SE/corner of Sec 1

Section 1 Township 2S Range 6E, Maricopa County, Arizona.

The The entire SE/4 - 160 acres of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled
in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 15th day of January 15, 19 73.

OIL AND GAS CONSERVATION COMMISSION

By [Signature]
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL
YOU MUST BE IN FULL COMPLIANCE WITH RULE
1006 SECTION A TIRU 8 (SPACING), WITH RESPECT
TO THE PRODUCT TO BE PRODUCED.

PERMIT **Nº 605**

RECEIPT NO. 2943
API NO. 02-013-2000.4

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

SAMPLES ARE REQUIRED

CONFIDENTIAL

Release Date _____



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

February 2, 1995

Mr. Don Switzenberg
DMS Holding Company
7585 East Redfield, Suite 212
Scottsdale, Arizona 85260

Re: Power Ranches Geothermal wells Nos. 1 and 2
Sec. 1, T. 2 S., R. 6 E., Maricopa County, Arizona
State Permits Nos. 605 and 611

Dear Mr. Switzenberg:

This letter will confirm that the two referenced wells were plugged and abandoned in accordance with A.A.C. R12-7-232 in October 1994. The performance bonds on the wells were released in November 1994.

Sincerely,

Steven L. Rauzi
Oil & Gas Program Administrator



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795
November 28, 1994



Larry D. Fellows
Director and State Geologist

Power Enterprises
c/o John J. Schneider
Plattner, Schneidman & Schneider
Highland Court
1707 E. Highland, Suite 190
Phoenix, Arizona 85016

CERTIFIED MAIL

file 605

Dear John:

As you know, the Oil and Gas Conservation Commission moved to release the two \$5,000 performance bonds posted by Cam-Roy for the two geothermal wells on the Power Ranches property to the entity that actually performed the work of plugging the wells. Since Power Enterprises, through Mr. L.W. Brooks, performed this work, the Cam-Roy bonds were released to Power Enterprises.

As requested by Mr. Brooks, I have enclosed a cashiers check in the amount of \$10,000 made payable to Power enterprises. The bank issued a cashiers check for accrued interest in the amount of \$22.60 made payable to the Arizona Geological Survey. A check drawn on the Survey's account made payable to Power Enterprises is enclosed for the accrued interest.

Please let me know if I may be of any additional assistance.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program A

Enclosures

cc Beryl Dalsky

<p>SENDER:</p> <ul style="list-style-type: none"> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered. 	<p>I also wish to receive the following services (for an extra fee):</p> <p>1. <input type="checkbox"/> Addressee's Address</p> <p>2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.</p>
	<p>4a. Article Number 20201190</p>
<p>3. Article Addressed to: Power Enterprises c/o John Schneider Plattner, Schneidman & Schneider Highland Court 1707 E Highland Ste 190 Phoenix, Az. 85016</p>	<p>4b. Service Type</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise</p>
<p>5. Signature (Addressee) <i>[Signature]</i></p>	<p>6. Signature (Agent) <i>[Signature]</i></p>
<p>PHOENIX, AZ NOV 29 1994</p> <p>DOMESTIC RETURN RECEIPT</p>	

Thank you for using Return Receipt Service.

PURCHASED BY Cam-Roy Research Corp. OFFICE NO. 095 **T3770671**
ADDRESS UMO TUCSON, ARIZONA 11-18 1994 91-1/1221

PAY TO THE ORDER OF * * * * * POWER ENTERPRISES * * * * * \$ 10,000.00
First Interstate **10,000** dollars **00/100** DOLLARS

First Interstate Bank of Arizona, N.A.

CASHIER'S CHECK

[Signature]
AUTHORIZED SIGNATURE

⑆37706715⑆ ⑆122100011⑆ 00170025⑆

ARIZONA GEOLOGICAL SURVEY - FUND
845 N. PARK, NO. 100 882-4795
TUCSON, AZ 85719

933

November 28 1994 91-2/1221

PAY TO THE ORDER OF Twenty two dollars and 60/100 DOLLARS \$ 22.60

POWER ENTERPRISES
1707 E HIGHLAND STE 190
PHOENIX AZ 85016

Interest on C.D.s

[Signature]

⑆000933⑆ ⑆122100024⑆ 22480084⑆

Valley National Bank of Arizona
UNIVERSITY OFFICE (028)
P.O. Box 40130
Tucson, Arizona 85717

R-145A (11-84)

Customer Copy

BANK	011	SLICE No.	0147	TYPE	010
CUSTOMER NUMBER	1470-20719				

NON-TRANSFERABLE
TIME CERTIFICATE OF DEPOSIT
(Continuous - No Renewal Necessary)

*****CAM-ROY RESEARCH CORP.*****
 HA S DEPOSITED IN THIS BANK NOT SUBJECT TO CHECK
 DOLLARS \$ ***5,000.00***
The First 5,000 Dollars

PAYABLE TO *****ARIZONA OIL and GAS COMMISSIONER*****
 IN CURRENT FUNDS UPON MATURITY AS HEREAFTER SPECIFIED AND UPON PRESENTATION AND SURRENDER OF THIS CERTIFICATE PROPERLY ENDORSED
 SAID DEPOSITS EARN INTEREST AT THE RATE OF 5 90 PERCENT PER ANNUM FOR One Year TERM.
 FROM THE DATE HEREOF UNTIL ULTIMATE MATURITY, SUCH INTEREST TO BE PAYABLE Monthly into #1470-06342

First Interstate Bank of Arizona, N.A.
 Authorized Signature M. J. [Signature]

Effective Date	12-18-86	Term	1	Redemption Value	
----------------	----------	------	---	------------------	--

No. **2506289**

⑆ 2506289⑆ ⑆ 59991800 ⑆

R-145A (11-84)

Customer Copy

BANK	011	SLICE No.	0147	TYPE	010
CUSTOMER NUMBER	1470-20719				

NON-TRANSFERABLE
TIME CERTIFICATE OF DEPOSIT
(Continuous - No Renewal Necessary)

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 FROM THE DATE HEREOF UNTIL ULTIMATE MATURITY, SUCH INTEREST TO BE PAYABLE monthly into #1470-06342

First Interstate Bank of Arizona, N.A.
 Authorized Signature M. J. [Signature]

Effective Date	12-18-86	Term	1	Redemption Value	
----------------	----------	------	---	------------------	--

No. **2506290**

⑆ 2506290⑆ ⑆ 59991800 ⑆

These Time Certificate's of Deposit have been received by First Interstate Bank and place in safekeeping on 10-28-94. They will be redeemed on 12-18-94 and a cashier's check issued for 10,000.00 payable Powers Enterprises.

Janni Hawkins
 Janni Hawkins
 Financial Services Manager

OIL AND GAS CONSERVATION COMMISSION
845 North Park Avenue, #100
Tucson, Arizona 85719

Minutes of Meeting
October 28, 1994

file 605

Present:

Dr. J. Dale Nations, Chairman
Mrs. Lisa C. Worthington, Vice-Chair
Mr. James C. Lanshe, Member
Dr. Jan C. Wilt, Member
Mr. Zed Veale, Member
Dr. Larry D. Fellows, State Geologist
Mr. Steven L. Rauzi, Oil and Gas Program Administrator

The regular Commission Meeting of October 28, 1994, was called to order by Dr. J. Dale Nations, Chairman, at 10:00 a.m. in Room 500, State Capitol Tower, Phoenix, Arizona.

DISCUSSION AND VOTE TO RELEASE #1 AND #2 POWER RANCHES GEOTHERMAL BONDS

After introducing Mr. Pomeroy of Cam-Roy Research Corporation, Mr. Rauzi advised that the quiet title action established that Cam-Roy is out, that the owner of the wells is the owner of the land, and that transfer of the property does not release the bonds. Furthermore, that Cam-Roy did not plug and abandon the wells after the Commission refused to extend the temporary abandonment status of the wells and because Power Enterprises, the owner of the land, did plug and abandon the wells, and thereby bring them into full and final compliance with the Commission's rules, the Commission should move to release these performance bonds to Power Enterprises.

Mr. Pomeroy stated that the bonds were posted by Cam-Roy as drilling bonds and that since Cam-Roy never did any drilling on the wells the bonds should be released back to Cam-Roy. Mr. Rauzi advised Mr. Pomeroy that the bonds were performance bonds to insure compliance with the Commission's rules including the operator's obligation to plug and abandon them if commercial production was not established.

Dr. Wilt moved, seconded by Mrs. Worthington:

THAT THE PERFORMANCE BONDS ON THE #1 AND #2 POWER RANCHES GEOTHERMAL WELLS BE RELEASED TO THE ENTITY DOING THE WORK OF PLUGGING THE WELLS (POWER ENTERPRISES)

Motion carried unanimously.

SECURITIES SAFEKEEPING
 1700 WEST WASHINGTON ST. - PHOENIX, ARIZONA 85007

DATE: OCTOBER 28, 1994

STATE AGENCY NO. _____

STATE AGENCY ARIZONA OIL & GAS COMMISSION

State Treasurer's Use Only

COMPANY CAM-ROY RESEARCH CORP ✓
P O BOX 893
CHANDLER AZ 85224

DOMESTIC FOREIGN

DEPOSIT

C.D. NO.:

BANK:

MATURITY DATE:

INTEREST RATE: %

AMOUNT \$

C.D. ASSIGNMENT MUST BE ATTACHED UNLESS C.D. IS PAYABLE TO STATE TREASURER

RELEASE

C.D. NO.: 2506289 ✓

BANK: FIRST INTERSTATE BANK OF ARIZONA ✓

MATURITY DATE: 12/18/87 ✓

INTEREST RATE: 5.9 % ✓

AMOUNT \$ 5,000.00 ✓

STATE TREASURER VALIDATION NO. _____

RECEIVED BY
 STATE TREASURER
 Oct 28 8 59 AM '94

RECEIVED THE ABOVE RELEASE	STATE AGENCY AUTHORIZATION
BY <u>Steven L. Rainz</u> 10/28/94 Authorized Signature Date	BY <u>Steven L. Rainz</u> Authorized Signature
ARIZONA OIL & GAS COMMISSION Bank or Firm	BY <u>Katherine Valente</u> Authorized Signature
FOR BANK USE ONLY	BANK AUTHORIZATION
Checked by _____ Verified by _____	BY _____ Authorized Signature
	STATE'S DEPOSITORY BANK



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

October 20, 1994

file 605

VIA TELECOPY 10/20/94

Janni Hawkins
Financial Services Manager
First Interstate Bank
1701 East Speedway
Tucson, Arizona 85717

Subject: Release of drilling bonds on Power Ranches geothermal wells

Dear Ms. Hawkins:

The two referenced wells have been plugged and abandoned by Power Enterprises. As we discussed on October 7, the Oil and Gas Conservation Commission of the State of Arizona will move to release the bonds on these two wells to Power Enterprises in its next meeting scheduled for Friday, October 28, 1994.

Please recall that the bonds for these wells are in the form of two \$5,000 certificates of deposit currently in safekeeping with the State Treasurer. I plan to present them at the next Commission meeting for the Chairman's endorsement after the Commission moves to release the bonds to Power Enterprises, the current owner of the wells. As a result, I will need a cashiers check made payable to Power Enterprises upon surrender of the C.D.'s.

I plan to bring the endorsed C.D.'s into the bank on Monday, October 31. Please let me know if you require any additional information with respect to this transaction.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil and Gas Program Administrator



Fife Symington
Governor

State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

TO: Permit file 605, Power Ranches well No. 1

FROM: *SLR* Steven L. Rauzi
Oil & Gas Program Administrator

DATE: October 13, 1994

SUBJECT: Modification to approved plugging program

I witnessed the attempted plugging of this well per the approved plugging program on Wednesday, October 12, 1994.

This well is bridged at 2,885 feet below the ground surface. All attempts to get below the bridge at this depth were unsuccessful. In light of the bridge in the Power Ranches well No. 1, I authorized Mr. L.W. Brooks to set a permanent bridge plug in the 13 3/8" casing just above the bridged part of the hole. Cement will be spotted on top of this bridge plug with a dump bailer.

Otherwise there is no modification to the approved plugging program for this well.



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

September 22, 1994



Larry D. Fellows
Director and State Geologist

Mr. Beryl I. Dulsky
Attorney General's Office
1275 West Washington
Phoenix, Arizona 85007

VIA TELECOPY 9/22/94

Re: Power Ranches geothermal wells 1 and 2, State Permits 605 and 611

Dear Beryl,

Work to plug and abandon the two referenced wells may commence soon and should be completed by October 28, 1994, the time of the next Oil and Gas Commission's meeting.

Mr. L.W. Brooks requested the bond money to help defray the cost of this work. I advised him that the bonds would not be released until wells were plugged and abandoned.

I called Chairman Nations and reviewed this with him. He agreed that the Cam-Roy interests have forfeited their right to the funds because they failed to plug the wells as required after the Commission did not extend temporary abandonment. He further agreed that the funds should be released to Mr. Brooks (owners representative) and that it should be accomplished at the October 28 meeting if, in fact, the wells have been plugged by then.

The question is how to efficiently and properly release these funds to Mr. Brooks. The bond is in the form of two \$5,000 certificates of deposit payable to the "Arizona Oil and Gas Commissioner." Normally, the Commission would just endorse and return the C.D. to the depositor. In this case the funds are to be returned to someone other than the depositor. Wouldn't you think that Mr. Brooks would find it simpler to cash an endorsed cashiers check payable to the Commission than an endorsed C.D. payable to the Commission. Please advise.

Sincerely,

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures (1) Pomeroy agreement of 2/28/84, (2) copies of referenced C.D.'s, (3) Brennan letter of 3/7/88 to Pomeroy, and (4) Brennan letter of 4/12/88 to Pomeroy



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

September 16, 1994

Mr. L.W. Brooks
BMS Holding Company
7585 East Redfield, Suite 212
Scottsdale, Arizona 85260

file 605

Re: Power Ranches wells 1 & 2, State Permits Nos. 605 & 611
Section 1, T. 2 S., R. 6 E., Maricopa County, Arizona

Dear Mr. Brooks:

Your applications dated September 2, 1994, to plug and abandon the referenced wells using bridge plugs as provided in R12-7-232 have been approved. Duplicate originals of the approved applications are enclosed for your file.

Your applications to plug and abandon the referenced wells are approved on the condition that the plugging is performed as outlined in the applications and that you notify me at least 48 hours before commencing field operations to plug and abandon the wells.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

c Beryl I. Dulsky, Attorney General's Office

September 16, 1994

Memo: Files 605 and 611
From: *SLR* Steven L. Rauzi, Oil and Gas Program Administrator

Re: Application to plug and abandon
Power Ranches wells 1 & 2, State Permits Nos. 605 & 611
Section 1, T. 2 S., R. 6 E., Maricopa County, Arizona

The fluid migration potential in the two referenced wells is minimal:

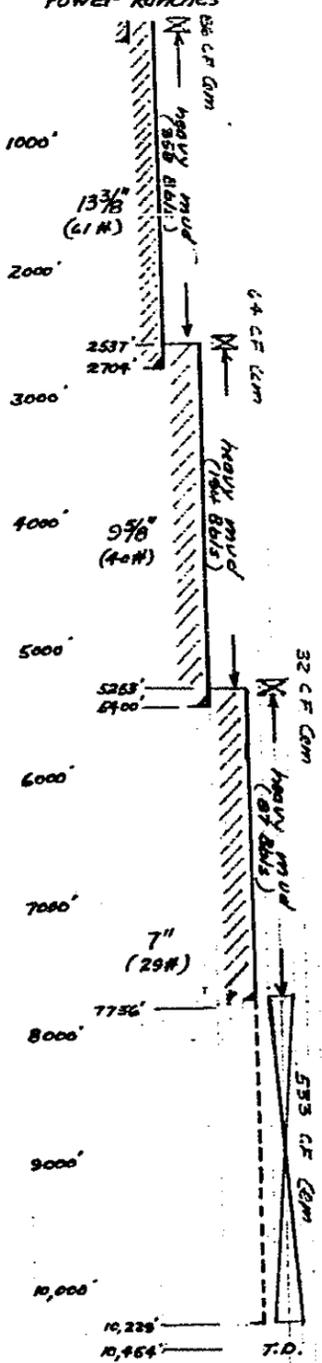
1. There are no pressured formations.
2. There is no sustained pressure on the surface casing annulus of either well.
3. Cement was circulated from the bottom to the surface on both the surface and intermediate casings in both of the wells.
4. Cement was circulated from the bottom to the top of each liner in both of the wells.
5. Cement was squeezed on the top of the 7" liners in both of the wells.
6. All annular spaces are plugged to the surface with cement in both of the wells.

As a result of there being no abnormally pressured formations in either of the referenced wells, the formation water present in both of the wellbores is sufficient to balance the known pore pressures in all formations to total depth.

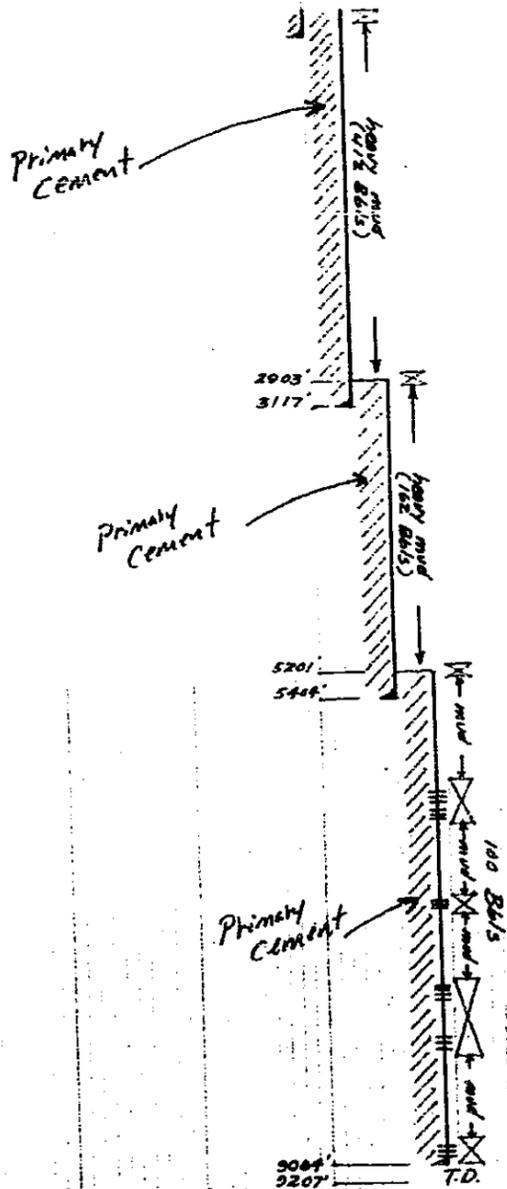
*L.W. Shooks called 9-22-94
- Wellheads removed on both wells - no pressure
- is arranging doper work to level and restore reserve pits.*

1320'

Geothermal kinetics
No. 2
Power Ranches



Geothermal kinetics
No. 1



L. W. Brooks, Jr.

L. W. Brooks, Jr.
10126 E. Topaz Drive
Scottsdale, AZ 85258

602-661-4900

September 2, 1994

file 605

Mr. Steve Rauzi
Arizona Oil & Gas Administrator
Arizona Geological Survey
845 North Park Avenue Suite 100
Tucson, AZ 85719

AZ OIL & GAS
CONSERVATION COMMISSION

SEP 8 1994

Dear Mr. Rauzi,

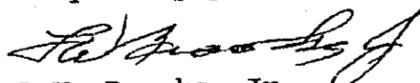
Attached are duplicate Applications to Plug the Power Ranch abandoned Geothermal Wells drilled in 1973 and known as Power #1 (Permit #605) and Power #2 (Permit #611).

Included are daily drilling reports substantiating the pipe and cement programs when the wells were drilled.

As you will notice, I have set a tentative date for plugging these wells as @ October 17, 1994. This will allow the weather to cool down and give plenty of time to prepare for the plugging operations.

If I have failed to include anything in these applications, please let me know.

Very truly yours,


L.W. Brooks, Jr.

Office Tel: 602-951-6130

DMS Holding Company
Attention: L.W. Brooks, Jr.
7585 East Redfield Suite 212
Scottsdale, AZ 85260

cc: DMS Holding Company
Power Enterprises

LAW OFFICES

PLATTNER, SCHNEIDMAN & SCHNEIDER, P.C.

Highland Court
1707 East Highland, Suite 190
Phoenix, Arizona 85016
Telephone: (602) 274-7955
Facsimile: (602) 285-5589

LESLIE A. PLATTNER
JEFF SCHNEIDMAN
JOHN J. SCHNEIDER
GREGORY W. MacNABB

SHEILA M. RINDER
DAVID A. CRAZE
KATHERINE M. SIMMONS
VIC CASEBOLT

Of Counsel
ROBERT M. DAUDET

July 6, 1994

file 605

Arizona Geological Survey
854 N. Park Avenue, Suite 100
Tucson, Arizona 85719
ATTN: Steven L. Rauzi
Oil & Gas Program Administrator

Re: Power Ranches Geothermal Wells 1 and 2, State permit
Nos. 605 & 611

Dear Mr. Rauzi:

This firm represents Power Enterprises, an Arizona general partnership, which is the first beneficiary under Trust No. 1248. Both Power Enterprises and Gilbert-Arizona Power Road Property Joint Venture, the second beneficiary under Trust No. 1248, have requested that Mr. L.W. Brooks, C/O Don Switzenberg 7585 E. Redfield, Suite 212 Scottsdale, Arizona 85260 represent them before the Oil and Gas Conservation Commission in the above referenced matter. Mr. Brooks has over 40 years of experience in oil and gas drilling and exploration. Both the first beneficiary and the second beneficiary under Trust No. 1248 have the utmost respect and confidence in Mr. Brooks and his abilities to represent the beneficiaries mutual concerns before the Oil and Gas Conservation Commission of the State of Arizona.

This firm on behalf of Power Enterprises, the first beneficiary under Trust No. 1248, has been authorized to engage Mr. Brooks in this matter. By executing a copy of this letter, Gilbert-Arizona Power Road Property Joint Venture, the second beneficiary under Trust No. 1248, has engaged Mr. Brooks to represent the second beneficiary in this matter.

Please extend to Mr. Brooks the same cooperation and consideration in this matter which you would extend to any member of either the first or second beneficiary. If you have any

PLATTNER, SCHNEIDMAN & SCHNEIDER, P.C.

Arizona Geological Survey
July 6, 1994
Page 2

questions regarding Mr. Brooks' authorization in this matter,
please do not hesitate to contact us.

Sincerely,

PLATTNER, SCHNEIDMAN &
SCHNEIDER, P.C.



John J. Schneider

Acknowledged this ____ day of July, 1994.

GILBERT-ARIZONA POWER ROAD
PROPERTIES JOINT VENTURE, an Arizona
joint venture

By: GILBERT-ARIZONA POWER RANCH
LIMITED PARTNERSHIP, an Arizona
limited partnership

By: POWER DEVELOPMENT CORPORATION,
an Arizona corporation

By: _____
DONALD M. SWITZENBERG,
President

JJS/dc

cc: Power Enterprises
Gilbert-Arizona Power Road Property Joint Venture

35645KLT.D04

JUL 6 '94 15:30

PAGE.002

LAW OFFICES

PLATTNER, SCHNEIDMAN & SCHNEIDER, P.C.

Highland Court
1707 East Highland, Suite 190
Phoenix, Arizona 85016
Telephone: (602) 274-7955
Facsimile: (602) 285-5589

LESLIE A. PLATTNER
JEFF SCHNEIDMAN
JOHN J. SCHNEIDER
GREGORY W. MacNABB

SHEILA M. RINDER
DAVID A. CRAZE
KATHERINE M. SIMMONS
VIC. CASEROLI

Of Counsel
ROBERT M. DAUDET

July 6, 1994

Arizona Geological Survey
854 N. Park Avenue, Suite 100
Tucson, Arizona 85719
ATTN: Steven L. Rauzi
Oil & Gas Program Administrator

Re: Power Ranches Geothermal Wells 1 and 2, State permit
Nos. 605 & 611

Dear Mr. Rauzi:

This firm represents Power Enterprises, an Arizona general partnership, which is the first beneficiary under Trust No. 1248. Both Power Enterprises and Gilbert-Arizona Power Road Property Joint Venture, the second beneficiary under Trust No. 1248, have requested that Mr. L.W. Brooks, C/O Don Switzenberg 7585 E. Redfield, Suite 212 Scottsdale, Arizona 85260 represent them before the Oil and Gas Conservation Commission in the above referenced matter. Mr. Brooks has over 40 years of experience in oil and gas drilling and exploration. Both the first beneficiary and the second beneficiary under Trust No. 1248 have the utmost respect and confidence in Mr. Brooks and his abilities to represent the beneficiaries mutual concerns before the Oil and Gas Conservation Commission of the State of Arizona.

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Please extend to Mr. Brooks the same cooperation and consideration in this matter which you would extend to any member of either the first or second beneficiary. If you have any

JUL 6 '94 15:30

PAGE.003

PLATTNER, SCHNEIDMAN & SCHNEIDER, P.C.

Arizona Geological Survey
July 6, 1994
Page 2

questions regarding Mr. Brooks' authorization in this matter,
please do not hesitate to contact us.

Sincerely,

PLATTNER, SCHNEIDMAN &
SCHNEIDER, P.C.



John J. Schneider

Acknowledged this 6 day of July, 1994.

GILBERT-ARIZONA POWER ROAD
PROPERTIES JOINT VENTURE, an Arizona
joint venture

By: GILBERT-ARIZONA POWER RANCH
LIMITED PARTNERSHIP, an Arizona
limited partnership

By: POWER DEVELOPMENT CORPORATION,
an Arizona corporation

By: 
DONALD M. SWITGENBERG,
President

JJS/dc
cc: Power Enterprises
Gilbert-Arizona Power Road Property Joint Venture
35545KLT.204



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

June 28, 1994



Larry D. Fellows
Director and State Geologist

Mr. L.W. Brooks
c/o Don Switzenberg
7585 Redfield
Scottsdale, Arizona 85260

Re: Power Ranches geothermal wells 1 and 2, State permits Nos. 605 & 611

Dear Mr. Brooks:

The Oil and Gas Conservation Commission of the State of Arizona will meet on July 8 in Phoenix. One of the agenda items will be a discussion of the status of the two referenced wells. I would like to advise the Commission of any progress relative to your request of February 9 for information on plugging the wells and Mr. John Schneider's request of March 24 for forms required to plug and abandon. As a result, I would appreciate it if you would advise me of any progress on your part in this matter.

I would note that an alternative to the plugging quote that I mailed to you on February 9 is the placement of a bridge plug at the top of each formation open to the well bore (see A.A.C. R12-7-232(A)(1), which was mailed with the plugging quote). This alternative may cost less than the procedure outlined in the plugging quote mailed to you on February 9. In any event, the Commission looks forward to working with you on the method of plugging to get these wells properly plugged and abandoned at your earliest convenience.

An agenda for the July 8 meeting is enclosed. Of course, your attendance at the meeting would be most welcome should you prefer to personally advise the Commission of any progress to plug and abandon the wells.

Sincerely,

Steven L. Rauzi
Oil & Gas Program Administrator

c John Schneider

bc B.I.D. AG's Office



STATE OF ARIZONA

OFFICE OF THE ATTORNEY GENERAL

1275 WEST WASHINGTON, PHOENIX 85007

MAIN PHONE : 542-5025
TELECOPIER : 542-4085

GRANT WOODS
ATTORNEY GENERAL

March 29, 1994

605

John J. Schneider, Esq.
Plattner, Schneidman & Schneider, P.C.
1707 E. Highland, Ste. 190
Phoenix, Arizona 85016-4658

Re: Trust No. 1248

Dear Mr. Schneider:

Thank you for your letter of February 10 with respect to the above-noted matter.

In answer to your question as to the status of the bonds posted in connection with the two wells located on property owned by your client, Power Enterprises, please be advised that the bonds are in the possession of the Oil and Gas Commission as required by law.

In answer to your question as to the existence of authority to require the property owner to perform and pay for plugging and abandoning of a well owned by it, I refer you to A.R.S. § 27-654 which authorizes the Commission to require "every person who engages in the drilling, ownership or operation of a well" to file a bond "conditioned upon the performance of the duties required by this section and the abandonment, as approved by the commission **." Also, I refer you to A.A.C., R12-7-203(A) which requires a posting of a bond which "shall be conditioned on the following requirements:

1. Compliance with all statutes and rules and regulations.
2. Plugging and abandoning well as approved by the Commission."

Additionally, the provisions of A.A.C., R12-7-203(B) are applicable.

Thus, since your client is the first beneficiary under Trust 1248, under the terms of which I understand the beneficiaries are responsible for maintenance of the property, your client is the party responsible for plugging and abandoning

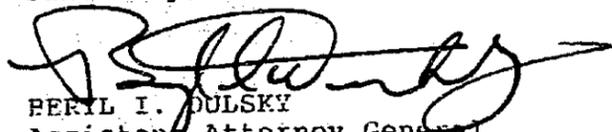
John J. Schneider, Esq.
March 29, 1994
Page Two

the wells. This is further confirmed by the successful quiet title action which terminated the Cam-Roy Lease on the property. Therefore, not only do Arizona Statutes and Rules impose the responsibility for plugging and abandoning upon your client, but fundamental principles of real property law do so as well.

The Commission is pleased that the beneficiaries under the trust recognize and appreciate the need for plugging and abandoning the wells and also that efforts are being undertaken to accomplish that.

We again invite your clients and you to contact us so that we may discuss this matter and arrange for the prompt, expeditious plugging and abandonment of these two wells.

Sincerely,


BERYL I. DULSKY
Assistant Attorney General
Civil Unit Chief,
Environmental Enforcement Section

BID:ach
0549A:42



STATE OF ARIZONA

OFFICE OF THE ATTORNEY GENERAL

GRANT WOODS
ATTORNEY GENERAL

1275 WEST WASHINGTON, PHOENIX 85007

MAIN PHONE : 542-5025
TELECOPIER : 542-4085

January 21, 1994

File Permit 605

United Title Agency of Arizona, Inc.
3030 North Central, Suite 1102
Phoenix, Arizona 85012

Re: Trust No. 1248

Dear Gentlemen:

The records of the Maricopa County Recorders Office indicate that your company is trustee of the above-noted trust which owns certain real property located on Power Road in Higley, Arizona. The primary beneficiary of the trust is Power Enterprises and the secondary beneficiary is Gilbert-Arizona Power Road Property Joint Venture.

The Oil and Gas Commission of the State of Arizona granted permission in the 1970s for the drilling of two geothermal wells on the property. The two wells were drilled and have remained on the property although they have not been in operation for a number of years.

It has been determined by the Commission that, by virtue of the bankruptcy of the owners of the wells and a quiet title action in the late 1980s, ownership of the wells has reverted to the owner of the real property, Trust No. 1248.

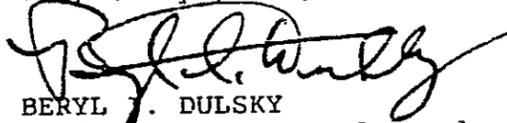
Under Arizona law, a well which is no longer in use must be "plugged and abandoned." The responsibility for performing and paying for such work is that of the property owner in the event of a reverter of well ownership.

This office has been instructed, in its capacity as attorney for the Oil and Gas Commission, to inform you that the Commission expects that the Trust will undertake such work and will pay for it. I invite you to contact me at 542-1610 at your

United Title Agency of Arizona Inc.
January 21, 1994
Page Two

earliest convenience so that we may discuss this matter and
arrange for the prompt and expeditious plugging and abandonment
of these two wells.

Very truly yours,



BERYL J. DULSKY
Assistant Attorney General
Civil Unit Chief,
Environmental Enforcement Section

BID:ach/7985A:31

cc: Power Enterprises
21826 South Power Road
Higley, Arizona 85236

Gilbert-Arizona Power Road Property Joint Venture
c/o Mr. Donald Switzenberg
22350 North Pima Road, Suite A
Scottsdale, Arizona 85255

cc: Mr. Steve Rauzi

Memorandum to files 605 and 611

Date: March 3, 1993

From: S.L. Rauzi, ^{SLR} Oil and Gas Program Administrator

Subject: Static water level in the vicinity of Power Ranches wells 1 & 2

On this date I contacted Richard Herther, Department of Water Resources (DWR), 255-1543, and obtained several static water levels in the vicinity of township 2 south, range 6 east, section 1, which is the location of Power Ranches wells 1 and 2. These levels are:

<u>Date</u>	<u>Location</u>	<u>level</u>	<u>Remarks</u>
11/12/91	T2S-R6E, Sec. 6, SE NE SE	224.1'	DWR measurement
11/12/91	T2S-R6E, Sec. 4, Center	158.2'	DWR measurement
5/27/91	T2S-R6E, Sec. 1, SE NE NE	181'	Drillers report
11/7/91	T2S-R7E, Sec. 5, SE SE SE	304.4'	DWR measurement
11/7/91	T2S-R7E, Sec. 7, NE NE NE	289.3'	DWR measurement

The static water level in the Power Ranches No. 1 well (Permit No. 605) was 570 feet below ground level on January 11, 1988.

This measurement is considerably below the surrounding levels as recorded in the table above and indicates that the static water in the Power Ranches No. 1 well is separate from the static water in the surrounding water wells. The surrounding water wells are recording the ground water table and the Power Ranches well is recording the static water from the zone open at a depth of 6174 feet.



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

February 26, 1993

605

Ms. Diane Hienton
Chief Council, Land and Natural Resources Section
Attorney General's Office
1275 West Washington
Phoenix, Arizona 85007

Dear Diane:

Enclosed are the materials we talked about this morning: (1) a summary of events on the two geothermal wells, (2) Mark A. Monserez's letter of February 5, 1988, summing up the situation on the two geothermal wells, and (3) the Memorandum Decision filed on December 1, 1988.

Do not hesitate to give me a call if I can be of further assistance.

Sincerely,

SLR

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

cc Larry Fellows



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

January 8, 1993

714 605

Ms. Diane Hienton
Chief Council, Land and Natural Resources Section
Attorney General's Office
1275 West Washington
Phoenix, Arizona 85007

Dear Diane:

As a follow up to our telephone discussion on Wednesday, January 6, 1993, I have enclosed some background material on the two Cam-Roy geothermal wells: near Chandler and the Central (Contender) Oil well near Yuma. This material includes the summary of events on the two geothermal wells, and for the well near Yuma: (1) Mr. Brennan's letter of January 21, 1991, to Ms. Lewin, (2) Mr. Brennan's letter of March 1, 1991, to Mr. Brown (copy to Mr. Bradshaw), (3) Ms. Mead's letter of November 5, 1991, to Mr. Brown (copy to Mr. Bradshaw), and (4) my letter of March 9, 1992, to Mr. Bradshaw. Also enclosed is a copy of the minutes from the Commission's October 23, 1992, meeting, which record the latest status of these matters and a copy of my report of this date to the Commission as to the status of these matters as of January 1, 1993.

Please do not hesitate to give me a call if you have any questions on either of these matters or if I can be of further assistance.

Sincerely,

Steve

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

cc Larry Fellows



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

TO: Oil and Gas Conservation Commissioners *PIN 605*
FROM: Steven L. Rauzi, ^{SLR} Oil and Gas Program Administrator
DATE: January 8, 1993
SUBJECT: Status of legal action on the two Cam-Roy geothermal wells near Chandler and the Central (Contender) Oil well near Yuma

Ms. Diane Hienton, Chief Counsel for the Land and Natural Resources Section of the Attorney General's Office, called me on January 6, 1993. She advised me that Ms. Karen Clark is bogged down in the Indian Gaming situation, which she expects to continue for some time yet. As a result, Ms. Hienton is going to step in and review the matter of the two geothermal wells near Chandler and the well near Yuma and report to you at your meeting on March 12, 1993.

As a follow up to my conversation with Ms. Hienton, I mailed her several items to give her a general background on these two matters. For the two geothermal wells, these included (1) the summary of events on the geothermal wells which I prepared to accompany your letter to Mr. Grant Woods, and (2) a copy of the minutes from your meeting of October 23, 1992, wherein you moved that Ms. Clark pursue "whatever" legal action necessary to have the two wells plugged and abandoned. For the well near Yuma, these included (1) Mr. Brennan's letter of January 21, 1991, to Ms. Lewin requesting that the Attorney General's Office initiate appropriate action and his letter of March 1, 1991, to Mr. Bradshaw indicating that the matter was referred to the Attorney General's Office for action, (2) Ms. Mead's letter of November 5, 1991, to Mr. Bradshaw indicating that the matter had been referred to the Attorney General's Office and that an action would be filed in Superior Court if work to plug and abandon the well was not initiated by November 25, 1991, and (3) my letter of March 9, 1992, to Mr. Bradshaw reminding him that the Commission would proceed with the injunction if the well was not plugged and abandoned.

cc Larry Fellows
Diane Hienton, Attorney General's Office



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795



Larry D. Fellows
Director and State Geologist

July 24, 1992

P/W 605

Ms. Karen A. Clark
Assistant Attorney General
Attorney General's Office
1275 West Washington
Phoenix, Arizona 85007

Dear Karen:

As requested by the Oil and Gas Conservation Commission in their meeting on July 6, 1992, I have reviewed the well files and past minutes of meetings and compiled an outline of events on the two geothermal wells in sec. 1, T. 2 S., R. 6 E., Maricopa County. The outline includes two summaries, one lists the flow of events recorded both in the well file and in the minutes of meetings, the other lists only those events recorded in the Commission's minutes of meetings. Hopefully, these summaries will give you a better understanding and appreciation of the complex history, or should I say morass, of this continuing problem. If you think I have left anything out or if I can provide you with detailed information on anything in the lists, please let me know.

I would appreciate a note on the status of the Contender Oil Complaint.

Sincerely,

Steve

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

cc Larry Fellows

SUMMARY OF EVENTS ON GEOTHERMAL WELLS IN SEC 1-T2S-R6E, MARICOPA CO.

PAGE 1

04-20-72 Geothermal Kinetics, Inc (GKI) obtains 5-year primary term lease from Power Ranches, Inc (PRI).
04-08-73 Total depth reached on GKI PR #1 (Permit #605).
08-23-73 Total depth reached on GKI PR #2 (Permit #611).
04-11-74 Wells are shut-in to await advanced technology to develop steam (Arizona Republic report).
03-07-77 W.E. Allen letter denying release of GKI bonds until wells are plugged and abandoned.
04-20-77 5-year primary term of leases expires, 5-year extension obtained.
03-14-80 Bannister (GKI) letter requesting continuance of Temporary Abandonment (TA) status for remedial work.
03-17-80 Allen letter approves TA status & recommends GKI Plug & Abandon (PA) wells while rigs are available.
04-20-82 First 5-year extension expired, second 5-year extension obtained.
06-28-83 Bannister letter requests continuance of TA to allow time to install wellhead generators.
07-21-83 A.K. Doss letter to Bannister requests information on wellhead generator plan to justify TA to OGCC.
09-23-83 No response from Bannister to Doss's 07-21 letter.
11-18-83 Still no response from Bannister. Doss suggests an Order to Show Cause through Attorney General (AG).
12-14-83 Second Doss letter to Bannister requests specifics on wellhead generators plan.
12-20-83 Bannister letter requests TA through June '84 while negotiations to develop property continue.
01-20-84 Doss letter to Bannister approves TA to June '84 provided work begins, requires PA if not successful.
02-07-84 Pomeroy letter, acquires GKI interest in wells, request extend TA for time to create market for steam.
in 1984 GKI assigns lease to Cam-Roy Research & Develop Corp (RDC) and Geothermal Exploration Co (GEC).
02-24-84 OGCC extends TA for 1 year to June '85 provided Pomeroy posts bond and proceeds with development.
02-28-84 Pomeroy signs Doss letter; agrees to post bond, proceed with tests, & PA wells if tests not successful.
05-09-84 Bannister letter to Doss requests written release of all obligation with respect to the wells.
02-15-85 Pomeroy briefs OGCC on plan to rehabilitate wells & notes difficulty in arranging financing for project.
05-24-85 Doss reports GKI lease assignments are in question, that owner (PRI) of wells is responsible to PA.
08-16-85 Doss reports Pomeroy request to extend TA, OGCC extends TA for 6 months to January '86.
12-20-85 Pomeroy letter requests 6-month extension of TA due to financing problems for project.
01-17-86 OGCC extends TA for additional 6-months to July '86.
05-16-86 D.J. Brennan notes call from GKI requesting time limit to PA wells as they are planning to sell them.
07-09-86 Pomeroy letter requests extension of TA due to financial problems, pledges to expedite efforts to develop.
07-18-86 OGCC extends TA for 1 year to July '87.
02,03-87 Cam-Roy RDC and GEC assign their interests in lease to Cam-Roy Research Corporation (RC).
03-03-87 Cam-Roy RC posts \$5,000 bond for each well (First Interstate Bank C.D. #2506289 & C.D. #2506290).
03-05-87 Brennan letters (3) approve transfer of GKI to Cam-Roy & release GKI from all obligations to wells.
04-15-87 Cam-Roy RC contracts to sell steam to its wholly owned subsidiary Geothermal Synergy Corp (GSC).
04-17-87 Kolsrud (Cam-Roy RC) letter notifies PRI of extension of lease because of signed contract to sell steam.
04-20-87 Second 5-year extension expired, end of primary term of lease.
05-15-87 OGCC moves to cooperate with Pomeroy interests in regard to DOE grant proposal or funding to develop.
08-21-87 Pomeroy requests extension of TA, served with quiet title action; OGCC extends TA 6 months to Feb '88.
09-04-87 Brennan letter to Pomeroy notifies him of testing requirement for TA approval beyond February '88.
01-15-88 Pomeroy asks extension; PRI insists PA; OGCC requests legal owner determination, advice from AG.
02-05-88 M.A. Monserez (PRI) letter sums up situation, objects to further TA extensions, requests PA immediately.
02-16-88 Pomeroy letter requests that OGCC modify TA extension to July '88 from February '88.
02-19-88 J.A. Witcher (Energy Institute) letter to Brennan opines that PA is reasonable and legitimate.
02-19-88* OGCC denies TA. S.H. Muller (AG) advises that PA is now necessary pursuant to R12-7-232(B).
03-07-88 Brennan letter to Pomeroy notifies him of OGCC denial for TA and his obligation to now PA the wells.
03-18-88 Pomeroy letter to Brennan requests further extension of TA status.
03-18-88 OGCC ratified its decision to deny extension of TA status and require wells to be PA per R12-7-232(B).

NOTE: Events from Oil and Gas Conservation Commission Minutes of Meetings are underlined.

SUMMARY OF EVENTS ON GEOTHERMAL WELLS IN SEC 1-T2S-R6E, MARICOPA CO.

PAGE 2

04-12-88 Brennan letter to Pomeroy notifies him of OGCC ratification of TA denial, strong request wells be PA.
 05-16-88 Cam-Roy RC brings suit against OGCC asking judicial review of administrative decision to deny TA.
 06-28-88 Muller letter to F.K. Gibson (Cam-Roy attorney) emphasizing OGCC's determination to have wells PA.
 07-13-88 Gibson letter to Muller indicates Cam-Roy RC without financial means to PA wells now or in future.
 07-14-88 OGCC requests AG to file a motion to dismiss Cam-Roy lawsuit & to get a court order to PA the wells.
 11-22-88 Muller letter to Brennan summarizes the Cam-Roy RC vs. OGCC lawsuit.
 12-01-88 Appeals Court Memorandum Decision upholds quiet title action terminating Cam-Roy lease on PRI.
 01-20-89 Muller suggests filing lawsuit to PA against Pomeroy, landowner, or both; Cam-Roy files for bankruptcy.
 03-17-89* Cam-Roy appeals Appeals Court ruling; Muller "await Superior Court decision before filing PA lawsuit."
 07-13-89 C.B. Lewin (AG) files "Response and Motion to Dismiss" Cam-Roy vs OGCC lawsuit.
 07-21-89 OGCC requests Brennan to notify PRI of OGCC's intention to have wells PA.
 10-24-89 Keith Powers (PRI) telephones request for PA forms and procedures from OGCC staff.
 09-15-89 Cam-Roy vs OGCC dismissed; PRI lawsuit vs Cam-Roy to PA; Brennan write landowners to PA wells.
 12-15-89 Property sold to real-estate syndicate who defaulted, Keith Powers aware PA needed before property sold.
 04-13-90 Brennan letter to G.D. Davidson requesting info on his clients ownership interest in PRI property.
 04-19-90* Lewin letter to Brennan: DWR exempt wells, get title report, send formal notice, get injunctive action.
 04-20-90* Lewin advises enforce by injunc action, no stat auth to file lien; Monserez advises on ownership.
 04-24-90 Brennan letter to Monserez to verify Gilbert-Power Road Properties Joint Venture (GPRJV) ownership.
 06-12-90 Brennan letter to N.W. Plummer (DWR) requesting DWR to exempt the wells from Groundwater Code.
 06-13-90 Second letter from Brennan to Monserez to verify GPRJV ownership in property.
 07-03-90 H. Dishlip (DWR) letter to Brennan, DWR will exempt if OGCC requires reinjection of produced water.
 08-17-90 OGCC Order #59 requires reinjection of all produced water in the two geothermal wells.
 09-17-90 Brennan letter to Dishlip encloses OGCC Order #59 requiring reinjection of produced water.
 09-21-90 Dishlip letter to Brennan exempts wells from the DWR.
 10-22-90 Brennan letter to Monserez (GPRJV) with formal notice that wells be PA pursuant to R12-7-232(B).
 11-16-90* OGCC refers matter to AG to file lawsuit in Superior Court to have wells PA by injunctive action.
 11-26-90 Brennan letter to Lewin confirming OGCC request for AG to pursue injunctive action to have wells PA.
 02-15-91 Brennan reports on letter to Lewin confirming OGCC request for AG to pursue injunctive action to PA.
 04-19-91 Brennan reports that J. Saxman (Cam-Roy RC) indicates that financing will be available in 60 days.
 11-01-91 OGCC "AG slow to act": K.L. Mead (AG) proposes court order, record in county as lien, encumber land.
 03-06-92 Pomeroy presents letter to OGCC requesting release of his performance bonds on these wells.
 03-06-92 Ownership still in question; OGCC requests AG proceed immediately with legal action, bonds not at issue.
 03-10-92 S.L. Rauzi (OGCC) letter to Mead encloses letters transferring obligation from GKI to Cam-Roy RC.
 06-05-92 Rauzi letter to T. Mitchell (AG) encloses material sent to Mead on 3/10 and copy of OGCC 3/6 minutes.
 07-06-92* OGCC "bonds not issue, failure to PA violation of State law, request letter to AG requesting action."

NOTE: Events from Oil and Gas Conservation Commission Minutes of Meetings are underlined.

**SUMMARY OF EVENTS REGARDING GEOTHERMAL WELLS AS RECORDED IN
OIL & GAS CONSERVATION COMMISSION MINUTES OF MEETING**

- 09-23-83 1) Doss letter requests information from Bannister regarding Temporary Abandonment, no response.
- 11-18-83 1) Still no response, Doss suggests Order to Show Cause through Attorney General's office.
- 02-24-84 1) Commission extends Temporary Abandonment for 1 year to June 30, 1985.
- 02-15-85 1) Pomeroy plan to rehabilitate wells, is having difficulty in arranging financing for project.
- 05-24-84 1) Pomeroy reports that his lease assignments are not valid, nor was the Geothermal Kinetic's lease.
2) Doss reports that the owners would then be responsible to Plug and Abandon the wells.
- 08-16-85 1) Commission extends Temporary Abandonment for 6 months to January 1, 1986.
- 01-17-86 1) Commission extends Temporary Abandonment for 6 months to July 1, 1986.
- 05-16-86 1) Brennan reports of call from Geothermal Kinetics asking about time limit to Plug and Abandon wells.
- 07-18-86 1) Commission extends Temporary Abandonment for 1 year to July 1987.
- 05-15-87 1) Resolve to cooperate with Pomeroy in regard to a DOE grant proposal or funding for development.
- 08-21-87 1) Pomeroy reports quiet title action from owners, Attorney General get information, advise Commission.
2) Commission extends Temporary Abandonment for 6 months to February 21, 1988.
- 01-15-88 1) Pomeroy requests extension beyond February 21, Commission holds to extension to February 21.
2) Paul Gilbert representing Powers Road Joint Venture, owners of property, opposes further extension.
3) Commission asks Attorney General to determine legal owner of property & advise on how to proceed.
- 02-19-88 1) Commission denies extension of Temporary Abandonment.
2) Attorney General (Muller) advises R12-7-232(B) now requires the wells to be Plugged and Abandoned.
- 03-18-88 1) Commission ratified its 2/19/88 denial of extension of Temporary Abandonment.
- 07-14-88 1) Commission requests Attorney General to file motion to dismiss Cam-Roy vs Commission lawsuit.
2) Muller advises that no statute gives Commission authority to force Plug and Abandon geothermal wells.
3) Commission requests Attorney General to get a court order to plug the wells.
- 01-20-89 1) Report that lease termination between Power Ranches and Cam-Roy upheld by Appeals Court.
2) Muller advises filing lawsuit against Pomeroy, landowner, or both after SB 1044 is passed.
3) Report that Cam-Roy Research Corporation is reorganizing because of bankruptcy filing.
4) Senate Bill 1044 giving Commission enforcement authority in geothermal matters to be heard on 1/29.
- 03-17-89 1) Muller advises to let Supreme Court rule on Cam-Roy "Petition for Review" before filing suit.
2) Attorney General (Lewin) may have to file claim in bankruptcy court on Commission's behalf.
- 07-21-89 1) Commission has Brennan request Power Ranches' intention with regard to Plugging the wells.
2) Lewin filed "Controverting Certificate" and motion to have Cam-Roy vs Commission dismissed.

**SUMMARY OF EVENTS REGARDING GEOTHERMAL WELLS AS RECORDED IN
OIL & GAS CONSERVATION COMMISSION MINUTES OF MEETING**

- 09-15-89 1) Report that the Cam-Roy vs Commission lawsuit was dismissed.
2) Report that landowners of the Power Ranches are suing Cam-Roy Research Corp to Plug the wells.
3) Brennan reports Pomeroy's office visit, indicating he owns mineral rights & will not plug the wells.
4) Commission has Brennan send letter to landowners expressing Commission's interest to plug wells.
- 12-15-89 1) Report that Keith Powers of Power Ranches requested forms and information on Plugging the wells.
- 02-16-90 1) Power Ranches bought by Davidson and Davidson, real-estate syndicate who defaulted on payments.
2) Keith Powers hopeful of recovering property, is aware of need to plug wells before selling property.
- 04-20-90 1) Lewin advises that enforcement is by injunctive action by the Superior Court,
2) That the Commission get DWR to exempt the wells from Groundwater Code or accept jurisdiction,
3) That there is no statutory authority to file a lien.
4) Monserez advises that property is owned by Gilbert, Arizona-Power Road Properties Joint Venture,
5) And that they have a suit against Pomeroy to clear title & a second suit to have Cam-Roy plug wells.
- 08-17-90 1) Commission issues Order #59 to require reinjection of produced water from the geothermal wells.
- 11-16-90 1) Brennan writes two letters to Monserez to confirm ownership of the property, no response received.
2) Commission refers the matter to the Attorney General to get the wells Plugged and Abandoned.
- 02-15-91 1) Brennan reports on letter to Lewin requesting Attorney General to go to court to require Plugging.
- 04-19-91 1) Brennan reports on Cam-Roy negotiations, they expect financing to be available in 60 days.
- 11-01-91 1) Commission reiterated request to have the Attorney General file suit to Plug and Abandon wells.
2) Commission notes that Attorney General's Office has been slow to act on this matter.
3) Attorney General (Mead) advises to file court order to plug the well,
4) Have the order recorded in the county as a lien against the property,
5) And thereby encumber the land and its future sale or development.
- 03-06-92 1) Mead reported that ownership of the property is still in question.
2) Pomeroy provided the Commission with a request for release of the Cam-Roy drilling bonds.
3) Commissioners agreed that bonds are in force until new bonds put up or wells Plugged and Abandoned.
4) Commission requested Mead to proceed immediately with legal action to plug wells.
5) Commission moved that the Attorney General pursue the order to Plug and Abandon, and
6) That the Commission not render a decision or even ask the question at this time of returning bonds.
- 07-06-92 1) Commission noted that the bonds on these wells are not the issue, why "environmental lien"?
2) Commission's concern is "when will they get some legal action to Plug and Abandon these wells".
3) Noted that in addition to environmental concern failure to Plug and Abandon is violation of State law.
4) Reiterated Commission's intention to file a lien on the property to tie-up any future exchanges, sales,
or development of this land until this problem is resolved.
5) Commission requested Oil and Gas Program Administrator to draft letter to Attorney General outlining
the history of this problem and requesting definite action as soon as possible.

MEMORANDUM TO FILE

DATE: JUNE 10, 1992

FROM: STEVEN L. RAUZI ^{SLR}

SUBJECT: CAM-ROY R&D (GKI) POWER RANCHES #1, STATE PERMIT 605
NE SE SEC. 1, T. 2 S, R. 6 E., T.D. 9,207

ARRIVED WELL SITE ABOUT NOON ON 6/10/92.

WELLHEAD IS ABOUT 2 FEET HIGH AND SECURE. AN APPROXIMATELY 50-FOOT BY 150-FOOT RESERVE PIT, SURROUNDED BY A 5- TO 6-FOOT EMBANKMENT, LIES JUST NORTH OF THE WELLHEAD. THE PIT WAS DRY ON THIS DAY. THERE IS NO BLOWIE LINE ATTACHED TO THE WELLHEAD.

THE WELLHEAD IS PARTIALLY OBSCURED BY RUSSIAN THISTLE WEEDS. A FEW BUSHES HAVE GROWN HERE AND THERE ON THE 5- TO 6-FOOT EMBANKMENT AROUND THE PERIMETER OF THE RESERVE PIT, WHICH HAS HAD CUT, DEAD TREES PILED AT ITS NORTH END ADJACENT TO THE ACCESS ROAD.

THE WELLHEAD AND RESERVE PIT ARE SURROUNDED ON THE SOUTH, EAST, AND, NORTH OF THE ACCESS ROAD, BY PLOWED FIELDS AND ON THE WEST BY AN ORANGE GROVE. AN ACCESS ROAD EXTENDS WEST FROM THE POWER RANCHES ROAD ALONG THE NORTH SIDE AND THEN SOUTH ALONG THE WEST SIDE OF THE ORANGE GROVE TO THE WELLHEAD. VEHICLES COULD EASILY DRIVE TO THE WELLHEAD WITHOUT DISTURBING THE FIELDS OR GROVE.

THERE IS NO EQUIPMENT, PIPE, OR DEBRIS AT THIS WELL SITE.



State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Larry D. Fellows
Director and State Geologist

June 5, 1992

Mr. Tyrone Mitchell
Attorney General's Office
1275 West Washington
Phoenix, Arizona 85007

Re: Cam-Roy R&D Corp. (GKI), Power Ranch #1, State Permit #605
Cam-Roy R&D Corp. (GKI), Power Ranch #2, State Permit #611

Dear Tyrone:

Enclosed is a copy of (1) the material we talked about this morning, including the cover letter to Katherine Mead dated March 10, 1992, (2) the minutes from the Oil and Gas Conservation Commission's March 6, 1992 meeting, which included an agenda item on the two geothermal wells in question, and (3) Mr. Pomeroy's memorandum and request for release of the bonds.

Let me know if I may provide any additional information from these files.

Sincerely,

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures



State of Arizona
Arizona Geological Survey

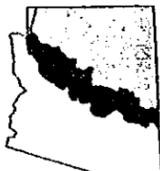
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Larry D. Fellows
Director and State Geologist

TO: Oil and Gas Conservation Commissioners
FROM: *SLR* Steven L. Rauzi, Oil and Gas Program Administrator
DATE: April 30, 1992 *2/14 605*
SUBJECT: Status on the Cam-Roy and Contender Oil cases.

Enclosed is a copy of Kate Mead's cover letter regarding her progress on the referenced cases, and a copy of her draft complaint on the Contender 1 Aman well. Please note that she expects an order to show cause hearing in the Contender case to be set for late May or early June, and that she is currently pulling factual information together in order to fully apprise the court of the facts in the Cam-Roy case. I informed her that your desire was to file these cases concurrently. She responded that the Cam-Roy complaint would be filed as soon as she pulled the factual information together, well before your next meeting in July.

In light of this progress, Jan C. Wilt, Chairman, and James E. Warne, Jr., Vice-Chairman, agreed that the meeting scheduled for May 15, 1992, would not be necessary. July would be the appropriate time for Kate to report on the progress of these cases.



Fife Symington
Governor

State of Arizona
Arizona Geological Survey
845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Larry D. Fellows
Director and State Geologist

April 28, 1992

P/N 605

Robert R. Griffiee
Wellsite Engineering
PO Box 2606
Farmington, New Mexico 87499

Re: Plugging and Abandonment quote

Dear Bob:

Enclosed are the papers on the two geothermal wells and on the well near Yuma. A rough quote will be sufficient. Our plan is to put a lien against the land and the owners of the land may find it feasible to go ahead and plug and abandon these wells.

Let me know if you require additional information.

Thank you for your help.

Sincerely,

Steve

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures



State of Arizona
Arizona Geological Survey

845 North Park Avenue, #100
Tucson, Arizona 85719
(602) 882-4795

Larry D. Fellows
Director and State Geologist

March 10, 1992

Ms. Katherine L. Mead
Attorney General's Office
1275 West Washington
Phoenix, Arizona 85007

Re: Cam-Roy Research Corporation, Power Ranch #1 (State Permit #605)
Cam-Roy Research Corporation, Power Ranch #2 (State Permit #611)

Dear Kate:

The enclosed correspondence documents the transfer of drilling bonds on the referenced wells from Geothermal Kinetics, Inc. to Cam-Roy Research Corporation.

This correspondence includes:

1. R.J. Pomeroy letter of 5/18/84,
2. R.A. Ybarra letter of 6/20/86,
3. Three Daniel J. Brennan letters of 3/5/87,
4. Three Russell A. Kolsrud letters of 4/17/87,
5. Copies of two C.D.'s numbered 2506290 and 2506289, and
6. Copies of the deposit of these C.D.'s with the State Treasurer.

Let me know if I can provide additional information on these wells.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures



CAM-ROY RESEARCH CORPORATION

P.O. Box 893 • Chandler, AZ 85225 • (602) 963-1773

MEMORANDUM and REQUEST

P/W 605

To: Oil and Gas Conservation Commission
State of Arizona
Re: Cam-Roy Drilling Bond
From: Cam-Roy Research Corporation
Date: March 6, 1992

Sometime between February and April of 1987, Cam-Roy Research Corporation, through its legal counsel, Russell Kolshrud, deposited with the Oil and Gas Commission two Certificates of Deposit for \$5,000 each, bearing #01-2506289 and #010-2506290, as drilling bonds in anticipation of work to be performed on the two geothermal wells in Sec. 1, T2S-R6E, commonly referred to as the Power geothermal wells.

Before financing could be completed to sustain the work planned, a suit was filed by a joint venture group and a decision rendered through the three levels of the state's court, held that the lease held by Cam-Roy had terminated as of April 20, 1987.

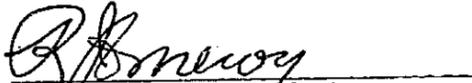
Upon advice of counsel and on the grounds that Cam-Roy never had an operational period of time to justify a deposit of the drilling bonds for work contemplated and not specifically defined to the Commission, and further due to the court decree, the corporation cannot legally perform any work on the wells since the termination date, above mentioned, we must and most urgently request the release of the bonds. We are also informed that

termination of the lease by the courts has removed Cam-Roy from any possible connotation as owner, operator, or producer.

Cam-Roy has been forced to sustain a \$1,000,000 loss by the court action and counsel advises that further retention of the drilling bonds by the commission is an unnecessary additional injury for the corporation. Request is respectfully made herewith that the commission authorize the release of the drilling bonds.

Respectfully yours,


John Saxman, President


R. B. Pomeroy, Chairman



Oil and Gas Conservation Commission

STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141
PHOENIX, ARIZONA 85016
PHONE: (602) 255-5161

November 26, 1990

TO: Carol Lewin
Assistant Attorney General

FROM: Daniel J. Brennan *DJB*
Executive Director

SUBJECT: Action to Cause Plugging of
Two Geothermal Wells

As of this date, we have received no response from Mark Monserez or Gilbert, Arizona-Power Road Properties Joint Ventures to our letter of October 22, 1990 requesting the plugging of the two geothermal wells. The wells are identified as follows:

Permit 605, Cam-Roy 1 Power Rd., NENE Sec 1, T2S-R6E
Permit 611, Cam-Roy 2 Power Rd., SENE Sec 1, T2S-R6E

Since we have not received the requested response, it is the desire of the Commission that the Attorney General take action to cause the plugging to occur. Please take action to file the suit needed to force the plugging.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in **Return Receipt Requested** on the reverse side. Failure to do so will prevent this card from being returned. The return receipt fee will provide you the name of person delivered to and the date of delivery. **Showing Address** following services are available. Consult postmaster for fees and check boxes for additional services requested.

1. Show to whom delivered and addressee's address. 2. Restricted Delivery (Extra charge)

3. Article Addressed to: Mark Mouscisz Bruce Gilbert & Sons, Inc. Site 16E, 16th Street 3200 N. Central Ave. Phoenix, AZ 85012-2417	4. Article Number P 331050445 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
5. Signature - Addressee X	Always obtain signature of addressee or agent and DATE DELIVERED.
6. Signature - Agent X <i>D.V. Orms</i>	8. Addressee's Address (ONLY if requested and fee paid)
7. Date of Delivery	

PS Form 3811, Apr. 1989

U.S.G.P.O. 1989-238-815

DOMESTIC RETURN RECEIPT

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS
Print your name, address and ZIP Code in the space below.
• Complete items 1, 2, 3, and 4 on the reverse.
• Attach to front of article if space permits, otherwise affix to back of article.
• Endorse article "Return Receipt Requested" adjacent to number.

AZ 011 & GAS
CONSERVATION COMMISSION

OCT 29 1989



PENALTY FOR PRIVATE USE, \$300

RETURN TO

Print Sender's name, address, and ZIP Code in the space below.

Remit #605
CCR 611

Arizona C.I.E. (C.R.) Commission
5150 N. 16th St. Suite B-111
Phoenix, AZ 85016



Oil and Gas Conservation Commission

STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141
PHOENIX, ARIZONA 85016
PHONE: (602) 255-5161

October 24, 1990

Mr. Mark Monserez
Beus, Gilbert & Morrill
Ste 1000, Great American Tower
3200 N. Central Ave.
Phoenix, Arizona 85012-2417

Re: Geothermal Wells

Dear Mark,

Almost immediately after posting my certified letter to you, I discovered that I had neglected to enclose the copy of the letter from the Department of Water Resources.

I now forward to you a copy of the letter. I trust you have not been greatly inconvenienced by its tardy arrival.

We are looking forward to hearing from you.

Very truly yours,


Daniel J. Brennan
Executive Director



Oil and Gas Conservation Commission

STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141
PHOENIX, ARIZONA 85016
PHONE: (602) 255-5161

October 22, 1990

Mr. Mark Monserez
Beus, Gilbert & Morrill
Ste 1000, Great American Tower
3200 N. Central Ave.
Phoenix, Arizona 85012-2417

Re: Two Geothermal Wells
Sec. 1, T2S-R6E

Dear Mr. Monserez,

For your information, the Department of Water Resources has recently decided that the two geothermal wells:

Permit 605, Cam-Roy 1 Power Rd, NENE Sec 1, T2S-R6E
Permit 611, Cam-Roy 2 Power Rd, SENE SEC 1, T2S-R6E
are not within its jurisdiction (copy of letter enclosed.)

This action eliminates any possible conflict between the Geothermal Laws and the Water Laws of the State of Arizona.

These wells are in violation of the statutes and rule requiring plugging of a well when operations have been suspended for 60 days.

We request that these wells be plugged.

If the wells are not plugged an injunctive action will be brought in superior court

The owners are also in violation of the rule requiring filing of an Organization Report.

Enclosed are the appropriate blank forms for your convenience.

Please file the organization report immediately (R 12-7-293.) Please file Form 9, Application to Plug and Abandon within 30 days. Do not undertake any work on the wells without prior approval of the Commission.

We are looking forward to hearing from you and to the successful plugging of these two wells.

Very truly yours,


Daniel J. Brennan
Executive Director

Certified Mail

*Organization report not attached
per DJB.*

AZ OIL & GAS
CONSERVATION COMMISSION

SEP 23 1990



September 21, 1990

Daniel J. Brennan
Executive Director
Oil and Gas Conservation Commission
State of Arizona
5150 N. 16th Street, Suite B-141
Phoenix, Arizona 85016

ARIZONA
DEPARTMENT
OF WATER
RESOURCES

Rose Mofford, Governor
N. W. Plummer
Director

15 South 15th Avenue
Phoenix, Arizona 85007

file 605

Re: Geothermal Well Permit Nos. 605 and 611.

Dear Mr. Brennan:

Thank you for your letter of September 17, 1990 with the attached order of the Oil and Conservation Commission concerning the two geothermal wells known as:

Permit 605 Cam-Roy 1 Power Ranch NESE Sec 1, T2S-R6E
Permit 611 Cam-Roy 2 Power Ranch SENE Sec 1, T2S-R6E.

You have previously requested that these wells be expressly exempted from the jurisdiction of the Department of Water Resources.

Due to your order dated August 17, 1990 requiring reinjection of all waters produced from these wells, the wells now fit the criteria for exemption as outlined in A.R.S. § 45-591.01. It is therefore the decision of the Department of Water Resources that these wells are not within its jurisdiction.

If you need anything further, please let us know.

Sincerely,

Herb Dishlip

Herb Dishlip
Deputy Director
Water Management Division

HD/sm



Oil and Gas Conservation Commission

STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141
PHOENIX, ARIZONA 85016
PHONE: (602) 255-5161

September 17, 1990

Mr. Herb Dishlip, Deputy Director
Water Management Division
Department of Water Resources
15 South 15th Avenue
Phoenix, AZ 85007

Dear Mr. Dishlip:

As you may recall, we have had previous correspondence relating to two geothermal wells:

Permit 605 Cam-Roy 1 Power Ranch NESE Sec 1, T2S-R6E
Permit 611 Cam-Roy 2 Power Ranch SENE Sec 1, T2S-R6E.

The Oil and Gas Conservation Commission, on August 17, 1990, ordered that water produced from these two wells be reinjected. We are enclosing a copy of the order for your records.

The Oil and Gas Conservation Commission requests that the Director of Water Resources makes the finding that the wells in question are not subject to the control of the Department of Water Resources, pursuant to ARS 45-591.01.

If it is at all possible for you to make the determination in time, we would like to be able to proceed with ordering the plugging of these wells at the Commission meeting scheduled for November 16, 1990.

Thank you for your cooperation in this matter.

Very truly yours,


Daniel J. Brennan
Executive Director

Enclosure



Oil and Gas Conservation Commission
STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141
PHOENIX, ARIZONA 85018
PHONE: (602) 255-5161

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF ARIZONA**

In the matter of the Hearing called
by the Oil and Gas Conservation
Commission of the State of Arizona
for the purpose of considering:

CASE NO. 65
ORDER NO. 59

Commission staff recommendation that the Oil and Gas
Conservation Commission order reinjection of water produced
from two geothermal exploration wells, permits nos. 605 and
611.

The wells are identified and located as follows:

Cam-Roy #1 Power Ranch, NENE Sec 1, T2S-R6E
Cam-Roy #2 Power Ranch, SENE Sec 1, T2S-R6E,

both in Maricopa County, Arizona.

ORDER OF THE COMMISSION

This cause was considered at 10:00 A.M. on August 17,
1990 at Phoenix, Arizona by the OIL AND GAS CONSERVATION
COMMISSION OF THE STATE OF ARIZONA, hereinafter referred to
as the COMMISSION.

The COMMISSION, a quorum being present, having
considered the facts presented and being fully advised in
the premises, finds as follows:

FINDINGS:

(1) THAT the COMMISSION has jurisdiction of the
subject matter thereof, pursuant to ARS 27-652 and R 12-7-2
45.2.c.

(2) THAT geothermal wells may be subject to both the
Geothermal Laws and the Water Laws of the state of Arizona.

Cam-Roy/Power Ranch
Page 2

(3) THAT the Department of Water Resources may exempt geothermal wells from the Water Laws under ARS 45-591.01 only if the Oil and Gas Conservation Commission requires reinjection of produced waters.

(4) THAT the Commission finds it is desirable to order reinjection of waters produced from these wells in order to allow the Department of Water Resources to exempt them from the Water Laws of the state of Arizona so that the Oil and Gas Conservation Commission may proceed in its efforts to cause the wells to be plugged and abandoned.

THEREFORE the COMMISSION orders:

(1) THAT the waters produced from the following two wells:

Cam-Roy #1 Power Ranch, NENE SEC 1, T2S-R6E
Cam-Roy #2 Power Ranch, SENE Sec 1, T2S-R6E,

both in Maricopa County, Arizona be reinjected into the producing strata.

OIL AND GAS CONSERVATION COMMISSION

By J. Dale Nations
J. Dale Nations, Chairman

DATE 8/24/90

ATTEST:

Daniel J. Brennan
Daniel J. Brennan
Executive Director

DATE 8/30/90

July 3, 1990

Daniel J. Brennan
Executive Director
Oil & Gas Conservation Commission
State of Arizona
5150 North 16th Street, Ste B-141
Phoenix, AZ 85016

Dear Mr. Brennan:

Your letter of June 12, 1990 concerning the abandonment of two geothermal wells (permits no. 605 and 611) has been referred to the Water Management Office of the Department of Water Resources. You have asked that the Department determine, pursuant to A.R.S. § 45-591.01, that the wells in question are not water wells subject to the control of the Department of Water Resources.

A.R.S. § 27-667(C) provides that the Director of Water Resources may prescribe rules and regulations relating to the disposition of abandoned geothermal wells. The Department's rules concerning the abandonment of wells do exclude geothermal wells, but only to the extent that they are excluded by A.R.S. §45-591.01.

Thus, the question is whether the Director may find that "the rules and regulations of the Oil and Gas Conservation Commission require the re-injection of all waters associated with the geothermal resource to the producing strata." A reading of the rules promulgated by the Oil & Gas Conservation Commission does not indicate that all wells are required to re-inject the water. Apparently they are not so required unless that Commission specifically directs.

Daniel J. Brennan
July 3, 1990
Page 2

It will be necessary, therefore, to make the specific determination and issue an order for re-injection of the water removed from the well. We appreciate the fact that this is an additional burden upon you, particularly because the wells are dry; but we are limited by the express working of the statute, A.R.S. § 45-591.01, and the rules promulgated by the Oil & Gas Conservation Commission. Without this determination, the wells do not fit the criteria set forth in the statute and cannot be exempt from the Department of Water Resources standards.

We hope that you can accommodate this additional burden. If we are advised that the order has been issued, we will respond by letter exempting the wells from the Department's authority.

Thank you for bringing this matter to our attention in advance.

Sincerely,



Herb Dishlip
Deputy Director
Water Management Division

Enclosures

HJD/RAG/mjw

Attorney General

1275 WEST WASHINGTON

Phoenix, Arizona 85007

Robert E. Corbin

April 19, 1990

INTEROFFICE MEMORANDUM

TO: Dan Brennan
Executive Director
Oil and Gas Conservation Commission

FROM: Carol B. Lewin *Carol B. Lewin*
Assistant Attorney General

SUBJECT: Geothermal Wells and Motion to Authorize
Director to Act on Behalf of the Commission

Geothermal Wells

This letter is in response to your request for advice regarding the ownership of two abandoned geothermal wells near Chandler and the proper procedure for compelling the owner to plug them. After researching the Commission's statutory authority, I have concluded that the Commission has the necessary powers to compel plugging of a geothermal well only after the Director of the Department of Water Resources makes a finding that the well is exempted from the state Groundwater Code. After the Director of the Department of Water Resources makes the appropriate finding, the procedure for enforcing the geothermal statutes and rules is by an injunctive action brought in superior court.^{1/} These procedures will be discussed in more detail below.

As a legislatively created agency, the Commission has only such power as the statutes confer. Hernandez v. Frohmiller, 68 Ariz. 242, 204 P.2d 854 (1949). The Commission's authority with

1. This advice is informal and does not necessarily represent the formal opinion of the Attorney General.

Dan Brennan
April 19, 1990
Page 2

respect to geothermal resources is found at A.R.S. §§ 27-651 to 27-677. A.R.S. § 27-652 generally grants to the Commission supervisory authority over the drilling, operation, maintenance and abandonment of geothermal resource wells. The only other relevant statutory reference to jurisdiction over abandoned geothermal wells is found in A.R.S. § 27-667(C) entitled "Relationship of geothermal resources to water laws," which provides:

An operator shall notify the director of water resources of any well which is drilled or abandoned. The director may prescribe rules and regulations relating to the disposition of abandoned wells. (Emphasis added.)

Consequently, the state water laws and the Department of Water Resources (DWR) rules must be examined to ascertain whether DWR or the Commission has regulatory control over the wells in this case.

The state Groundwater Code applies to all openings in the earth through which water may be withdrawn or obtained from beneath the earth's surface except as provided in A.R.S. § 45-591.01. See A.R.S. § 45-402.34. A.R.S. § 45-591.01 defines the types of wells which are governed by the state Groundwater Code and associated rules, and provides in part:

Geothermal wells drilled pursuant to the provisions of title 27 are not wells as defined in this chapter [Groundwater Code] when the director [of Water Resources] finds that the rules and regulations of the oil and gas conservation commission require the reinjection of all waters associated with the geothermal resource to the producing strata.

Under the geothermal statutes and rules, the Commission may, under certain circumstances, require reinjection of the geothermal effluent or injection of other water supplies into the producing zones. A.R.S. § 27-653 and A.A.C. R12-7-245. However, neither the statute nor the rule mandates reinjection in all cases. Therefore, the Director of Water Resources may find he has jurisdiction over the wells and must make the appropriate finding exempting the wells in Chandler from the Groundwater Code before the Commission can properly assert its jurisdiction.

We now turn to the Commission's power to compel the plugging of an abandoned geothermal well. As stated above, A.R.S. § 27-652 directs the Commission to supervise the abandonment of geothermal resource wells to protect geothermal reservoirs, water of the

Dan Brennan
April 19, 1990
Page 3

state and the environment. Pursuant to A.R.S. § 27-656, the Commission may adopt rules necessary for the proper administration and enforcement of the geothermal statutes. The Commission adopted R12-7-232 which specifies plugging methods and procedures and requires a well to be plugged if drilling operations have been suspended for 60 days:

When drilling operations have been suspended for 60 days, the well shall be plugged and abandoned unless written permission for temporary abandonment shall be obtained from the Commission.

A.A.C. R12-7-232.B. Under the above statutes and rules, the geothermal wells in Chandler should be plugged if drilling operations have not occurred in the past 60 days.

Enforcement of the geothermal resource statutes and rules is governed by A.R.S. § 27-676. That statute provides:

If it appears that a person is violating any provision of this article, or a rule or order made pursuant to this article, and the person fails or refuses, on notice by the commission, to desist from the violation, the commission may bring an action in superior court in the county where the offending person resides or in the county in which the violation is alleged to have occurred, to restrain the person from continuing the violation.

Accordingly, after notice to the owner and a request that the wells be plugged, the Commission may bring an injunctive action to enforce the well abandonment and plugging statute and rule.

As a preliminary matter, it must be determined who owns the wells. Apparently, informal requests for information have not been successful. I would suggest obtaining a title report. Before notice can be sent or an injunctive action filed, the Commission must ascertain the identity of the owner with reasonable certainty.

In summary, the following actions may be taken to compel plugging of the wells:

1. Obtain a finding from the Director of the Department of Water Resources that the oil and gas rules require the reinjection of all waters associated with the wells to the producing strata pursuant to A.R.S. § 45-591.01 and therefore the wells are exempt from the state Groundwater Code.

Dan Brennan
April 19, 1990
Page 4

2. Obtain a title report to identify the owner of the wells.

3. Send the owner a formal notice by certified mail (1) that the wells are in violation of the statutes and rule requiring the plugging of a well when drilling operations have been suspended for 60 days; (2) requesting that the wells be plugged; and (3) informing that if the wells are not plugged an injunctive action will be brought in superior court.

4. File an injunctive action seeking to compel the owner to plug the wells.

Motion to Authorize Executive Director to Act for the Commission

You also asked for advice regarding a motion to authorize the Executive Director to act on behalf of the Commission. A copy of the draft motion is attached for reference. For the most part, it looks acceptable because standards have been set by the Commission in the form of rules governing the actions to be taken by the Executive Director. The motion authorizes the Director to approve applications only. As we have discussed, denial of a permit or a request to do work requires a hearing before the Commission. I have the following comments:

1. Reference to the rule regarding payment of bonds should be added to this paragraph:

Acceptance of Bond in the principal sum of \$5,000 per well or \$25,000 for a blanket bond in a form acceptable to the Arizona State Treasurer in accordance with R12-7-103.

2. No revisions necessary.

3. I did not find a rule relating to wells at unorthodox locations. If approvals of wells at unorthodox locations are granted in accordance to R12-7-104, reference to that rule should be included. Either a statute or rule should be cited as authority.

4. Reference to the applicable rule should be inserted:

Approval of a change of location if the new location is within the drilling unit

Dan Brennan
April 19, 1990
Page 5

described on the original application in accordance with R12-7-105.

5. It is unclear to me how this section relates to R12-7-113. This section specifies blowout prevention tests with hydraulic pressure not to exceed the manufacturer's rated working pressure and not to exceed the rating of the drill pipe in use. R12-7-113 requires blowout preventers and related equipment to be tested to a minimum of 1,000 psi on installation. The standard set forth in the rule should be incorporated in the motion. The motion should not redraft or alter the rule.

6. Add reference to appropriate rule:

... in case of failure of surface production equipment as set forth in R12-7-119.

7. This paragraph permits approval of work if it is in compliance "with rules on casing, use of tubing, setting of packers, and commingling of production." The specific rule numbers should be cited as you did in paragraph 2.

8-11. No revisions necessary.

If you have any further questions, please feel free to call.

CBL:lfc
Attachment
5264A.6



Oil and Gas Conservation Commission

STATE OF ARIZONA

5150 N. 16th STREET, SUITE B-141
PHOENIX, ARIZONA 85016
PHONE: (602) 255-5161

October 24, 1989

Keith Powers
Power Enterprises
21826 South Power Road
Higley, AZ 85236

RE: Geothermal Kinetics Inc., #1 Power Ranches (State Permit #605)
Geothermal Kinetics Inc., #2 Power Ranches (State Permit #611)

Dear Mr. Powers:

Pursuant to our telephone conversation, I am enclosing the following information and forms for your use as you prepare to plug and abandon the above referenced wells:

1. Completion Report showing mechanical condition of each well.
2. Two schematic drawings of each well.
3. A copy of our rules pertinent to plugging and abandonment.
4. Organization Report, R12-7-293 (Form 1).
5. Bond, R12-7-203 (Form G-2).
6. Application to Plug & Abandon, R12-7-231 (Form G-9).
7. Plugging Record, R12-7-232 (Form G-10).
8. Several Sundry Report Forms (G-12).

Should you have any questions please do not hesitate to give either Dan or myself a call.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Specialist

Encls.

CIV88-0885

1 ROBERT K. CORBIN
Attorney General
2
3 CAROL B. LEWIN, SBA 009501
Assistant Attorney General
1275 West Washington
4 Phoenix, AZ 85007
Telephone: (602) 542-1401
5 Attorneys for Defendant
6

AZ OIL & GAS
CONSERVATION COMMISSION

JUL 21 1989

LIPS DOC JUL 13 1989
CAL
BY *[Signature]*

7 IN THE SUPERIOR COURT OF THE STATE OF ARIZONA
8 IN AND FOR THE COUNTY OF MARICOPA
9

10 CAM-ROY RESEARCH CORPORATION,)
a Nevada corporation,) NO. CV 88-90747
11 Plaintiff,) REPLY TO RESPONSE TO
12 vs.) CONTROVERTING CERTIFICATE
AND MOTION TO DISMISS
13 OIL AND GAS CONSERVATION)
COMMISSION OF THE STATE OF)
14 ARIZONA,) (Assigned to the Honorable
15 Defendant.) David L. Grounds, Div. 13)
16

17 Defendant Oil and Gas Conservation Commission of the
18 State of Arizona, replies to Plaintiff's Response to
19 Controverting Certificate and Motion to Dismiss as follows:

20 Plaintiff's complaint seeking review of the
21 Commission's order regarding the operating status
22 of two geothermal wells is moot and should be
23 dismissed because Plaintiff's interest in the
wells has subsequently been judicially terminated
and therefore Plaintiff no longer has an interest
in the subject matter of this suit.

24 A complaint must set forth an actual dispute or
25 controversy between parties. Courts generally do not render
26 judgments which are advisory only or which merely answer moot

1 questions. Contempo-Tempe Mobile Home Owners Association v.
2 Steinert, 144 Ariz. 227, 696 P.2d 1376 (App. 1985). A case is
3 moot when any action the reviewing court may take will have no
4 effect on the parties to the action. Lord v. City of Tucson, 10
5 Ariz. 54, 455 P.2d 1004 (App. 1969). In order to state a
6 justiciable claim, a plaintiff must demonstrate a present, legal
7 and protectable interest with respect to which he is entitled to
8 some consequential relief. Riley v. Cochise County, 10 Ariz. 55,
9 455 P.2d 1005 (App. 1969).

10 The complaint in this case is moot because Plaintiff
11 has no present interest in the subject matter of this suit and
12 therefore any judgment rendered will be ineffectual. This suit
13 seeks review of a commission decision regarding the operating
14 status of two geothermal wells. At one time, Plaintiff leased
15 property, including the wells, from the landowner, Gilbert,
16 Arizona Power Road Properties Joint Venture. However, the
17 landowner brought a quiet title action against Plaintiff, and
18 the Superior Court ruled the lease had expired by its terms. On
19 appeal, the Arizona Court of Appeals upheld the trial court's
20 judgment "which terminated the defendant's [Cam-Roy Research
21 Corp.] claims of interest in the landowner's property."
22 Gilbert, Arizona Power Road Properties Joint Venture v.
23 Geothermal Synergy Corp., Cam-Roy Research Corp., and Cam-Roy
24 Research and Development Corp., ICA-CV 88-202, Memorandum
25 Decision p. 25, attached to Defendant's Controverting
26 Certificate and Motion to Dismiss. Because Plaintiff currently

1 has no claim or interest in the wells, a determination by this
2 court regarding the operating status of those wells can have no
3 effect on the Plaintiff.

4 The complaint should also be dismissed because even if
5 this court orders the relief requested, no benefit will result
6 to the plaintiff. The complaint requests the court to set aside
7 a commission decision denying temporary abandonment status to
8 the two wells.^{1/} However, whether or not the wells are
9 approved for temporary abandonment, Plaintiff has no interest in
10 the wells and lacks authority to re-enter or take any action
11 with respect to the them. Consequently, any decision by this
12 court will be without practical significance to the Plaintiff.
13 Plaintiff has not and cannot demonstrate a real interest in the
14 subject matter of this suit or the relief sought.

15 Plaintiff seeks to have this court relitigate issues
16 which were determined by the court in the quiet title action.
17 However, collateral estoppel operates to make the quiet title
18 judgment binding here against Plaintiff and prevents
19 relitigation of the issues determined in that case. Under the
20 doctrine of collateral estoppel, a judgment is conclusive
21 evidence of the facts and issues determined and may be raised in
22 a second action by a party not involved in the first action

23

24

25 ^{1/}According to A.A.C. R12-7-128, "when drilling
26 operations have been suspended for 60 days, the well shall be
plugged and abandoned unless written permission for temporary
abandonment shall be obtained from the Commission."

1 against a party who participated in the first action.
2 Collateral estoppel is based on the notion that where a party
3 has had a full and fair opportunity to prove his claim in a
4 court of competent jurisdiction, he should not be permitted to
5 go to trial on the merits of that claim a second time to the
6 harassment and vexation of his opponent. Di Oro v. City of
7 Scottsdale, 2 Ariz. 329, 408 P.2d 849 (App. 1965).

8 In its response, Plaintiff attempts to demonstrate a
9 continuing interest in the wells by arguing that as long as
10 discovery of gas or oil has been made prior to the end of the
11 lease, actual production is not necessary to preserve the lease.
12 Plaintiff further contends that the wells are capable of
13 production and the Commission erroneously denied them temporary
14 abandonment status. Response to Motion to Dismiss, paragraphs 2
15 and 3. Implicit in this argument is the false assumption that
16 if the wells were declared to be producing wells, Plaintiff
17 would have the right to enter and extract geothermal resources
18 from them. In light of the outcome of the quiet title action,
19 Plaintiff would not have authority to operate the wells
20 regardless of their operating status. In any event, the
21 Superior Court specifically found the wells were not capable of
22 commercial production and that plaintiff's leasehold interest
23 had terminated. See Minute Entry dated February 25, 1988,
24 attached to Defendant's Controverting Certificate and Motion to
25 Dismiss. Accordingly, these issues have been litigated and
26 cannot be raised again in this action. Plaintiff has no

1 interest in the wells at issue in this suit and the complaint is
2 therefore moot and should be dismissed.
3
4

5
6 CONTROVERTING CERTIFICATE

7 Plaintiff apparently contends that the mere filing of a
8 Motion to Set and Certificate of Readiness requires the court to
9 set the matter for trial. Clearly, that is not the correct
10 interpretation of the applicable rule of procedure.

11 In the event the court denies Defendant's motion to
12 dismiss, this case should not be set for trial because the
13 Motion to Set and Certificate of Readiness fails to comply with
14 Rule V, Uniform Rules of Practice of the Superior Court.
15 According to that rule, all issues must be joined before a
16 Motion to Set and Certificate of Readiness is filed. Contrary
17 to plaintiff's contention, all issues have not been joined here
18 because an answer has not yet been filed. Plaintiff cites the
19 Arizona Appellate Handbook for authority that a trial can be
20 precipitated by filing a Motion to Set and Certificate of
21 Readiness. However, the handbook does not support Plaintiff's
22 argument. Regarding setting a matter for trial, the handbook
23 states:

24 Once [a] . . . complaint has been filed and
25 the defendants have filed their answers. . . .
26 counsel should probably file a motion to set and
 certificate of readiness as stated in the Uniform

1 Rules of Practice ("URP"). The Superior Court
2 will set the case for trial after these documents
3 have been filed.

4 3 Arizona Appellate Handbook, Section 32.3.7.3.4 (emphasis
5 added).

6 Rule V also requires a list of witnesses and exhibits
7 to be filed prior to a Motion to Set and Certificate of
8 Readiness. The rule makes no exceptions for actions involving
9 judicial review of administrative decisions. Moreover, the rule
10 provides, "no exhibits or witnesses shall be used at trial other
11 than those listed in accordance with this Rule except for good
12 cause shown or upon written agreement of the parties." No such
13 agreement between the parties has been made. Consequently, if
14 this matter goes to trial, no testimony or exhibits can be
15 offered in evidence. For these reasons, the Motion to Set and
16 Certificate of Readiness is improper and this case should not be
17 set for trial.

18
19
20
21 CONCLUSION

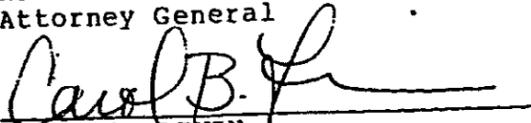
22 For all the foregoing reasons, the complaint is moot
23 and should be dismissed by this court pursuant to Rule 12(b)(6)
24 Arizona Rules of Civil Proceeding for failure to state a claim.

25 In any event, the court should not set this case for
26 trial at this time because the Motion to Set and Certificate of

1 Readiness fails to comply with Rule V, Uniform Rules of Practice
2 of the Superior Court.

3 RESPECTFULLY SUBMITTED this 13th day of July.

4 ROBERT K. CORBIN
5 Attorney General

6 
7 CAROL B. LEWIN
8 Assistant Attorney General
9 Attorneys for Defendant

9 COPY of the foregoing Controverting
10 Certificate and Motion to Dismiss
11 mailed/delivered this 13th day of
12 July, 1989, to:

13 THE HONORABLE DAVID L. GROUNDS
14 Judge of the Superior Court
15 Division 13, Maricopa County
16 Southeast Judicial District
17 1837 South Mesa Drive
18 Mesa, AZ 85202

19 Mr. Gordon S. Bueler
20 Law Offices of Thomas M. Ryan
21 Suite D-208
22 2659 West Guadalupe
23 Mesa, AZ 85202

24 Mr. Franklin K. Gibson
25 1837 South Mesa Drive
26 Mesa, AZ 85210

27 
28 Secretary to CAROL B. LEWIN

29 5213A.1



Attorney General
1275 WEST WASHINGTON
Phoenix, Arizona 85007
Robert H. Corbin

June 28, 1989

INTEROFFICE MEMORANDUM

TO: Dan Brennan
Executive Director
Oil & Gas Commission

FROM: Carol Lewin *Carol Lewin*
Assistant Attorney General

SUBJECT: Cam-Roy Research Corp v. Oil and Gas Commission
A.G. File No. CIV88-90747

I wanted to update you on the status of the Cam-Roy Research Corp v. Oil and Gas Commission Case (CIV88-90747). Cam-Roy's attorney filed a motion asking the judge to set the case for trial. In response, I filed an objection to the setting of a trial date and a motion to dismiss the case for failure to state a claim. Basically, the motion states that because Cam-Roy no longer has an interest in the wells, judicial review of the Commission's decision would be meaningless and therefore the case should be dismissed. The Motion to Dismiss will be heard on July 26, 1989. I have enclosed copies of both motions for your review.

At your request, I have also enclosed a copy of the State Land Commissioner's letter seeking an extension of time to submit the Department's five year rule review report and to appear before the Governor's Regulatory Review Council. Please let me know if you need assistance in seeking an extension for the Commission's five year rule review and keep me advised of your progress.

CBL:jgl
Enclosures (3)
5188A.1

CIV88-0885

1 ROBERT K. CORBIN
Attorney General

2 CAROL B. LEWIN, SBA 009501
3 Assistant Attorney General
1275 West Washington
4 Phoenix, AZ 85007
Telephone: (602) 542-1401

5 Attorneys for Defendant

LIPS DOC JUN 12 1989
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BY *lfc*

7 IN THE SUPERIOR COURT OF THE STATE OF ARIZONA

8 IN AND FOR THE COUNTY OF MARICOPA

9 CAM-ROY RESEARCH CORPORATION,
10 a Nevada corporation,

11 Plaintiff,

12 vs.

13 OIL AND GAS CONSERVATION
14 COMMISSION OF THE STATE OF
ARIZONA,

15 Defendant.

) NO. CV 88-90747

) CONTROVERTING CERTIFICATE
) AND MOTION TO DISMISS

) (Oral Argument Requested)

) (Assigned to the Honorable
) David L. Grounds, Div. 13)

16 Defendant Oil and Gas Conservation Commission of the
17 State of Arizona (hereinafter Commission) objects^{1/} to
18

19 1. For the Court's information, plaintiff Cam-Roy
20 Research Corporation filed a petition for relief under Chapter 11
21 of the Bankruptcy Code on or about December 16, 1988, case No.
22 88-10131 PHX RGM. That petition is pending in the federal Bank-
23 ruptcy Court. Accordingly, this Court may be stayed from acting
24 in the above-captioned matter pursuant to § 362 of the Bankruptcy
25 Code. To undersigned counsel's knowledge, Plaintiff has not
26 requested the Bankruptcy Court to lift the automatic stay and
allow continuation of this suit against the Commission. It is
possible § 362 does not apply to the above-captioned proceeding
because the debtor is the plaintiff rather than the defendant in
this matter. This Controverting Certificate and Motion to Dis-
miss the Complaint are being filed only in the event the auto-
matic stay does not apply to this case.

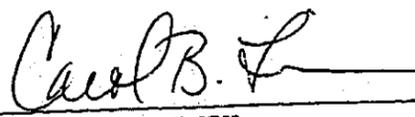
1 Plaintiff's Motion to Set and Certificate of Readiness because,
2 contrary to Rule V, Uniform Rules of Practice of the Superior
3 Court (hereinafter Uniform Rule V), (1) no answer has been filed
4 in this matter and therefore all issues have not been joined and
5 (2) no list of witnesses and exhibits has been filed.

6 The Commission also moves to dismiss the Complaint for
7 failure to state a claim. The Complaint is moot because it
8 seeks review of a Commission order regarding the operating
9 status of two geothermal wells in which Plaintiff's interest has
10 been judicially terminated.

11 This Controverting Certificate and Motion to Dismiss
12 are brought pursuant to Uniform Rule V and Rule 12(b)(6),
13 Arizona Rules of Civil Procedure, and are based upon the follow-
14 ing Memorandum of Points and Authorities.

15 RESPECTFULLY SUBMITTED this 12th day of June, 1989.

16 ROBERT K. CORBIN
17 Attorney General

18 
19 _____
20 CAROL B. LEWIN
21 Assistant Attorney General
22 Attorneys for Defendant
23
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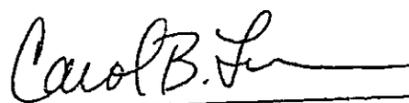
1 However, the landowner successfully pursued a quiet title action
2 against Cam-Roy and others in the Maricopa County Superior
3 Court, No. CIV87-21475, seeking a determination that the lease
4 of the land and geothermal wells had expired by its terms. On
5 March 17, 1988, the court entered judgment in favor of the
6 landowner declaring that the geothermal lease had expired on
7 April 20, 1987, and that Cam-Roy Research Corporation no longer
8 had any interest in the property or wells. Cam-Roy Research
9 Corporation appealed to the Arizona Court of Appeals, and the
10 appellate court affirmed the ruling in favor of the landowner.
11 Thereafter Cam-Roy Research Corporation filed a Motion for
12 Reconsideration in the Court of Appeals and a Petition for
13 Review in the Arizona Supreme Court. Both were denied. Copies
14 of the February 25, 1988 Superior Court Minute Entry Order,
15 Arizona Court of Appeals Memorandum Decision, April 5, 1989
16 Arizona Supreme Court Order and April 7, 1989 Arizona Court of
17 Appeals Mandate have been attached to the Court's copy of this
18 pleading for its convenience.

19 As set forth above, Plaintiff's interest in the two
20 geothermal wells at issue was terminated as of April 20, 1987.
21 Consequently, this suit by Plaintiff regarding the status of
22 those wells at a later date is moot. The present action seeks
23 review of the Commission's March 18, 1988 decision to deny a par-
24 ticular status to the wells as requested by Plaintiff. Because
25 Plaintiff currently has no interest in the wells, review of the
26 Commission's decision at this time would be a meaningless act.

1 For all the foregoing reasons, the Complaint fails to
2 state a claim against the Commission under any legal theory or
3 statement of facts susceptible of proof and should be dismissed.

4 RESPECTFULLY SUBMITTED this 12th day of June, 1989.

5 ROBERT K. CORBIN
6 Attorney General

7 
8 CAROL B. LEWIN
9 Assistant Attorney General
Attorneys for Defendant

10 COPY of the foregoing Controverting
11 Certificate and Motion to Dismiss
12 mailed/delivered this 12th day of
June, 1989, to:

13 THE HONORABLE DAVID L. GROUNDS
14 Judge of the Superior Court
15 Division 13, Maricopa County
Southeast Judicial District
1837 South Mesa Drive
Mesa, AZ 85202

16 GORDON S. BUELER
17 Law Offices of Thomas M. Ryan
Suite D-208
2659 West Guadalupe
18 Mesa, AZ 85202

19 
20 Secretary to
21 CAROL B. LEWIN
Assistant Attorney General

22 0238a.6

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GORDON S. BUELER
LAW OFFICES OF THOMAS M. RYAN
2659 W. Guadalupe, Suite D-208
Mesa, AZ 85202
(602) 820-3000
Bar No. 011415
Attorney for Plaintiff

SUPERIOR COURT
COUNTY OF MARICOPA, STATE OF ARIZONA

CAM-ROY RESEARCH CORPORATION,
a Nevada corporation,

Plaintiff,

vs.

OIL AND GAS CONSERVATION
COMMISSION OF THE STATE OF
ARIZONA,

Defendant.

No. CV 88-90747

MOTION TO SET AND
CERTIFICATE OF
READINESS

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BY *[Signature]*

The undersigned, pursuant to Rule V(b), Uniform Rules of Practice of the Superior Court, and Rule I(e), Uniform Rules of Procedure for Arbitration, moves that this action be set for trial and certifies:

1. Issues Joined. The case is at issue. This case is a direct appeal from an administrative ruling made by the Arizona Oil and Gas Commission.

2. Estimated Time of Trial. The estimated time for trial of this action is 2 days.

3. Status of Discovery. The status of discovery is as follows:

X Maricopa County-Civil. The parties have completed, or will have had a reasonable opportunity to complete, the procedures under Rules 26 to 37 of the Rules of Civil Procedure within 60 days after the filing of this Certificate of Readiness.

1 Maricopa County-Domestic Relations. The parties
2 have completed, or have had a reasonable opportunity to
3 complete, the procedures under Rules 26 to 37 of the Rules of
Civil Procedure at the time of filing of this Certificate of
Readiness;

4 Non-Maricopa County. The parties have
5 completed, or will have the opportunity to complete, the
6 procedures under Rules 26 to 37 of the Rules of Civil
Procedure prior to 10 days before trial.

7 4. No lists of witnesses and exhibits have been
8 exchanged by the parties. This case is a direct appeal from an
9 administrative ruling. The same witnesses and exhibits as
10 appeared in the administrative hearing shall appear again in
this action.

11 5. Jury Trial. A trial by jury is demanded. Yes
12 X No.

13 6. Arbitration. This case is subject to compulsory
14 arbitration under the Uniform Rules of Procedure for
15 Arbitration. Yes X No. If yes, the amount in
16 controversy - claims considered individually, not cumulatively
17 including punitive damages, but excluding interest, attorneys'
fees and costs is \$_____.

18 7. Short Cause. This cause may be heard as a short
19 cause within one hour. Yes No.

20 8. Preference. This action is entitled to a preference
21 for trial. Yes X No. If yes, the statute or rule
22 involved is _____.

23 9. Parties. The names, addresses and telephone numbers
24 of the parties or their individual attorneys who are
25 responsible for the conduct of this litigation are:

ATTORNEY FOR PLAINTIFF (OR PLAINTIFF)	ATTORNEY FOR DEFENDANT (OR DEFENDANT)
John J. Saxman, President Cam-Roy Research Corporation 1068 E. Alameda Drive Tempe, AZ 85282	Carol Lewin Arizona Attorney General's Office 1275 W. Washington Phoenix, AZ 85007

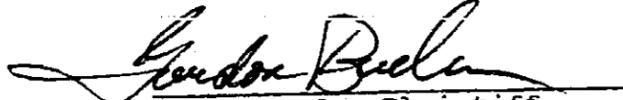
26 11. Service. A copy of this motion has been mailed or
27 delivered to the attorneys for all other parties, or any party
28 itself who is not represented by an attorney, at the addresses
indicated above, on this date.

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Served by: X Mail Deliver
To: Mr. John Saxman 1068 E. Alameda Drive, Tempe, AZ 85282

Served by: X Mail Deliver
To: Ms. Carol Lewin, Attorney General's Office 1275
W. Washington, Phoenix, AZ

DATED this 1st day of June, 1989.


Attorney for Plaintiff

1 ORIGINAL of the foregoing
2 filed this 1st day of
3 June, 1989, with:

4 Clerk of the Court
5 Southeast Judicial District
6 1837 South Mesa Drive
7 Mesa, Arizona 85202

8 COPY of the foregoing
9 mailed this 1st day of
10 June, 1989, to:

11 The Honorable B. Michael Dann,
12 Presiding Judge
13 Maricopa County Superior Court
14 201 W. Jefferson
15 Phoenix, AZ 85003

16 The Honorable
17 David Roberts
18 Assigned Judge
19 Maricopa County Superior Court
20 Southeast Judicial District
21 1837 South Mesa Drive
22 Mesa, Arizona 85202

23 Mr. Gordon Grilter
24 Court Administrator,
25 Superior Court
26 201 W. Jefferson
27 Phoenix, AZ 85003

28 Ms. Carol Lewin
Arizona Attorney General's Office
1275 W. Washington
Phoenix, AZ 85007

Shirley Williams



Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190

PHOENIX, ARIZONA 85015

PHONE: (602) 255-5161

June 16, 1988

Auditor General
2700 North Central Avenue, Suite 700
Phoenix, AZ 85004

Attention Mr. Randy Gizowski

Gentlemen:

At the request of Mr. Randy Gizowski, enclosed are copies for Securities Safekeeping for Cam-Roy Research Corporation being held by the Treasurer's Office. These refer to our Permits 605 and 611 for \$5,000.00 each. The certificate numbers are 2506289 and 2506290 respectively.

Also enclosed is a copy for Securities Safekeeping for Contender Oil Company for our Permit 850. The certificate number is 2651582 for \$5,000.00.

Please contact us if further information is necessary.

Sincerely,

Katie Barnes

Katie Barnes
Administrative Assistant

Enclosures

MAY 16 1988

COPY
CLERK OF SUPERIOR COURT

1 Franklin K. Gibson
1837 S. Mesa Drive
2 Mesa, AZ 85210
(602) 926-0902
3 #841
4

5
6 IN THE SUPERIOR COURT OF THE STATE OF ARIZONA
7 IN AND FOR THE COUNTY OF MARICOPA

8 CAM-ROY RESEARCH CORPORATION)
a Nevada corporation,)

No. CV 88-90747

9 Plaintiff,)

10 vs.)

C O M P L A I N T

11 OIL AND GAS CONSERVATION)
12 COMMISSION OF THE STATE OF)
ARIZONA,)

(Judicial Review of
Administrative Decisions)

13 Defendant.)
14

15 Comes now the plaintiff by and through its attorneys, BURGER,
16 GIBSON, MATHESON, WHITNEY & WEBER and petitions the court as
17 follows:

18 COUNT ONE

19 1. That the plaintiff is an Nevada corporation duly licensed
20 to business in the State of Arizona.

21 2. That the defendant is an agency of the State of Arizona and
22 is charged to follow the public policy of the State of Arizona.

23 That this suit is brought pursuant to the provisions of ARS 12-901
24 et seq which provide for the Judicial Review of Administrative
25 Decisions.

26 3. That plaintiff has been the owner of certain geothermal
wells located in Maricopa County in Sec. 1, T2S, R6E of the

BURGER, GIBSON, MATHESON, WHITNEY & WEBER
ATTORNEYS AT LAW
THE COURT CENTER, SUITE C-100
1837 S. MESA DRIVE
MESA, ARIZONA 85210
(602) 926-0902

BURGER, GIBSON, MATHESON, WHITNEY & WEBER
ATTORNEYS AT LAW
THE COURT CENTER, SUITE C-100
1837 S. MESA DRIVE
MESA, ARIZONA 85210
(602) 926-0902

1 G&SRB&M. That title to said property is presently in Gilbert,
2 Arizona-Power Road Properties Joint Venture, an Arizona General
3 Partnership subject to the rights of plaintiff on appeal of cause
4 number CA-CV 88-202 in the Court of Appeals, Division One of the
5 State of Arizona.

6 4. That said wells were drilled in 1973 and resulted in a find
7 of geothermal energy that has commercial value for the production
8 of electrical energy and residual heat consumption.

9 5. That the wells do not pose any threat to the environment
10 nor constitute a hazard. That said wells have been shut in under
11 a temporary abandonment permit.

12 6. That on March 18, 1988 at a meeting of the Oil and Gas
13 Conservation Commission the Commission ratified the action of the
14 commission of February 19, 1988 wherein the commission denied the
15 request of plaintiff Cam-Roy Research Corporation for an extension
16 of time of temporary abandonment of said wells. That notice of
17 the action was given to plaintiff by letter dated April 12, 1988.

18 7. That the order and decisions of March 18, 1988 were
19 contrary to the express public policy of the State of Arizona as
20 set forth in ARS 27-502 in the following matters:

21 It does not conserve the natural resources of geothermal
22 energy. It constitutes a waste of the geothermal resources. It
23 does not provide for the protection and adjustments of correlative
24 rights of owners of land wherein the natural resources of
25 geothermal energy lies. It discourages the development of
26 geothermal energy and its products.

BURGER, GIBSON, MATHESON, WHITNEY & WEBER
ATTORNEYS AT LAW
THE COURT CENTER, SUITE C-100
1837 S. MESA DRIVE
MESA, ARIZONA 85210
(602) 926-0902

1 8. That plaintiff seeks to have reviewed the findings of the
2 commission inherent in its order that the wells pose a threat to
3 the environment unless they are plugged and that there has not
4 been a find of geothermal energy of a commercial value.

5 9. That the plaintiff designates pursuant to ARS 12-909 the
6 transcript and record of hearings of the Oil and Gas Commission of
7 August, 1986; February 19, 1988; March 18, 1988 which pertain to
8 the aforesaid wells as the record and transcript.

9 10. That at a prior hearing in August 1986, the commission
10 acknowledged that there was no threat to the environment for the
11 wells to remain in temporary abandonment. That no evidence to the
12 contrary has been introduced at subsequent hearings.

13 11. That justice demands that there be a trial de novo so as
14 to allow for the presentation of evidence from qualified experts
15 to show that the denying of an extension of a temporary
16 abandonment was contrary to the public policy of the State of
17 Arizona.

18 Wherefore plaintiff prays for an order setting this matter for
19 a hearing on a trial de novo. That upon final hearing, the court
20 enter an order setting aside the aforesaid orders of the Oil and
21 Gas Conservation Commission and decreeing that plaintiff is
22 entitled to an order granting a temporary abandonment of said
23 wells.

24 COUNT TWO

25 As an alternative pleading the plaintiff alleges as follows:

26 12. Plaintiff incorporates by reference the allegations of
Count One.

BURGER, GIBSON, MATHESON, WHITNEY & WEBER
ATTORNEYS AT LAW
THE COURT CENTER, SUITE C-100
1837 S. MESA DRIVE
MESA, ARIZONA 85210
(602) 928-0902

1 13. That the defendant is a "public body" within the meaning
2 of ARS 38-431 (5). That defendant is required to comply with the
3 terms of the laws regarding public meetings and proceedings as
4 provided in ARS 38-431 et seq.

5 14. That the defendant failed to comply with the requirements
6 for notice of the date and time of the meeting held on March 18,
7 1988. That there was not a quorum to conduct a meeting at the
8 time originally set for a meeting on March 18, 1988. That the
9 meeting was postponed until a quorum was present without complying
10 with the notice requirements.

11 Wherefore plaintiff prays for an order setting aside the
12 aforesaid order of March 18, 1988.

13 DATED this 16th day of May, 1988.

14 BURGER, GIBSON, MATHESON,
15 WHITNEY & WEBER

16 *Franklin K. Gibson*
17 Franklin K. Gibson
18
19
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1 STATE OF ARIZONA)
2 County of Maricopa) ss.

3 R. J. Pomeroy, being first duly sworn upon
4 oath doth depose and say:

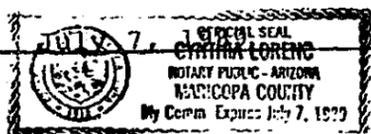
5 That he is the ^{Vice-President of} ~~Corporation~~ ^{Cam-Roy Research} in the foregoing cause
6 of action and has read the Complaint
7 herein and knows the contents thereof, and that the matters and
8 things therein stated are true and correct to the best of his
9 information, knowledge and belief.

10
11
12 *R. J. Pomeroy*
13 J. POMEROY

14 SUBSCRIBED AND SWORN to before me this 16 day of
15 May, 1988.

16 *Cynthia Lorenc*
17 Notary Public

18 My comm. Expires:



BURGER, GIBSON, MATHESON, WHITNEY & WEBER
ATTORNEYS AT LAW
THE COURT CENTER, SUITE C-100
1837 S. MESA DRIVE, MESA, ARIZONA 85202
(602) 926-0902



Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190

PHOENIX, ARIZONA 85015

PHONE: (602) 255-5161

April 12, 1988

Mr. R. J. Pomeroy, Chairman
Cam-Roy Research Corporation
P. O. Box 893
Chandler, AZ 85225

Dear Mr. Pomeroy:

As you are aware, at its meeting on February 19, 1988, the Arizona Oil and Gas Commission denied your request for an extension of the period of temporary abandonment for the Cam-Roy Research (Geothermal Kinetics) #1 and #2 Powers Ranch wells.

As you are also aware, at its meeting on March 18, 1988, the Commission ratified its action.

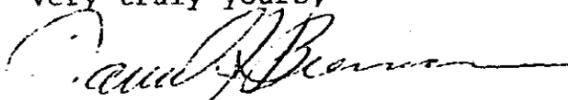
Since the extension expired on February 21, 1988 under the terms of Rules 12-7-231 and 12-7-232, the wells must now be plugged and abandoned within 60 days. Your attention is called to Rule 12-7-231.B and C, prescribing the procedure necessary to perform an approved abandonment.

While we view the 60-day period as beginning on February 21, 1988, it may be argued that the clock begins running on your receipt of notice. The return receipt for our notice of March 7, 1988 is dated March 11, 1988. However, at the outside, the 60-day period cannot begin later than the date of your receipt of this notice.

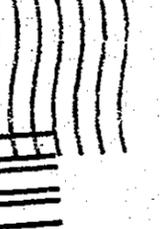
Enclosed are copies of Forms G-9, Application to Plug and Abandon, and G-10, Plugging Record. No work may take place until approval of Form G-9 is obtained.

You may wish to consult your attorneys regarding any legal remedies available to you.

Very truly yours,


Daniel J. Brennan
Executive Director

Enclosures



PROCESSED
PM 3 APR 1990

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS
Print your name, address, and ZIP Code in the space below.
• Complete items 1, 2, 3, and 4 on the reverse.
• Attach to front of article if space permits, otherwise affix to back of article.
• Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE, \$300

Print Sender's name, address, and ZIP Code in the space below.

RETURN TO
OIL & GAS CONSERVATION COMMISSION
3110 N. 19TH AVENUE, STE. 190
PHOENIX, AZ 85015

- STICK POSTAGE STAMPS TO ARTICLE TO GIVE FIRST CLASS POSTAGE. CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES. (See front)**
1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached and present the article at a post office service window or hand it to your rural carrier. (no extra charge)
 2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, attach and retain the receipt, and mail the article.
 3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends. If space permits, otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.
 4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.
 5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in Item 1 of Form 3811.
 6. Save this receipt and present it if you make inquiry.



Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190

PHOENIX, ARIZONA 85015

PHONE: (602) 255-5161

March 21, 1989

Mr. John Saxman
c/o Cam-Roy Research and
Development Corporation
P. O. Box 893
Chandler, AZ 85224

Dear Mr. Saxman:

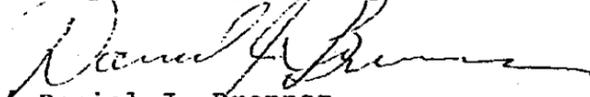
I feel that I must apologize for not being allowed to let you speak at the meeting of the Oil and Gas Conservation Commission on March 17, 1989.

We are trying to comply with the provision of the state's Open Meeting Law. In preparing the agenda, I was confused by legal advice, and thought that the public could comment on any item on the agenda. As you observed, the attorney told us that the public may not comment on an item called Executive Session Agenda.

In the future, the agenda will be modified to assure that we may always hear from any member of the public on any topic they may choose.

Please accept my sincere apologies for any inconvenience this may have caused you.

Very truly yours,


Daniel J. Brennan
Executive Director



Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190

PHOENIX, ARIZONA 85015

PHONE: (602) 255-5161

March 21, 1989

Mr. Robert L. Stilmar
589 N. Colorado St., Suite A
Chandler, AZ 85225

Dear Mr. Stilmar:

I feel that I must apologize for not being allowed to let you speak at the meeting of the Oil and Gas Conservation Commission on March 17, 1989.

We are trying to comply with the provision of the state's Open Meeting Law. In preparing the agenda, I was confused by legal advice, and thought that the public could comment on any item on the agenda. As you observed, the attorney told us that the public may not comment on an item called Executive Session Agenda.

In the future, the agenda will be modified to assure that we may always hear from any member of the public on any topic they may choose.

Please accept my sincere apologies for any inconvenience this may have caused you.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Daniel J. Brennan".

Daniel J. Brennan
Executive Director



CAM-ROY RESEARCH CORPORATION

P.O. Box 893 • Chandler, AZ 85225 • (602) 963-1773

March 18, 1988

Dr. Daniel J. Brennan
Executive Director
Oil & Gas Commission
State of Arizona
3110 N. 16th Ave. Suite 190
Phoenix, Arizona

Dear Dr. Brennan:

Your letter dated March 4, 1988, was apparently late in posting and delivery, delaying my receipt of it until March 14, 1988. I have been confined to my home the past week due to a re-occurrence of a painful illness. I am still unable to get about and I realize I will be unable to meet you before or during the commission meeting scheduled for March 18, 1988. I consider this a most unfortunate and embarrassing situation as I feel it was necessary to discuss with you your public notice of the meeting and the six point agenda.

My particular interest in this agenda is Item # 3. "Ratification of Denial of Cam-Roy Research Corporation for Extension of Time to Plugging Two Wells". I am instructed and advised to correct that statement with you on the grounds that as stated in the announcement - it is not true. Cam-Roy Research Corporation has never requested an extension of time to plug the two wells. Our request was to extend the Temporary Abandonment of the wells under the assumption of no more authority than we had when we made the first request for TA in 1984, before we had obtained legal rights to the wells.

You are surely aware that we have never intended or considered the possibility of plugging the wells. Our conviction has always been and still is that the wells are economically viable for rehabilitation and amenable to an extraction of heated waters for industrial uses as well as for the generation of electrical power.

We also wish to advise that we share in your concern for the possible deterioration of the wells during the long past shut-in period of time. We also would have much preferred and would have greater appreciation for this discussion had it taken place in 1984, or at any time prior to the legal problems forced upon us the past six months.

Normally, a quiet title case is limited in scope with no cause for a so-called "paper mill" type law suit. As difficult as it was to manage the legal defense in our such case, we are fortunate in the preservation of our rights to an appeal and a suit for recovery of damages sustained by the runaway legal action. As previously mentioned to you, it would be particularly painful to us if our future legal action became by necessity a dual front action to include a challenging of your conclusions of justification for permanent abandonment of the wells.

I do hope that the TA will be continued, at least for a time sufficient for a better understanding and that your office will remain available to us for a more in depth discussion on the subject.

Sincerely yours,


R. J. Pomeroy
Chairman

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:
 Mr. R. J. Pomeroy
 Cam-Roy Research Corporation
 P.O. Box 893
 Chandler, AZ 85225

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured	464050
<input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD	710
<input type="checkbox"/> Express Mail	

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee
 X

6. Signature - Agent
 X *R. Pomeroy*

7. Date of Delivery
 3-11-88

8. Addressee's Address (ONLY if requested and fee paid)
 589 N. Colorado

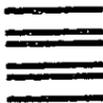
DOMESTIC RETURN RECEIPT

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

SENDER INSTRUCTIONS

- Print your name, address, and ZIP Code in the space below.
- Complete items 1, 2, 3, and 4 on the reverse.
 - Attach to front of article if space permits, otherwise affix to back of article.
 - Endorse article "Return Receipt Requested" adjacent to number.



PENALTY FOR PRIVATE USE, \$300

RETURN TO

Oil & Gas Conservation Commission
(Name of Sender)

3110 N. 19th Ave., Ste. 190
(No. and Street, Apt., Suite, P.O. Box or R.D. No.)

Phoenix, AZ 85015
(City, State, and ZIP Code)



Oil and Gas Conservation Commission

STATE OF ARIZONA
3110 N. 19th AVENUE, SUITE 190
PHOENIX, ARIZONA 85015
PHONE: (602) 255-5161

March 7, 1988

Mr. R. J. Pomeroy
Cam-Roy Research Corporation
P. O. Box 893
Chandler, AZ 85225

Dear Mr. Pomeroy:

At its meeting on February 19, 1988, the Arizona Oil and Gas Conservation Commission denied your request for an extension of the period of temporary abandonment for the Cam-Roy Research (Geothermal Kinetics) #1 and #2 Powers Ranch wells.

Since the extension expired on February 21, 1988, under the terms of Rules 12-7-231 and 12-7-232, the wells must now be plugged and abandoned within 60 days. Your attention is called to Rule 12-7-231.B and C, prescribing the procedure necessary to perform an approved abandonment.

Enclosed are copies of the Forms G-9, Application to Plug and Abandon, and G-10, Plugging Record. No work may take place until approval of Form G-9 is obtained.

You may wish to consult your attorneys regarding any legal remedies available to you.

Any opening of the wells for any purpose such as the recent water sampling should be reported on Form G-12, Sundry Notices, copies of which are also enclosed. Please have your hydrologist submit this form covering his recent testing of the water level on one of the wells.

You should be aware that the Commission may have committed a technical violation of the Arizona Open Meeting Law in the notification procedures for the February 19 meeting. To comply with all sections of the law, the Commissioners will have to vote again to ratify the action taken at the February 19 meeting.

Any interested party may speak at that meeting before the vote is taken.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Daniel J. Brennan".

Daniel J. Brennan
Executive Director

Enclosures

SENDER: Complete items 1, 2, 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult Postmaster for fees and check boxes for service(s) requested.

1. Show to whom, date and address of delivery.
 2. Restricted Delivery

3. Article Addressed to:
 Mr. R. J. Pomeroy
 Cam-Roy Research Corporation
 P.O. Box 893
 Chandler, AZ 85225

4. Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input type="checkbox"/> Certified <input type="checkbox"/> COD <input checked="" type="checkbox"/> Express Mail	Article Number 464050 710
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Always obtain signature of addressee or agent and
DATE DELIVERED:

5. Signature of Addressee
 X

6. Signature of Agent
 X R. Pomeroy

7. Date of Delivery
 3-11-88

8. Addressee's Address (ONLY if requested and fee paid)
 589 N. Colton

DOMESTIC RETURN RECEIPT

ENERGY INSTITUTE

Box 3EI/Las Cruces, New Mexico 88003
Telephone (505) 646-1745



19 February 1988

Mr. Dan Brennan
Executive Director
Arizona Oil and Gas Commission
3110 N. 19th Ave.
Suite 190
Phoenix, Arizona 85015

Dear Mr. Brennan:

Enclosed is a copy of the feasibility study for the Williams Air Force Base geothermal project. You may keep this copy for your files. Some information in the Geothermal Kinetics Power Ranches wells is included in the report.

I've tabbed cost estimates of drilling a new well versus refurbishing existing Power Ranches wells for production. It is clear that reworking the old wells is not advantageous. Therefore, plugging and abandoning these wells is reasonable and legitimate considering their probable condition.

If I can be of further assistance, don't hesitate to call.

*bull
crap*

Sincerely,

A handwritten signature in cursive script, appearing to read 'J. C. Witcher'.

James C. Witcher
Staff Geologist

ENERGY INSTITUTE

James C. Witcher
Staff Geologist



Box 30001/Dept. 3EI/Las Cruces, New Mexico 88003-0001
(505) 646-2856

ALLEN, KIMERER & LAVELLE

LAWYERS

2715 NORTH THIRD STREET
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602-279-5900

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JOHN V. FELS *
COUNSEL

TELECOPY 264-5566

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GARY E. DAVIDSON
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JAMES C. HAIR, JR.
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RICHARD B. HOOD
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RITA L. SPEARS
JEAN I. UPDIKE

FEB 17 1988

023113

February 17, 1988

PA PROFESSIONAL CORPORATION

Dr. Daniel J. Brennan
Director
Oil and Gas Commission
3110 North 19th Avenue, Suite 190
Phoenix, AZ 85015

Re: Request for Continuation of Temporary Abandonment
- Cam-Roy Research Corporation, GKI Power Ranch
#1, GKI Power Ranch #2

Dear Dr. Brennan:

As you know, Cam-Roy Research is involved in a legal battle over the ownership of the two above-referenced geothermal wells located on the Power Ranch near Gilbert, Arizona. Notwithstanding the final outcome of that legal battle, it would not be in the State's best interest to order the plugging of those wells anytime in the near future.

Although Cam-Roy Research has not yet complied with various well inspection procedures required by the Oil & Gas Commission, this has been the result of complicated legal maneuverings and lack of understanding by various lending institutions of the nature of the geothermal power. Although we are overcoming the latter of these two problems, the former is still in court.

In order to alleviate some of your concerns relating to the potential environmental impact, I have enclosed a memorandum from Ron Turner, the hydrologist who was retained by Cam-Roy. As you can see, there has not been any demonstrated hydrological problem in the past 15 years. Accordingly, it seems very unlikely that any adverse environmental damage could occur in the near future. ^{see 1/29/88}

For these reasons, Cam-Roy Research requests that the Oil & Gas Commission extend the temporary abandonment until such time as the legal title to the wells is finalized. At that time, the owner thereof can conduct necessary reworking and

ALLEN, KIMERER & LAVELLE
LAWYERS

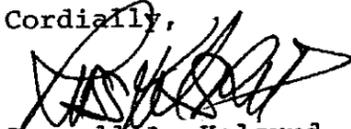
Mr. Daniel J. Brennan
February 17, 1988
Page Two

development. In the meantime, our hydrologist will monitor surrounding wells for any contamination.

Quite frankly, it would be a shame for the Commission to order the plugging of the only geothermal energy that it presently available for use in Arizona. The problems Cam-Roy is facing can and will be solved.

If you have any questions in this regard or would like further information, do not hesitate to contact me. In addition, we will be glad to appear and discuss these issues at the next meeting of the Arizona Oil & Gas Commission.

Cordially,



Russell A. Kolsrud

RAK/db

cc: Mr. R. J. Pomeroy
Mr. Logan Johnston
Mr. Sheldon Muller



CAM-ROY RESEARCH CORPORATION

P.O. Box 893 • Chandler, AZ 85225 • (602) 963-1773

RECEIVED
FEB 17 1988

O & G COM. 1988

February 16, 1988

Dr. J. Dale Nations
Chairman, Oil & Gas Commission
State of Arizona
% Dr. Daniel J. Brennan
Executive Director
3110 N. 19th Ave. Suite 190
Phoenix, Arizona

Dear Dr. Nations:

Since the last meeting of the Commission, it has become necessary to request a modification of the order adopted at that meeting, wherein this firm was to perform some exploratory work on the so-called Power wells if a temporary abandonment of them was to be extended as requested. We ask that the order be modified from the date of February 21, 1988, to July 1, 1988, to do that work. There are now legal circumstances that prohibit us from having the legal right to perform any work on the wells at this point in time, and that prohibition will continue until the current ruling of the court is appealed and successfully concluded in our favor.

In making this request, we wish it to be fully understood that we appreciate the consideration given us by the Commission the past three years. We also express our appreciation for the temperate control of the meeting that could have developed into a court-house confrontation. To a certain extent, we feel that this meeting gave a degree of exposure to the type of problems that we have inherited that are beyond our control.

Many times during the past three years, we have been tempted to cut our losses, and leave the Power wells to whatever fate might decree. We found encouragement in the willingness of the Commission to continue the T.A. of the wells. That, and the constant challenge to bring about a successful development of that particular geothermal resource, has sustained our motivation.

We firmly believe that we have the best qualified knowledge and understanding of the practical importance of the Power wells. It is also our belief that, since these are the only two produceable geothermal wells in the state, and are located in a renowned geothermal basin, the Chandler-Higley Basin, they have a tremendous impact on the future geothermal development in Arizona. In our opinion, this transcends in importance any set of regulations that could terminate the T.A. of the wells. If, in fact, there is suspicion that because of the length of time of the

shut-in of the wells, there could be damage dangerous to the environment, we believe it is not supported by any findings on the subject to this point in time. Further, we also feel that whatever condition might develop, it is in no way going to appreciably increase the danger to the environment of the area within the extended time requested. *see 1-17-82*

In this letter we are including a copy of a memorandum by our hydrogeologist, Ron Turner, which indicates the water wells in the area have been monitored by the Department of Water Resources and there is no indication of water contamination from the Power wells as might be feared. We have long recognized that due to the age and the lengthy shut-in-time of the wells, an extensive refurbishing and conditioning will be necessary before they can be qualified for an extracting fulfillment. In probability the # 2 well will be the easiest to control and possibly should be extended another 500 feet in depth. We feel it is the unit on which refurbishing and rehabilitation work should be started first.

Due to the experimentation in the drilling process of the # 1 well, it is not as simple to visualize the extent of work needed on that hole. But, whatever it is, the proper time to open and explore the condition of both wells is when the proper rigging facilities are available, and the financing of approximately \$1,000,000 is in place, as our plans include. In our opinion, our development plans for these wells are sound and meritorious, but unfortunately, they must be held in abeyance until the legal problems at hand are solved. We just do not have the legal right to do anything to the wells at this time.

Counsel advises that we have a good prospect of winning an appeal of the current ruling which could lead to a judgment in our favor. In addition, we are continuing our efforts to effect a compromise of the problem that would be fair and reasonable and more practical than a court proceeding. This has always been our hope and desire. May we emphasize this point? We are not attempting to steal or compromise any interest that our opponents have. In fact, we have offered to pay cash for their fee title interest which would make them wealthy. We feel we will yet succeed, if we can have your continued cooperation in this matter.

Sincerely yours,

R. J. Pomeroy
R. J. Pomeroy
Chairman

RJP/csp

Enclosure

cc: Mr. Logan Johnston
Mr. Russ Kolsrud

BEUS, GILBERT, WAKE & MORRILL
ATTORNEYS AT LAW

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O & G COMS. COMM.

SUITE 1000 GREAT AMERICAN TOWER
3200 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012-2417
(602) 274-8229
FAX (602) 234-5893
TELEX 756246

WRITER'S DIRECT LINE

234-2974
FILE NUMBER

February 5, 1988

file 605

Re: Power Ranch Well No. 1, Permit No. 605
Power Ranch Well No. 2, Permit No. 611

Dear Oil and Gas Commissioners and Staff:

At your January 15, 1988, meeting, Paul E. Gilbert of our office presented our client's opposition to any further extensions to the Temporary Abandonment status of the two above-referenced wells. The following is a summary of our presentation which has been cross-referenced with the enclosed documents for your convenience. (These are the same documents given to you at your meeting.)

The wells were drilled approximately fifteen years ago in 1973 and were granted temporary abandonment status shortly thereafter.

"The question was raised as to whether or not the Commission is adequately policing exploratory wells in order to determine that accurate and complete information is being furnished as required by the Commission rules and regulations. The consensus of opinion was that the Commission is receiving complete and accurate information in accordance with the requirements of the Commission rules and regulations and the statutes." January 16, 1976 Minutes of Meeting (Exhibit 1).

- A. March 14, 1980 correspondence to Commission from GKI (Exhibit 2)
1. Request for extension of Temporary Abandonment.
 2. "We anticipate the commencement of remedial work in the near future."

Contra: This request was made nearly eight years ago—the "near future" has since passed and no remedial work has ever been done.

February 5, 1988
Page 2

B. March 17, 1980 correspondence to GKI from Commission (Exhibit 3).

1. GKI's request to leave wells in Temporary Abandonment status is granted.
2. "Should remedial work as mentioned in your request fail to produce results leading to commercial operation, we would strongly suggest that you give consideration to plugging and abandoning these wells while your rigs are still available."

Contra: The rig was removed and the remedial work was never done. The wells have never been put in commercial operation, but yet, have never been abandoned or plugged.

C. June 28, 1983 correspondence to Commissioner from GKI (Exhibit 4).

1. GKI considering use of well-head generators.
2. Request permission to maintain Temporary Abandonment status.
3. GKI admits wells have been inactive for "an unusually long period of time".
4. Proposal to Williams Air Force Base fell through.

Contra: Four and one-half years ago GKI considered the temporary abandonment "an unusually long period of time." However, the abandonment status continues.

D. July 21, 1983 correspondence to GKI from Commission (Exhibit 5).

1. In response to GKI's June 28, 1983, letter (Exhibit 4), Commission requests information regarding well-head generators, sales to APS, size of proposed plant, money expended, money yet to be expended, and necessary time table to justify TA extension.

Contra: To date, no well-head generators are in place, nor have any even been ordered (Exhibit 30, p. 158, lns. 20-25; p. 159, lns. 1-8). Further, Cam-Roy still has no direct plans to construct a generating facility and will not proceed with any plan to do so until surface rights are purchased (Exhibit 30, p. 150,

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Page 3

lns. 7-13, p. 162, lns. 13-17). This could be years from now, if ever. Further, APS no longer has any plans to explore for or purchase geothermal energy from the wells (Exhibit 31).

E. September 9, 1983 Activity Report (Exhibit 6).

1. Commission's letter to GKI on July 21, 1983 (Exhibit 5).
2. "... wells have been on temporary abandonment status for 5 years (much too long)" (Actually, at that time the wells had been on Temporary Abandonment status for nearly ten years.)

Contra: Four and one-half years ago the Commission admitted that the Temporary Abandonment status had gone on "much too long;" however, numerous additional extensions have since been granted.

F. September 23, 1983 Minutes of Meeting (Exhibit 7).

1. No response from GKI regarding information requested by Commission.

G. November 18, 1983 Minutes of Meeting (Exhibit 8).

1. Still no word from GKI regarding information requested by commission.
2. "Mr. Doss made a trip to this location to inspect the well site, and showed pictures of them. He will continue to try to contact [GKI] and give [GKI] a time limit. Our only recourse would be to issue an Order to Show Cause through the Attorney General's Office. If this situation isn't resolved, it could prove very embarrassing to the Commission."

Contra: The Commission considered imposing a time lime over four years ago. Further, because the Commission has not received any test results on the wells for many, many years, the well casings may be corroded and leaking. The Commission should not tempt fate where Arizona's water supply is involved. It must order the wells permanently plugged.

H. December 14, 1983 correspondence to GKI from Commission (Exhibit 9).

February 5, 1988
Page 4

1. Commission still awaiting GKI's information concerning wells.
2. "... the Commissioners expressed strong concern about the prolonged extension of the temporary abandonment status and how it could place the Commission in a position of legal jeopardy for having sanctioned it."

Contra: See comments to paragraph "G" above.

- I. December 20, 1983 correspondence to Commission from GKI (Exhibit 10).
 1. Apology for late response.
 2. At this time unable to close any negotiations concerning property.
 3. One problem is APS's low avoided costs.
 4. Request Temporary Abandonment status extension Cam-Roy through June 1984.

Contra: The fact that GKI, or Pomeroy have not been able to purchase property should not be a proper consideration in extending the Temporary Abandonment status. The Commission is obligated to protect Arizona's waters by being fully informed about the mechanical integrity of all wells and casings in the state. Thus, the proper consideration should be whether the wells and casings are safe. No one knows the answer to this question because no thorough testing has been done since the wells were drilled 15 years ago.

- J. January 20, 1984 correspondence to GKI from Commission (Exhibit 11).

1. "The Commissioners granted the request [to extend to June 1984] but were unanimously opposed to any further extension, and I was instructed to inform your company that it is mandatory that the wells be plugged and abandoned at that time providing that no work is being done to legally extend the time beyond June 30, 1984."

Contra: The Commissioners were opposed to further extensions four years ago and ordered that the wells be

February 5, 1988
Page 5

plugged if no work was done on them by June, 1984. Nothing has been done to the wells since that time.

The wells were last opened in 1982 and nothing has been done to them since (Exhibit 30, p. 113, lns. 16-25, p. 114 lns. 1-3). Moreover, there are no present agreements or contracts to have the wells tested and/or reworked, and all preliminary discussions regarding these matters have been scraped pending the purchase of some property around or near the wells and the settlement of a lawsuit (Exhibit 32, p. 237, lns. 21-25, p. 238, lns. 15-19, p. 250, lns. 19-25, p. 251, lns. 17-23, p. 365, lns. 17-21).

Notwithstanding the Commission's mandatory order in January 1984, Pomeroy refuses to test or rework the wells and plans to continue to ask for extensions for so long as the lawsuit lasts and until some property can be purchased (Exhibit 32, p. 345 lns. 13-25 and p. 346, lns. 1-9). This could be years or decades from now, or never.

K. February 7, 1984 correspondence to Commission from Cam-Roy (Exhibit 12).

1. Cam-Roy plans to acquire wells from GKI pending Commission extension of Temporary Abandonment beyond June 1984, "to accommodate our new program."
2. Proposed program is to create market by subdividing adjacent acreage into industrial and modular home parks.
3. The project would be, . . . "the quickest way to create our market . . ."
4. "Since our progress is moving rapidly . . ." we request the extension.

Contra: The Commission has been more than "accommodating" to Cam-Roy for many years. Cam-Roy's "program" has never come to fruition, notwithstanding its "rapidly moving progress." Cam-Roy's inability to market the energy is discussed in paragraph "O."

L. February 24, 1984 Minutes of Meeting (Exhibit 13).

February 5, 1988
Page 6

1. Cam-Roy requested extension of Temporary Abandonment status because it is necessary to move in a rig to service and evaluate the wells.
2. Cam-Roy will assume GKI's responsibilities to plug.
3. The wells are now shut in.
4. Mr. Pomeroy of Cam-Roy wants to deepen the wells and "he plans to keep things moving."
5. Extension granted to June 30, 1985 if Pomeroy supplies bond and if the "project is to proceed as quickly as possible."

Contra: Rigs were never brought in to test, and still have not been. The wells are still "shut in." Pomeroy has not kept "things moving" because nothing has been done to the wells since 1982 (Exhibit 30, p. 113, lns. 16-25; p.114, lns. 1-3).

M. February 28, 1984 correspondence to Cam-Roy from Commission (Exhibit 14).

1. Grants one year Temporary Abandonment status to June 30, 1985.
2. Extension granted ". . . provided that you proceed with operations as quickly as possible, provide the bond required, file weekly sundry reports and agree to properly plug and abandon the wells if your tests are not successful."
3. NB: Cam-Roy signed and agreed to the above conditions.

Contra: Tests have never been done, therefore, Cam-Roy did not proceed "as quickly as possible" and thus, Cam-Roy has breached his agreement with the Commission.

N. May 18, 1984 correspondence to GKI from Cam-Roy (Exhibit 15).

1. Re: bond transfer from GKI to Cam-Roy.
2. ". . . the permanent financing is available for the project we contemplate and in the next few weeks we must finalize the conceptual details for sub-dividing the land and projecting the

February 5, 1988
Page 7

consummation of the energy produced by the Power wells."

Contra: If the permanent financing was available in May, 1984, why wasn't the subdivision ever built?

- O. February 15, 1985 Minutes of Meeting (Exhibit 16).
1. Mr. Pomeroy of Cam-Roy briefed Commission on plan to "rehabilitate" the wells.
 2. Planned additional depth to Well #1, limited drilling for Well #2.
 3. Each well could probably handle 10 MWe generator.
 4. Laura Scudder Potato Chip Company is a prospective buyer.
 5. Missouri brewery is a prospective buyer.
 6. Pomeroy is experiencing difficulty in arranging financing.
 7. Pomeroy: ". . . land adjacent to this which he has and can be used for development."
 8. Rig for testing to be on site approximately April 1, 1985.

Contra: As stated above, the wells have never been tested, reworked, redrilled or "rehabilitated." No generators have ever been ordered or contracted for. No rig has ever been brought to the site.

Further, Cam-Roy has testified under oath that it owns no real property (Exhibit JR, p. 15, lns. 23-25, p. 16, lns. 1-14, p. 44, lns. 18-21). Thus, if Pomeroy's deposition testimony is to be believed, Cam-Roy's representation to the Commission that they owned land adjacent to the wells must have been merely a self-serving statement without any factual basis.

Further, Pomeroy may have had parties "interested" in the production and possible purchase of geothermal energy, but no contract or any agreement has ever been signed except for a questionable contract with its wholly owned subsidiary, Geothermal Synergy (Exhibit 32, p. 257, lns. 15-25, p. 258, lns. 1-18, p. 259, lns. 9-11; Exhibit 30, p. 167, lns. 7-20). Further,

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there are no committed industrial users (Exhibit 30, p. 101, lns. 15-22). In fact, Pomeroy's most recently proposed development does not even include industrial users (Exhibit 33, p. 24, lns. 1-10).

Pomeroy and his company, CRN, have admitted that no one is willing to sign a contract for the purchase of energy until they "create" a market, which includes purchasing the real property and constructing structures to utilize the energy (Exhibit 30, p. 161, lns. 17-18; Exhibit 32, p. 259, lns. 12-19 and p. 298, lns. 11-16). Pomeroy has been telling the Commission for years that he is developing a market and that these efforts justify the TA extensions. The facts show, however, that he has never secured a market or buyer, and the only chance of ever securing them would be years from now. Pomeroy has been improperly misleading the Commission to believe that buyers are imminent. This is a misstatement of fact, because by Pomeroy's own testimony under oath he admitted he has not secured buyers or users because he does not own the real property and because he has failed to build a generating facility (Exhibit 32, p. 257, lns. 15-25, p. 258, lns. 1-18, p. 259, lns. 1-11 and p. 298, lns. 11-16).

P. May 24, 1985 Minutes of Meeting (Exhibit 17).

1. Attorney informed Pomeroy that lease assignments from GKI are not valid and GKI's leases were not valid.
2. Thus, Pomeroy must acquire new land.
3. "Mr. Doss said this project may never get off the ground because of the compounded problems which Mr. Pomeroy is experiencing."
4. Mr. Doss opined that Power Ranch would be responsible to "abandon" the Wells.
5. Wells have been on Temporary Abandonment status for about 10 years.

Contra: Cam-Roy has been arguing the contrary position in court for over six months that the assignment of the GKI leases is valid. Cam-Roy has not acquired new land for the project nor has it ever acquired land.

Q. August 16, 1985 Minutes of Meeting (Exhibit 18).

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1. Cam-Roy is continuing to have problems.
2. Cam-Roy requests six month extension until January 1, 1986, which was granted.
3. General Electric is to be Cam-Roy's partner to aid in financing.

Contra: General Electric has never signed any agreement to be Pomeroy's partner and has never agreed to finance any part of the project. Mr. Pomeroy testified that General Electric's standard operating procedure is to provide a generating facility in return for a set percentage of the sales. However, GE will not agree to do this until customers can be established (Exhibit 32, pp. 208-213). In this case, it could be years, if ever, before customers can be established because Pomeroy has yet to purchase the property, test the wells, rework the wells, and build structures to utilize the energy.

Simply put, GE is willing to supply a generator, for a percentage, to anyone with an energy source and ready and willing customers. Mr. Pomeroy unjustifiably misrepresented that GE had agreed to become its partner to aid and financing.

R. December 20, 1985 correspondence to Commission from Cam-Roy (Exhibit 19).

1. Cam-Roy requests "with some reluctance" for an extension of Temporary Abandonment status for six months.
2. Cam-Roy has completed plans for smaller scale real estate development.
3. ". . . we have an investor who will provide ten million dollars of interim funds for this new project."
4. We have local banks for banking needs.
5. We have developed a bond proposal that will supply the permanent financing.
6. We have four security firms who have indicated an acceptance of our proposal for corporate bonds.

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7. Real estate development is the best way to finance geothermal development in this area.

Contra: Whatever these "plans" were and whoever the bank and security firms were, no project has ever come to fruition. Moreover, Cam-Roy now denies it had \$10,000,000 financing available in December of 1985. Mr. Pomeroy admitted that he may have talked to some investors in December, 1985 (Exhibit 32, p. 376, lns. 4-10, p. 377, lns. 2-25); however, he ". . . cannot think of anyone at the present time" (Exhibit 32, p. 380, lns. 9-13). In any event, nothing was ever agreed to and no contract or agreement was ever signed regarding financing or bonds (Exhibit 32, p. 379, lns. 11-25, p. 380, lns. 1-6). Thus, Mr. Pomeroy's statement that, ". . . we have an investor who will provide \$10,000,000 of interim finance . . ." is totally without basis. Further, the mere fact that the bond proposals were "accepted" does not mean Cam-Roy could ever actually get financing.

- S. January 17, 1986 Minutes of Meeting (Exhibit 20).

1. Pomeroy requested another extension.
2. Six month extension granted until January 1, 1986.

Contra: Notwithstanding the Commission's previous statements and orders, this extension was granted.

- T. July 9, 1986 correspondence to Commission from Cam-Roy (Exhibit 21).

1. Requests a six month extension of Temporary Abandonment status.
2. ". . . [have] developed an unusual but entirely feasible financial method to develop the [area]."
3. Request should be granted to allow time because of advances in technology and financial markets.
4. "[Cam-Roy] will pledge to continue the most expeditious efforts to justify the commission's favorable ruling for a continuance of the temporary abandonment as requested."

Contra: Although Mr. Pomeroy states here that he has a "feasible financial method," he has subsequently stated that he had no feasible financial plan to develop

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geothermal resources in July 1986 (Exhibit 32, p. 380, ins. 13-17).

Cam-Roy has been promising "expeditious" efforts, proposing new and unusual "plans" and concocting new financing schemes for years but still nothing has ever been done. No solid justifications for extensions have ever been forwarded.

U. July 18, 1986 Minutes of Meeting (Exhibit 22).

1. The heading in the Minutes is: "Consideration of an Order for Plugging of the Powers' Ranch Geothermal Wells."
2. One year extension granted until July, 1987.

Contra: Notwithstanding the Commission's consideration of an order to plug the wells, yet another extension was granted. At this point the well casings were over fourteen years old and no one knew their actual condition -- corroded, leaking or otherwise.

V. May 15, 1987 Minutes of Meeting (Exhibit 23).

1. Mr. Pomeroy requested Commission to work with Prudential-Bache and the Department of Energy to develop a food processing and storage plant.
2. Resolution adopted to promote geothermal interests and to cooperate with the above-referenced entities.

W. June 22, 1987 correspondence to Commission from Cam-Roy (Exhibit 24).

1. Request additional extension.
2. "We have signed a contract with our finance people in New York to provide the funds necessary. . . ."
3. "We are receiving favorable counsel from the Geothermal Division of the Department of Energy . . . D.O.E. will be able to guarantee a percentage of the costs of developing installations. . . ."
4. "We have an outstandingly capable builder to help us with the building and construction of the sub-division."

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Page 12

5. We have located equipment to test the Wells in Los Alamos.
6. "Our legal counsel has advised us that we should hold back on work on the wells at this time to avoid a challenge of the possibility of a compromise with the fee title holders.

Contra: Mr. Pomeroy is blatantly misleading the Commission when he states, "We have signed a contract with our finance people in New York to provide the funds necessary . . .". The contract Mr. Pomeroy references is an Investment Banking Service Agreement with Prudential Bache (Exhibit 34). However, Pru-Bache is not yet obligated to do anything under this contract. Even Pomeroy admits that, at this time, Pru-Bache does not have to come up with its own money to finance the project (Exhibit 32, p. 174, lns. 7-10, p. 174, lns. 16-17, p. 382, lns. 2-4). Mr. Pomeroy has merely discussed with Pru-Bache the possibility of marketing approximately \$150,000,000 worth of bonds (Exhibit 35, para. 5). However, Mr. Pomeroy artfully omitted to tell the Commission that before the bonds can be marketed, Mr. Pomeroy is obligated to secure \$150,000,000 of collateral and/or guarantees (Exhibit 35, para. 8). Pru-Bache is not obligated to, nor does it plan to, arrange any of this collateral, nor is it obligated nor does it plan to provide any of its own financing for any development (Exhibit 35, para. 10 and 13).

If Pomeroy is unable to secure the requisite collateral, Pru-Bache cannot and will not attempt to sell the bonds (Exhibit 35, para. 11). At this time, Pru-Bache does not believe Pomeroy has arranged the appropriate collateral (Exhibit 35, para. 9). Thus, the contract is totally contingent on Pomeroy securing \$150,000,000 in collateral. Before that time, Pru-Bache has no obligation under the contract.

Further, Mr. Pomeroy misrepresented to the Commission that the Department of Energy will be able to "guarantee a percentage of the cost of developing installations." Under oath, Pomeroy stated that he had contacted the Department of Energy and was informed that it had some money available for installation and development of geothermal energy (Exhibit 32, p. 387, lns. 12-25 and p. 388, lns. 1-12). However, no commitment or agreement has ever been reached between

February 5, 1988
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Pomeroy and the Department of Energy for anything, let alone an agreement to "guarantee" money. Mr. Pomeroy further stated that the Department of Energy was willing to "look at anything we bring back to them" (Exhibit 32, p. 388, lns. 8-9). Looking at a proposal is a far cry from guaranteeing funds.

Mr. Pomeroy further misled the Commission by his statement that "we have an outstandingly capable builder to help us with the building and construction of the sub-division." Pomeroy has contracted with no one to construct anything. Pomeroy, via Geothermal Synergy, has executed a contract with Gosnell Builders (Exhibit 36). However, this contract merely obligates Gosnell to prepare a proposal for the master planning and zoning (Exhibit 33, p. 6, ln. 25 and p. 7, ln. 1). Gosnell is not financially participating in the project and is not interested in any such arrangement (Exhibit 33, p. 27, lns. 19-23). The contract does not obligate Gosnell to do any construction, and Pomeroy has acknowledged that fact under oath (Exhibit 32, p. 248, lns. 2-25).

Lastly, Mr. Pomeroy's statement that he did not want to rework the wells to "avoid a challenge of the possibility of a compromise with the fee title holders" forcefully evidences Pomeroy's motives for not testing the wells: blackmailing the property owners. The fact that these uninspected, untested and possibly dangerous wells are a threat to the landowner is a reason to cap the wells, not to ignore them even longer.

Whatever Mr. Pomeroy's financial and legal problems are, such problems do not absolve the Commission of their responsibility to insure that the wells are safe and are not endangering the environment.

X. August 21, 1987 Minutes of Meeting (Exhibit 25).

1. Request another extension because of problems with title to the property.
2. Cam-Roy informed Commission of the quiet title action.
3. "There is a possibility of getting permission from the court to examine the conditions of the wells as they might have to be plugged."
4. Pomeroy has funds to plug.

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5. John Feegan of the Attorney General's office will look into the matter.
6. Pomeroy advised the Commission that "financing is in place."
7. Pomeroy advised the Commission that "adjacent property is being acquired."
8. Mr. Yabarra explained of possible corrosive problems if the wells remain unplugged.
9. NB, the motion: "THAT THE EXTENSION OF THE TEMPORARY ABANDONMENT BE FOR SIX MONTHS WITH A REQUEST THAT THE COURT ALLOW TESTING BEFORE WE CONSIDER FURTHER EXTENSION OF THE TEMPORARY ABANDONMENT."
10. Mr. Brennan is to contact the court or judge regarding the Commission's concerns for the testing.

Contra: The only "problem" with the title is that Pomeroy does not own it; however, Pomeroy has admitted that our clients are under no obligation, nor have they ever been, to sell the property to him (Exhibit 32, p. 240, lns. 5-6 and p. 243, lns. 20-22). The fact that a buyer cannot purchase something it wants from a seller who is not obligated to sell is not a consideration the Commission should look at when deciding whether to extend a Temporary Abandonment status. Similarly, the fact that litigation is in progress does not diminish the threat of environmental pollution from the wells. Such a threat must be the Commission's concern, not Cam-Roy's legal problems.

As stated above in paragraph "W," regarding the contract with Prudential Bache, the statement that "financing is in place" is totally false.

Although Mr. Pomeroy's statement that the "adjacent property is being acquired" may have been true at the time, it is not true now. The adjacent property, commonly known as the "Speakerman" parcel was in escrow in 1987; however, no forfeitable earnest money was ever paid in by Cam-Roy (Exhibit 32, p. 183, lns. 13-25 and p. 184, lns. 1-10). In late December, 1987 the escrow terminated by its own terms and has not

February 5, 1988
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since been revived or extended (Exhibit 37). The Speakerman parcel is currently on the market for sale.

The Commission correctly acknowledged in these Minutes that a disastrous corrosive problem is possible around the wells. The Commission's concern that Pomeroy should be ordered to plug the wells and that no further extensions be granted are clearly merited.

The suggestion by Mr. Pomeroy of need to get permission from the Court to test the wells is misleading. The land owner has never raised any objection to Cam-Roy's conducting the tests required by the Commission, and Cam-Roy is and always has been free to do the testings.

Y. September 4, 1987 correspondence to Cam-Roy from Commission (Exhibit 26).

1. Approved six month extension.
2. Approval contingent on opening of the wells for testing and checking their physical condition.
3. NB: "Therefore this is your official notification that the Oil and Gas Conservation Commission requires inspection and testing of these two wells by opening them and running tests of the mechanical integrity of the casing and well heads."

Contra: The wells have not been opened, thus the extension must be denied and Cam-Roy must be forced to plug the wells before the environment is further endangered.

Z. December 21, 1987 correspondence to Commission from Cam-Roy (Exhibit 27).

1. Designates companies contacted regarding testing mechanical integrity of casing and well heads.
2. Cannot use equipment from Los Alamos.
3. Lawsuit has taken all of Cam-Roy's time and resources. The lawsuit could be settled before March 1988, by summary judgment or proposed purchased "which we have recently submitted to our legal counsel."

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4. "... are sure the legal questions will be resolved in March at the latest."

Contra: In addition to the facts already stated, the fact that Cam-Roy's time and resources have been consumed with a lawsuit does not justify the possible endangerment to the environment from 15-year-old, corroding wells.

The alleged proposed purchase which Pomeroy states was submitted to his counsel in December, 1987, has never been presented to the landowner.

The landowner objects to any further extension of the Temporary Abandonment based on Cam-Roy's speculation about what the landowner may do or want in the future. The landowner can speak for itself. The landowner wants these environmental and public safety hazards on its property eliminated immediately.

We look forward to meeting with you again to discuss this matter on Friday, February 19, 1988, at 10:00 a.m. If you have any questions or would like to discuss any of these matters before that time, please do not hesitate to call me. Thank you.

Very truly yours,


Mark A. Monserez

Enclosures

cc: Logan T. Johnston, III
Sheldon Muller

47.MM_GILB.84

MEMORANDUM

To: R.J. Pomeroy
From: Ron Turner

Date: 1/29/88

PROJECT: Power Ranch Geothermal Wells

SUBJECT: Environmental Impact of the Wells

It would seem that, given our sincere intentions to develop these wells as soon as the pending lawsuit is settled, the prime concern of the Commission would be for protection of the environment. The following paragraphs present data which clearly demonstrate that there has been no adverse environmental impact as a result of these two geothermal wells.

Located within one-quarter mile of the geothermal wells is an irrigation well (#(D-2-6)1 dda) which is monitored regularly by the State of Arizona Department of Natural Resources. That well was drilled to a total depth of 802 feet and is perforated from 350 to 785 feet. The most recent static water level measured in that well is 273 feet below ground surface. The Power Ranch geothermal wells were drilled to depths of 9,207 feet and 10,464 feet and are perforated below 6,000 feet. The static water level of the aquifer tapped by the geothermal wells was measured at 570 feet below ground surface in January of 1988. The gross difference in static water levels of the two aquifers indicates that there is no hydraulic communication between the two aquifers. The Department of Water Resources is now monitoring the water level in Power well #1 on a semi-annual schedule. Any change in the hydraulic separation of the two aquifers would be readily noted by this water level monitoring.

The aquifer tapped by the irrigation well consists of alluvial, basin-fill material (i.e. sand, gravel and clay). The deep aquifer tapped by the geothermal wells is composed of dacite (the Superstition volcanic complex). These two aquifers are separated by 5,000 feet of sandstone, siltstone, claystone and evaporite beds. In the geothermal wells the entire annular space between the outside of the casing and the borehole walls, from 6,000 feet up to the surface, is cemented. Additionally, the upper 3,117 feet in Power well #1 and the upper 2,704 feet in Power well #2 has both 20-inch diameter and 13 3/8-inch diameter casing cemented into place, therefore providing double protection for the shallow aquifer that occurs in the upper 1,200 to 1,500 feet in this area.

In addition to static water levels, the Department of Water Resources has also monitored the specific conductance and fluoride content of the nearby irrigation well. Their latest publication (Hydrologic Map Series Report No. 12, 1986) reports a specific conductance of 1130 umhos/cm which indicates a total dissolved solids content of approximately 790 mg/l for the water from this well. It also reports a fluoride content of 0.5 mg/l. Both of these constituent values are within the limits set by the U.S. Environmental Protection Agency for drinking water quality. Earlier testing in the two geothermal wells indicated a specific conductance of the geothermal fluids to be about 30,000 umhos/cm which indicates a total dissolved solids content of about 21,000 mg/l. The gross differences in the water quality again demonstrate the hydraulic separation of the two aquifers. In addition, the excellent quality of the shallow aquifer indicates that it has not been contaminated by the geothermal fluids of the deep aquifer.

Since there has been no adverse environmental impacts in the 15 years that the wells have existed it seems very unlikely that any environmental damage will occur in the very near future. If testing of the integrity of the casing was conducted at this time and it was found that there was excessive corrosion or other damage to the casing those problems could be addressed in six months or a year just as effectively as they could now. In fact, if any such problems do exist, they are not necessarily insurmountable nor would that preclude the refurbishing of those wells.

CAM-ROY RESEARCH CORPORATION

P.O. Box 893, Chandler, Arizona 85224, 602/963-1773

RECEIVED

DEC 21 1987

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December 21, 1987

Mr. Daniel J. Brennan
Executive Director
Oil and Gas Commission
State of Arizona
3110 N. 19th Avenue, Suite 190
Phoenix, Arizona 85015

SUBJECT: Extension of the Period of Temporary Abandonment of Two Geothermal Wells.

Dear Mr. Brennan:

At the meeting of the Oil and Gas Conservation Commission on August 21, 1987, the Commission granted a six month extension of the period of temporary abandonment for the geothermal wells identified as:

GKI Power Ranch #1 NE SE Sec. 1, T2S-R6E

GKI Power Ranch #2 NE SE Sec. 1, T2S-R6E

The extension was made contingent upon opening of these two wells and running tests of the mechanical integrity of the casings and well heads.

Since the extension was granted Mr. Ron Turner, our Hydrogeologist, has contacted the following service companies to inquire into their techniques, costs and availability:

- The Dia-log Company, Taft, California, Mr. Jim Kurtz
- Schlumberger Wireline Services, Farmington, New Mexico, Mr. Ray Dickes
- Dresser-Atlas, Bakersfield, California, Mr. Bob Dunker

Based on the respective technique, cost and availability we tentatively plan on employing the services of Schlumberger Wireline Services. Once we give them the notice-to-proceed they will be on site within one or two days to run a gage tool to the bottom of each well. We had previously mentioned that we would be using equipment from Los Alamos National Laboratory but subsequently were informed that that equipment was being used outside the country.

We have also contacted Mr. Gary Ullinskey of the Arizona Department of Environmental Quality. He indicated that there would be no permit required in connection with the well inspection work if it is carried out before June of 1988. If

we were to discharge into a stream, canal or flood control channel an NPDES permit would be required. However, that sort of discharge will not be required for this phase of well testing.

The well testing has not been conducted to date, per advice from our legal counsel, due to the impending litigation over the geothermal rights in the vicinity of the wells, brought against us by the land speculators presently attempting to invalidate our lease. These speculators are testing the validity of the leases which we acquired from Geothermal Kinetics Inc. (GKI), eventhough GKI has no doubt as to the validity of the lease. Not only has this litigation clouded the lease but it has taken all of our time and resources. The trial date for this suit is set for March, 1988, but we feel that the issue will be settled before that date either by summary judgement or by a proposed purchase of the land which we have recently submitted to our legal counsel.

Because of the reasons mentioned above we must ask the Oil & Gas Commission for an additional extension of the temporary abandonment of the subject wells. We understand and share your concern for the status and physical condition of these wells and are sure that the legal questions will be resolved by March, 1988, at the latest. Once the legal problems are resolved then we will be immediately proceeding with the reworking of the wells and the development of this geothermal energy resource which we feel is of the utmost importance to the State of Arizona.

We sincerely thank the Commission members and Oil and Gas personnel for their assistance, patience and understanding in this matter.

Sincerely,


R.J. Pomeroy
Chairman



Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190

PHOENIX, ARIZONA 85015

PHONE: (602) 255-5161

September 4, 1987

Mr. R. J. Pomeroy
Cam-Roy Research and
Development Corporation
P. O. Box 893
Chandler, AZ 85224

Dear Mr. Pomeroy:

At the meeting of the Oil and Gas Conservation Commission on August 21, 1987, the Commission approved a six-month extension of the period of temporary abandonment for the wells identified as:

GKI Power Ranch #1 NE SE Sec. 1, T25N-R6E

GKI Power Ranch #2 SE NE Sec. 1, T25N-R6E

The approval of the extension was made contingent upon opening of these two wells and testing their potential for producing energy and their physical conditions.

Therefore this is your official notification that the Oil and Gas Conservation Commission requires inspection and testing of these two wells by opening them and running tests of the mechanical integrity of the casings and well heads.

Reports on the tests of the two wells must be submitted to the Commission within 20 days after the completion of the test.

Any brine produced during the tests must be saved and disposed of in a manner subject to prior approval of the Commission in accordance with Rules 12-7-245 and 12-7-246. You will notice that any plan to dispose of well effluents requires prior approval of the Commission.

Mr. R. J. Pomeroy

September 4, 1987
Page -2 -

We further advise you that any water produced may be subject to Rules promulgated by the Arizona Department of Environmental Quality.

Any requests for continuation of the temporary abandonment period must be received at least three weeks prior to a scheduled Commission meeting so that it can be placed on the agenda. The next Commission meeting is tentatively scheduled to occur between October 15 and 23, 1987. The next succeeding meeting may be held about December 18, 1987.

Sincerely,



Daniel J. Brennan
Executive Director

/kb



CAM-ROY RESEARCH CORPORATION

P.O. Box 893 • Chandler, AZ 85225 • (602) 963-1773

June 22, 1987

Mr. Daniel J. Brennan
Executive Director
Oil & Gas Conservation Commission
Suite 190
3110 N. 19th Avenue
Phoenix, Arizona 85015

Dear Mr. Brennan:

We must ask the Oil & Gas Commission for an extension of the temporary abandonment of the Powers' geothermal wells near Higley, Arizona. We feel we have accomplishments the past year that merits this extension. The most notable of these are:

- (1) We have settled the problem of the ownership of the mineral rights with Geothermal Kinetics, Inc. and have in place with the office of the Oil & Gas Commission certificates of deposits for the bonds as required by Arizona law.
- (2) We have signed a contract with our finance people in New York to provide the funds necessary for the integrated development of the real estate and geothermal wells.
- (3) We are receiving favorable council from the Geothermal Division of the Department of Energy in Washington, D. C. and feel that with qualified recognition from the Oil & Gas Commission as the duly authorized state agency, D. O. E. will be able to guarantee a percentage of the cost of developing installations for the use of geothermal energy.
- (4) We have an outstandingly capable builder to help us with the building and construction of the subdivision. This was one of the requirements needed to satisfy our financial people.
- (5) We have an approved local firm to verify the feasibility of our own study, also a requirement of our financing. This firm has a man well qualified in geothermal economics having been the project manager of the research done on the Hot Rock Method at Los Alamos, New Mexico.

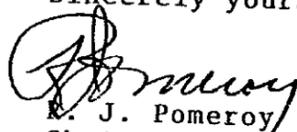
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- (6) We are also informed that Los Alamos has technical instruments and equipment that will be available to us on loan and which were invented by engineers on that project. We are advised that this sophisticated equipment can help determine exactly what must be done to put the Power wells into production.

Our legal counsel has advised us that we should hold back on work on the wells at this time to avoid a challenge of the possibility of a compromise with the fee title holders.

Please accept our appreciation for your timely assistance and for the understanding and trust extended to this company by the Commission members.

Sincerely yours,


E. J. Pomeroy
Chairman

RJP/csp



Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190

PHOENIX, ARIZONA 85015

PHONE: (602) 255-5161

July 1, 1987

Auditor General
2700 North Central Avenue, Suite 700
Phoenix, AZ 85004

Attention Mr. Randy Gizowski

Gentlemen:

At the request of Mr. Randy Gizowski, enclosed are copies of two Certificates of Deposit for Cam-Roy Research Corporation in the amount of \$5,000.00 each. The serial numbers of the Certificates are 2506289 and 2506290 respectively.

These Certificates were deposited on March 3, 1987 in the State Treasurer's Office for safekeeping. They relate to our Permits 605 and 611 as a performance bond.

If we may be of further assistance, please contact us.

Sincerely,

Katie Barnes
Katie Barnes
Administrative Assistant

/kb

Enclosures

ALLEN, KIMERER & LAVELLE
LAWYERS

2715 NORTH THIRD STREET
PHOENIX, ARIZONA 85004-1190
602-279-5900

ROBERT H. ALLEN
GARY DAVIDSON
JAMES S. FAGERBERG
RICHARD B. HOOD
MICHAEL D. KIMERER
RUSSELL A. KOLSRUD*
RANDALL J. KRIS
MICHAEL J. LAVELLE
SARAH McGIFFERT
LINN J. PLOUS
J. STEVEN ROLLINGS
JEFFREY R. SIMMONS
GARTH V. SMITH
SUZANNE K. TICKNOR

PA PROFESSIONAL CORPORATION

April 17, 1987

APR 20 1987
JOHN A. HENRY*
LOUIS McCLENNEN*
JOHN V. FELS*
THOMAS A. LATTA*
COUNSEL

TELECOPY 264-5566

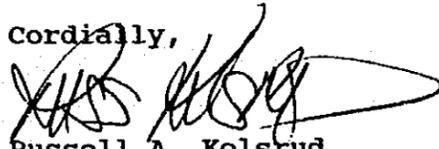
Dr. Daniel J. Brennan
Director
Oil and Gas Commission
3110 North 19th Avenue
Suite 190
Phoenix, Arizona 85015

Re: Cam-Roy Research & Development Corporation

Dear Mr. Brennan:

Enclosed for your files are copies of the recorded documents transferring title to Cam-Roy Research Corporation. If you have any questions or need any further information in this regard do not hesitate to contact me.

Cordially,


Russell A. Kolsrud

RAK:sg

Enclosure

cc: R. J. Camroy

ALLEN, KIMERER & LAVELLE
LAWYERS

2715 NORTH THIRD STREET
PHOENIX, ARIZONA 85004-1180
602-279-5900

April 17, 1987

APR 20 1987
JOHN A. HENRY*
LOUIS McLENNEN*
JOHN V. FELS*
THOMAS A. LATTA*
COUNSEL

TELECOPY 264-5566

CERTIFIED MAIL

ROBERT H. ALLEN
GARY DAVIDSON
JAMES S. FAGERBERG
RICHARD B. HOOD
MICHAEL D. KIMERER
RUSSELL A. KOLSRUD*
RANDALL J. KRIES
MICHAEL J. LAVELLE
SARAH McGIFFERT
LINN J. PLOUS
J. STEVEN ROLLINGS
JEFFREY R. SIMMONS
GARTH V. SMITH
SUZANNE K. TICKNOR

PA PROFESSIONAL CORPORATION

Mr. Gary D. Davidson
2920 North Seventh Street
Suite 4
Phoenix, Arizona 85014

Re: Cam-Roy Research Corporation

Dear Gary:

Enclosed you will find a copy of a Contract for the sale of Geothermal Resources. In addition, the Cam-Roy Research Corporation, the present Lessee, is also in the process of re-working the two existing Geothermal wells. As you know, the Lease presently owned by Cam-Roy Research shall be extended so long as a contract for the sale of Geothermal Resources has been negotiated and executed. You are hereby formally notified that the Lease is being extended for this reason as well as the fact that the wells will be re-worked.

The present time table indicates that it will take approximately twenty to twenty-four months to re-work the well as well as construct appropriate generating facilities. We will keep you advised.

If you have any questions, do not hesitate to contact us.

Cordially,



Russell A. Kolsrud

RAK:sg

cc: R. J. Pomeroy
Oil and Gas Commission

ALLEN, KIMERER & LAVELLE
LAWYERS

2715 NORTH THIRD STREET
PHOENIX, ARIZONA 85004-1190
602-279-5900

April 17, 1987

APR 20 1987

JOHN A. HENRY*
LOUIS MCLENNEN*
JOHN V. FELS*
THOMAS A. LATTA*
COUNSEL

TELECOPY 264-5566

ROBERT H. ALLEN
GARY DAVIDSON
JAMES S. FAGERBERG
RICHARD B. HOOD
MICHAEL D. KIMERER
RUSSELL A. KOLSRUD*
RANDALL J. KRIES
MICHAEL J. LAVELLE
SARAH MCGIFFERT
LINN J. PLOUS
J. STEVEN ROLLINGS
JEFFREY R. SIMMONS
GARTH V. SMITH
SUZANNE K. TICKNOR

BA PROFESSIONAL CORPORATION

CERTIFIED MAIL

Power Ranches, Inc.
21826 South Power Road
Higley, Arizona 85236

Dear Mr. Powers:

Enclosed you will find a copy of a Contract for the sale of Geothermal Resources. In addition, the Cam-Roy Research Corporation, the present Lessee, is also in the process of re-working the two existing Geothermal wells. As you know, the Lease presently owned by Cam-Roy Research shall be extended so long as a contract for the sale of Geothermal Resources has been negotiated and executed. You are hereby formally notified that the Lease is being extended for this reason as well as the fact that the wells will be re-worked.

The present time table indicates that it will take approximately twenty to twenty-four months to re-work the well as well as construct appropriate generating facilities. We will keep you advised.

If you have any questions, do not hesitate to contact us.

Cordially,


Russell A. Kolsrud

RAK:sg

cc: R. J. Pomeroy
Oil and Gas Commission



Oil and Gas Conservation Commission

STATE OF ARIZONA
3110 N. 19th AVENUE, SUITE 190
PHOENIX, ARIZONA 85015
PHONE: (602) 255-5161

March 5, 1987

Mr. James W. Dorsett
Transamerica Title Insurance Company
2346 North Central Avenue
Phoenix, AZ 85004

Re: GKI/Cam-Roy
Your Escrow No. 06027080-1

Dear Mr. Dorsett:

These escrow instructions are submitted to you on behalf of the State of Arizona Oil and Gas Conservation Commission (the "Commission").

Enclosed are originals of two letters which have been executed by the Commission. You are authorized to forward said letters to:

Geothermal Kinetics, Inc.
c/o Mary Lu Everett, Esq.
Marron, Reid & Sheehy
601 California Street, Suite 1200
San Francisco, CA 94108-2896

when and only when the following have occurred:

- a. The interests of Geothermal Kinetics, Inc. ("GKI") and Geo Exploration Co. in GKI Power Ranch Well #1 and GKI Power Ranch Well #2 have been transferred of record to Cam-Roy Research Corporation, a Nevada corporation ("Cam-Roy"), and;
- b. I have confirmed to you by telephone that Cam-Roy has assumed all obligations of GKI and Geo Exploration with respect to the above wells.

In the event escrow does not close on or before June 10, 1987, the enclosed documents shall be immediately returned to me.

Mr. James W. Dorsett

March 5, 1987
Page - 2 -

Please acknowledge your acceptance and approval of the foregoing by signing and returning to me the enclosed duplicate of this letter.

Very truly yours,

State of Arizona Oil and Gas
Conservation Commission
3110 N. 19th Avenue, Ste. 190
Phoenix, AZ 85015

By: *Daniel J. Brennan*
Daniel J. Brennan
Executive Director

Enc.

The undersigned acknowledges the receipt of the within escrow instructions and agrees to proceed in strict accordance therewith.

Transamerica Title Insurance Company

By: *Constance D. Waix for Jim W. Dorsett*

Its: _____

Date: March 6, 1987



Oil and Gas Conservation Commission

STATE OF ARIZONA

3110 N. 19th AVENUE, SUITE 190

PHOENIX, ARIZONA 85015

PHONE: (602) 255-5161

March 5, 1987

Geothermal Kinetics, Inc.
Geo Exploration Co.
1231 Bluejay Court
Concord, CA 94521

Re: Geothermal Wells - Power Ranch
Chandler, Arizona

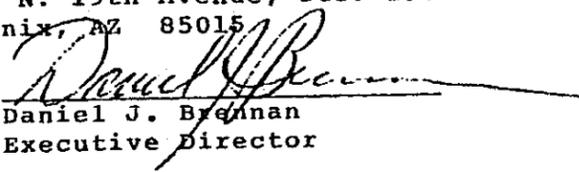
Gentlemen:

By this letter the State of Arizona Oil and Gas Conservation Commission (the "Commission") hereby approves the transfer to Cam-Roy Research Corporation, a Nevada corporation, of your respective interests, direct or indirect, in the geothermal wells commonly referred to as GKI Power Ranch #1 and Power Ranch #2 in Chandler, Arizona, and more particularly described in drilling permits Nos. 605 and 611 which were issued by the Commission.

The Commission further releases Geothermal Kinetics, Inc., Geo Exploration Co., and their affiliates from any and all obligations with respect to the wells including the obligation to plug and abandon GKI Power Ranch #1 and/or GKI Power Ranch #2.

Very truly yours,

State of Arizona Oil and Gas
Conservation Commission
3110 N. 19th Avenue, Ste. 190
Phoenix, AZ 85015

By: 
Daniel J. Brennan
Executive Director

ORGANIZATION REPORT

MAR 10 1987

Full Name of the Company, Organization, or Individual

Cam-Roy Research & Development Corporation

Post Office Address (Box or Street Address)

P.O. Box 893, Chandler, Arizona 85225

Plan of Organization (State whether organization is a corporation, joint stock association, firm or partnership, or individual)

Corporation (Arizona and Nevada)

Purpose of Organization (State type of business in which engaged)

Geothermal and Real Estate Development

If a reorganization, give name and address of previous organization.

If a foreign corporation, give (1) State where incorporated	(2) Name and post office address of state agent	(3) Date of permit to do business in state
Nevada	C. S. Pomeroy 589 Colorado Street Chandler, AZ 85224	June 23, 1983
Principal Officers or Partners (if partnership) NAME	TITLE	POST OFFICE ADDRESS
Ralph Pomeroy	President	P.O. Box 893 Chandler, AZ 85225
John H. Saxman	Executive Vice Pres.	P.O. Box 893 Chandler, AZ 85225

DIRECTORS NAME	POST OFFICE ADDRESS
R. J. Pomeroy, Chairman	P.O. Box 893, Chandler, AZ 85225
Ralph Pomeroy	P.O. Box 893, Chandler, AZ 85225
Neil Pomeroy	P.O. Box 893, Chandler, AZ 85225

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the President of the Cam-Roy Research & Development Corp. (company) and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Ralph Pomeroy
Signature

March 9, 1987
Date

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Organization Report
File One Copy
Form No. 1



Oil and Gas Conservation Commission

STATE OF ARIZONA
3110 N. 19th AVENUE, SUITE 190
PHOENIX, ARIZONA 85015
PHONE: (602) 255-5161

March 5, 1987

Mr. James W. Dorsett
Transamerica Title Insurance Company
2346 North Central Avenue
Phoenix, AZ 85004

Re: GKI/Cam-Roy
Your Escrow No. 06027080-1

Dear Mr. Dorsett:

These escrow instructions are submitted to you on behalf of the State of Arizona Oil and Gas Conservation Commission (the "Commission").

Enclosed are originals of two letters which have been executed by the Commission. You are authorized to forward said letters to:

Geothermal Kinetics, Inc.
c/o Mary Lu Everett, Esq.
Marron, Reid & Sheehy
601 California Street, Suite 1200
San Francisco, CA 94108-2896

when and only when the following have occurred:

- a. The interests of Geothermal Kinetics, Inc. ("GKI") and Geo Exploration Co. in GKI Power Ranch Well #1 and GKI Power Ranch Well #2 have been transferred of record to Cam-Roy Research Corporation, a Nevada corporation ("Cam-Roy"), and;
- b. I have confirmed to you by telephone that Cam-Roy has assumed all obligations of GKI and Geo Exploration with respect to the above wells.

In the event escrow does not close on or before June 10, 1987, the enclosed documents shall be immediately returned to me.

Mr. James W. Dorsett

March 5, 1987
Page - 2 -

Please acknowledge your acceptance and approval of the foregoing by signing and returning to me the enclosed duplicate of this letter.

Very truly yours,

State of Arizona Oil and Gas
Conservation Commission
3110 N. 19th Avenue, Ste. 190
Phoenix, AZ 85015

By: *Daniel J. Brennan*
Daniel J. Brennan
Executive Director

Enc.

The undersigned acknowledges the receipt of the within escrow instructions and agrees to proceed in strict accordance therewith.

Transamerica Title Insurance Company

By: *Constance A. Waix for Jim W. Dorsett*

Its: _____

Date: March 6, 1987



Oil and Gas Conservation Commission

STATE OF ARIZONA
3110 N. 19th AVENUE, SUITE 190
PHOENIX, ARIZONA 85015
PHONE: (602) 255-5161

March 5, 1987

Geothermal Kinetics, Inc.
Geo Exploration Co.
1231 Bluejay Court
Concord, CA 94521

Re: Geothermal Wells - Power Ranch
Chandler, Arizona

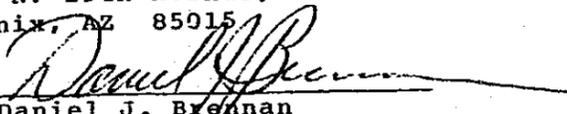
Gentlemen:

By this letter the State of Arizona Oil and Gas Conservation Commission (the "Commission") hereby approves the transfer to Cam-Roy Research Corporation, a Nevada corporation, of your respective interests, direct or indirect, in the geothermal wells commonly referred to as GKI Power Ranch #1 and Power Ranch #2 in Chandler, Arizona, and more particularly described in drilling permits Nos. 605 and 611 which were issued by the Commission.

The Commission further releases Geothermal Kinetics, Inc., Geo Exploration Co., and their affiliates from any and all obligations with respect to the wells including the obligation to plug and abandon GKI Power Ranch #1 and/or GKI Power Ranch #2.

Very truly yours,

State of Arizona Oil and Gas
Conservation Commission
3110 N. 19th Avenue, Ste. 190
Phoenix, AZ 85015

By: 
Daniel J. Brennan
Executive Director



Oil and Gas Conservation Commission

STATE OF ARIZONA
3110 N. 19th AVENUE, SUITE 190
PHOENIX, ARIZONA 85015
PHONE: (602) 255-5161

March 5, 1987

United Pacific-Reliance Insurance Company
Anchor Centre One
Camelback at 22nd Street, Suite 421
Phoenix, AZ 85016

Re: Your Account No. 65-9999

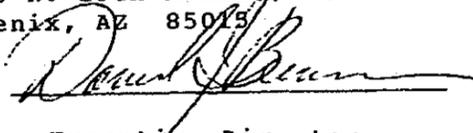
Gentlemen:

This letter authorizes you to release the following bonds:

1. Bond No. B720772 in the amount of \$5,000.00 for Power Ranch Well #1;
2. Bond No. B721028 in the amount of \$5,000.00 for Power Ranch #2.

Very truly yours,

State of Arizona Oil and Gas
Conservation Commission
3110 N. 19th Avenue, Ste. 190
Phoenix, AZ 85015

By: 

Its: Executive Director

SECURITIES SAFEKEEPING
 1700 WEST WASHINGTON ST. - PHOENIX, ARIZONA 85007

Mail No. 1

DATE: MARCH 3, 1987
 STATE AGENCY Arizona Oil & Gas Commissioner
 COMPANY Can - Roy Research Corp.
Post Office Box 893
Chandler, Az. 85224

STATE AGENCY NO. 105
 State Treasurer's Use Only

DOMESTIC FOREIGN DEPOSIT

C.D. NO.: 2506289
 BANK: First Interstate Bank
Branch No. 0147

MATURITY DATE: 12/18/87 INTEREST RATE: 5.9 %

AMOUNT \$ 5,000.00

C.D. ASSIGNMENT MUST BE ATTACHED UNLESS C.D. IS PAYABLE TO STATE TREASURER

RELEASE

C.D. NO.:
 BANK:
 MATURITY DATE:
 INTEREST RATE: %
 AMOUNT \$

RECEIVED
 STATE TREASURER
 MAR 3 4 24 PM '87

STATE TREASURER VALIDATION NO. _____
 RECEIVED THE ABOVE RELEASE

BY _____ Date _____
 Authorized Signature

Bank or Firm

FOR BANK USE ONLY
 Checked by _____ Verified by _____

STATE AGENCY AUTHORIZATION
 BY Kate Barnes
 Authorized Signature

STATE TREASURER AUTHORIZATION
 BY Roy D. Tarhove
 Authorized Signature

BANK AUTHORIZATION
 BY _____
 Authorized Signature

STATE'S DEPOSITORY BANK

R-145A (11-84)

Bank 011	Office No. 0147	Type 010	NON-TRANSFERABLE TIME CERTIFICATE OF DEPOSIT <small>(Continuous — No Renewal Necessary)</small>		No. 2506290
Customer Number 1470-20719		Effective Date 12-18-86	Tran 1	Redemption Value 5,000.00	
*****CAM-ROY RESEARCH CORP.***** HAS DEPOSITED IN THIS BANK NOT SUBJECT TO CHECK					
<i>The First 5,000 dollars 00 cts</i> DOLLARS \$ 5,000.00					
PAYABLE TO ARIZONA OIL and GAS COMMISSIONER					
IN CURRENT FUNDS UPON MATURITY AS HEREAFTER SPECIFIED AND UPON PRESENTATION AND SURRENDER OF THIS CERTIFICATE PROPERLY ENDORSED					
SAID DEPOSITS EARN INTEREST AT THE RATE OF 5.90 PERCENT PER ANNUM FOR One Year TERM					
FROM THE DATE HEREOF UNTIL ULTIMATE MATURITY, SUCH INTEREST TO BE PAYABLE monthly into #1470-06342					
First Interstate Bank of Arizona, N.A.			Authorized Signature <i>M. Stone</i>		

Customer Copy

⑈ 2506290⑈ ⑆599918001⑆

R-145A (11-84)

Bank 011	Office No. 0147	Type 010	NON-TRANSFERABLE TIME CERTIFICATE OF DEPOSIT <small>(Continuous — No Renewal Necessary)</small>		No. 2506289
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First Interstate Bank of Arizona, N.A.			Authorized Signature <i>M. Stone</i>		

Customer Copy

⑈ 2506289⑈ ⑆599918001⑆

**CAM-ROY RESEARCH
& DEVELOPMENT
CORPORATION**

P.O. Box 893 Chandler, Arizona 85224

(602) 963-1773

July 9, 1986

The Oil & Gas Commission, State of Arizona
Mr. Daniel J. Brennan, Director
1645 West Jefferson, Suite 420
Phoenix, Arizona

Honorable Members of the Commission:

Request is hereby made to the Oil & Gas Commission for an extension of the temporary abandonment of the geothermal Power's Wells 1 and 2 for an additional six month period.

This corporation is credited with having developed an unusual but entirely feasible financial method to develop the Chandler-Higley Geothermal Basin. In order to reach this point, this company has had to literally wade through regulatory problems and preconceived notions that the potential stability of geothermal energy was a risk unlikely to be financeable. Local reports of energy overabundance has been one of the more formidable problems also. The productive costs of electrical energy by nuclear methodology versus alternative possibilities of which geothermal production seems to have drawn the most skepticism for stability than all others, has finally reached a point where reliable technology can debunk that flawed notion. Recognition of this late development by the financial powers is a welcome relief that should encourage geothermal operations in this state.

The Power's wells being situated within the most prominently known geothermal basin in the state, should remain open to development if for no other reason than that Well # 2, according to our studies, can be put into production without excessive drilling time and costs. While the investment climate has improved, it would seem that the Power's wells already drilled would be an advantage that should not be discarded at this point in time.

This firm will pledge to continue the most expeditious efforts to justify the commission's favorable ruling for a continuance of the temporary abandonment as requested.

Sincerely,


R. J. Pomeroy
Chairman

RJP/csp



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 255-5161

June 20, 1986

Ms. Mary Wise
United Pacific-
Reliance Insurance Co.
P. O. Box 16025
Phoenix, AZ 85011

RE: Geothermal Kinetics, Inc.
Bond No.'s B72 07 72 and
B72 10 28
Maricopa County

CANCELLED

Dear Ms. Wise:

DATE 7-5-87

This letter is to acknowledge receipt of your Cancellation Notice on subject bonds.

The Commission cannot authorize release of the bonds until the wells are plugged and abandoned in full compliance with Arizona Statutes and Rules and Regulations or until replaced by other valid bonds.

If you have any questions pertaining to this matter, please call.

Sincerely,

R. A. Ybarra
R. A. Ybarra
Enforcement Director

/kb

RELIANCE INSURANCE COMPANY

HEAD OFFICE, PHILADELPHIA, PENNSYLVANIA

UNITED PACIFIC-RELIANCE INS. CO.
P. O. BOX 16025 (602)957-3886
PHOENIX ARIZ. 85011

RECEIVED

JUN 20 1986

O & G CONS. COMM.

Mr. Enbaro
State of Arizona
Oil and Gas Conservation Commission
1645 W. Jefferson
Phoenix, Arizona 85007
Certified Mail #P178 914 422

CANCELLED
3-5-87

B 72-07-72 and

Bond No.'s B 72-10-28

Principal Geothermal Kinetics, Inc.

12-12-72 and
05-03-73

You are hereby notified that the captioned bond, effective on or about _____, and executed by RELIANCE INSURANCE COMPANY, as surety, on behalf of Geothermal Kinetics, Inc.

described as Maricopa County, AZ and Power Ranch #2 1980 ft from No. line 660 ft from West etc is hereby canceled effective 7-18-86, or if such specified date does not provide a sufficient number of days notice, as required, then upon the earliest date permitted.

The issuance of this Cancellation Notice shall not, however, operate to extend the effective date of cancellation, if such bond has been canceled upon an earlier date under the conditions and provisions of said bond.

RELIANCE INSURANCE COMPANY shall not be responsible thereunder for any acts or defaults committed or loss occurring after the effective date of cancellation, nor for any losses not discovered in accordance with the provisions of such bond.

Yours very truly,

RELIANCE INSURANCE COMPANY

By

Mary Wise
Mary Wise Attorney-in-Fact

**CAM-ROY RESEARCH
& DEVELOPMENT
CORPORATION**

P.O. Box 893 Chandler, Arizona 85224

(602) 963-1773

RECEIVED

DEC 20 1985

O & G CONS. COMM.

December 20, 1985

Mr. Rudy Ybarra
Acting Director
Oil & Gas Commission
State of Arizona
1645 W. Jefferson
Phoenix, Arizona

Dear Mr. Ybarra:

It is with some reluctance that we have to ask the oil and gas commission for a continuance of the temporary abandonment status for our geothermal wells located east of Chandler.

We have completed plans for a smaller scaled real estate development as recommended by our financial advisors and we have an investor who will provide ten million dollars of interim funds for this new project. We have a local bank which will handle our banking needs for the project and we have developed a bond proposal that will supply the permanent financing. We have two of the largest security firms in the east and one from the midwest as well as one local firm who have indicated an acceptance of our corporate bond proposal. We do not intend nor do we feel that it would be adviseable to seek any municipal type financing for the project. Our aim is to reach a qualified rating for our own corporate bonds. Our real estate development project is apparently the best way for financing the development of the geothermal potential of the Chandler-Higley basin.

It has been our sad experience that any energy related project in the state is immediately suspect of detracting from the financeability of the Palo Verde project. From an electrical production standpoint, we are not a competitive element to that project. It just seems to be dominant in financing current Arizona projects. We do feel we have a solution and that the benefits to our state are parallel to our own.

We respectfully request a continuance of temporary abandonment for the subject wells for an additional six months.

Sincerely,



R. J. Pomeroy, Chairman

RJP/csp

**CAM-ROY RESEARCH
& DEVELOPMENT
CORPORATION**

P.O. Box 893 Chandler, Arizona 85224

(602) 963-1773

June 13, 1985

RECEIVED

JUN 13 1985

O & G CONS. COMM.

Oil & Gas Commission
State of Arizona
1645 W. Jefferson
Phoenix, Arizona 85007

Gentlemen:

A culmination of circumstances beyond our control has consumed six months of valuable time needed for our proposed development of the Powers geothermal wells.

Major among these circumstances was the sale of the Power ranch to a syndicated group of buyers. Upon learning that the property was subject to a mineral lease to Geothermal Kinetics of San Francisco and that the wells had been assigned to my company, Cam-Roy Research & Development Corporation, by GKI, they set in motion two eventualities: the first, to purchase the lease and the wells, and secondly, when the lease purchase was not successful, they sought to have the lease declared invalid. This claim was supported by a reputable out of state legal firm experienced in oil and gas law.

Our own legal counsel concluded that from a legal standpoint we had a good chance of winning in a legal battle, but the timing of such an action for all practical purposes could not be tolerated insofar as our future financing for development of the wells. In addition to the claim of the lease being invalid, the purchasers informed my company that they preferred the wells be permanently abandoned.

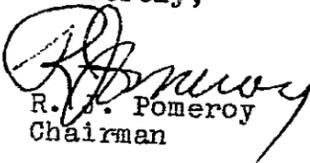
Fortunately we were able to maintain dialogue with the purchasing syndicate and they have indicated an acceptance of a proposal we made to them to purchase the land where the wells are situated and an additional acreage necessary for an economic development of the wells.

We received their indicated acceptance by telephone just this week on June 11. Technically our scheduled finance expired on June 1, of this year. We are sure it can be re-instated and that we can proceed with the development of the geothermal anomaly of the Higley area.

We have an offer for the purchase of all the electrical energy we can produce at a marketable price to sustain a profitable enterprise. We also have a proposed operational contract from a specialist in the field of geothermal electrical generation. With this phase of the project in qualified hands, our company is free to develop the cascading uses of the residue heat in industries compatible to the further development of the general area of the wells.

We therefore request an extension of the temporary abandonment of the wells for a six months period to January 1, 1986.

Sincerely,


R. J. Pomeroy
Chairman

RJP/csp

**CAM-ROY RESEARCH
& DEVELOPMENT
CORPORATION**

P.O. Box 893 Chandler, Arizona 85224

(602) 963-1773

RECEIVED

MAY 22 1984

O & G CONS. COMM.

May 18, 1984

Mr. James Kuwada
Vice President, Engineering
3 Embarcadero Center, Suite 2045
San Francisco, Calif., 94111

Dear Mr. Kuwada:

As discussed with you by telephone this morning, I am enclosing a draft of a proposed letter to be sent to this corporation. This draft was prepared by counsel, Richard Skousen, attorney for Cam-Roy Research and Development Corporation. In the event Mr. John Salmanowitz feels that he would prefer to discuss the matter further with Mr. Skousen, his telephone number is 602-833-8800.

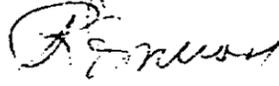
As soon as this instrument is received, we will post bond with the Oil & Gas Commission with the State of Arizona, at which time they will notify GKI's bonding firm that they are releasing the GKI bond and will notify Mr. Bannister that GKI is no longer responsible for the Power wells # 1 and 2.

As I mentioned on the telephone, the permanent financing is available for the project we contemplate and in the next few weeks we must finalize the conceptual details for sub-dividing the land and projecting the consumption of the energy produced by the Power wells.

I appreciate your thoughtfulness in mentioning the project to DMJM.

?

Sincerely yours,



R. J. Pomeroy
Chairman

RJP/csp

cc: Mr. O'Donnell
Mr. Doss



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 255-5181

May 16, 1984

Mr. John Bannister
Vice-President, Production
Geothermal Kinetics, Inc.
Suite 211, Building A
2300 County Center Drive
Santa Rosa, California 95401

RE: GKI POWER RANCH WELLS

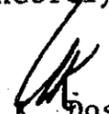
Dear John:

This is to acknowledge receipt of your letter of May 9, 1984 pertaining to the above-captioned wells.

Mr. Pomeroy has just left the office and said that he was going to San Francisco to get GKI to sign a document releasing Cam-Roy Research from the provisions of Paragraph 7 in the Sales Agreement between your two companies. He indicated that it pertained to a \$100,000.00 bond requirement. He also indicated that when GKI signs the release, he will phone his son to bring two \$5,000.00 bonds to this Commission which will allow us to give you the release from all obligations.

If there is any hitch in your meeting with Mr. Pomeroy, please advise.

Sincerely,


A. K. Doss
Executive Director

/kb

RECEIVED

MAY 14 1984

D & G CONS. COMM.

AKS

May 9, 1984

Mr. A.K. Doss
Executive Director
Office of Oil & Gas Conservation Commission
State of Arizona
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

RE: GKI POWER RANCH WELLS

Dear A.K.:

You have indicated that you would send me a letter wherein the Commission recognizes that GKI has fulfilled its obligation to you as to the captioned wells.

It is my understanding that Cam-Roy Research Corporation has fulfilled the necessary requirements to release GKI from the necessity of any further action.

I would appreciate receiving such a letter so that we may clear our records.

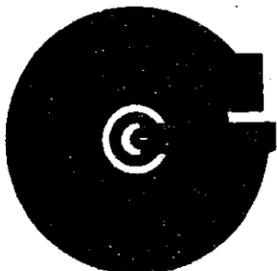
Sincerely,

John

John Bannister
Vice President, Production

JB:hd

cc: James Kuwada



GEOTHERMAL KINETICS INC.

2300 COUNTY CENTER DR. • STE. 211, BLDG. A • SANTA ROSA, CA 95401 • PHONE (707) 523-3200

**CAM-ROY RESEARCH
& DEVELOPMENT
CORPORATION**

P.O. Box 893 Chandler, Arizona 85224

(602) 963-1773

RECEIVED

MAR 30 1984

O & G CONS. COMM.

AKS

463-1773

987-3797

7/26 RJP

March 22, 1984

A.K. Doss
Executive Director
Office of Oil and Gas Conservation Commission
State of Arizona
1645 W. Jefferson, Suite 420
Phoenix, Arizona 85007

Re: GKI Powers Ranch #1, Permit #605
GKI Powers Ranch #2, Permit #611

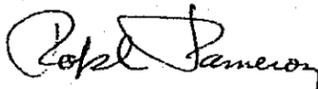
Dear Mr. Doss:

As required by ARS 27-506, we hereby notify you that on March 9, 1984, Geothermal Kenetics, Inc. assigned, transferred and conveyed all of its right, title and interest in and to the above referenced wells to our company Cam-Roy Research and Development Company, P. O. Box 893, Chandler, Arizona 85224.

The number 1 well is located in the Northeast quarter of the Southeast quarter of Section 1, Township 2 South, Range 6 East of the Gila and Salt River base meridian. Well number 2 is located in the Southeast quarter of the Northeast quarter of Section 1, Township 2 South, Range 6 East of th Gila and Salt River base meridian.

In accordance with this notice, the notice from Geothermal Kenetics, Inc., dated March 13, 1984 ~~and our posting of the required bond~~, I assume that GKI will be released from all responsibility for these wells and their posted bonds related thereto will be released in accordance with Administrative Rules and Regulations R12-7-203.

Sincerely,



Ralph J. Pomeroy
President

RJP/dp
cc: Mike O'Donnell

RECEIVED *AKS*

MAR 16 1984

O & G CONS. COMM.

March 13, 1984

A.K. Doss
Executive Director
Office of Oil & Gas Conservation Commission
State of Arizona
1645 West Jefferson, Suite 420
Phoenix, AZ 85007

Re: GKI Powers Ranch #1, Permit No. 605
GKI Powers Ranch #2, Permit No. 611

Dear Mr. Doss:

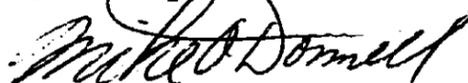
Pursuant to your request, we hereby notify you that on March 9, 1984, Geothermal Kinetics, Inc. assigned, transferred and conveyed all of its right, title and interest in and to the above referenced wells to Cam-Roy Research Corporation, P.O. Box 893, Chandler, Arizona 85224 (telephone: 602-963-1773).

The GKI Powers Ranch #1 is located in the Northeast quarter of the Southeast quarter of Section 1, Township 2 South, Range 6 East, Gila and Salt River Base and Meridian and the GKI Powers Ranch #2 is located in the Southeast quarter of the Northeast quarter of Section 1, Township 2 South, Range 6 East, Gila and Salt River Base and Meridian.

The assignment, transfer and conveyance of the above referenced wells was accompanied by the assignment, transfer and conveyance of a five acre area surrounding each of the wells. Each five acre area is in the form of a square, two sides of which lie on a due north-south axis in the center of which is the center of the respective well.

Please do not hesitate to contact us if we may be of further assistance.

Sincerely,



Mike O'Donnell,
Executive Vice President
and General Manager

cc: R.J. Pomeroy
H/11



GEOTHERMAL KINETICS INC.

Three Embarcadero Center, Suite 2045 • San Francisco, California 94111 • Telephone (415) 434-4717



OFFICE OF
Oil and Gas Conservation Commission

STATE OF ARIZONA
1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 255-5161

February 28, 1984

Mr. R. J. Pomeroy
Board Chairman
Cam-Roy Research
and Development Corp.
P. O. Box 893
Chandler, Arizona 85224

Dear Mr. Pomeroy:

This letter will serve as your official notification that the Oil and Gas Conservation Commission at its regular meeting on February 24, 1984 voted to grant a one-year extension of temporary abandonment status from June 30, 1984 to June 30, 1985 for the two geothermal steam wells on the Power property east of Chandler provided that you proceed with operations as quickly as possible, provide the bond required, file weekly sundry reports and agree to properly plug and abandon the wells if your tests are not successful.

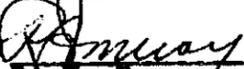
Sincerely,


A. K. Doss
Executive Director

/kb

AGREED:

DATE:


R. J. Pomeroy, Chairman
Cam-Roy Research and
Development Corporation

2-28-84

CAM-ROY RESEARCH CORPORATION

P.O. Box 893 Chandler, Arizona 85224 602/963-1773

February 7, 1984

RECEIVED

FEB 8 1984

O & G CONS. COMM.

Mr. A. K. Doss
Executive Director
Oil & Gas Commission
State of Arizona

Dear Mr. Doss:

As you recall, the past month or so I have been discussing the geothermal steam wells on the Power property east of Chandler with you and others. These discussions were concluded last week with an acceptable understanding with Geothermal Kinetics Inc. Executive Vice President, Mike O'Donnell. We have agreed to acquire the wells from G.K.I. pending an understanding with your office that the limited time granted G.K.I. to June, 1984, can and will be extended to accommodate our new program.

Briefly, our program involves the possibility of creating a market for the steam by subdividing the acreages adjacent to the two wells. The first phase would be an industrial park and possibly a modular home subdivision in the same area. It would appear that these two projects would be the quickest way to create our market for the steam for space heating and/or electrical energy.

Insofar as the qualification of the wells is concerned, we are relying heavily upon the information received from G.K.I. and the analysis by Dr. Ellis Armstrong. After a more thorough examination of the wells and a determination of what should be done to improve the steam flow and to bring the wells on line for production, we will be in a better position to determine how extensive our subdivisional development can be.

One thing most evident to us at this point is that there is sufficient geological information to merit further development of steam production in the Chandler zone. If, because of unfavorable circumstances of the past ten years, the wells were forcibly plugged, it would sound a death knell to further exploration of this geothermal area which appears to have the potential of over 200 megawatts of power generation for a period of over 100 years.

Since our progress is moving rapidly, we would appreciate a letter from your office appraising the extension of time as necessary which will enable us to retain our momentum.

AKS
give
return

May I express our appreciation for your timely assistance and it would also seem proper to commend the favorable reaction and assistance that we have received from Geothermal Kinetics and in particular, Mr. Mike O'Donnell of that firm.

Sincerely,


E. J. Pomeroy
Board Chairman

cc: Mr. Ellis Armstrong
Mr. Mike O'Donnell



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 255-5161

January 20, 1984

Mr. John Bannister
Vice-President, Production
Geothermal Kinetics, Inc.
Suite 211, Building A
2300 County Center Drive
Santa Rosa, California 95401

Dear John:

In response to your letter of December 20, 1983, please be advised that I polled the members of the Commission today pertaining to your request of continuing temporary abandonment status on the two Powers Ranch wells until the end of June 1984.

The Commissioners granted the request, but were unanimously opposed to any further extension, and I was instructed to inform your company that it is mandatory that the wells be plugged and abandoned at that time providing that no work is being done to legally extend the time beyond June 30, 1984.

Sincerely,


A. K. Doss
Executive Director

/kb

January 10, 1984

Mr. John Bannister
Vice-President, Production
Geothermal Kinetics, Inc.
Building A, Suite 211
2300 County Center Drive
Santa Rosa, CA 95401

Dear John:

Thank you for your letter of December 20, 1983 pertaining to the two Powers Ranch wells. I had hoped to present your request to the Commission at the January 20 meeting. However, that meeting has now been postponed until February 24. Therefore, that will be the earliest that the Commission can consider your request.

In the meantime if you can come up with some of the additional information we asked for, I am sure that that would be helpful to the Commission in their making a decision.

Sincerely,

A. K. Doss
Executive Director

/kb

RECEIVED
JAN 3 1984
O & G CONS. COMM.

December 20, 1983

Oil and Gas Conservation Commission
State of Arizona
1645 West Jefferson, Suite 420
Phoenix, Arizona 85077

Attn: Mr. A.K. Doss

RE: GKI Powers Ranch #1, Permit No. 605, NE/4, SE/4
Sec. 1, T2S, R6E, G&SM

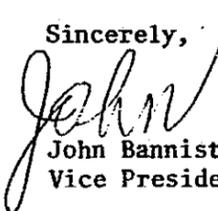
GKI Powers Ranch #2, Permit No. 611, SE/4, NE/4
Sec. 1, T2S, R6E, G&SM

Dear A.K.:

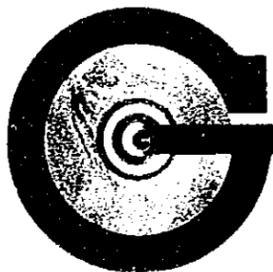
I apologize that your inquiry has not been answered to your satisfaction. My company has been in several negotiations to develop this property. Unfortunately, to date we have been unable to close any of the agreements. One of the problems is that the avoided costs to A.P.S. are inherently low, and in some cases make the financial return unattractive to potential investors. We are hoping to overcome this problem in the near future. If you can bear with us a little longer, I will see that each of the questions propounded by you in your letter of July 21, 1983 are answered.

We respectfully request that the Commission allow us to keep these wells on temporarily abandoned status through June of 1984.

Sincerely,


John Bannister
Vice President, Production

JB:hd
cc: James Kuwada



GEOHERMAL KINETICS INC. • Production Division

2300 County Center Dr., Building A, Suite 211 • Santa Rosa, California 95401 • Telephone (707) 523-3200



OFFICE OF

Oil and Gas Conservation Commission
STATE OF ARIZONA

1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 255-5161

December 14, 1983

Mr. John Bannister
Vice-President, Production
Geothermal Kinetics, Inc.
Suite 211, Building A
2300 County Center Drive
Santa Rosa, California 95401

Re: GKI Powers Ranch #1, Permit No. 605, NE/4 SE/4
Sec. 1, T2S, R6E, G&SM

GKI Powers Ranch #2, Permit No. 611, SE/4 NE/4
Sec. 1, T2S, R6E, G&SM

Dear John:

As can be discerned from the date of my last letter, I have been patiently waiting for an answer to the numerous questions concerning the temporary abandonment status of the two referenced wells. During our regular November meeting, the Commissioners expressed strong concern about the prolonged extension of the temporary abandonment status and how it could place the Commission in a position of legal jeopardy for having sanctioned it.

Therefore, I urge you to answer the July letter (a copy enclosed) so I may present the information to the Commission at the January meeting.

Sincerely,


A. K. Doss
Executive Director

/sjb



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 255-5161

July 21, 1983

Mr. John Bannister
Vice-President, Production
Geothermal Kinetics, Inc.
Suite 211, Building A
2300 County Center Drive
Santa Rosa, California 95401

Re: GKI Powers Ranch #1, Permit No. 605, NE/4 SE/4
Sec. 1, T2S, R6E, G&SM

GKI Powers Ranch #2, Permit No. 611, SE/4 NE/4
Sec. 1, T2S, R6E, G&SM

Dear John:

This is to acknowledge receipt of your letter of June 28, 1983
pertaining to the above reference.

In our telephone conversation of June 28, you said your company
was planning on a 10MW well head generator on the #1 well with
the idea of selling the electricity to APS. Would you send me
something more detailed on such a hookup? What does the plant
look like? What size is it? Just how does the process work,
etc.? How much money has been expended on this project to
date, and how much additional investment will be necessary to
get the generator on line? What is your timetable for installa-
tion?

I would like to have this kind of information to present to the
Commission in order to justify extension of the T.A. time.

Sincerely,


A. K. Doss
Executive Director

/kb

RECEIVED

JUL 1 1983

O & G CONS. COMM.

June 28, 1983

Oil and Gas Conservation Commission
State of Arizona
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

Attn: Mr. A. K. Doss

RE: GKI Powers Rancy #1, Permit No. 605, NE/4 SE/4 Sec. 1,
T2S, R6E, G&SM

GKI Powers Ranch #2, Permit No. 611, SE/4 NE/4 Sec. 1,
T2S, R6E, G&SM

Gentlemen:

Please be advised that our company is considering a project on our Powers Ranch Lease to use well-head generators. Consequently, we respectfully request your permission to maintain the captioned wells on a temporarily abandoned status. We are aware that these wells have been inactive for an unusually long period of time. As you are aware, we were negotiating with Williams Air Force Base to use these wells for the development of geothermal power. However, these negotiations were not successfully concluded.

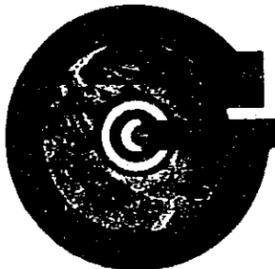
We will keep the Commission informed of our intended activities concerning these wells.

Your consideration of our request to keep these wells on temporary abandoned status is most sincerely appreciated.

Respectfully,

John Bannister
John Bannister
Vice President, Production

JB:hd



GEOTHERMAL KINETICS INC.

2300 COUNTY CENTER DR. • STE. 211, BLDG. A • SANTA ROSA, CA 95401 • PHONE (707) 523-3200



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
1645 WEST JEFFERSON, SUITE 420
PHOENIX, ARIZONA 85007
PHONE: (602) 271-5161

March 17, 1980

Mr. John Bannister
Vice President
Geothermal Kinetics Inc.
2300 Country Center Drive
Suite 211, Building A
Santa Rosa, California 95401

Re: GKI Powers Ranch #1, Permit No. 605, NE/4 SE/4 Sec. 1,
T2S, R6E, G&SM

GKI Powers Ranch #2, Permit No. 611, SE/4 NE/4 Sec. 1,
T2S, R6E, G&SM

Dear Mr. Bannister:

Your request to leave the above referenced wells in a temporarily abandoned condition is hereby granted.

Should remedial work as mentioned in your request fail to produce results leading to commercial operation, we would strongly suggest that you give consideration to plugging and abandoning these wells while your rigs are still available.

Very truly yours,


W. E. Allen
Executive Secretary

WEA/vb

March 14, 1980

Oil and Gas Conservation Commission
1624 W. Jefferson, Suite 420
Phoenix, Arizona 85007

ATTENTION: MR. W.E. ALLEN

RE: GKI POWERS RANCH #1, YOUR FILE #605, NE/4 SE/4 SECT. 1,
T-2-S, R-6-E, NMPM

GKI POWERS RANCH #2, YOU FILE # 611, SE/4 NE/4 SECT 1,
T-2-S, R-6-E, NMPM

Gentlemen:

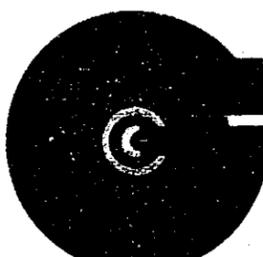
Your permission to continue to classify the above captioned wells as Temporarily Abandoned is respectfully requested.

Mr. Jim Kuwada, P.E., of our San Francisco office, is currently reviewing our records of these two wells. We anticipate the commencement of remedial work in the near future.

Thank you for your consideration and cooperation.

Sincerely,

John Bannister
John BANNISTER
Vice President

 GEOTHERMAL KINETICS INC.

2300 COUNTRY CENTER DR. • STE. 211, BLDG. A • SANTA ROSA, CA 95401 • PHONE (707) 523-3200



OFFICE OF
Oil and Gas Conservation Commission

STATE OF ARIZONA

8686 NORTH CENTRAL, SUITE 106

PHOENIX, ARIZONA 85020

PHONE: (602) 271-5161

March 7, 1977

Mr. Dent N. Hand
Geothermal Kinectics, Inc.
301 W. Indian School Road
Phoenix, Arizona 85013

Re: Performance Bond No. B 81 13 73
Geothermal Kinectics, Inc.
Amax Exploration, Inc.
Pima Farms No. 1

Dear Mr. Hand:

Since your company has complied with all the rules and regulations of this Commission on the above-referred well, this letter constitutes the Commission's authorization for the release of the subject bond.

The Powers Ranch No. 1 and No. 2 cannot be released until such time as these two wells are plugged and abandoned.

Very truly yours,

William E. Allen
Director,
Enforcement Section

WEA/vb

We are enclosing an extra copy of this letter for your insurance carrier as we do not have an address for same.

605

CC: Bill Allen

November 5, 1976

H. Wesley Peirce
Arizona Bureau of Mines
845 N. Park
Tucson, Ariz. 85719

Re: Logs - Geothermal Wells

Dear Wes:

We are sending you today the following logs:

Permit 605 Geothermal Kinetics 1 Power Ranches
NE SE 1-aS-6E - Gamma Ray Neutron, 2200-9065'
Compensated Formation Density, 2200-9065'

Permit 622 Geothermal Kinetics 1 Pima Farms
SESW 8-7E-8E - Sidewall Neutron Gamma
Ray, 900 5845'
Compensated Densilog, 900-5845'

Please return these logs at your earliest convenience.

Our AmStrat log of the Power Ranches well shows no salt. An anhydrite section with thin interbeds of claystone and siltstone was logged from 2298 to 3120 feet.

The operator's completion report lists a salt section in the Pima Farms well from 2500 to 2945 feet. It is apparent on the Density. The salt is described as being predominantly clear, frosted, white, and hard.

Let me know if we can be of further assistance.

Sincerely,

Jack Conley

JNC:ras
Enc.



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

April 7, 1975

Ms. Kay Waller
Petro-Well Libraries Inc.
150 Security Life Building
1616 Glenarm Place
Denver, Colorado 80202

Re: April Current File Material

Dear Kay:

Enclosed you will find the following current material for April, 1975.

- Data - Completion Report and miscellaneous information on
Curtis Little, Union Texas Petroleum Lukachukai #1-14
File #544
- Data - Completion Report and miscellaneous information on
Geothermal Kinetics System Corp. Power Ranches No. 1
File #605
- Logs - The following are 2" scale logs: Gamma Ray Neutron,
Induction Electrolog, Acoustilog, and Caliper Log;
Subsurface Temperature Survey, Induction Electrical Log,
Comp. Formation Density and Temperature Log

Please notice the attached changed of address notice effective April 15, 1975.

Very truly yours,

Mrs. Rhema Brandt
Secretary to W. E. Allen
Director, Enforcement Section

/rlb

Encs.

Logs returned 5-13-75

April 26, 1974

Mr. M. D. Higgins
American Stratigraphic Company
6280 E. 39th Avenue
Denver, Colorado 80207

Re: GeoKinetics #1 Powers
Maricopa County, Arizona

Dear Mr. Higgins:

Thank you for sending back to us the samples on the subject well
which arrived today.

This will constitute our authorization to release the sample study
data on the subject well.

Yours truly,

James R. Scurlock
Staff Geologist

JRS/rlb

April 26, 1974

Mr. Gary Spraul
Mobil Oil Corporation
3 Greenway Plaza East
Suite 800
Houston, Texas 77046

Re: GeoKinetics #1 Powers
Maricopa County, Arizona

Dear Gary:

American Stratigraphic has just returned the samples on the subject well to us. In their cover letter Am Strat states that Mr. Alpha would be satisfied with looking at the Am Strat study which it appears will be published immediately. That is, they plan to include it on their May publication list.

If you still want to examine the samples, I will ship them to you right away. Let me know.

Beautiful spring weather here and we are enjoying it while we can, knowing that the full blast of the summer heat will be upon us before long.

I think you are a lucky duck and I hope that your portfolio is full of Mobil stock so that the increase in earnings will be reflected on your face.

I think I owe you a double barrel martini but you will have to come and get it, so hurry.

Best regards,

Jim Scurlock
Staff Geologist

JS/rlb



AMERICAN STRATIGRAPHIC COMPANY

6280 E. 39TH AVENUE
DENVER, COLORADO 80207, U. S. A.
(303) 399-2746

April 23, 1974

Mr. J.R. Scurlock
Arizona Oil and Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Scurlock:

Mr. G.L. Spraul of Mobil has referred me to you to obtain authorization to release our study of Geokinetics #1 Power Ranches well to the industry. We would like to include this well on our May, 1974 publication list.

Mr. Alpha of Mobil in Denver said to send samples of this well to you, that he would be satisfied with looking at our study. The samples will be sent out today, and we will await your authorization to release our study.

Thank you,

AMERICAN STRATIGRAPHIC COMPANY

M. D. Higgins

M.D. Higgins

MDH:jj

RECEIVED

APR 23 1974

O & G CON. COMM.

State steam wells shut as unproductive venture

CHANDLER — Arizona's first geothermal steam wells have been temporarily shut down because of their failure to yield steam and hot water in commercial quantities, an official of Geothermal Kinetics Systems Inc. said Wednesday.

Mike O'Donnell, a vice president of the Phoenix-based company, said the problem involves the need for advanced technology and further testing to make the two wells productive.

O'Donnell refused to characterize the steam wells as failures.

The 10,000-foot wells, deepest of their kind in the world, were drilled last year near Williams Air Force Base.

Both hit a source of super-heated steam and vented small quantities of steam at the surface.

The wells encountered a layer of water heated by molten rock deep below the earth's surface, Company

experts believe the hot water layer is extensive enough to provide steam power for an electric generating plant.

O'Donnell said the wells were shut down to give experts time to explore new technology of deep earth steam extraction and develop new pumps and other equipment.

"We need equipment to get (steam) flowing at depth again and to get it flashing (into steam) of its own accord when it reaches the surface," said O'Donnell.

"We intend to go ahead and obtain pumps to go commercial before the summer is out."

The geothermal exploration is being partly financed by Arizona Public Service Co., the Salt River Project and Tucson Gas and Electric Co.

Geothermal energy is favored by environmentalists because it is a virtually pollution-free power source and can provide, by distillation of the steam and hot water, a cheap source of fresh water.

March 19, 1974

Mr. M. D. Higgins
American Stratigraphic Company
6280 E. 39th Avenue
Denver, Colorado 80207

Re: GeoKinetics #1 Powers
Maricopa County, Arizona

Dear Mr. Higgins:

I am afraid that in a recent letter to you dated March 1, 1974 I inadvertently gave you the wrong instructions regarding a set of samples on the Geothermal Kinetics #1 Power Ranches Well in Maricopa County, Arizona. Instead of returning these samples to us here in Phoenix, will you be so kind as to return them to Mr. Gary Spraul of Mobil Oil in Houston. I understand that he is shipping these samples to you.

Yours truly,

James R. Scurlock
Staff Geologist

JRS/rlb

cc - Gary Spraul

Mobil Oil Corporation

THREE GREENWAY PLAZA EAST - SUITE 800
HOUSTON, TEXAS 77046

March 13, 1974

Mr. M. D. Higgins
American Stratigraphic Co.
6280 E. 39th Avenue
Denver, CO 80207

RE: GeoKinetics #1 Powers
Maricopa Co., Arizona

Dear Mr. Higgins:

Please refer to our letter dated February 27, 1974. Evidently, there were two boxes of samples on this well. Therefore, we are shipping, by bus express, the second portion.

Upon completion of your examination of this material, please contact this office for disposition of these samples.

Thank you for the information concerning the progress of your sample examination of the Exxon #1 State (32), Pima County, Arizona.

Very truly yours,


G. L. Spraul

GLS:mp

cc: J. R. Scurlock
Arizona Oil & Gas Conser. Comm.
4515 North 7th Avenue
Phoenix, Arizona 85013

RECEIVED

APR 11 1974



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

March 11, 1974

American Stratigraphic Company
6280 East 39th Avenue
Denver, Colorado 80207

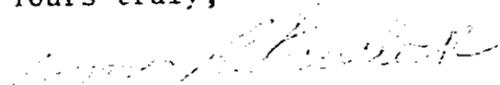
Dear Sirs:

We are shipping today by Continental Trailways (collect) a set of samples on the Exxon Corporation #1 Yuma-Federal in Yuma, Arizona. A copy of the completion report, submitted by Exxon, is enclosed.

Please return the samples to us when you are finished with them. I understand we are to get a complimentary copy of the log from you.

Thank you most kindly for your cooperation in this matter.

Yours truly,


James R. Scurlock
Geologist

JRS/rlb

Enc.

P.S. Mr. Gary Spraul of Mobil Oil in Houston has sent you a set of samples on the Geothermal Kinetics #1 Power Ranches well in Maricopa County, Arizona. Will you please return this set when you are finished running them. Thanks again.

March 1, 1974

Dr. J. W. Sanders, Ph.D.
Desert Research Institute
University of Nevada System
500 Date Street
Boulder City, Nevada 89005

Dear Dr. Sanders:

As I promised you at the recent Geothermal Convention, I am attaching copies of the water analysis on the two geothermal tests that were recently drilled in Maricopa County.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Encs.

February 22, 1974

Mr. Ward Austin
Geothermal Kinetics Systems Corp.
301 West Indian School Road
Phoenix, Arizona 85013

Dear Ward:

Thank you mucho for your permission to release the samples on G.K.S. Power Ranches No. 1 to American Stratigraphic. In accordance with your "OK", we will then forward the samples back to Mobil Oil Corporation in Houston.

Will you please be so kind as to write us a little memo releasing the samples on the above well to the general public. I know this technicality is a bit of a nuisance, but we need it for our files. Also, it would be most useful to us since Mobil cannot run these samples unless we can show them a written release from the operator.

Thanks again for your help.

Best regards,

Jim Scurlock
Staff Geologist

JS/r1b



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

February 22, 1974

Mr. Gary Spraul
Mobil Oil Corporation
3 Greenway Plaza East
Suite 500
Houston, Texas 77046

Dear Gary:

We just received word from Am Strat that they would like to have the samples on Geothermal Kinetics No. 1 well, so would you be so kind as to ship the samples directly to them. We are asking Am Strat to return the samples to you when they are finished.

Ed is packing up, will leave at the end of the month. Jack is still looking for a replacement.

Remember that when you stretch into the forehand, contact with the ball should be early, that is at a point closer to the net than the left toe!

Bring racket--come soon.

Best regards,

Jim Scurlock
Geologist

JS/rb

Enc.

December 3, 1973

Mr. Mike O'Donnell
Geothermal Kinetics Systems Corp.
301 West Indian School Road
Phoenix, Arizona 85013

Re: Power Ranches Well No. 1
NE/SE Sec 1-T2S-R6E
Maricopa County
Permit No. 605

Power Ranches Well No. 2
SE/NE Sec 1-T2S-R6E
Maricopa County
Permit No. 611

Dear Mike:

Please furnish this Commission with Well Completion Reports, Form G-4, on the above referenced wells. Our records indicate that, exclusive of Periodic Temperature Surveys, operations terminated on the No. 2 well on or about September 19 and a couple of months earlier on your No. 1 well. These reports are needed to complete our files.

Your cooperation is appreciated.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Encs.

August 6, 1973

Mr. Donald D. Bruce
W. R. Grace & Company
Grace Plaza
1114 Avenue of the Americas
New York, New York 10036

Dear Mr. Bruce:

I am sorry to say that our office is not allowed to give out any information about these particular geothermal tests which are being drilled by Geothermal Kinetics. In as much as the Company has requested that all data be held confidential.

I might suggest that you contact them directly. I understand their office, at times, is somewhat free in giving out the data.

The company's local address is: Geothermal Kinetics Systems Corp.
301 West Indian School Road
Phoenix, Arizona 85013
(602) 248-0202

Very truly yours,

James R. Scurlock
Staff Geologist

JRS/rlb

W. R. GRACE & CO.
GRACE PLAZA, 1114 AVENUE OF THE AMERICAS
NEW YORK, N. Y. 10036

August 1, 1973

Mr. James R. Scurlock
Arizona Oil & Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Scurlock:

It was reported in the January 25, 1973 issue of Petroleum Information that Geothermal Kinetics Systems, Arizona Public Service Co. and Tucson Gas & Electric were to drill a potential geothermal Well #1 "Power Ranches" in NESE Sec 1-2S-6E, Maricopa County.

I should like to know, if possible, the results of the above test and if the well records are available for release to industry. I understand a 13-3/8" protective string was run to 3,118'.

Any information you can provide will be greatly appreciated.

Very truly yours,

Donald D. Bruce

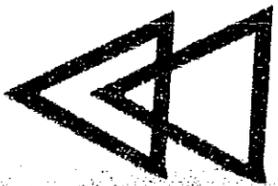
Donald D. Bruce
Petroleum Division

DDB/mg

RECEIVED

AUG 06 1973

OIL & GAS CONSERV. COMM.

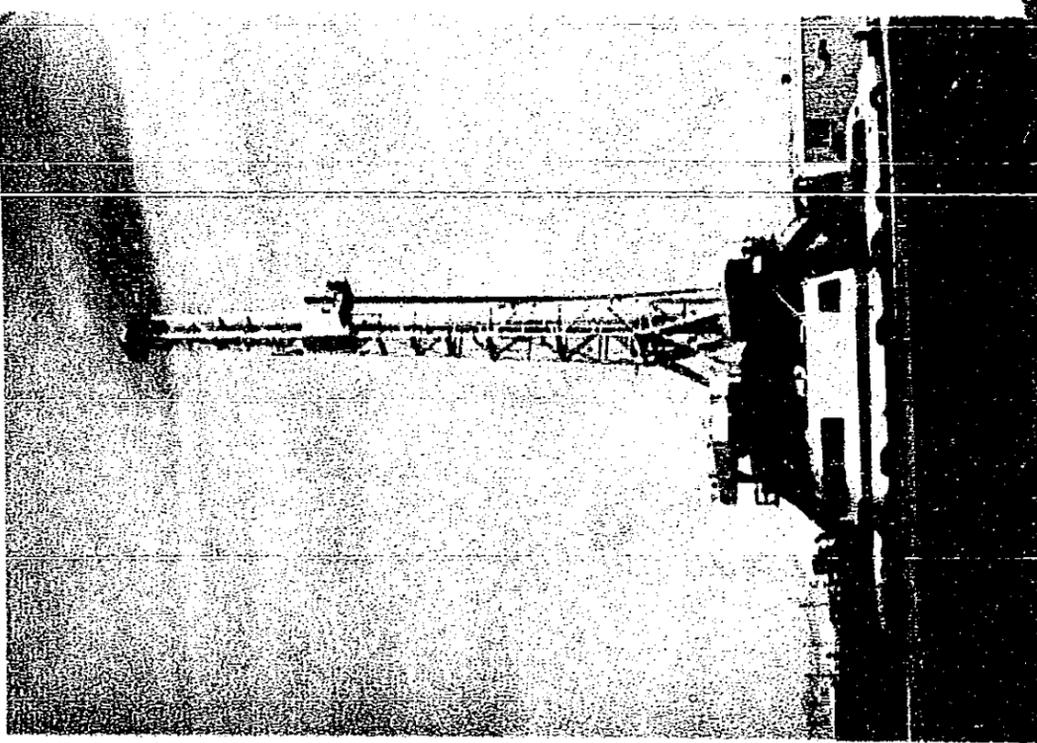


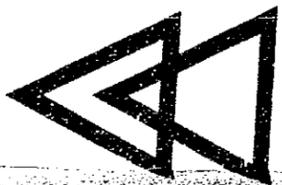
**UNITED
SISCOE
MINES
LIMITED**

File 605
No.

An Interim Progress Report to Shareholders describing
current activities and interests of the Company's
affiliate, GEOTHERMAL KINETICS SYSTEMS
CORPORATION, participating in the Geothermal Energy
field in the U.S.A.

Drilling rig of GKSC subsidiary on the site of
Power Ranches Inc. No. One Well.



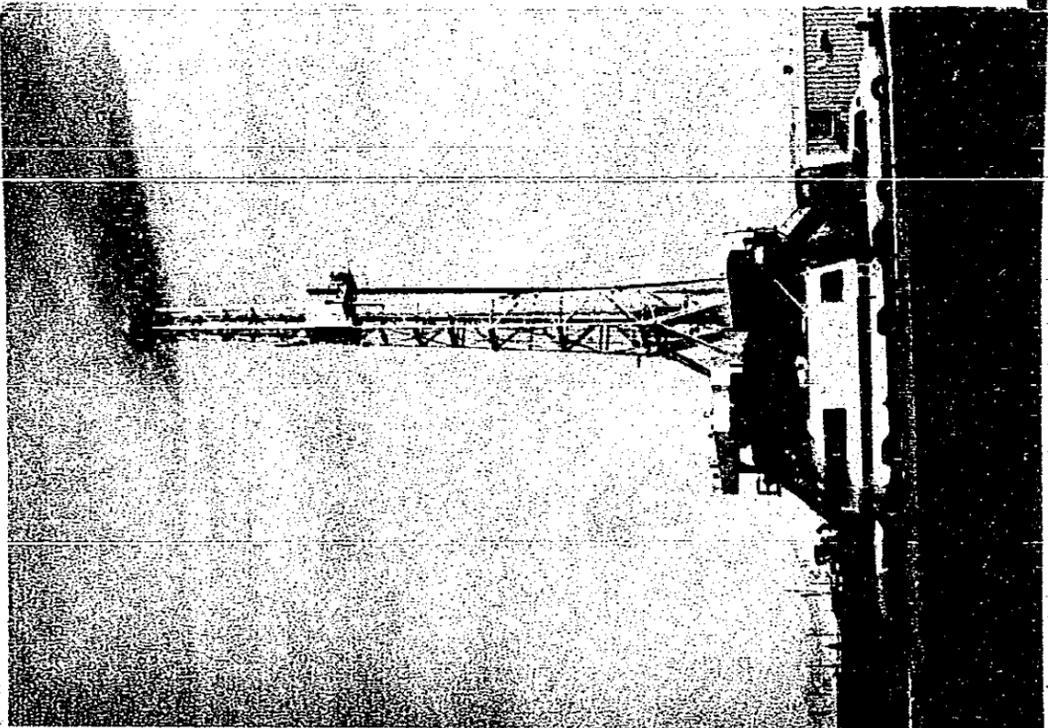


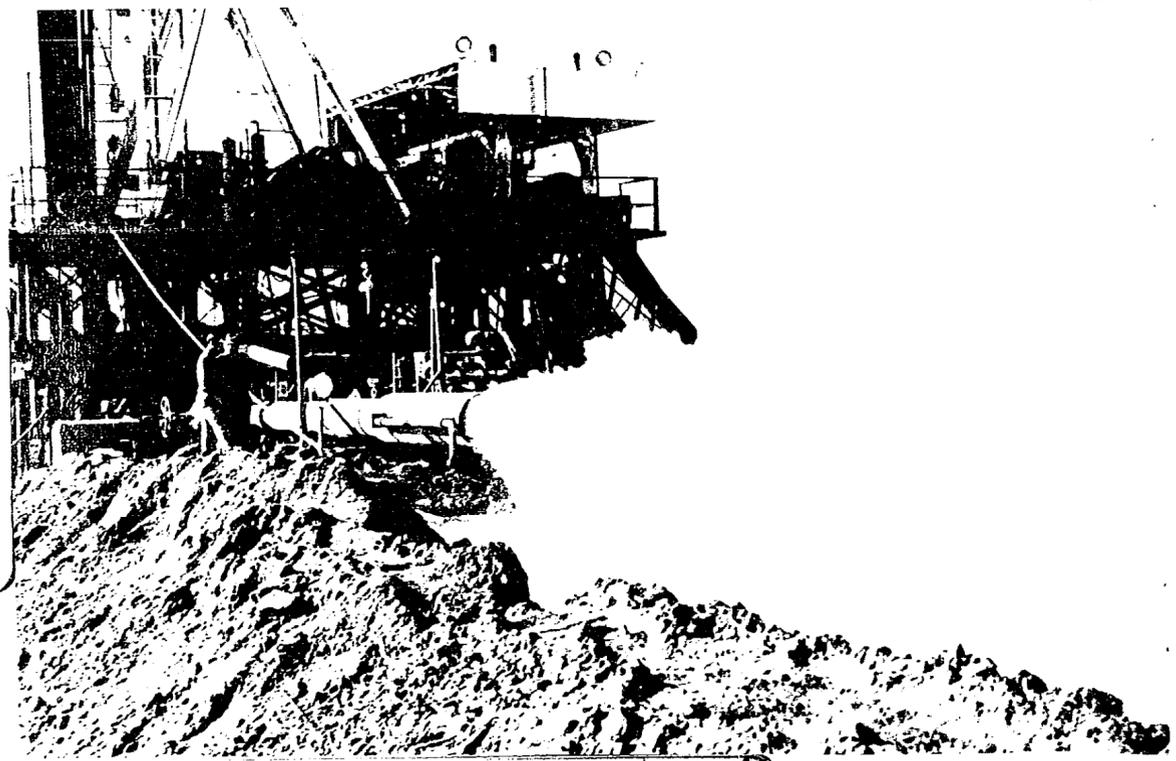
UNITED SISCOE MINES LIMITED

File No. 905

An Interim Progress Report to Shareholders describing current activities and interests of the Company's affiliate, GEOTHERMAL KINETICS SYSTEMS CORPORATION, participating in the Geothermal Energy field in the U.S.A.

Drilling rig of GKSC subsidiary on the site of Power Ranches Inc. No. One Well.





Executive Office: Suite 3914, Royal Trust Tower, Toronto-Dominion Centre, Toronto 111, Ontario

To The Shareholders:

The Company reports the successful completion of drilling of the first geothermal well near Chandler, Arizona, by our controlled affiliate, GEOTHERMAL KINETICS SYSTEMS CORPORATION (GKSC). The drill rig will be moved off the well site in preparation for a step-out development well approximately 1,320 feet from the discovery well and drilling of this new well is scheduled to commence this week.

In co-operation with Utah Power & Light Co. leasing has been completed on tracts covering some 24,000 acres in Utah. An initial geothermal test well is scheduled on this leasehold and it is expected that drilling will commence in early June.

With specific reference to the first well near Chandler, GKSC Power Ranches Inc. No. One which discovered a highly permeable geothermal reservoir with an impressive vertical extent of more than 4,000 feet, has

Steam flashing through the blow-off line at the GKSC Power Ranches No. One well. The first steam flash at this well was obtained from along the side of the pipe, which is repeatedly throughout the reservoir section that is drilled to a depth of 1,320 feet. The steam is safely vented from the blow-off preventer installed at the well head for that purpose. This steam is escaping through a 36" diameter pipe which is part of a 100-ton, 70" diameter choke used during production.

been bottomed at a depth of 9,207 feet where a formation of hydrothermally altered volcanics was encountered.

Production casing has been set to a depth of 9,065 feet and this is now being perforated at intervals throughout the geothermal zone to obtain essential performance data for testing and evaluation.

This phase of the program is being carried out in collaboration with De Golyer and MacNaughton of Dallas, Texas, a firm of consultants retained by the three participating major utility companies, Arizona Public Service Co., Salt River Project and Tucson Gas & Electric, to evaluate the reservoir characteristics and steam production potential of the well. Rogers Engineering Co. Inc., of San Francisco, California, worldwide geothermal plant design engineers, has also been retained as a

consultant to assist in the completion of the discovery well.

As previously stated, logging of the well confirms a continuous geothermal zone extending over a vertical distance in excess of 3,600 feet from the approximate depth of 5,400 feet where the first significant steam flashing was encountered in the well, down to below 9,000 feet. This favourable zone of porosity (approximately 30%) and permeability, which are prerequisite conditions for geothermal production, is comprised primarily of volcanic ash.

Steam flashing commenced at 5,400 feet and continued repeatedly to a depth of 9,065 feet. At the latter depth the drill bit was seriously damaged by heat and while pulling the drill pipe the well started to unload and approached blowout proportions. The well was brought

under control by quenching with cold water before pipe pulling operations resumed.

Preliminary temperature readings taken upon completion of drilling and after the formation had been cooled by the drilling fluid indicated minimum temperatures up to 325° Fahrenheit. It is considered that true formation temperatures could be up to 200° Fahrenheit in excess of these preliminary estimates. Production casing was set and cemented to 9,065 feet.

The initial well has provided impressive confirmation of the geophysical and geothermal exploration techniques developed and implemented by the field crews and technical staff. The production potential and commercial viability of this well will be rated on conclusion of the current perforating tests and completion operations.

With its extensive geothermal exploration and investigation activities, a team of lease-title and landmen, under Geothermal Kinetics is rapidly expanding the sphere of its lease assembling and is active in seven states. The company has completed leasing an additional 11,000 acre block in the State of Arizona covering another attractive geothermal prospect.

In addition to the foregoing, Geothermal Kinetics recently signed a letter of intent with the Public Service Co. of New Mexico whereby GKSC will conduct geophysical and geological surveys throughout the state of New Mexico. This program is scheduled to commence there next month.

Geothermal Kinetics has also concluded arrangements with Group Seven Inc., of

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Geothermal Kinetics has also concluded arrangements with Group Seven Inc., of

Golden, Colorado, whereby the latter company will transfer all assets to a wholly owned subsidiary of the Company and the officers and personnel of Group Seven Inc. will become employees of the GKSC subsidiary.

The Group Seven Inc., is a well known geophysical consulting organization headed by Dr. George Keller of the Colorado School of Mines which has worldwide experience in the discovery of geothermal reservoirs. The specialized capabilities of Group Seven Inc. are in Dipole Deep Resistivity exploration for geothermal sources.

In The Geysers Field, Sonoma County, California, where Geothermal Kinetics has a 408-acre leasehold, GKSC has received a drilling permit from the State of California and is arranging for an environmental impact state-

ment to be filed with Sonoma County preparatory to the planned drilling of its initial geothermal well in this field.

Your Company has increased its ownership in Geothermal Kinetics through the acquisition of an additional 600,000 shares. Our total holding in GKSC now amounts to 1,727,250 shares or approximately 57% of the issued and outstanding capital.

The Company also reports that Mr. Paul W. Eggers of Dallas, Texas, formerly general counsel for the United States Treasury Department, has been elected President of Geothermal Kinetics Systems Corporation. The Officers and Board of Directors of GKSC now consists of:

PAUL W. EGGERS, JR.
President

MIKE O'DONNELL
Executive Vice-President and General Manager

WARD H. AUSTIN, Jr.
Vice-President of Exploration

DENT. N. HAND
Secretary-Treasurer

Board of Directors

Paul W. Eggers, Jr.
Attorney,
Dallas, Texas, U.S.A.

Murray E. Fasken
Chairman, The Midland National Bank
Midland, Texas, U.S.A.

Robert E. Fasken
Chairman, United Siscoe Mines Limited
Mississauga, Ontario, Canada

Dent. N. Hand
Accountant,
Phoenix, Arizona, U.S.A.

Robert M. Smith
Vice-President, United Siscoe Mines Limited
Oakville, Ontario, Canada

On behalf of the Board of Directors,

R. E. FASKEN, Chairman
G. T. SMITH, President

April 30, 1973



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. /

PHOENIX, ARIZONA 85013

PHONE: (602) 271-5161

PUBLISHED DATA GEOTHERMAL KINETICS SYSTEMS POWER RANCHES NO. 1

NE/SE Section 1-T2S-R6E

Total Depth 9207' (Well Bottomed in Hydrothermally Altered Volcanics)

7" Production Casing - 9065'

5400'-9000' - Continuous Geothermal Zone - (3600')

30% Porosity (Volcanic Ash)

5400' - Steam Commenced Flashing, continued to 9065'

325 F. @ T.D. (Formation Cooled by Drilling Fluid)

525 F. Estimated True Temperature

All above information from Interim Progress Report -
United Siscoe Mines Limited. (United Siscoe owns approximately
57% of Geothermal Kinetics.)

Mailed to SEN. FANNING'S OFFICE
5-7-1973 -

Geothermal power: Utilities look for new energy source

They're trying to pull the plug on a genie's bottle east of Chandler. The questions left to be answered are: Is there a genie in the bottle and if so, is it useable?

Arizona's three largest electric utilities and the firm of Geothermal Kinetics Systems Corporation are now trying to find those answers.

If the answer to both questions is "yes," it may be the start of a new source of electric generation for Arizona.

Use of geothermal power is by no means new. It has been utilized for decades in New Zealand and since 1904 in Italy. Pacific Gas and Electric Company has been generating electricity from geothermal wells since 1960.

Ward H. Austin, Jr., vice president in charge of exploration for Geothermal Kinetics, explains that molten magma is constantly boiling in its caldron some 40,000 feet down, within the bowels of the earth. In some places the magma moves upward so it is only 10,000 to 15,000 feet below the surface. When that happens the moisture in the soil at depths of 5,000 to 10,000 feet is super heated.

The effects vary. In some places hot springs are produced. In other places geysers are formed. In still other places the super heated water is trapped beneath the earth's surface.

It is this third possibility that Geothermal Kinetics and the utilities hope they will find during exploration.

The signs are promising.

When analyzing the area, Austin's first hints that there may be steam or super heated water below the surface of the desert came from a noted mineral spa east of Mesa and from deep agricultural wells in the area. Both are known for naturally hot water.

Austin reasoned that something was making the water hot and it might well be that the magma had bulged upward somewhere in the eastern portion of the Valley. If water now being drawn from wells no more than 2,700 feet deep was hot, there probably was hotter water or steam at greater depths.

Following this clue, Austin focused his trained eyes on aerial maps of the area. Certain terrain features jumped out as

readily distinguishable and encouraging. Next Geothermal Kinetics crews placed sophisticated electronic equipment to listen and record the sounds the earth made during the stillness of the desert night. Although indiscernible to the human ear, the company's computer analyzed the telltale creakings, groanings and rumblings attendant to the gently shifting and bubbling characteristics of geothermal well sites.

"All the signs are there," declares Austin, "but you never know. Drilling is the only way to find out."

So, in early February, drilling began.

The exploratory well is located on farmlands which are part of the Power Ranches, Inc., two miles southeast of Higley and approximately nine miles east of Chandler. The land is a portion of some 7,000 acres Geothermal Kinetics has leased in the area for exploration.

An oil drilling rig was brought in and specially outfitted to drill for steam. Also brought in was a drilling team under the direction of Bert McComack, and a test well of at least 6,000 feet was begun.

"We had the first puff of steam before we hit the 6,000-foot level," says Austin, "But," he adds, "we'll have to go deeper to be certain of what is there."

Even if there is steam below the surface, there will still be important questions to be answered.

Is there enough?

Is it hot enough?

Is the pressure high enough?

Is it clean enough?

"The first three are easy to answer," he says. "We wouldn't be drilling if we didn't think there was a good supply of steam down there. Our calculations, based on well water in the area and other determinants, show the temperature should be about 480°F. Most geothermal sources range in production from 150,000 to 600,000 pounds of steam per hour. Wells in Mexico just south of Mexicali produce up to 400,000 pounds per hour of wet steam.

"But we won't know about the quality until we can test it."

The steam must be analyzed for impurities which might create pollution of one sort or another. Hot water might consist of a heavy brine, creating the problem of what to do with the chemical salts.

If the well's product is dirty, the next question is whether it can be sufficiently cleaned to make it useable without undesirable effects on the ecology of the area and at reasonable cost.

How a successful well could fit into the power picture is pointed out by one utility executive who said, "Even if we discover the best geothermal well in the world, it is, like all other natural resources, a limited resource. It would help the state's utilities to meet the rapidly growing consumer demand for power, but it is not a cure-all."

By 1976 the energy requirements for the customers of Arizona's three largest utilities will have increased more than 1,300,000 kw.

Most geothermal power generating stations produce only 55,000 kilowatts (kw) of power per generating unit and are usually comprised of only two units. Large developments like The Geysers some 80 miles north of San Francisco have a total capacity of approximately 400,000 kw.

"We hope to be able to develop up to 600,000 kw. Still," cautions Austin, "that could take several years."

But, the signs are encouraging and if there is a genie waiting to be released, the wish of the utilities and Geothermal Kinetics is that it will help them serve the people of Arizona.

Permit 605

May 3, 1973

Mr. Virgil McClenahan
Roosevelt Water Conservation District
P. O. Box 168
Higley, Arizona 85366

Dear Mr. McClenahan:

As you requested in our telephone conversation this morning, May 3, 1973, regarding the discharge of produced waters from Geothermal Kinetics System, Power Ranches No. 1 Geothermal Prospect Well into the Roosevelt Water Conservation District discharge channel. This letter will confirm the position of the Oil and Gas Conservation Commission regarding such actions.

Responsibility for the conservation and regulation of the exploration for, drilling, and production of geothermal resources has been delegated by the State Legislature to this Commission. Arizona Revised Statutes 27-652, Paragraph C, states in part:

"Disposal of water or brines obtained from a geothermal well whether by ponding and evaporation, release to a watercourse or other means shall not damage or contaminate the underlying groundwater aquifer or pollute any stream, river, or body of surface water."

This Commission will request the operators of this well to contain all produced waters from said well in a suitable pit until the quality of this water can be determined. If the water from this well proves to be satisfactory for irrigation purposes, the land owners have expressed a desire to use the water to supplement their irrigation waters and any excess to be turned into your drainage channels.

If complete analysis of this produced water indicates it to be compatible for irrigation purposes, this Commission will have no objection to its use or discharge into your waste channels.

Your cooperation is appreciated.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/r1b

GEORGE E. LEONARD
CHAIRMAN
JOHN S. HOOPES
VICE-CHAIRMAN
WESLEY E. STEINER
EXECUTIVE DIRECTOR
AND
STATE WATER ENGINEER



Arizona Water Commission

222 NORTH CENTRAL AVENUE, SUITE 800
Phoenix, Arizona 85004
TELEPHONE (602) 258-7561

MEMBERS
PETER BIANCO
LINTON CLARIDGE
DAVID R. GIPE
DOUGLAS J. WALL
WILLIAM H. WHEELER
EXOFFICIO MEMBERS
ANDREW L. BETTWEY
MARSHALL HUMPHREY

January 26, 1973

RECEIVED

JAN 28 1973

O & G CONS. COMM.

Mr. John Bannister, Executive Secretary
Oil & Gas Commission of the State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

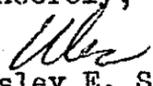
Dear Mr. ^{John}Bannister:

The proposed geothermal well near Chandler is unique from a hydrologic standpoint and thus our expression of interest. At a proposed depth of 6,000 feet the well will be one of the deepest holes in an alluvial basin in Arizona and as such would afford an excellent opportunity to add to our basic knowledge of alluvial aquifers in general as well as the immediate area in particular. Of particular interest to us would be the driller's log, samples, and any geophysical logs that might be used to determine the vertical extent of the aquifer, the porosity of various zones and the chemical quality of the water.

Also of interest to us, although the legal responsibility is yours, is the avoidance of any possible contamination of the fresh water aquifer in the area. Much of the above data should be collected by the driller for use in designing the casing through the fresh water zone and consequently should be readily available. Should you desire any assistance on the hydrologic aspects of the situation, please feel free to call on us. A mutual review of the above data will be of benefit to both Commissions.

In view of the proposed starting date for the drilling operation, a prompt reply would be appreciated.

Sincerely,


Wesley E. Steiner
Executive Director

Ed Nemecek

605

January 24, 1973

Mr. M. C. Titus
Arizona Public Service Company
P.O. Box 21666
Phoenix, Arizona 85035

Mr. Frank Scussel
Salt River Project
P.O. Box 1980
Phoenix, Arizona 85001

Mr. Mitch Lovell
Tucson Gas and Electric Company
P.O. Box 5966
Tucson, Arizona 85703

Gentlemen:

Reference is made to letter dated January 19, 1973 addressed to you from Mr. William Joe Melling, Director of the Water Rights Division of the State Land Department. In Mr. Melling's letter, he called your attention to ARS 45-305 pertaining to notice of intention to drill a well for water purposes. Mr. Melling's letter was the result of a news article appearing on January 17, 1973 concerning the geothermal well being drilled near Chandler.

I have this date been in contact with Mr. Melling and find that he had not been made aware that Geothermal Kinetics Systems Corporation had been in contact with other officials of the State Land Department concerning their actions as to drilling of the well in question; likewise, Mr. Melling had not been made aware that Geothermal Kinetics Systems Corporation had been in contact with the Oil and Gas Conservation Commission and that the well in question had been permitted by us.

After discussion of this problem with Mr. Melling, I am pleased to inform you that it is not necessary to seek any permit at this time from the State Land Department concerning the Geothermal Kinetics Power Ranches Inc. No. 1 Well,

605

Mr. M. C. Titus
Mr. Frank Scussel
Mr. Mitch Lovell
1-24-73
Page 2

(our Permit 605). However, at any time in the future you should desire to convert this well, initially drilled for geothermal purposes, into a water well, or should fresh water be a by-product, it will be necessary to contact Mr. Melling and to comply with the applicable State and Federal statutes, rules and regulations.

Should you have any questions, please advise.

Sincerely,

John Bannister
Executive Secretary

JB/vb

cc - Mr. Mike O'Donnell
Geothermal Kinetics Systems Corp.

Mr. William Joe Melling
State Land Department

January 22, 1973

File 605

4629

Mr. William Joe Melling
Director, Water Rights Division
Arizona State Land Department
1624 West Adams
Phoenix, Arizona 85007

Dear Mr. Melling:

In response to your letter of January 19, 1973, Geothermal Kinetics Systems Corporation is drilling on private lands under the authority of the Arizona Oil and Gas Conservation Commission; a permit was applied for and issued by them for the well to be drilled in Chandler. A copy of your letter has been forwarded to Mr. John Bannister, Executive Secretary, of the Oil and Gas Conservation Commission.

We are most happy to cooperate with the State Land Department, so if there are any questions or problems, please feel free to contact me.

Very truly yours,



Mike O'Donnell
General Manager

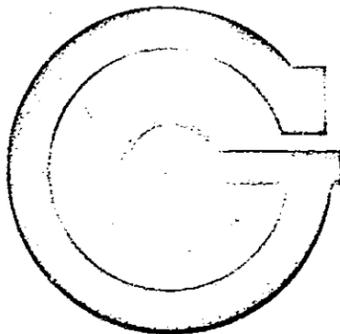
MOD/leb

cc: John Bannister ✓
Oil and Gas Conservation Commission

Mitch Lovell
Tucson Gas & Electric

M. C. Titus
Arizona Public Service

Frank Scussel
Salt River Project



GEOTHERMAL KINETICS SYSTEMS CORPORATION
301 W. INDIAN SCHOOL RD. • PHOENIX, ARIZONA 85018 • PHONE (602) 248-0202

RECEIVED

JAN 23 1973

O & G CONS. COMM.



JACK WILLIAMS
GOVERNOR

Arizona
State Land Department

1624 WEST ADAMS
PHOENIX, ARIZONA 85007
602 - 271-4634



ANDREW L. BETTBY
STATE LAND COMMISSIONER

January 19, 1973

General Manager
Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85035

General Manager
Salt River Project Association
P. O. Box 1980
Phoenix, Arizona 85001

General Manager
Tucson Gas & Electric Company
P. O. Box 5966
Tucson, Arizona 85703

Gentlemen:

By reason of the news release which appeared in the January 17 Arizona Republic under the heading "Hot-well drilling to begin next week east of Chandler", and its statement that under a cooperative agreement Geothermal Kinetics Systems, Corp. will begin drilling a geothermal well southeast of Chandler, this office as a courtesy brings the following statute to your attention, viz:

ARS 45-305, Notice of Intention to Drill states, "No person shall drill or cause to be drilled any well for the development and use of ground water without first filing notice of intention to drill with the department in the form prescribed and furnished by the department."

Sincerely,

William Joe Melling
Director, Water Rights Division

NJM:lsm

cc: Geothermal Kinetics Systems, Corp.

January 18, 1973

Mr. David N. Anderson
Geothermal Operations
State of California-Resource Agency
Division of Oil & Gas
1416 9th Street, Room 1316
Sacramento, Calif. 98814

Dear Mr. Anderson:

At long last we have issued our first permit to drill for geothermal resources in the State of Arizona. A copy of the Application to Drill is attached for your information. Evidently, the operators, Geothermal Kinetics, have done a good job of promoting this well. The three major utility companies, Arizona Public Service, Salt River Project and Tucson Gas and Electric have all contributed to this hole.

The operators seem highly optimistic on this particular area.

Should you desire any information pertaining to this operation, please advise.

Thank you again for all the information that you have given to this Commission.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Enc.

January 15, 1973

Mr. Frank Getscher
P. O. Box 98
Scottsdale, Arizona 85252

Dear Mr. Getscher:

The following permit was issued on January 15, 1973. You will note this is a geothermal permit.

Geothermal Kinetics Power Ranches Inc. No. 1
NE/SE Sec 1-T2S-R6E - Proposed depth - 6,000' and Elevation 1338'
Maricopa County
Permit No. 605

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

January 15, 1973

Mrs. Jo Ratcliff
Four Corners Sample Cut Association
P. O. Box 899
Farmington, New Mexico 87401

Dear Mrs. Ratcliff:

The following permit was issued since January 4, 1973.
You will note this is a geothermal permit.

Geothermal Kinetics Power Ranches Inc. No. 1
NE/SE Sec 1-T2S-R6E
Maricopa County
Permit No. 605

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/vlb

January 15, 1973

Mr. Mike O'Donnell
Geothermal Kinetics Systems Corp.
301 West Indian School Road
Phoenix, Arizona 85013

Re: Geothermal Kinetics Power Ranches Inc. No. 1
NE/SE Sec 1-T2S-R6E
Maricopa County
Permit No. 605

Dear Mr. O'Donnell:

Enclosed please find Receipt No. 2943, covering the \$25 filing fee, a copy of your approved Application for Permit to Drill and Permit to Drill No. 605.

Also enclosed are miscellaneous instruction sheets concerning samples and other Commission requirements.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Encs.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

Bond Serial No. B 72 07 72

That we: GEOTHERMAL KINETICS SYSTEMS CORP.

of the County of MARICOPA in the State of ARIZONA

as principal, and RELIANCE INSURANCE COMPANY

of Philadelphia, Pennsylvania

AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona and the Oil and Gas Conservation Commission, hereinafter referred to as the "Commission", in the penal sum of FIVE THOUSAND DOLLARS AND NO/100 (\$5,000.00) lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation are that, whereas the above bounden principal proposes to drill a well or wells for a Geothermal Resource or stratigraphic purposes in and upon the following described land situated within the State, to-wit:

Maricopa County, Arizona

(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all the provisions of the Laws of this State and the rules, regulations and orders of the Commission, especially with reference to the requirements of A.R.S. § 27-652, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil and Gas Conservation Commission all notices and records required by said Commission, then in the event said well or wells do not produce Geothermal Resources in commercial quantities, or cease to produce a Geothermal Resource in commercial quantities, this obligation is void; otherwise it shall remain in full force and effect.

Whenever the principal shall be, and declared by the Oil and Gas Conservation Commission in violation of the Laws of this State and the rules, regulations and orders of the Commission, the surety shall promptly:

- 1. Remedy the violation by its own efforts, or
2. Obtain a bid or bids for submission to the Commission to remedy the violation, and upon determination by the Commission and the Surety of the lowest responsible bidder, arrange for a contract between such bidder and the Commission, and make available as work progresses sufficient funds to pay the cost of remedying the violation; but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof.

Liability under this bond may not be terminated without written permission of this Commission.

WITNESS our hands and seals, this 12th day of December, 19 72.

CANCELLED stamp and handwritten date 3-5-87

GEOTHERMAL KINETICS SYSTEMS, CORP.

Handwritten signature of Principal

Principal

WITNESS our hands and seals this 12th day of December, 19 72

RELIANCE INSURANCE COMPANY

Handwritten signature of Surety

Surety

Susan M. Graham

Attorney-in-Fact

Surety, Resident Arizona Agent (If issued in a state other than Arizona)

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date 1-15-73 STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION By: [Signature]

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Bond File Two Copies Form No. G-2 RECEIVED

Permit No. 6005

JAN 15 1973

O & G CONS. COMM.

RELIANCE INSURANCE COMPANY

ADMINISTRATIVE OFFICES, TACOMA, WASHINGTON

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, That the RELIANCE INSURANCE COMPANY, a corporation duly organized under the laws of the State of Pennsylvania, does hereby make, constitute and appoint **ROBERT D. OLLIVER or WILLIAM W. PILCHER or RICHARD L. JONES or F. ROCKNE ARNETT or MARGARET I. FULLER or SUSAN M. GRAHAM** of PHOENIX, ARIZONA its true and lawful Attorney-in-fact, to make execute, seal and deliver for and on its behalf, and as its act and deed

ANY AND ALL BONDS AND UNDERTAKINGS OF SURETYSHIP-----

and to bind the RELIANCE INSURANCE COMPANY thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the RELIANCE INSURANCE COMPANY and sealed and attested by one other of such officers, and hereby ratifies and confirms all that its said Attorney(s)-in-fact may do in pursuance hereof.

This Power of Attorney is granted under and by authority of Article VII of the By-Laws of RELIANCE INSURANCE COMPANY which became effective May 11, 1962, which provisions are now in full force and effect, reading as follows:

ARTICLE VII - Execution of Bonds and Undertakings

SECTION 1. The Board of Directors, the President, or any Vice-President or Assistant Vice-President shall have power and authority to: (a) appoint Attorneys-in-fact and to authorize them to execute on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and (b) to remove any such Attorney-in-fact at any time and revoke the power and authority given to him.

SECTION 2. Attorneys-in-fact shall have power and authority, subject to the terms and limitations of the power of attorney issued to them, to execute and deliver on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof. The corporate seal is not necessary for the validity of any bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under and by authority of the following Resolution adopted by the Board of Directors of RELIANCE INSURANCE COMPANY at a meeting held on the 8th day of May, 1959, at which a quorum was present, and said Resolution has not been amended or repealed:

"Resolved, that the signatures of such directors and officers and the seal of the Company may be affixed to any such power of attorney or any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

IN WITNESS WHEREOF, the RELIANCE INSURANCE COMPANY has caused these presents to be signed by its Vice-President, and its corporate seal to be hereto affixed, this 20th day of April 1972

RELIANCE INSURANCE COMPANY

Morris E. Brown
Vice-President

STATE OF Washington }
COUNTY OF Pierce } ss.

On this 20th day of April 1972, personally appeared MORRIS E. BROWN

to me known to be the Vice-President of the RELIANCE INSURANCE COMPANY, and acknowledged that he executed and attested the foregoing instrument and affixed the seal of said corporation thereto, and that Article VII Section 1 and 2 of the By-Laws of said Company, set forth therein, is still in full force.

My Commission Expires:

January 15 1974



Bertha M. Barozan
Notary Public in and for State of Washington

Residing at Tacoma

I, D. Keith Johnson, Assistant Secretary of the RELIANCE INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by said RELIANCE INSURANCE COMPANY, which is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company this 12th day of December 1972



D. Keith Johnson
Assistant Secretary