REDACTED VERSION

HOMESTAKE
Grants Project

Homestake Mining Company of California

Jesse R. Toepfer
Closure Manager

8 December 2015

ATTN Mr. David L. Mayerson
Mining Environmental Compliance Section
Ground Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

RE: Request to Begin Post-Closure Monitoring of Western Portion of North-Offsite Area

Mr. Mayerson:

In accordance with the Groundwater Restoration, Post-Closure Monitoring Plan, which was approved by the New Mexico Environment Department (NMED) on 01 September 2015, please review the following plan to commence post-closure monitoring and respond with your acceptance or provisos.

Figure 1 (Attached) shows the locations of the alluvial wells proposed for the post-closure monitoring of the alluvial aquifer in the western portion of the North Off-Site area. Only the alluvial aquifer required restoriation in the western portion of the North Off-Site area. As shown in Figure 1, the indicated western portion of the North Off-Site area extends from the confluence of the San Mateo and Rio San Jose alluvium to the south in the Rio San Jose alluvium. Because the direction of ground-water flow in the Rio San Jose alluvial aquifer is generally to the south in this particular area, the area where groundwater may have potentially been impacted by HMC's activities extends generally from the area of the confluence of the Rio San Jose and San Mateo alluvium to the south in the Rio San Jose alluvium (see Figure 1).

To reflect the limits of the HMC impacts in this area, the pattern showing the maximum extent of site standard exceedance is terminated just to the north of the confluence. Wells have been selected to define the post-closure groundwater quality over the restored western portion of the North Off-Site restoration area.

Table 1 below lists the proposed post-closure alluvial wells and monitoring constituents for the western portion of the North Off-Site area. The monitoring constituents were selected based on the 01 September 2015 NMED approved Post-Closure Monitoring Plan. The seven post-closure monitoring wells (shown in black on Figure 1) were selected based on "*Guidance on systematic planning using the Data Quality Objectives process*" (EPA, February 2006) and "*Methods for evaluating the attainment of cleanup standards; volume 2: Ground water*" (EPA, July 1992). Well selection was distributed over the historical exceedance area and wells 551 and 649 were included to cover the alluvial aquifer down gradient of the exceedance area. Table 2 below presents the completion information for the post-closure alluvial monitoring wells for the western portion of the North Off-Site area while Table 3 presents the well data for other alluvial wells in this area.

Table 1. Proposed Post-Closure Ground-Water Monitoring Wells.

Aquifer:	Wells:	Monitoring Constituents
Alluvial	541, 551, 647, 649, 654, 899, 996	U, NO3, Se, Cl ,SO4, Mo, TDS, V, Th230, Ra226 and Ra228

Table 2. Well Data for the Alluvial Post-Closure Ground-Water Monitoring Wells for the Western Portion of the North Off-Site Area.

WELL NAME	NORTH. COORD.	EAST. COORD.	WELL DEPTH (FT-MP)	CASING DIAM (IN)	WATER LEVEL DATE	WATER LEVEL DEPTH (FT-MP)	WATER LEVEL ELEV. (FT-MSL)	MP ABOVE LSD (FT)	MP ELEV. (FT-MSL)	DEPTH TO BASE OF ALLUVIUM (FT-LSD)	ELEV. TO BASE OF ALLUVIUM (FT-MSL)	CASING PERFOR-ATIONS (FT-LSD)	SATURATED THICKNESS
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0654	1541994	478636	120.0	4.5	12/12/2013	71.55	6478.95	1.4	6550.50	106	6443.1 A	60-120	35.8
0899	1543801	477288	110.0	4.0	10/19/2012	100.46	6470.38	2.0	6570.84	120	6448.8 A	70-110	21.5
0996	1537621	477989	138.0	5.0	12/5/2011	49.60	6502.92	1.7	6552.52	136	6414.8 A	126-136	88.1

Note: A = Alluvial Aquifer
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Attachment A-1 presents the logs and well completion information for the alluvial wells in this area. Post-closure monitoring of the western portion of the North Off-Site area (using the wells identified in Table 1 and 2 above) is proposed to begin in 2016. Attachments A-2 and A-3 give the water quality data for all alluvial wells in the western portion of the North Off-Site area. Constituent concentrations that exceed the site standards are highlighted in yellow with only uranium and nitrate concentrations exceeding the corresponding standards in a manner indicative of past impacts by HMC activity. There are infrequent and isolated exceedances of site standards for molybdenum (two samples), radium 226+228 (two samples) and thorium-230 (seven samples), but these isolated exceedances are anomalous in the context of the long water quality record and are not considered representative of the alluvial aquifer in this area. Molybdenum, radium and thorium-230 have not historically migrated to the western portion of the North Off-Site area. All site standard parameters (selenium, uranium, molybdenum, sulfate, TDS, chloride, nitrate, vanadium, thorium-230, radium-226 and radium-228) will be measured for quality for the Table 1 wells.

Please respond for your approval or provisos to this request. If you have any questions, please feel free to contact me directly at 505.290.3067.

Respectfully,

Jesse R. Toepfer
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Copy To:

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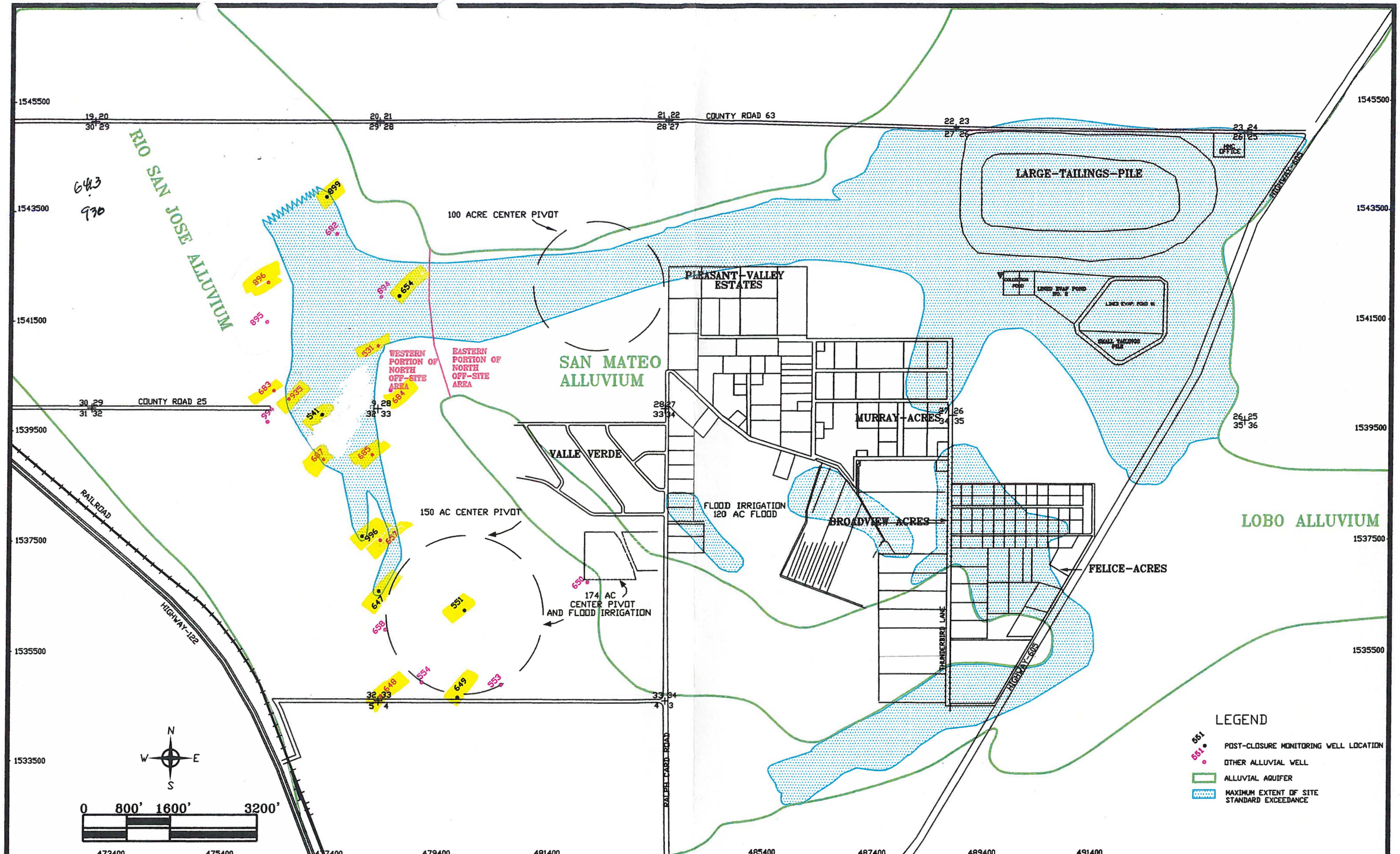
Mr. George Hoffman, Hydro Engineering – Casper, Wyoming
Mr. Phil DeDycker, ARCADIS U.S., Inc. – Denver, Colorado



C:\PROJECTS\ 2015-06
POST CLOSURE ALLUVIAL
DATE: 7/23/15

FIGURE 1. MAXIMUM EXTENT OF ALLUVIAL SITE STANDARD EXCEEDANCE AND WELL LOCATIONS IN WESTERN PORTION OF NORTH OFF-SITE POST-CLOSURE AREA

HOMESTAKE MILL & ADJACENT PROPERTIES
GRANTS, NM T11&12, R10W

TABLE 3. WELL DATA FOR THE OTHER ALLUVIAL WELLS IN THE (cont'd.)

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0531	1541086	478262	---	---	10/30/1996	79.24	6474.55	2.0	6553.79	---	--- A	-	---
0553	1534923	480563	130.0	5.0	8/26/2014	103.48	6444.00	2.0	6547.48	128	6417.5 A	90-125	26.5
0554	1534967	479107	140.0	5.0	2/13/2014	104.71	6442.46	1.9	6547.17	118	6427.3 A	90-125	15.2
0648	1534730	478343	120.0	4.5	3/6/2013	120.00	6427.79	2.0	6547.79	120	6425.8 A	80-120	2.0
0650	1536779	482135	109.0	4.5	9/3/2014	87.35	6459.76	2.2	6547.11	103	6441.9 A	89-109	17.9
0657	1537497	478392	128.0	6.0	12/12/2013	97.13	6454.68	2.2	6551.81	120	6429.6 A	87-128	25.1
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0682	1543125	477489	94.0	4.0	10/20/2010	79.60	6474.37	2.8	6553.97	102	6449.2 A	54-94	25.2
0683	1540198	476217	120.0	6.0	3/19/2013	88.45	6467.59	2.0	6556.04	140	6414.0 A	80-120	53.6
0684	1540273	478499	143.0	6.0	10/19/2012	85.95	6467.33	2.0	6553.28	118	6433.3 A	83-143	34.1
0685	1539098	478170	100.0	4.5	12/12/2013	93.70	6462.87	1.7	6556.57	116	6438.9 A	60-100	24.0
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0894	1541976	478317	78.0	4.5	10/20/2010	77.41	6476.88	3.0	6554.29	97	6454.3 A	58-78	22.6
0895	1541521	476222	104.0	5.0	10/19/2012	84.73	6469.11	2.4	6553.84	116	6435.4 A	61-101	33.7
0896	1542246	476237	113.0	5.0	10/19/2012	85.93	6469.68	2.0	6555.61	117	6436.6 A	73-113	33.1
0935	1540115	476629	300.0	16.0	12/11/2013	89.24	6468.88	2.6	6558.12	125	6430.5 A	95-132	38.4
0994	1539700	476240	144.0	6.0	10/1/2014	88.55	6466.45	0.0	6555.00	139	6416.0 A	95-110	50.5

Note: A = Alluvial Aquifer
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TABLES

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2. WELL DATA FOR THE POST-CLOSURE MONITORING WELLS IN THE WESTERN PORTION OF THE NORTH OFF-SITE POST-CLOSURE AREA. ..... In Letter

3. WELL DATA FOR THE OTHER ALLUVIAL WELLS IN THE WESTERN PORTION OF THE NORTH OFF-SITE POST-CLOSURE AREA. ....After Figure 1

ATTACHMENTS (After Table 3)

A-1. WELL LOGS AND COMPLETION INFORMATION FOR TABLE 1 WELLS.

A-2. HISTORICAL WATER QUALITY FOR THE WESTERN PORTION OF THE NORTH OFF-SITE AREA, U, Se, Mo, NO3, Ra226, Ra228, V AND Th230.

A-3. HISTORICAL WATER QUALITY FOR THE WESTERN PORTION OF THE NORTH OFF-SITE AREA, Cl, SO4 AND TDS.

Attachment A-1

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1. Log of well 541
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21. Log of well 994

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STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well: Homestake Mining Co. of Ca. Owner's Well No.: 541
Street or Post Office Address: Box 98
City and State: Grants, N.M. 87020

Well was drilled under Permit No.: Monitor Well and is located in the:

a. NE ¼ NE ¼ NW ¼ ____ ¼ of Section 32 Township 12 N Range 10 W N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____
Subdivision, recorded in Cibola County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor: Garner Drilling Co. License No.: WD- 595

Address: P.O. Box 693 McIntosh, N.M. 87032

Drilling Began: 12/29/2003 Completed: 1/30/2004 Type tools: Rotary Size of hole: 8 in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well: 120 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well: 80 ft.

Test Well

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
82	85	3	Frac. gray basalt	15
102	107	5	Gravel, sand & rocks	10

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5 in sch.	40 PVC		+ 2	118	120	Open	78	118
0- 45	chip pack	45-118	sand pack.					

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor ____
Address ____
Plugging Method ____
Date Well Plugged ____
Plugging approved by:

____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No.

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	4	4	Tan clay
4	18	14	Gray basalt
18	20	2	Tan clay
20	50	30	Hard gray basalt
50	51	1	Frac. gray basalt, lost circu.
51	82	31	Hard gray basalt
82	102	20	Hard gray basalt
102	108	6	Gravel & rocks
108	112	4	Fine tan sand
112	120	8	Red & tan clay

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

J. Garner

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections except Section 5 shall be

STATE ENGIN[illegible] OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING CO. Owner's Well No. 551

Street or Post Office Address PO BOX 98

City and State GRANTS, NM 87020

Well was drilled under Permit No. _____ and is located in the:

a. ____ ¼ ____ ¼ ____ ¼ ____ ¼ of Section ____ Township ____ Range ____ N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____ Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor COYOTE DRILLING INC. License No. WD-1451

Address PO BOX 3467 MILAN, NM 87021

Drilling Began 3-05-09 Completed 3-08-09 Type tools ROTARY Size of hole 8" in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 135' ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well ____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
100	125	25.	SAND & GRAVEL	5gpm

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5"	PVC		+2	135	137	CAP	95	135

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
10'	steel	pipe			

Section 5. PLUGGING RECORD

Plugging Contractor ____

Address ____

Plugging Method ____

Date Well Plugged ____

Plugging approved by:

____ State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Depth in Feet From	To	Thickness in Feet	Color and Type of Material Encountered.
0	5	5 00	ALUVIM
5	150	145	BASALT
105	115	10	SAND & GRAVEL
115	130	15	PURPLE & GRAY SHALE
130	135	05	CHINLE

Section 7. REMARKS AND ADDITIONAL INFORMATION

ne undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above scribed hole.

Driller

ISTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is lled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGIN[illegible] OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well: HOMESTAKE MINING CO. Owner's Well No.: 553

Street or Post Office Address: PO BOX 98

City and State: GRANTS, NM 87020

Well was drilled under Permit No. _____ and is located in the:

a. ____ ¼ ____ ¼ ____ ¼ ____ ¼ of Section ____ Township ____ Range ____ N.M.P.M.

b. Tract No. ____ of Map No. ____ of the N 35°11.431

c. Lot No. ____ of Block No. ____ of the W 107°.50.474 Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor: COYOTE DRILLING INC. License No.: WD-1451

Address: PO BOX 3467 MILAN, NM 87021

Drilling Began: 3-20-09 Completed: 3-22-09 Type tools: ROTARY Size of hole: 8" in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well: 130.' ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well ____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
105	125	20	SAND & GRAVEL	50gpm

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5	PVC		+2	130	132	CAP	90	125

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
20'	8"	steel pipe			

Section 5. PLUGGING RECORD

Plugging Contractor ____

Address ____

Plugging Method ____

Date Well Plugged ____

Plugging approved by: ____

State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Depth in Feet From	To	Thickness in Feet	Color and Type of Material Encountered.
0	30	30	BLOW SAND
30	108	75	BASALT
105	128	20	SAND & GRAVEL
125	130	05	CHINLE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Weston Behannon
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGINE[illegible]FICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING CO. Owner's Well No. 554

Street or Post Office Address PO BOX 98

City and State GRANTS NM 87020

Well was drilled under Permit No. _____ and is located in the:

a. ____ ¼ ____ ¼ ____ ¼ ____ ¼ of Section ____ Township ____ Range ____ N.M.P.M.

b. Tract No. ____ of Map No. ____ of the N 35°13.133

c. Lot No. ____ of Block No. ____ of the W 107°54.236
Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor COYOTE DRILLING INC. License No. WD-1451

Address PO BOX 3467 MILAN NM 87021

Drilling Began 3-09-09 Completed 3-14-09 Type tools ROTARY Size of hole 8" in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 140' ft.

Completed well is [XX] shallow [ ] artesian. Depth to water upon completion of well ____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
100	118	18	sand & gravel	50 gpm

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5	PVC		+2	125	127	cap	90	125

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
20'	steel pipe				

Section 5. PLUGGING RECORD

Plugging Contractor ____

Address ____

Plugging Method ____

Date Well Plugged ____

Plugging approved by:

____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Depth in Feet From	To	Thickness in Feet	Color and Type of Material Encountered
0	10	10	ALUVIM
10	100	90	BASALT
100	118	18	SAND & GRAVEL
118	125	07	GRAY SHALE
125	140	15	CHINLE

Section 7. REMARKS AND ADDITIONAL INFORMATION

DRILLED 140' AND CASED 125'

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Wesley Bohannon
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING CO. OF CALIF. Owner's Well No. 682
Street or Post Office Address P. O. BOX 98
City and State GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 1 ¼ 4 ¼ 2 ¼ ¼ of Section 29 Township 12 Range 10 N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____
Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor B & B DRILLING CO., INC. License No. WD-1269

Address P. O. BOX 2666, GRAND JUNCTION, CO 81502

Drilling Began 9-23-95 Completed 9-24-95 Type tools ROTARY Size of hole 6.5 in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 94 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well 67.42 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
75	91	16	FRACTURED BASALT & LOOSE SAND	25 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
4	SCH 40	PVC	+2.0	94	96	GLUE ON CAP	54	94

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
50	94	6.5	9 SAND	6 CU FT	POURED
0	50	6.5	9 BEN CHIPS	6 CU-FT	POURED

Section 5. PLUGGING RECORD

Plugging Contractor ____
Address ____
Plugging Method ____
Date Well Plugged ____
Plugging approved by:
____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Section 6. LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	1	1	TAN SANDY SOIL 1982
1	86	85	GREY TO BLACK BASALT
86	91	5	LOOSE TAN TO RED SAND
91	102	11	LOOSE SAND AND GRAVELS
102	115	13	GREY TO RED CHINLE SHALE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR. WD-1269

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office

..evised June 1972

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING CO. OF CALIF. Owner's Well No. 683
Street or Post Office Address P. O. BOX 98
City and State GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 4 ¼ 3 ¼ 4 ¼ ¼ of Section 29 Township 12 Range 10 N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____
Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor B & B DRILLING CO., INC. License No. WD-1269

Address P. O. BOX 2666, GRAND JUNCTION, CO 81502

Drilling Began 9-24-95 Completed 9-25-95 Type tools ROTARY Size of hole 9 7/8 in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 120 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 106.79 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
80	120	40	STREAKS OF GRAVELS & SANDS WITH CLAYS	10 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6	SCH 40	PVC	+2.0	120	122	GLUE ON CAP	80	120

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
75	120	9 7/8	20 SAND	13 CU-FT	POURED
0	75	9 7/8	33 BEN CHIPS	22 CU-FT	POURED

Section 5. PLUGGING RECORD

Plugging Contractor ____
Address ____
Plugging Method ____
Date Well Plugged ____
Plugging approved by: ____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	13	13	TAN SANDY SOIL
13	67	54	GREY TO BLACK BASALT
67	85	18	LOOSE TAN TO RED SAND
85	93	8	LOOSE GRAVEL
93	100	7	GREY CLAY
100	105	5	GRAVEL
105	115	10	GREY CLAY
115	122	7	BOULDERS & GRAVELS
122	125	3	RED CHINLE SHALE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR. WD-1269

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGINEER OFFICE
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well: HOMESTAKE MINING CO. OF CALIF. Owner's Well No. 684
Street or Post Office Address: P. O. BOX 98
City and State: GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 3 ¼ 3 ¼ 3 ¼ ¼ of Section 28 Township 12 Range 10 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor: B & B DRILLING CO., INC. License No. WD-1269

Address: P. O. BOX 2666, GRAND JUNCTION, CO 81502

Drilling Began: 9-20-95 Completed: 9-21-95 Type tools: ROTARY Size of hole: 9 7/8 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well: 143 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well: 112.04 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
90	118	28	SANDY CLAY WITH BOULDERS & GRAVELS	10 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
6	SCH 40	PVC	+2.0	143	145	GLUE ON CAP	83	143

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				
80	143	9 7/8	29 SAND	19 CU-FT	POURED
0	80	9 7/8	36 BEN CHIPS	24 CU-FT	POURED

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:
_____
State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad _____ FWL _____ FSL _____

File No. _____ Use _____ Location No. _____

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	5	5	TAN SANDY SOIL
5	80	75	GREY TO BLACK BASALT
80	90	10	LOOSE TAN TO RED SAND
90	118	28	SANDY CLAY WITH BOULDERS AND GRAVEL STREAKS
118	150	32	RED CHINLE SHALE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR. WD-1269

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGINEER OFFICE
WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well: HOMESTAKE MINING CO. OF CALIF. Owner's Well No. 685
Street or Post Office Address: P. O. BOX 98
City and State: GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 4 ¼ 2 ¼ 2 ¼ ____ ¼ of Section 32 Township 12 Range 10 N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____
Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor: B & B DRILLING CO., INC. License No. WD-1269

Address: P. O. BOX 2666, GRAND JUNCTION, CO 81502

Drilling Began: 9-21-95 Completed: 9-22-95 Type tools: ROTARY Size of hole: 6.5 in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 100 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 78.92 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
95	100	5	LOOSE SAND AND GRAVELS	25 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
4	SCH 40	PVC	+2.0	100	102	GLUE ON CAP	60	100

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
55	100	6.5	9 SAND	6 CU-FT	POURED
0	55	6.5	11 BEN CHIPS	7 CU-FT	POURED

Section 5. PLUGGING RECORD

Plugging Contractor ____
Address ____
Plugging Method ____
Date Well Plugged ____
Plugging approved by:
____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	TAN SANDY SOIL
2	95	93	GREY TO BLACK BASALT
95	98	3	LOOSE TAN SAND
98	106	8	LOOSE GRAVELS
106	109	3	GREY CLAY
109	120	11	LOOSE GRAVELS & RED CHINLE SHALE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR. WD=1269

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING CO. OF CALIF. Owner's Well No. 687
Street or Post Office Address P. O. BOX 98
City and State GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 2 ¼ 3 ¼ 2 ¼ ¼ of Section 32 Township 12 Range 10 N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____
Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor B & B DRILLING CO., INC. License No. WD-1269

Address P. O. BOX 2666, GRAND JUNCTION, CO 81502

Drilling Began 9-27-95 Completed 10-3-95 Type tools ROTARY Size of hole 9 7/8 in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 102 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 79.14 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
70	100	30	FRACTURED BASALT & LOOSE TAN SAND	25 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
6	SCH 40	PVC	+2.0	102	104	GLUE ON CAP	62	102

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				
55	102	9 7/8	GRAVEL	17 CU-FT	POURED
0	55	9 7/8	27-BEN CHIPS	18 CU-FT	POURED

Section 5. PLUGGING RECORD

Plugging Contractor ____
Address ____
Plugging Method ____
Date Well Plugged ____
Plugging approved by:
____
State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	15	15	TAN TO BROWN SANDY SOIL
15	95	80	GREY TO BLACK BASALT WITH FRACTURES
95	100	5	TAN TO RED LOOSE SAND
100	120	20	LOOSE GRAVELS WITH CLAYS (NO CIRCULATION)

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR. WD-1269

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is completed.

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING COMPANY OF CALIFORNIA Owner's Well No. 895
Street or Post Office Address P. O. BOX 98
City and State GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 3 ¼ 1 ¼ 4 ¼ ¼ of Section 29 Township 12 Range 10 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor B & B DRILLING CO., INC. License No. WD-1269

Address P.O. BOX 2666, GRAND JUNCTION CO 81502

Drilling Began 8-28-95 Completed 8-29-95 Type tools ROARTY Size of hole 8.5 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 101 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 74.78 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
90	97	7	HIGHLY FRACTURED BASALT	25 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5	SCH 40 PVC	GLUE	+2.0	101	103	GLUE ON CAP	61	101

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
55	101	8.5	GRAVEL PACK (12 CU-FT)		POURED
0	55	8.5	19-BENTONITE CHIPS	(12.6 CU-FT)	POURED

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad _____ FWL _____ FSL _____

File No. _____ Use _____ Location No. _____

Section 6. LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered 895
0	10	10	TAN SANDY SOIL
10	90	80	DARK BLUE TO BLACK BASALT
90	97	7	" " " " - HIGHLY FRACTURED
97	102	5	LOOSE TAN SAND
102	116	14	SAND, BOULDERS & GRAVELS (BLIND-- NO CIRCULATION)
116	120	4	CHINLE SHALE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR.

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING COMPANY OF CALIF. Owner's Well No. 896
Street or Post Office Address P. O. BOX 98
City and State GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 3 ¼ 3 ¼ 2 ¼ ¼ of Section 29 Township 12 Range 10 N.M.P.M.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. ____ of Block No. ____ of the ____
Subdivision, recorded in ____ County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor B & B DRILLING CO., INC. License No. WD-1269

Address P.O. BOX 2666, GRAND JUNCTION, CO 81502

Drilling Began 8-30-95 Completed 8-31-95 Type tools ROATRY Size of hole 8.5 in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 113 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well 71.97 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
92	98	6	HIGHLY FRACTURED BASALT	25 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5	SCH 40	PVC	+2.0	113	115	GLUE ON CAP	73	113

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
70	113	8.5	GRAVEL	11 CU-FT	POURED
0	70	8.5	24- BAGS BENTONITE	16 CU-FT	POURED

Section 5. PLUGGING RECORD

Plugging Contractor ____
Address ____
Plugging Method ____
Date Well Plugged ____
Plugging approved by:
____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad ____ FWL ____ FSL ____

File No. ____ Use ____ Location No. ____

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	3	3	TAN SANDY SOIL 896
3	92	89	DARK GREY TO BLACK BASALT
92	98	6	" " " " HIGHLY FRACTURED
98	104	6	LOOSE TAN SAND
104	117	13	SANDS, BOULDERS, GRAVELS (NO CIRCULATION)
117	120	3	CHINLE SHALE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR. WD-1269

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well HOMESTAKE MINING CO. OF CALIF. Owner's Well No. 899
Street or Post Office Address P. O. BOX 98
City and State GRANTS, NM 87020

Well was drilled under Permit No. B-28 and is located in the:

a. 3 ¼ 2 ¼ 2 ¼ ¼ of Section 29 Township 12 Range 10 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor B & B DRILLING CO., INC. License No. WD-1269

Address P.O. BOX 2666, GRAND JUNCTION, CO 81502

Drilling Began 9-9-95 Completed 9-10-95 Type tools ROTARY Size of hole 6.5 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 110 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well 91.01 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
80	86	6	VOID IN BASALT	25 EST

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
4	SCH 40	PVC	+2.0	110	112	GLUE ON CAP	70	110

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
65	110	6.5	13 SAND	8.5 CU-FT	POURED
0	65	6.5	12 BEN CHIPS	8 CU-FT	POURED

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad _____ FWL _____ FSL _____

File No. _____ Use _____ Location No. _____

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	TAN SANDY SOIL
2	101	99	GREY BASALT (VOID AT 80 TO 86)
101	110	9	TAN BLOW SAND
110	113	3	GRAVELS
113	120	7	RED CHINLE SHALE

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Driller

BRUCE G. JONES, JR. WD-1269

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

994

Section 1

		X	

(Plat of 640 acres)

(A) Owner of well (b) (6) [redacted]

Street and Number Box 142

City Grant State New Mexico

Well was drilled under Permit No. RCC and is located in the

(b) (6) [redacted]

(B) Drilling Contractor R. E. Carter License No. WD21

Street and Number Box 73

City Thoreau State New Mexico

Drilling was commenced June 11 19 58

Drilling was completed " 22 19 58

Elevation at top of casing in feet above sea level Unknown Total depth of well 144

State whether well is shallow or artesian Shallow Depth to water upon completion 7'

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	95'	116	21	Coarse buff. Colored Sand rock
2	116	139	23	Conglomerate
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
6"	13	Welded	+1'	116	117	None	95'	116

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

STATE ENGINEER, ALBUQUERQUE, N. M.
RECEIVED
JUL 3 1958
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Section 5 PLUGGING RECORD

Name of Plugging Contractor ..... License No. .....

Street and Number ..... City ..... State .....

Tons of Clay used ..... Tons of Roughage used ..... Type of roughage .....

Plugging method used ..... Date Plugged ..... 19 .....

Plugging approved by:

..... Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used
			None

FOR USE OF STATE ENGINEER ONLY

Date Received .....

File No. B-88 Use dom Location (b) (6) [redacted]

12.10.32 217

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	8	8	Red	Soil some loose Malpie Rock
8	82	74	Grey	Lava
74	95'	13	Red	Clay + Gravel
95'	116	21	Buff	Sand Rock
116	139	23	Red	Conglomerate
139	144	5'	Red	Shale

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

D. E. Carter
Well Driller

Garner Drilling Co.
Box 3146
Milan, N.M. 87021

To:
Homestake Mining Co. of Ca.
Box 98
Grants, N.M. 87020

Hole # 890 Drilled 8/22-24/1995

0	6	sand
6	88	Basalt Fracs. 74-88 ft. lost air.
88	93	black sand & gravel
93	104	red shale

T.D. 104 ft. set 4½ PVC casing 0-101 ft. Per. 81-101 ft.
8 in steel casing set 0-8 ft. 1 ½ yards 3/8 pea gravel.
4000 gal. water, 5 sks. Lo-Loss. Dev. time 2 hrs. 25 + gpm
Drill Rig Time 22 hrs. at $ 130.00 per hr.

Hole # 894 Drilled 8/24-26/1995

0	15	tan shale
15	50	gray Basalt
50	65	Red frac. Basalt
65	70	gray Basalt
70	90	Red frac. Basalt & boulders
90	97	sand, hole closing over at 78 ft. lost air at 73 ft.

T.D. 97 ft. Set 4 ½ PVC casing 0-78 ft. Per 58-78 ft.
8 in. casing set 0-17 ft.3/8 pea gravel pack well making 25 gpm.
Drill Rig Time 19 hrs at $ 130.00 per hr.

Hole # 893 Drilled 8/26-29/1995

0	14	tan sandy shale
14	87	Basalt
87	93	sand,gravel & boulders
93	99	red shale

T.D. 99 ft. 4 ½ PVC casing set 0-98 ft. Per 78-98 ft.
8 in. casing set 0-17 ft. 3/8 pea gravel pack.Dev. time 1½ hrs. 20 + gpm.
Drill Rig Time 17 hrs at $ 130.00 per hr.

Hole # MU Drilled 8/29-30/1995

0	65	tan sandy shale
65	72	purple shale & gravel lenses
72	80	purple shale

T.D. 80 ft. 5 in PVC casing set 0-80 ft. Per 50-80 ft.20 sks. sand. 3 sks. chips.
Rig Time 1 hr. Dev. time 2 hrs. 1 ½ gpm.

Hole # S-11 Drilled 8/30-9/5/1995

0	65	tan sandy shale
65	70	gravel & purple shale
70	78	purple shale

T.D. 78 ft. 5 in PVC casing set 0-78 ft. Per. 48-78 ft. 17 sks. sand.3 sks. chips.
Rig Time 1 hr. Dev. Time 2 hrs. Trickle of water.

12 N 10W
SEC 33

Garner Drilling Co.
Box 3146
Milan, N.M. 87021

To:
Homestake Mining Co of Ca.
Box 98
Grants, N.M. 87020

Hole # 648 Drilled 12/17-30/1996

0	9	tan sandy clay
9	87	basalt & fracs.
87	89	cavity
89	92	frac. basalt
92	120	boulders, gravel & brown sand.

Lost air, no circu. return. 5 lds. water, 6 sks. Lo-Loss. Hole caving.
T.D. 120 ft. Set 8 in. steel casing 0-14 ft.
Set 4 ½ PVC casing 0-120 ft. Per. 80-120 ft. 20 sks sand. 1 sk. chips.
Rig Time 4 hrs. Dev. Time 3 hrs. Hole making fine br. sand. 50 gpm.
Hole dev. clear at 103 ft. Making 15 gpm at 103 ft.

Hole # 647 Drilled 12/31/96 thru 1/2/1997

0	12	tan sandy clay
12	94	frac. basalt
94	95	frac. basalt & tan clay. Making 4 gpm
95	107	frac. basalt
107	120	gravel & sand
120	132	brown sand
132	140	red shale

T.D. 140 ft. Set 8 in. steel casing 0-16 ft.
Set 4 ½ PVC sch 40 casing 0- 140 ft. Per. 80-140 ft. Cap on bottom of casing.
25 sks. sand. 6 sks. chips.
Rig Time 3 hrs. Dev. Time 3 hrs. 70-80 gpm.

12 N 10W
SEC 33

Garner Drilling Co.
Box 3146
Milan, N.M. 87021

To:
Homestake Mining Co of Ca.
Box 98
Grants, N.M. 87020

Hole # 648 Drilled 12/17-30/1996

0	9	tan sandy clay
9	87	basalt & fracs.
87	89	cavity
89	92	frac. basalt
92	120	boulders, gravel & brown sand.

Lost air, no circu. return. 5 lds. water, 6 sks. Lo-Loss. Hole caving.
T.D. 120 ft. Set 8 in. steel casing 0-14 ft.
Set 4 ½ PVC casing 0-120 ft. Per. 80-120 ft. 20 sks sand. 1 sk. chips.
Rig Time 4 hrs. Dev. Time 3 hrs. Hole making fine br. sand. 50 gpm.
Hole dev. clear at 103 ft. Making 15 gpm at 103 ft.

Hole # 647 Drilled 12/31/95 thru 1/2/1997

0	12	tan sandy clay
12	94	frac. basalt
94	95	frac. basalt & tan clay. Making 4 gpm
95	107	frac. basalt
107	120	gravel & sand
120	132	brown sand
132	140	red shale

T.D. 140 ft. Set 8 in. steel casing 0-16 ft.
Set 4 ½ PVC sch 40 casing 0- 140 ft. Per. 80-140 ft. Cap on bottom of casing.
25 sks. sand. 6 sks. chips.
Rig Time 3 hrs. Dev. Time 3 hrs. 70-80 gpm.

12 N DW SEC 33

Garner Drilling Co.
Box 3146
Milan, N.M. 87021

To:
Homestake Mining Co. of Ca.
Box 98
Grants, N.M. 87020

Hole # 649 Drilled 1/3-10/1997

0	19	tan sandy clay
19	22	basalt boulders
22	92	gray & brown basalt with fracs.
92	105	sand, gravel & boulders
105	115	tan sand & gravel
115	124	gray & purple shale

T.D. 124 ft. Set 8 in. steel csaing 0-24 ft.
Set 4½ sch. 40 PVC casing 0-124 ft. Per. 84-124 ft.
4 lds. water. 5 sks. Lo-Loss. 7 sks. sand. ½ yd. pea gravel 1 sk. chips.
Rig Time 3 hrs. Dev. Time 3 hrs, 30-40 gpm.

TOTAL P.03

Garner Drilling Co.
Box 3146
Milan, N.M. 87021

To:
Homestake Mining Co. of Ca.
Box 98
Grants, N.M. 87020

12N 10W

Hole # 650 Drilled 1/20-22/1997

0	10	tan clay
10	14	sand & gravel
14	27	tan clay
27	30	basalt boulders
30	37	basalt
37	41	frac. boulders
41	47	brown sand & fine gravel
47	95	tan sandy clay
95	105	purple shale with tan sandstone lenses
105	155	red shale

Logged hole. Boulder moving at 38-39 ft. Had to reclean out hole to log.
Set 8 in steel casing 0-32 ft. Ream 7 7/8 hole to 42 ft.
Reamed 6 ½ in hole 42-109 ft. 5 in. hole from 109 ft. to 155 ft.
Set 4 ½ in. PVC sch. 40 0-109 ft. Per. 89-109 ft.
7 sks. sand. ¼ yd. 3/8 pea gravel. 2 sks. chips.
Rig Time 5 hrs. Dev. Time 3 hrs. 8-10 gpm.

Garner Drilling Co.
Box 3146
Milan, N.M. 87021

To:
Homestake Mining Co. of Ca.
Box 98
Grants, N.M. 87020

Hole # 656 Drilled 4/14-15/1999

12N 10W

0	5	Tan clay
5	70	Basalt & fracs.
70	72	Frac & cavity lost part air
72	78	Basalt
78	84	Brown sand
84	86	Boulders
86	88	Sandy clay ½ circu.

88 - QAL

Set surface 8 in. steel casing 0-6 ft
Injection Well. No well casing set.
5 lds. water 3 sks. Lo-Loss. 1 drill Pit.
Rig Time 2 hrs. Total footage 88 ft.

Hole # 654 Drilled 4/16-22/1999

0	8	Tan sandy clay
8	22	Basalt
22	29	fracs. & red cinders. lost some air
29	72	Basalt & fracs.
72	74	Fracs & cavity 2 gpm
74	85	Black basalt
85	93	Fracs . 3 + gpm
93	96	Broken basalt boulders, rocks & sand
96	98	Brown sand & rocks
98	106	Sand, rocks, hole caving. no circu.
106	120	Purple & red shale

106 - QAL

Set 8 in. surface steel casing 0-10 ft.
Set 4½ in PVC casing 0-120 ft. Per. 60-120 ft. Cap on bottom.
13 lds. water. 7 sks. Lo-Loss 8 sks. sand, ½ yd. pea gravel.
Rig Time 4 hrs. Dev. Time 4 hrs. 6-8 gpm
Total footage 120 ft. 1 drill pit

Hole # ~~653~~ 655 SEC 28 Drilled 4/23-27/1999

0	18	Tan sand & clay
18	32	Boulders & basalt
32	44	Tan clay, red cinders & basalt fracs.
44	78	Basalt & fracs.
78	82	Fracs. Lost air
82	84	Basalt
84	88	fracs & boulders & rocks Hole closing over at 84 ft.
88	96	Red shale

88-QAL

Set 8 in. steel surface casing 0-21 ft. No well casing set.
8 lds. water. 6 sks. Lo-Loss. No circu.
Rig Time 4 hrs.
Total footage 96 ft. 1 drill pit

Garner Drilling Co.
Box 3146
Milan, N.M. 87021

12 N 10W

To:
Homestake Mining Co. of Ca.
Box 98
Grants, N.M. 87020

Hole # 657 Drilled 3/17-24/1999

0	12	Tan clay
12	13	Basalt boulders
13	92	Basalt & fracs.
92	102	Sand & gravel
102	108	Boulders & gravel. Lost circu.
108	120	Large gravel, sand & clay
120	122	Red shale
122	135	Gray shale Hole caving in.

120-Qrt

Set 12 in. steel casing & cemented casing in from 0-14.5 ft.
Set 6 in. PVC casing + 2-87 ft.
Set 6 in.PVC Per. casing 87- 107 ft.
Set 6 in. stainless steel casing Per. 107- 128 ft. Cap on bottom

8 lds. water. 7 sks. Lo-Loss. 3 sks. cement. 2 yds. gravel.

Rig Time 5 hrs. Dev. Time 4 Hrs. 75 + gpm
Total footage 135 ft.

Hole # 658 Drilled 3/24-31/1999

0	9	Tan sand
9	11	Boulders & basalt
11	55	Gray frac. basalt
55	68	frac. red basalt
68	102	Frac. gray basalt Lost all air at 87 ft.
102	108	Cav. & sand
108	116	Gravel & boulders. falling in.
116	120	Clay
120	126	Fine tan sand
126	129	Sand & boulders
129	138	Gray shale Hole caving in. No circu.

129 Qrt

Set 12 in. steel casing & cemented casing in from 0-11 ft.
Set 6 in. PVC casing + 2- 89 ft.
Set 6 in. PVC PER. casing 89-109 ft
Set 6 in. stainless steel casing 109-130 ft. Cap on bottom.
11 lds: water: 10 sks. Lo-Loss. 5 sks. cement. 2 yds. gravel.

Rig Time 6 hrs. Dev. Time 4 hrs. 70 + gpm. Making fine tan sand.

Total footage 138 ft.

129-30 = 99

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells.

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0531	9/1/1995	ENER	195.00	55.0	6.60	210	305	< 0.100	108	719	1524	* 2130	1.02
	12/12/1995	ENER	195.00	55.2	6.93	221	315	< 0.100	107	746	1560	* 2197	1.01
	3/8/1996	ENER	206.00	58.7	6.70	204	322	< 0.100	124	804	1570	* 2456	0.947
	10/30/1996	ENER	214.00	59.5	6.80	214	333	< 0.100	124	788	1630	* 2469	0.988
	9/8/1997	ENER	—	—	—	—	—	—	—	740	1650	* 2163	—
	9/25/1998	ENER	—	—	—	—	—	—	—	755	1720	* 2215	—
	9/30/1999	ENER	—	—	—	—	—	—	—	781	1810	* 2434	—
	9/7/2000	ENER	—	—	—	—	—	—	—	737	1830	* 2927	—
	9/25/2001	ENER	—	—	—	—	—	—	—	670	1840	* 2979	—
	10/2/2002	ENER	—	—	—	—	—	—	—	821	1780	* 2923	—
	9/18/2003	ENER	—	—	—	—	—	—	170	802	1790	* 2384	—
	5/6/2004	ENER	—	—	—	—	—	—	142	670	1580	* 2154	—
	10/5/2004	ENER	—	—	—	—	—	—	—	614	1530	* 2014	—
	11/15/2005	ENER	—	—	—	—	—	—	105	566	1410	* 1923	—
	10/4/2006	ENER	—	—	—	—	—	—	118	685	1560	* 2234	—
	10/2/2007	ENER	—	—	—	—	—	—	158	776	1760	* 2353	—
	12/17/2007	ENER	—	—	—	—	—	—	144	738	1770	* 2332	—
	11/24/2008	ENER	—	—	—	—	—	—	129	719	1720	* 2284	—
	10/20/2009	ENER	—	—	—	—	—	—	158	785	1830	* 2351	—
	10/13/2010	ENER	—	—	—	—	—	—	119	581	1400	* 1981	—
	11/15/2011	ENER	—	—	—	—	—	—	141	759	1660	* 2299	—
	10/19/2012	ENER	—	—	—	—	—	—	164	645	1590	* 2187	—
0541	2/9/2004	ENER	174.00	48.5	6.50	118	379	< 1.000	84.0	462	1140	* 1530	0.986
	4/23/2004	HMC	—	—	—	—	—	—	—	—	—	1920	—
	9/13/2004	ENER	—	—	—	—	—	—	129	614	1360	* 1775	—
	9/26/2005	ENER	—	—	—	—	—	—	101	584	1410	* 1927	—
	8/30/2006	ENER	—	—	—	—	—	—	92.0	598	1340	* 1860	—
	8/22/2007	ENER	—	—	—	—	—	—	101	555	1400	* 1814	—
	10/2/2008	ENER	—	—	—	—	—	—	95.0	554	1320	* 1802	—

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0541	7/21/2009	ENER	—	—	—	—	—	—	96.0	549	1390	* 1820	—
	4/20/2010	ENER	—	—	—	—	—	—	117	655	1570	* 2085	—
	6/15/2010	ENER	—	—	—	—	—	—	117	657	1590	* 2101	—
	10/27/2010	ENER	—	—	—	—	—	—	103	592	1470	* 1970	—
	9/20/2012	ENER	—	—	—	—	—	—	131	640	1500	* 1634	—
	8/8/2013	HMC	13.00	—	—	—	—	—	—	—	—	—	—
	8/8/2013	ENER	—	—	—	—	—	—	156	628	1620	* 2201	—
0551	6/1/2009	ENER	229.00	54.7	5.00	219	366	< 1.000	157	778	1730	* 2278	0.960
	10/8/2009	ENER	—	—	—	—	—	—	234	891	2060	* 2680	—
	11/9/2009	ENER	—	—	—	—	—	—	202	830	1860	* 2563	—
	3/25/2010	ENER	—	—	—	—	—	—	151	732	1700	* 2142	—
	6/28/2010	ENER	261.00	57.8	5.40	247	355	< 5.00	172	816	1840	* 2192	1.03
	9/14/2010	ENER	264.00	57.9	5.20	242	398	< 5.00	184	875	1350	* 2462	0.950
	2/10/2011	ENER	—	—	—	—	—	—	185	894	1940	* 2546	—
	5/11/2011	ENER	272.00	58.2	5.60	262	357	< 5.00	182	876	1860	* 2462	1.02
	8/9/2011	ENER	—	—	—	—	—	—	180	910	1890	* 2518	—
	3/9/2012	ENER	278.00	60.3	5.50	268	363	< 5.00	181	904	2010	* 2540	1.02
	8/1/2012	ENER	—	—	—	—	—	—	196	973	1920	* 2584	—
	2/6/2013	HMC	263.00	56.3	4.80	242	400	< 5.00	184	897	1990	2595	0.929
	8/8/2013	ENER	—	—	—	—	—	—	186	910	2150	* 3541	—
	2/13/2014	ENER	310.00	66.4	5.70	265	403	< 5.00	210	962	2130	2774	0.996
	8/27/2014	ENER	—	—	—	—	—	—	230	976	2170	2766	—
0553	6/1/2009	ENER	134.00	35.2	4.60	204	332	< 1.000	46.0	539	1150	* 1581	1.03
	10/8/2009	ENER	—	—	—	—	—	—	58.0	493	1130	* 1535	—
	11/9/2009	ENER	—	—	—	—	—	—	60.0	482	1070	* 1608	—
	3/25/2010	ENER	—	—	—	—	—	—	63.0	464	1100	* 1640	—
	6/28/2010	ENER	141.00	33.7	4.40	218	346	< 5.00	74.0	519	1190	* 1729	1.04
	9/14/2010	ENER	143.00	34.1	4.20	214	385	< 5.00	77.0	533	1320	* 1772	0.980

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0553	2/11/2011	ENER	—	—	—	—	—	—	85.0	553	1210	* 1780	—
	5/11/2011	ENER	164.00	37.9	4.70	225	352	5.00	97.0	589	1290	* 1853	1.01
	8/9/2011	ENER	—	—	—	—	—	—	98.0	609	1350	* 1880	—
	3/9/2012	ENER	175.00	41.5	4.90	226	343	< 5.00	98.0	607	1440	* 1951	1.04
	8/1/2012	ENER	—	—	—	—	—	—	121	722	1550	* 2085	—
	2/6/2013	HMC	194.00	45.9	4.40	207	358	< 5.00	116	698	1550	2105	0.947
	8/8/2013	ENER	—	—	—	—	—	—	115	683	1610	* 2710	—
	2/13/2014	ENER	227.00	54.6	5.10	225	354	< 5.00	133	771	1660	* 2253	0.999
	8/26/2014	ENER	—	—	—	—	—	—	142	797	1690	2245	—
0554	6/2/2009	ENER	213.00	52.1	5.20	202	321	< 1.000	101	673	1450	* 1805	1.08
	10/9/2009	ENER	—	—	—	—	—	—	90.0	677	1370	* 1818	—
	11/9/2009	ENER	—	—	—	—	—	—	71.0	660	1240	* 1759	—
	3/25/2010	ENER	—	—	—	—	—	—	81.0	618	1400	* 1855	—
	9/14/2010	ENER	186.00	43.9	4.70	179	304	< 5.00	87.0	682	1320	* 1872	0.954
	2/9/2011	ENER	—	—	—	—	—	—	91.0	665	1350	* 1844	—
	5/11/2011	ENER	186.00	43.3	5.20	192	281	< 5.00	96.0	669	1340	* 1823	0.996
	8/9/2011	ENER	—	—	—	—	—	—	102	682	1390	* 1855	—
	3/9/2012	ENER	200.00	46.8	5.10	204	294	< 5.00	118	703	1490	* 1988	0.995
	8/1/2012	ENER	—	—	—	—	—	—	132	743	1450	* 2023	—
	2/6/2013	HMC	208.00	48.8	4.80	187	305	< 5.00	133	722	1580	2104	0.946
	8/8/2013	ENER	—	—	—	—	—	—	143	751	1690	* 2748	—
	2/13/2014	ENER	233.00	55.3	5.80	209	318	< 5.00	145	760	1680	2261	1.00
0647	1/10/1997	ENER	196.00	50.6	6.30	192	346	0	111	640	1470	* 2003	1.01
	3/4/1997	ENER	209.00	55.5	6.90	214	382	0	137	740	1700	* 2443	0.959
	4/17/1997	ENER	—	—	—	—	—	—	—	788	1710	* 2520	—
	7/9/1997	ENER	242.00	60.0	7.40	226	378	< 0.100	175	820	1790	* 2456	0.958
	1/21/1998	ENER	—	—	—	—	—	—	—	689	1480	* 1989	—

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0647	7/21/1998	ENER	214.00	56.2	6.90	219	376	< 1.000	126	727	1820	* 2239	1.00
	12/17/1998	ENER	214.00	56.8	6.80	207	380	< 1.000	126	707	1700	* 2771	1.000
	7/21/1999	ENER	—	—	—	—	—	—	116	662	1510	* 2544	—
	3/7/2000	ENER	—	—	—	—	—	—	—	635	1430	* 2456	—
	9/6/2000	ENER	—	—	—	—	—	—	—	612	1470	* 2380	—
	8/12/2002	ENER	—	—	—	—	—	—	—	642	1460	* 2426	—
	8/21/2003	ENER	—	—	—	—	—	—	104	645	1370	* 1803	—
	4/23/2004	HMC	—	—	—	—	—	—	—	—	—	2010	—
	8/19/2004	ENER	—	—	—	—	—	—	96.0	611	1330	* 1784	—
	8/10/2005	ENER	—	—	—	—	—	—	92.0	541	1290	* 1771	—
	10/4/2006	ENER	—	—	—	—	—	—	100.0	558	1380	* 1982	—
	8/22/2007	ENER	—	—	—	—	—	—	83.0	562	1300	* 1759	—
	10/2/2008	ENER	—	—	—	—	—	—	85.0	557	1230	* 1672	—
	7/21/2009	ENER	—	—	—	—	—	—	98.0	566	1390	* 1810	—
	11/6/2009	ENER	—	—	—	—	—	—	130	676	1510	* 2076	—
	6/15/2010	ENER	—	—	—	—	—	—	136	713	1650	* 2217	—
	8/28/2010	ENER	—	—	—	—	—	—	128	665	1780	* 2160	—
	10/30/2010	ENER	—	—	—	—	—	—	139	736	1670	* 2219	—
	2/9/2011	ENER	—	—	—	—	—	—	137	738	1630	* 2224	—
	5/11/2011	ENER	237.00	58.6	6.20	229	397	< 5.00	145	757	1640	* 2268	1.01
	8/16/2011	ENER	—	—	—	—	—	—	145	774	1610	* 2258	—
	9/20/2012	ENER	—	—	—	—	—	—	140	728	1700	* 1798	—
	2/6/2013	HMC	215.00	55.4	5.50	210	414	< 5.00	143	733	1730	2280	0.936
	8/8/2013	ENER	—	—	—	—	—	—	129	660	1670	* 2786	—
	8/27/2014	ENER	—	—	—	—	—	—	142	654	1550	2100	—
0648	1/10/1997	ENER	170.00	42.7	6.00	172	328	0	72.3	564	1270	* 1854	1.02
	3/4/1997	ENER	158.00	40.4	5.40	162	322	0	72.7	564	1290	* 1947	0.964
	4/17/1997	ENER	—	—	—	—	—	—	—	618	1300	* 2003	—
	7/9/1997	ENER	193.00	46.0	5.80	174	312	< 0.100	104	649	1390	* 1939	0.980

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> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0648	11/24/1997	ENER	—	—	—	—	—	—	—	634	1360	* 1833	—
	1/21/1998	ENER	—	—	—	—	—	—	—	647	1360	* 1848	—
	7/21/1998	ENER	157.00	40.2	5.60	159	395	< 1.000	68.1	456	1280	* 1644	1.02
	12/17/1998	ENER	170.00	42.8	5.50	167	312	< 1.000	77.6	589	1310	* 2140	0.990
	7/21/1999	ENER	—	—	—	—	—	—	61.8	421	1030	* 1836	—
	10/28/1999	ENER	—	—	—	—	—	—	—	487	1110	—	—
	1/24/2000	ENER	—	—	—	—	—	—	—	554	1250	* 1680	—
	9/6/2000	ENER	—	—	—	—	—	—	—	538	1270	* 1956	—
	5/4/2001	ENER	—	—	—	—	—	—	—	523	1290	* 2268	—
	5/4/2001	ENER	—	—	—	—	—	—	—	# 520	# 1310	—	—
	8/15/2001	ENER	—	—	—	—	—	—	—	570	1330	* 2202	—
	5/8/2002	ENER	—	—	—	—	—	—	—	587	1210	* 2099	—
	8/12/2002	ENER	—	—	—	—	—	—	—	526	1200	* 2022	—
	5/27/2003	ENER	—	—	—	—	—	—	59.4	516	1170	* 2013	—
	8/21/2003	ENER	—	—	—	—	—	—	62.5	526	1120	* 1541	—
	4/23/2004	HMC	—	—	—	—	—	—	—	—	—	1600	—
	5/13/2004	ENER	141.00	33.4	5.00	168	329	< 1.000	69.6	540	1160	* 1580	0.924
	8/19/2004	ENER	—	—	—	—	—	—	—	510	1110	* 1532	—
	3/23/2005	ENER	156.00	39.6	5.80	179	324	< 1.000	72.0	523	1180	* 1656	1.04
	8/10/2005	ENER	—	—	—	—	—	—	—	465	1110	* 1560	—
	10/4/2006	ENER	—	—	—	—	—	—	—	538	1200	* 1712	—
	5/1/2007	ENER	161.00	38.9	4.60	182	320	< 1.000	77.0	558	1270	* 1692	1.01
	8/22/2007	ENER	—	—	—	—	—	—	—	578	1300	* 1826	—
	4/10/2008	ENER	181.00	44.4	5.00	202	369	< 1.000	78.0	622	1250	* 1784	1.02
0649	1/16/1997	ENER	164.00	39.2	4.60	172	344	0	62.0	631	1370	* 1854	0.926
	3/4/1997	ENER	161.00	39.1	4.50	171	359	0	59.3	567	1300	* 2225	0.971
	4/17/1997	ENER	—	—	—	—	—	—	—	601	1240	* 1809	—
	7/9/1997	ENER	172.00	39.3	4.40	170	285	< 0.100	67.8	632	1270	* 1809	0.979
	1/21/1998	ENER	—	—	—	—	—	—	—	627	1260	* 1683	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0649	1/21/1998	ENER	—	—	—	—	—	—	—	# 616	# 1250	—	—
	7/21/1998	ENER	155.00	37.3	4.30	176	287	< 1.000	51.1	581	1330	* 1611	1.02
	12/17/1998	ENER	148.00	35.5	4.10	164	294	< 1.000	49.5	543	1230	* 1976	0.999
	7/21/1999	ACZ	—	—	—	—	—	—	—	# 540	# 1220	—	—
	7/21/1999	ENER	—	—	—	—	—	—	—	554	1180	* 1966	—
	7/21/1999	ENER	—	—	—	—	—	—	—	# 577	# 1190	* 1966	—
	10/28/1999	ENER	—	—	—	—	—	—	—	559	1150	—	—
	9/6/2000	ENER	—	—	—	—	—	—	—	606	1400	* 2210	—
	8/15/2001	ENER	—	—	—	—	—	—	—	470	1100	* 1871	—
	8/15/2001	ENER	—	—	—	—	—	—	—	# 470	# 1120	—	—
	8/12/2002	ENER	—	—	—	—	—	—	—	459	1090	* 1864	—
	8/21/2003	ENER	—	—	—	—	—	—	49.7	477	1050	* 1430	—
	4/23/2004	HMC	—	—	—	—	—	—	—	—	—	1510	—
	8/19/2004	ENER	126.00	30.3	4.40	164	343	< 1.000	54.0	477	1010	* 1439	0.937
	3/28/2005	ENER	—	—	—	—	—	—	—	691	1660	* 2330	—
	8/10/2005	ENER	131.00	31.6	3.70	176	320	< 1.000	47.0	441	1060	* 1500	1.07
	10/4/2006	ENER	154.00	39.0	4.50	177	320	< 1.000	71.0	509	1240	* 1768	1.05
	5/1/2007	ENER	—	—	—	—	—	—	—	534	1210	* 1672	—
	8/22/2007	ENER	153.00	38.0	4.70	199	342	< 1.000	80.0	524	1300	* 1709	1.04
	10/22/2007	ENER	164.00	44.1	5.10	208	391	< 1.000	93.0	564	1250	* 1837	1.01
	4/10/2008	ENER	—	—	—	—	—	—	—	656	1210	* 1708	—
	6/3/2008	ENER	—	—	—	—	—	—	—	610	1210	* 1740	—
	10/2/2008	ENER	168.00	42.6	4.50	192	317	< 1.000	92.0	583	1300	* 1781	1.02
	5/6/2009	ENER	—	—	—	—	—	—	—	606	1310	* 1832	—
	6/16/2009	ENER	—	—	—	—	—	—	—	646	1350	* 1874	—
	11/13/2009	ENER	194.00	44.6	4.60	200	334	< 1.000	117	667	1420	* 2004	0.977
	4/20/2010	ENER	—	—	—	—	—	—	94.0	686	1470	* 1955	—
	6/28/2010	ENER	—	—	—	—	—	—	—	697	1450	* 2001	—
	8/28/2010	ENER	252.00	59.5	5.10	193	348	< 5.00	136	784	1730	* 2220	0.999

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0649	2/9/2011	ENER	—	—	—	—	—	—	106	689	1440	* 1968	—
	4/18/2011	ENER	—	—	—	—	—	—	—	706	1470	* 1936	—
	5/11/2011	ENER	196.00	45.5	5.00	211	305	6.00	114	696	1460	* 1912	0.997
	6/13/2011	ENER	—	—	—	—	—	—	—	698	1470	* 2012	—
	8/16/2011	ENER	205.00	46.8	4.90	219	315	< 5.00	121	725	1450	* 1966	0.996
	3/13/2012	ENER	213.00	47.8	5.10	215	321	< 5.00	122	700	1560	* 2115	1.03
	5/9/2012	ENER	—	—	—	—	—	—	—	713	1610	* 2118	—
	7/9/2012	ENER	—	—	—	—	—	—	—	678	1540	* 2144	—
	8/1/2012	ENER	—	—	—	—	—	—	129	727	1570	* 2150	—
	9/20/2012	ENER	—	—	—	—	—	—	102	676	1440	* 1550	—
	2/6/2013	HMC	214.00	49.6	5.00	207	333	< 5.00	132	728	1580	2128	0.975
	3/6/2013	ENER	—	—	—	—	—	—	—	725	1570	* 2155	—
	8/15/2013	ENER	—	—	—	—	—	—	141	765	1680	* 2816	—
	4/1/2014	ENER	—	—	—	—	—	—	—	813	1850	2433	—
0650	2/7/1997	ENER	155.00	42.0	4.30	260	350	0	57.5	700	1440	* 1939	1.03
	4/23/1997	ENER	149.00	40.0	3.90	257	349	0	56.0	717	1457	* 2133	0.990
	10/20/1997	ENER	—	—	—	—	—	—	—	665	1450	* 1962	—
	4/14/1998	ENER	145.00	39.0	4.00	249	351	< 1.000	51.0	697	1450	* 1966	0.983
	11/8/2004	ENER	—	—	—	—	—	—	—	601	1380	* 1889	—
	8/10/2005	ENER	—	—	—	—	—	—	55.0	603	1340	* 1855	—
	11/14/2006	ENER	—	—	—	—	—	—	65.0	609	1350	* 1966	—
	8/30/2007	ENER	—	—	—	—	—	—	61.0	604	1350	* 1784	—
	8/19/2009	ENER	—	—	—	—	—	—	61.0	664	1430	* 1970	—
	9/14/2010	ENER	—	—	—	—	—	—	91.0	899	1780	* 2371	—
	2/18/2011	ENER	—	—	—	—	—	—	103	862	1700	* 2353	—
	6/8/2011	ENER	178.00	46.3	4.30	289	321	< 5.00	109	860	1740	* 2343	0.961
	8/9/2011	ENER	—	—	—	—	—	—	112	872	1710	* 2332	—
	3/13/2012	ENER	176.00	46.9	4.60	323	314	< 5.00	105	808	1720	* 2321	1.07
	8/27/2012	ENER	—	—	—	—	—	—	105	810	1680	* 2318	—

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0650	10/19/2012	ENER	—	—	—	—	—	—	108	820	1700	* 2318	—
	2/6/2013	HMC	173.00	46.6	4.30	303	336	< 5.00	105	823	1720	2319	0.999
	8/15/2013	ENER	—	—	—	—	—	—	109	833	1750	* 2976	—
	2/25/2014	ENER	189.00	52.5	4.40	315	357	< 5.00	111	838	1760	2388	1.04
	9/3/2014	ENER	—	—	—	—	—	—	121	884	1820	2422	—
0654	8/4/1999	ENER	247.00	67.3	9.30	281	505	< 1.000	187	799	2130	* 3396	1.00
	9/28/1999	ENER	265.00	69.8	8.70	284	509	< 1.000	179	871	2090	—	0.999
	9/7/2000	ENER	—	—	—	—	—	—	—	841	2120	* 3387	—
	9/18/2001	ENER	—	—	—	—	—	—	—	787	2110	* 3365	—
	9/18/2001	ENER	—	—	—	—	—	—	—	# 837	# 2100	—	—
	10/10/2002	ENER	—	—	—	—	—	—	—	887	2250	* 3551	—
	1/5/2004	ENER	—	—	—	—	—	—	168	806	1840	* 2425	—
	5/6/2004	ENER	—	—	—	—	—	—	179	933	2110	* 2672	—
	10/4/2004	ENER	—	—	—	—	—	—	70.0	365	991	* 1378	—
	11/15/2005	ENER	—	—	—	—	—	—	91.0	528	1280	* 1822	—
	3/2/2006	ENER	—	—	—	—	—	—	95.0	528	1270	* 1797	—
	10/3/2006	ENER	—	—	—	—	—	—	66.0	363	1040	* 1574	—
	10/23/2007	ENER	—	—	—	—	—	—	83.0	463	1150	* 1620	—
	6/2/2008	ENER	—	—	—	—	—	—	74.0	526	1140	* 1621	—
	6/22/2009	ENER	—	—	—	—	—	—	77.0	438	1070	* 1615	—
	4/30/2010	ENER	—	—	—	—	—	—	119	651	1460	* 2049	—
	6/1/2011	ENER	—	—	—	—	—	—	109	614	1430	* 1991	—
	10/19/2012	ENER	—	—	—	—	—	—	160	628	1610	* 2205	—
0657	8/5/1999	ENER	180.00	48.2	6.70	164	326	< 1.000	91.3	550	1350	* 2239	1.04
	10/28/1999	ENER	—	—	—	—	—	—	—	640	1420	—	—
	9/6/2000	ENER	—	—	—	—	—	—	—	635	1490	* 1951	—
	5/4/2001	ENER	—	—	—	—	—	—	—	614	1590	—	—
	9/17/2001	ENER	—	—	—	—	—	—	—	597	1540	* 2503	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0657	5/8/2002	ENER	—	—	—	—	—	—	—	701	1550	* 2582	—
	10/2/2002	ENER	—	—	—	—	—	—	—	663	1530	* 2562	—
	5/27/2003	ENER	—	—	—	—	—	—	179	839	1910	* 2597	—
	9/18/2003	ENER	—	—	—	—	—	—	145	723	1590	* 2098	—
	4/23/2004	HMC	—	—	—	—	—	—	—	—	—	2160	—
	5/13/2004	ENER	—	—	—	—	—	—	—	700	1640	* 2147	—
	9/14/2004	ENER	—	—	—	—	—	—	—	595	1430	* 1914	—
	5/9/2005	ENER	—	—	—	—	—	—	—	695	1560	* 2131	—
	9/26/2005	ENER	—	—	—	—	—	—	—	571	1410	* 1941	—
	8/30/2006	ENER	—	—	—	—	—	—	—	691	1560	—	—
	5/1/2007	ENER	—	—	—	—	—	—	—	655	1560	* 2093	—
	8/22/2007	ENER	—	—	—	—	—	—	—	628	1600	* 2144	—
	10/22/2007	ENER	—	—	—	—	—	—	—	637	1500	* 2066	—
	4/10/2008	ENER	—	—	—	—	—	—	—	675	1490	* 2063	—
	5/6/2009	ENER	—	—	—	—	—	—	—	690	1580	* 2044	—
	9/16/2009	ENER	—	—	—	—	—	—	—	733	1610	* 2228	—
	9/16/2009	EPA6	# 224.00	# 59.2	# 6.06	# 214	—	—	# 132	# 733	# 1610	* 2228	—
	9/16/2009	EPA6	# 224.00	# 59.2	# 6.06	# 214	—	—	# 132	# 751	# 1520	—	—
	11/6/2009	ENER	—	—	—	—	—	—	144	736	1580	* 2257	—
	4/21/2010	ENER	—	—	—	—	—	—	138	733	1700	* 2267	—
	8/28/2010	ENER	—	—	—	—	—	—	135	720	1690	* 2200	—
	5/11/2011	ENER	—	—	—	—	—	—	—	744	1650	* 2269	—
	5/9/2012	ENER	—	—	—	—	—	—	—	727	1740	* 2285	—
	5/13/2013	ENER	—	—	—	—	—	—	—	675	1610	* 2162	—
	8/8/2013	ENER	—	—	—	—	—	—	—	638	1590	* 2712	—
0658	4/13/1999	ENER	183.00	41.6	4.80	167	323	< 1.000	69.5	604	1340	—	1.00
	10/28/1999	ENER	—	—	—	—	—	—	—	650	1280	—	—
	9/2/2000	ENER	—	—	—	—	—	—	—	597	1310	* 2175	—
	9/17/2001	ENER	—	—	—	—	—	—	—	543	1310	* 2172	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0658	10/2/2002	ENER	—	—	—	—	—	—	—	624	1300	* 2127	—
	9/18/2003	ENER	—	—	—	—	—	—	63.0	617	1250	* 1644	—
	4/23/2004	HMC	—	—	—	—	—	—	—	—	—	1740	—
	9/14/2004	ENER	—	—	—	—	—	—	74.0	616	1240	* 1668	—
	9/26/2005	ENER	—	—	—	—	—	—	60.0	554	1180	* 1637	—
	10/4/2006	ENER	—	—	—	—	—	—	72.0	527	1270	* 1844	—
	8/22/2007	ENER	—	—	—	—	—	—	92.0	574	1400	* 1881	—
	6/3/2008	ENER	—	—	—	—	—	—	—	597	1180	* 1613	—
	10/2/2008	ENER	—	—	—	—	—	—	76.0	617	1300	* 1779	—
	6/16/2009	ENER	—	—	—	—	—	—	—	686	1410	* 1898	—
	9/16/2009	ENER	—	—	—	—	—	—	119	779	1630	* 2108	—
	9/16/2009	EPA6	# 224.00	# 52.2	# 5.52	# 236	—	—	# 119	# 779	# 1630	* 2108	—
	9/16/2009	EPA6	# 224.00	# 52.2	# 5.52	# 236	—	—	# 109	# 808	# 1580	—	—
	11/9/2009	ENER	—	—	—	—	—	—	126	812	1650	* 2274	—
	4/20/2010	ENER	—	—	—	—	—	—	103	735	1600	* 2097	—
	8/28/2010	ENER	—	—	—	—	—	—	130	693	1600	* 2140	—
	10/27/2010	ENER	—	—	—	—	—	—	96.0	696	1520	* 2038	—
	2/9/2011	ENER	—	—	—	—	—	—	78.0	620	1280	* 1788	—
	5/11/2011	ENER	141.00	32.0	4.60	203	291	8.00	63.0	538	1130	* 1627	1.03
	6/13/2011	ENER	—	—	—	—	—	—	—	547	1140	* 1619	—
	3/13/2012	ENER	144.00	32.9	4.40	195	285	< 5.00	62.0	524	1190	* 1662	1.06
	7/9/2012	ENER	—	—	—	—	—	—	—	534	1190	* 1650	—
	8/1/2012	ENER	—	—	—	—	—	—	68.0	555	1180	* 1667	—
	8/1/2012	ENER	—	—	—	—	—	—	# 66.0	# 543	# 1190	—	—
	9/20/2012	ENER	—	—	—	—	—	—	71.0	573	1230	* 1329	—
	11/7/2012	ENER	169.00	39.6	4.80	215	306	< 5.00	79.0	616	1340	* 1825	1.05
	2/6/2013	HMC	145.00	33.3	4.40	188	308	< 5.00	73.0	593	1270	1750	0.931
	10/29/2013	ENER	—	—	—	—	—	—	87.0	602	1300	* 2379	—
	2/25/2014	ENER	154.00	36.7	4.50	189	283	< 5.00	87.0	556	1240	1747	1.01

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> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0658	8/26/2014	ENER	—	—	—	—	—	—	105	600	1350	1859	—
0683	9/25/1995	ENER	113.00	28.0	3.50	27.2	283	< 0.100	19.8	172	556	—	1.05
	9/26/1995	HMC	—	—	—	—	—	—	—	—	—	858	—
	12/12/1995	ENER	101.00	23.9	3.05	17.6	281	< 0.100	7.80	136	461	* 795	1.02
	10/29/1996	ENER	102.00	24.4	2.90	16.9	272	< 0.100	8.80	137	413	* 620	1.05
	9/2/1997	ENER	—	—	—	—	—	—	—	126	445	* 599	—
	9/26/1998	ENER	—	—	—	—	—	—	—	139	501	* 696	—
	9/29/1999	ENER	—	—	—	—	—	—	—	165	528	* 703	—
	9/29/1999	ENER	—	—	—	—	—	—	—	# 166	# 520	—	—
	9/12/2000	ENER	—	—	—	—	—	—	—	130	460	* 810	—
	9/18/2001	ENER	—	—	—	—	—	—	—	119	467	* 865	—
	10/11/2002	ENER	—	—	—	—	—	—	—	110	462	* 830	—
	1/6/2004	ENER	—	—	—	—	—	—	61.2	190	606	* 893	—
	10/4/2004	ENER	—	—	—	—	—	—	—	305	827	* 1146	—
	11/15/2005	ENER	—	—	—	—	—	—	—	243	660	* 984	—
	10/4/2006	ENER	—	—	—	—	—	—	—	458	1040	* 1434	—
	10/23/2007	ENER	—	—	—	—	—	—	—	466	1040	* 1443	—
	11/19/2008	ENER	—	—	—	—	—	—	—	560	1210	* 1583	—
	9/29/2009	ENER	—	—	—	—	—	—	—	586	1260	* 1617	—
	10/20/2010	ENER	—	—	—	—	—	—	—	687	1370	* 1799	—
	11/2/2011	ENER	—	—	—	—	—	—	—	535	1150	* 1553	—
	10/19/2012	ENER	—	—	—	—	—	—	—	565	1210	* 1594	—
0684	9/22/1995	ENER	134.00	45.0	5.80	143	278	< 0.100	58.0	487	1023	* 1448	1.03
	12/12/1995	ENER	122.00	42.9	5.63	151	272	< 0.100	48.5	480	1036	* 2197	1.03
	10/30/1996	ENER	136.00	47.5	5.50	139	267	< 0.100	59.4	512	1090	* 1577	1.01
	9/3/1997	ENER	—	—	—	—	—	—	—	521	1150	* 1680	—
	9/25/1998	ENER	—	—	—	—	—	—	—	561	1270	* 1602	—
	9/30/1999	ENER	—	—	—	—	—	—	—	554	1240	* 1921	—

Signifies Quality Control Sample

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> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0684	9/7/2000	ENER	—	—	—	—	—	—	—	565	1360	* 2231	—
	9/25/2001	ENER	—	—	—	—	—	—	—	550	1430	* 2380	—
	10/9/2002	ENER	—	—	—	—	—	—	—	621	1530	* 2494	—
	1/6/2004	ENER	—	—	—	—	—	—	150	717	1540	* 2070	—
	10/5/2004	ENER	—	—	—	—	—	—	—	675	1680	* 2171	—
	11/15/2005	ENER	—	—	—	—	—	—	—	679	1590	* 2118	—
	10/4/2006	ENER	—	—	—	—	—	—	—	662	1500	* 2152	—
	5/9/2007	ENER	—	—	—	—	—	—	—	576	1490	* 1201	—
	11/24/2008	ENER	—	—	—	—	—	—	—	640	1580	* 2103	—
	10/20/2009	ENER	—	—	—	—	—	—	—	737	1710	* 1644	—
	10/13/2010	ENER	—	—	—	—	—	—	—	765	1680	* 2320	—
	11/15/2011	ENER	—	—	—	—	—	—	—	757	1680	* 2240	—
	10/19/2012	ENER	—	—	—	—	—	—	—	707	1640	* 2257	—
0685	9/25/1995	ENER	209.00	56.0	6.40	188	368	< 0.100	115	678	1549	* 2082	0.999
	12/13/1995	ENER	202.00	52.6	6.30	220	376	< 0.100	123	754	1643	* 2317	0.953
	11/11/1996	ENER	222.00	57.2	6.70	223	367	< 0.100	131	753	1640	* 2326	1.01
	3/19/1997	ENER	—	—	—	—	—	—	—	773	1670	* 2397	—
	9/8/1997	ENER	229.00	57.5	6.80	222	368	< 0.100	135	762	1660	* 2235	1.01
	3/24/1998	ENER	—	—	—	—	—	—	—	861	1640	* 2206	—
	9/29/1998	ENER	200.00	53.6	6.10	193	383	< 1.000	114	645	1540	* 2043	0.999
	9/29/1999	ENER	—	—	—	—	—	—	—	762	1720	* 2841	—
	9/6/2000	ENER	—	—	—	—	—	—	—	722	1770	* 2871	—
	9/25/2001	ENER	—	—	—	—	—	—	—	680	1760	* 2909	—
	7/24/2002	ENER	—	—	—	—	—	—	—	709	1750	* 2916	—
	9/18/2003	ENER	—	—	—	—	—	—	164	795	1810	* 2364	—
	9/14/2004	ENER	—	—	—	—	—	—	153	721	1680	* 2258	—
	9/26/2005	ENER	—	—	—	—	—	—	122	633	1520	* 2071	—
	10/10/2006	ENER	—	—	—	—	—	—	133	585	1410	* 2124	—
	10/24/2007	ENER	—	—	—	—	—	—	133	606	1440	* 2052	—

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> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0687	10/4/1995	ENER	165.00	41.4	5.80	143	315	< 0.100	96.0	450	1151	* 1728	1.04
	12/13/1995	ENER	212.00	54.5	6.40	238	332	< 0.100	0.0900	703	1677	* 2326	1.27
	3/12/1996	ENER	254.00	63.8	6.20	213	332	< 0.100	198	802	1581	* 2326	0.986
	7/29/1996	ENER	200.00	48.9	6.50	190	326	< 0.100	146	592	1460	* 2208	1.03
	11/11/1996	ENER	199.00	50.1	6.50	211	329	< 0.100	156	607	1520	* 2208	1.04
	9/8/1997	ENER	—	—	—	—	—	—	—	701	1640	* 2391	—
	3/24/1998	ENER	225.00	57.0	6.70	238	355	< 1.000	168	709	1740	* 2335	1.04
	3/24/1998	ENER	# 231.00	# 58.7	# 6.90	# 238	# 356	# < 1.000	# 176	# 723	# 1720	—	# 1.04
	9/29/1998	ENER	—	—	—	—	—	—	—	648	1590	* 2128	—
	9/29/1999	ENER	—	—	—	—	—	—	—	748	1690	* 2730	—
	9/6/2000	ENER	—	—	—	—	—	—	—	741	1810	* 2926	—
	9/25/2001	ENER	—	—	—	—	—	—	—	720	1850	* 3006	—
	7/24/2002	ENER	—	—	—	—	—	—	—	817	1880	* 3097	—
	9/18/2003	ENER	—	—	—	—	—	—	128	657	1500	* 2000	—
	4/23/2004	HMC	—	—	—	—	—	—	—	—	—	2040	—
	9/14/2004	ENER	—	—	—	—	—	—	—	641	1480	* 1968	—
	3/28/2005	ENER	—	—	—	—	—	—	—	554	1320	* 1875	—
	9/26/2005	ENER	—	—	—	—	—	—	92.0	549	1380	* 1871	—
	5/1/2007	ENER	—	—	—	—	—	—	—	593	1410	* 1892	—
0896	8/31/1995	ENER	258.00	64.0	6.40	237	229	< 0.100	168	886	1901	* 2538	1.06
	12/12/1995	ENER	244.00	60.1	6.40	235	234	< 0.100	175	879	1889	* 2635	1.02
	3/6/1996	ENER	266.00	66.2	6.50	225	232	< 0.100	207	928	1855	* 2649	0.990
	10/29/1996	ENER	259.00	63.9	6.30	222	228	< 0.100	194	857	1830	* 2520	1.03
	9/2/1997	ENER	—	—	—	—	—	—	—	832	1880	* 2523	—
	9/26/1998	ENER	—	—	—	—	—	—	—	977	1960	* 2395	—
	9/29/1999	ENER	—	—	—	—	—	—	—	1030	1940	* 3058	—
	9/26/2000	ENER	—	—	—	—	—	—	—	972	1910	* 3038	—
	9/18/2001	ENER	—	—	—	—	—	—	—	853	1950	* 3012	—

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Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0896	10/10/2002	ENER	—	—	—	—	—	—	—	864	1950	* 3071	—
	1/6/2004	ENER	—	—	—	—	—	—	206	975	1890	* 2442	—
	10/4/2004	ENER	—	—	—	—	—	—	—	880	1910	* 2455	—
	11/15/2005	ENER	—	—	—	—	—	—	—	875	1810	* 2425	—
	10/4/2006	ENER	—	—	—	—	—	—	—	922	1870	* 2533	—
	10/23/2007	ENER	—	—	—	—	—	—	—	872	1800	* 2408	—
	11/19/2008	ENER	—	—	—	—	—	—	—	878	1780	* 2386	—
	9/29/2009	ENER	—	—	—	—	—	—	—	810	1720	* 2272	—
	10/20/2010	ENER	—	—	—	—	—	—	—	694	1500	* 2086	—
	11/2/2011	ENER	—	—	—	—	—	—	—	653	1420	* 1980	—
	11/2/2011	HMC	—	—	—	—	—	—	—	—	—	1868	—
	10/19/2012	ENER	—	—	—	—	—	—	—	573	1340	* 1890	—
0899	9/11/1995	ENER	191.00	56.0	7.20	242	350	< 0.100	227	545	1621	* 2286	1.06
	12/11/1995	ENER	190.00	51.0	6.70	232	315	< 0.100	209	535	1556	* 2271	1.08
	3/6/1996	ENER	180.00	51.8	6.90	221	351	< 0.100	215	547	1449	* 2251	0.992
	10/29/1996	ENER	174.00	49.7	6.50	211	337	< 0.100	187	500	1380	* 2133	1.04
	9/3/1997	ENER	—	—	—	—	—	—	—	517	1480	* 2271	—
	9/25/1998	ENER	—	—	—	—	—	—	—	817	1840	* 2328	—
	9/28/1999	ENER	—	—	—	—	—	—	—	511	1220	* 2052	—
	9/28/1999	ENER	—	—	—	—	—	—	—	# 519	# 1210	—	—
	9/26/2000	ENER	—	—	—	—	—	—	—	463	1230	* 2185	—
	9/18/2001	ENER	—	—	—	—	—	—	—	410	1100	* 1921	—
	9/18/2001	ENER	—	—	—	—	—	—	—	# 402	# 1090	—	—
	10/10/2002	ENER	—	—	—	—	—	—	—	364	1020	* 1714	—
	1/6/2004	ENER	—	—	—	—	—	—	87.2	445	1070	* 1503	—
	10/4/2004	ENER	—	—	—	—	—	—	—	421	1080	* 1521	—
	11/15/2005	ENER	—	—	—	—	—	—	—	399	990	* 1449	—
	10/4/2006	ENER	—	—	—	—	—	—	—	462	1130	* 1628	—
	10/23/2007	ENER	—	—	—	—	—	—	—	532	1180	* 1652	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0899	6/2/2008	ENER	—	—	—	—	—	—	—	690	1340	* 1928	—
	6/22/2009	ENER	—	—	—	—	—	—	—	564	1210	* 1839	—
	9/16/2009	EPA6	# 167.00	# 52.9	# 5.50	# 186	—	—	# 81.0	# 605	# 1320	* 1853	—
	9/16/2009	EPA6	# 167.00	# 52.9	# 5.50	# 186	—	—	# 81.0	# 614	# 1310	—	—
	9/16/2009	ENER	—	—	—	—	—	—	—	605	1320	* 1853	—
	10/20/2010	ENER	—	—	—	—	—	—	—	492	1170	* 1682	—
	10/19/2012	ENER	—	—	—	—	—	—	—	429	1070	* 1538	—
0935	7/12/1946	UNK	94.00	26.0	—	40.0	232	< 0.100	16.0	194	499	—	—
	10/24/1980	UNK	—	—	—	181	231	—	58.0	727	1490	—	—
	8/24/1995	ENER	174.00	45.3	6.70	225	331	< 0.100	178	509	1430	* 2069	1.06
	9/5/1995	ENER	176.00	46.0	6.60	221	337	< 0.100	176	510	1421	—	1.06
	9/5/1995	HMC	—	—	—	—	—	—	—	—	—	2082	—
	9/12/1995	ENER	169.00	44.0	6.50	211	322	< 0.100	166	485	1374	* 1890	1.07
	12/12/1995	ENER	210.00	56.5	7.30	243	339	< 0.100	170	684	1657	* 2391	1.05
	3/8/1996	ENER	215.00	58.2	7.30	225	325	< 0.100	201	697	1578	* 2334	0.999
	10/30/1996	ENER	211.00	56.0	7.10	223	336	< 0.100	167	674	1610	* 2391	1.03
	3/19/1997	ENER	—	—	—	—	—	—	—	770	1770	* 2523	—
	9/3/1997	ENER	244.00	61.9	7.70	257	367	< 0.100	175	807	1900	* 2460	1.03
	3/12/1998	ENER	—	—	—	—	—	—	—	540	1390	* 2000	—
	9/26/1998	ENER	248.00	65.3	7.10	236	411	< 1.000	143	825	1940	* 2499	1.01
	9/30/1999	ENER	—	—	—	—	—	—	—	773	1780	* 2995	—
	9/7/2000	ENER	—	—	—	—	—	—	—	843	2000	* 3241	—
	9/25/2001	ENER	—	—	—	—	—	—	—	780	2030	* 3269	—
	10/9/2002	ENER	—	—	—	—	—	—	—	572	1490	* 2423	—
	9/18/2003	ENER	—	—	—	—	—	—	124	640	1490	* 1973	—
	5/6/2004	ENER	—	—	—	—	—	—	122	644	1520	* 1986	—
	10/5/2004	ENER	—	—	—	—	—	—	—	526	1300	* 1760	—
	11/18/2005	ENER	—	—	—	—	—	—	106	618	1440	* 2006	—
	10/4/2006	ENER	—	—	—	—	—	—	97.0	611	1400	* 2008	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0935	10/2/2007	ENER	—	—	—	—	—	—	104	575	1380	* 1847	—
	11/24/2008	ENER	—	—	—	—	—	—	92.0	535	1300	* 1812	—
	10/20/2009	ENER	—	—	—	—	—	—	91.0	518	1330	* 1741	—
	10/13/2010	ENER	—	—	—	—	—	—	92.0	532	1240	* 1797	—
	11/15/2011	ENER	—	—	—	—	—	—	102	602	1390	* 1911	—
	10/19/2012	ENER	—	—	—	—	—	—	135	653	1580	* 2130	—
	12/11/2013	ENER	—	—	—	—	—	—	165	703	1730	* 2979	—
0994	8/25/1995	ENER	93.00	25.0	2.60	19.8	272	< 0.100	11.2	116	425	* 739	1.06
	3/19/1997	ENER	—	—	—	—	—	—	—	126	418	* 612	—
	3/24/1998	ENER	—	—	—	—	—	—	—	151	419	* 654	—
	9/25/2001	ENER	—	—	—	—	—	—	—	116	438	* 867	—
	12/11/2001	ENER	—	—	—	—	—	—	—	139	481	* 899	—
	4/2/2002	ENER	—	—	—	—	—	—	—	140	488	* 896	—
	7/9/2002	ENER	—	—	—	—	—	—	—	159	496	* 922	—
	9/18/2002	ENER	—	—	—	—	—	—	—	147	485	* 659	—
	11/13/2002	ENER	—	—	—	—	—	—	—	153	508	* 955	—
	3/25/2003	ENER	—	—	—	—	—	—	—	163	496	* 1012	—
	4/21/2003	ENER	—	—	—	—	—	—	—	167	511	* 1004	—
	10/27/2003	ENER	—	—	—	—	—	—	25.2	200	618	* 886	—
	3/19/2004	ENER	—	—	—	—	—	—	—	203	613	* 868	—
	10/20/2004	ENER	—	—	—	—	—	—	56.0	292	863	* 1166	—
	3/22/2005	ENER	—	—	—	—	—	—	—	257	744	* 1079	—
	10/24/2005	ENER	—	—	—	—	—	—	98.0	450	1170	* 1515	—
	3/15/2006	ENER	—	—	—	—	—	—	—	446	1140	* 1614	—
	7/17/2006	HMC	—	—	—	—	—	—	—	—	—	1758	—
	10/24/2006	ENER	—	—	—	—	—	—	123	543	1320	* 1826	—
	3/21/2007	ENER	—	—	—	—	—	—	—	577	1350	* 1722	—
	11/8/2007	ENER	256.00	63.7	4.50	87.9	304	< 1.000	116	636	1310	* 1802	1.02
	3/26/2008	ENER	240.00	62.1	4.40	80.9	—	—	107	620	1270	* 1773	—

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0994	10/15/2008	ENER	—	—	—	—	—	—	113	623	1410	* 1866	—
	11/14/2008	ENER	250.00	61.3	4.60	111	299	< 1.000	105	594	1430	* 1863	1.11
	4/3/2009	ENER	222.00	57.8	4.30	103	—	—	108	601	1360	* 1783	—
	10/2/2009	ENER	—	—	—	—	—	—	103	596	1320	* 1803	—
	3/22/2010	ENER	223.00	54.4	4.20	109	—	—	93.0	543	1290	* 1806	—
	10/21/2010	ENER	—	—	—	—	—	—	94.0	560	1270	* 1778	—
	3/28/2011	ENER	204.00	49.2	4.40	117	—	—	95.0	552	1270	* 1677	—
	10/18/2011	ENER	—	—	—	—	—	—	87.0	519	1170	* 1408	—
	4/2/2012	ENER	190.00	46.0	4.20	121	—	—	85.0	500	1200	* 1644	—
	10/1/2012	ENER	—	—	—	—	—	—	87.0	498	1190	* 1629	—
	4/4/2013	ENER	186.00	45.5	3.80	125	—	—	85.0	486	1170	* 1601	—
	10/30/2013	ENER	—	—	—	—	—	—	81.0	457	1130	* 1916	—
	3/27/2014	ENER	176.00	43.4	3.90	117	—	—	86.0	471	1140	—	—
	10/1/2014	ENER	—	—	—	—	—	—	91.0	482	1140	1593	—
0996	9/18/1995	ENER	183.00	49.0	6.10	179	348	< 0.100	104	579	1346	* 1877	1.02
	12/13/1995	ENER	219.00	57.6	6.80	227	372	< 0.100	116	748	1670	* 2251	1.03
	3/12/1996	ENER	268.00	69.1	7.10	217	376	< 0.100	159	906	1687	* 2391	0.972
	11/11/1996	ENER	228.00	59.0	6.90	229	378	< 0.100	136	794	1710	* 2391	0.993
	9/8/1997	ENER	206.00	50.0	6.00	178	325	< 0.100	98.1	656	1420	* 1939	1.02
	11/19/1998	ENER	191.00	48.7	5.90	172	333	< 1.000	103	601	1490	* 2521	1.01
	9/29/1999	ENER	—	—	—	—	—	—	—	683	1470	* 2423	—
	9/29/1999	ENER	—	—	—	—	—	—	—	# 642	# 1430	—	—
	9/6/2000	ENER	—	—	—	—	—	—	—	697	1670	* 2725	—
	9/6/2000	ENER	—	—	—	—	—	—	—	# 701	# 1690	—	—
	11/3/2000	ENER	215.00	58.1	6.10	178	332	< 1.000	103	748	1490	* 2522	0.977
	9/25/2001	ENER	—	—	—	—	—	—	—	610	1560	* 2496	—
	7/24/2002	ENER	—	—	—	—	—	—	—	712	1570	* 2592	—
	9/18/2003	ENER	—	—	—	—	—	—	131	711	1560	* 2035	—
	9/14/2004	ENER	—	—	—	—	—	—	119	646	1530	* 2030	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-3. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Ca THROUGH ION_BAL

Sample Point Name	Date	Lab	Ca (mg/l)	Mg (mg/l)	K (mg/l)	Na (mg/l)	HCO3 (mg/l)	CO3 (mg/l)	Cl (mg/l)	SO4 (mg/l)	TDS (mg/l)	Cond(calc.) (µmhos/cm)	Ion_B (ratio)
0996	9/26/2005	ENER	—	—	—	—	—	—	121	643	1490	* 2048	—
	8/30/2006	ENER	—	—	—	—	—	—	124	614	1470	* 1890	—
	8/22/2007	ENER	—	—	—	—	—	—	101	606	1500	* 1960	—
	9/16/2009	ENER	—	—	—	—	—	—	122	655	1470	* 2018	—
	9/16/2009	EPA6	# 211.00	# 54.8	# 5.74	# 200	—	—	# 122	# 655	# 1470	* 2018	—
	9/16/2009	EPA6	# 211.00	# 54.8	# 5.74	# 200	—	—	# 117	# 672	# 1470	—	—
	11/9/2009	ENER	—	—	—	—	—	—	122	666	1470	* 2061	—
	4/21/2010	ENER	—	—	—	—	—	—	123	674	1570	* 2103	—
	8/27/2010	ENER	—	—	—	—	—	—	125	682	1530	* 2090	—
	11/9/2011	ENER	—	—	—	—	—	—	124	684	1520	* 2044	—
	9/20/2012	ENER	—	—	—	—	—	—	120	655	1550	* 1670	—
	8/8/2013	ENER	—	—	—	—	—	—	134	602	1560	* 2681	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Per — SK — 9332

299131 #

~~HHE~~ Sol — 3 months sampling

Gleason — please should be up to Georgia

— Nature Cleaning has been problem

— Chlorine contacts Ro usually ok

— Start up prior to Rain backflying

— Pump test & Ro — Pump # sampled dead dead-down

— Load to old tubing note & Ro

Call AW & start

2 poles & open trench ~~[illegible]~~ pond - mod blight

— 3 building & pipe on pole — Stacks up cable ?

— pipe connection down HDPE = 100' above the ?

— 248 ft Bor — Case in Gypsum

Mrs Long call

John Bilbrick

— Optimum joints —

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells.

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0531	9/1/1995	ENER	8.15	0.0560	< 0.0300	0.0310	1.68	0.300	< 1.000	< 0.0100	< 0.200
	12/12/1995	ENER	7.87	0.0590	< 0.0100	0.0240	1.90	< 0.200	< 1.000	< 0.0100	< 0.200
	3/8/1996	ENER	7.86	0.0610	< 0.0300	0.0420	2.03	< 0.200	—	—	—
	10/30/1996	ENER	8.05	0.0612	< 0.0300	0.0400	2.43	< 0.200	< 1.000	< 0.0100	< 0.200
	9/8/1997	ENER	—	0.0940	—	0.0430	—	—	—	—	—
	9/25/1998	ENER	—	0.110	—	0.0370	—	—	—	—	—
	9/30/1999	ENER	—	0.167	—	0.0450	2.65	—	—	—	—
	9/7/2000	ENER	—	0.128	—	0.0390	3.29	—	—	—	—
	9/25/2001	ENER	—	0.116	—	0.0310	2.00	—	—	—	—
	10/2/2002	ENER	—	0.137	—	0.0440	2.46	—	—	—	—
	9/18/2003	ENER	—	0.165	< 0.0300	0.0400	3.30	—	—	—	—
	5/6/2004	ENER	—	0.113	< 0.0300	0.0310	—	—	—	—	—
	10/5/2004	ENER	—	0.122	< 0.0300	0.0260	3.19	—	—	—	—
	11/15/2005	ENER	—	0.112	< 0.0300	0.0250	3.70	—	—	—	—
	10/4/2006	ENER	—	0.130	< 0.0300	0.0310	2.80	—	—	—	—
	10/2/2007	ENER	—	0.182	< 0.0300	0.0490	4.70	—	—	—	—
	12/17/2007	ENER	—	0.153	< 0.0300	0.0450	4.30	—	—	—	—
	11/24/2008	ENER	—	0.177	< 0.0300	0.0440	5.60	—	—	—	—
	10/20/2009	ENER	—	0.204	< 0.0300	0.0470	4.50	—	—	—	—
	10/13/2010	ENER	—	0.145	< 0.0300	0.0280	4.10	—	—	—	—
	11/15/2011	ENER	—	0.112	< 0.0300	0.0330	4.00	—	—	—	—
	10/19/2012	ENER	—	0.0633	< 0.0300	0.0200	3.80	—	—	—	—
0541	2/9/2004	ENER	7.18	0.0619	< 0.0300	0.0140	2.90	0.700	< 1.000	< 0.0100	0.500
	9/13/2004	ENER	—	0.0550	< 0.0300	0.0320	—	—	—	—	—
	9/26/2005	ENER	—	0.0732	< 0.0300	0.0390	4.60	—	—	—	—
	8/30/2006	ENER	—	0.0759	< 0.0300	0.0310	4.10	—	—	—	—
	8/22/2007	ENER	—	0.0787	< 0.0300	0.0300	4.30	—	—	—	—
	10/2/2008	ENER	—	0.0748	< 0.0300	0.0290	4.30	—	—	—	—
	7/21/2009	ENER	—	0.0926	< 0.0300	0.0340	4.80	—	—	—	—

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0541	4/20/2010	ENER	—	0.180	< 0.0300	0.0450	5.20	—	—	—	—
	6/15/2010	ENER	—	0.207	< 0.0300	0.0420	5.40	—	—	—	—
	10/27/2010	ENER	—	0.142	< 0.0300	0.0340	—	—	—	—	—
	9/20/2012	ENER	—	0.116	< 0.0300	0.0300	4.70	—	—	—	—
	8/8/2013	ENER	—	0.0975	< 0.0300	0.0260	4.20	—	—	—	—
0551	6/1/2009	ENER	7.29	0.0306	< 0.0300	0.0420	2.30	0.0500	0.400	< 0.0100	0.0007
	10/8/2009	ENER	—	0.0445	< 0.0300	0.0630	1.80	—	—	—	—
	11/9/2009	ENER	—	0.0409	< 0.0300	0.0540	1.000	—	—	—	—
	3/25/2010	ENER	—	0.0312	< 0.0300	0.0390	2.30	—	—	—	—
	6/28/2010	ENER	7.50	0.0358	< 0.0300	0.0390	2.60	0.0500	—	—	—
	9/14/2010	ENER	7.79	0.0361	< 0.0300	0.0370	2.80	0.190	—	—	—
	2/10/2011	ENER	—	0.0411	< 0.0300	0.0380	—	—	—	—	—
	5/11/2011	ENER	7.65	0.0396	< 0.0300	0.0410	2.50	0.470	—	—	—
	8/9/2011	ENER	—	0.0394	< 0.0300	0.0400	—	—	—	—	—
	3/9/2012	ENER	7.50	0.0454	< 0.0300	0.0400	2.70	0.130	—	—	—
	8/1/2012	ENER	—	0.0420	< 0.0300	0.0390	—	—	—	—	—
	2/6/2013	HMC	7.39	0.0439	< 0.0300	0.0360	2.60	0.310	—	—	—
	8/8/2013	ENER	—	0.0483	< 0.0300	0.0380	—	—	—	—	—
	2/13/2014	ENER	7.49	0.0471	0.0300	0.0430	3.40	0.380	—	—	—
	8/27/2014	ENER	—	0.0393	< 0.0300	0.0460	—	—	—	—	—
0553	6/1/2009	ENER	7.38	0.0080	< 0.0300	0.0070	0.800	0.0900	0.700	< 0.0100	0.0300
	10/8/2009	ENER	—	0.0227	< 0.0300	0.0170	2.40	—	—	—	—
	11/9/2009	ENER	—	0.0194	< 0.0300	0.0220	3.60	—	—	—	—
	3/25/2010	ENER	—	0.0198	< 0.0300	0.0200	3.00	—	—	—	—
	6/28/2010	ENER	7.60	0.0197	< 0.0300	0.0220	3.10	0.120	—	—	—
	9/14/2010	ENER	7.94	0.0199	< 0.0300	0.0220	3.10	0.320	—	—	—
	2/11/2011	ENER	—	0.0218	< 0.0300	0.0240	—	—	—	—	—
	5/11/2011	ENER	7.75	0.0210	< 0.0300	0.0240	3.50	-0.0800	—	—	—

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0553	8/9/2011	ENER	—	0.0216	< 0.0300	0.0220	—	—	—	—	—
	3/9/2012	ENER	7.63	0.0223	< 0.0300	0.0260	3.70	0.110	—	—	—
	8/1/2012	ENER	—	0.0228	< 0.0300	0.0270	—	—	—	—	—
	2/6/2013	HMC	7.61	0.0240	< 0.0300	0.0560	4.10	0.460	—	—	—
	8/8/2013	ENER	—	0.0246	< 0.0300	0.0300	—	—	—	—	—
	2/13/2014	ENER	7.46	0.0256	< 0.0300	0.0300	4.10	0.410	—	—	—
	8/26/2014	ENER	—	0.0238	< 0.0300	0.0310	—	—	—	—	—
0554	6/2/2009	ENER	7.34	0.0182	< 0.0300	0.0250	1.40	0.280	0.100	< 0.0100	0.0600
	10/9/2009	ENER	—	0.0167	< 0.0300	0.0210	1.20	—	—	—	—
	11/9/2009	ENER	—	0.0144	< 0.0300	0.0150	0.600	—	—	—	—
	3/25/2010	ENER	—	0.0154	< 0.0300	0.0210	0.900	—	—	—	—
	9/14/2010	ENER	7.96	0.0151	< 0.0300	0.0210	0.800	0.270	—	—	—
	2/9/2011	ENER	—	0.0159	< 0.0300	0.0230	—	—	—	—	—
	5/11/2011	ENER	7.77	0.0156	< 0.0300	0.0220	0.900	0.220	—	—	—
	8/9/2011	ENER	—	0.0159	< 0.0300	0.0230	—	—	—	—	—
	3/9/2012	ENER	7.56	0.0176	< 0.0300	0.0300	1.30	0.290	—	—	—
	8/1/2012	ENER	—	0.0189	< 0.0300	0.0330	—	—	—	—	—
	2/6/2013	HMC	7.48	0.0214	< 0.0300	0.0540	1.40	1.10	—	—	—
	8/8/2013	ENER	—	0.0191	< 0.0300	0.0370	—	—	—	—	—
	2/13/2014	ENER	7.51	0.0194	0.0300	0.0350	1.40	0.820	—	—	—
0647	1/10/1997	ENER	7.72	0.0680	< 0.0300	0.0510	2.50	1.30	< 1.000	< 0.0100	< 0.200
	3/4/1997	ENER	7.72	0.178	0.0600	0.0750	5.15	< 0.200	< 1.000	< 0.0100	< 0.200
	4/17/1997	ENER	—	0.167	< 0.0300	0.0670	—	—	—	—	—
	7/9/1997	ENER	8.12	0.167	< 0.0300	0.0680	4.90	< 0.200	—	—	—
	1/21/1998	ENER	—	0.0959	< 0.0300	0.0630	—	—	—	—	—
	7/21/1998	ENER	7.82	0.160	< 0.0300	0.0590	4.52	0.800	—	—	—
	12/17/1998	ENER	8.02	0.180	< 0.0300	0.0640	4.22	0.200	—	—	—
	7/21/1999	ENER	—	0.149	< 0.0300	0.0570	5.26	—	—	—	—

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0647	3/7/2000	ENER	—	0.0884	—	0.0510	—	—	—	—	—
	9/6/2000	ENER	—	0.0580	—	0.0510	3.98	—	—	—	—
	8/12/2002	ENER	—	0.0200	—	0.0560	3.33	—	—	—	—
	8/21/2003	ENER	—	0.0302	< 0.0300	0.0460	3.50	—	—	—	—
	8/19/2004	ENER	—	0.0376	< 0.0300	0.0390	—	—	—	—	—
	8/10/2005	ENER	—	0.0388	< 0.0300	0.0380	2.80	—	—	—	—
	10/4/2006	ENER	—	0.0552	< 0.0300	0.0380	2.60	—	—	—	—
	8/22/2007	ENER	—	0.0387	< 0.0300	0.0320	2.70	—	—	—	—
	10/2/2008	ENER	—	0.0274	< 0.0300	0.0310	2.67	—	—	—	—
	7/21/2009	ENER	—	0.0294	< 0.0300	0.0320	2.76	—	—	—	—
	11/6/2009	ENER	—	0.0408	< 0.0300	0.0290	2.70	—	—	—	—
	6/15/2010	ENER	—	0.0540	< 0.0300	0.0380	3.30	—	—	—	—
	8/28/2010	ENER	—	0.0431	< 0.0300	0.0390	3.10	—	—	—	—
	10/30/2010	ENER	—	0.0492	< 0.0300	0.0400	—	—	—	—	—
	2/9/2011	ENER	—	0.0505	< 0.0300	0.0450	—	—	—	—	—
	5/11/2011	ENER	7.65	0.0482	< 0.0300	0.0440	3.70	0.0060	—	—	—
	8/16/2011	ENER	—	0.0484	< 0.0300	0.0440	—	—	—	—	—
	9/20/2012	ENER	—	0.0466	< 0.0300	0.0440	—	—	—	—	—
	2/6/2013	HMC	7.38	0.0456	< 0.0300	0.0520	3.40	0.100	—	—	—
	8/8/2013	ENER	—	0.0439	< 0.0300	0.0370	—	—	—	—	—
	8/27/2014	ENER	—	0.0429	< 0.0300	0.0300	—	—	—	—	—
0648	1/10/1997	ENER	7.74	0.0280	< 0.0300	0.0260	1.62	0.700	< 1.000	< 0.0100	< 0.200
	3/4/1997	ENER	7.79	0.0440	< 0.0300	0.0370	2.55	< 0.200	< 1.000	< 0.0100	< 0.200
	4/17/1997	ENER	—	0.0490	< 0.0300	0.0380	—	—	—	—	—
	7/9/1997	ENER	8.01	0.0640	< 0.0300	0.0410	3.76	< 0.200	—	—	—
	11/24/1997	ENER	—	0.0700	—	0.0480	—	—	—	—	—
	1/21/1998	ENER	—	0.0718	< 0.0300	0.0490	—	—	—	—	—
	7/21/1998	ENER	7.94	0.105	< 0.0300	0.0280	3.85	< 0.200	—	—	—
	12/17/1998	ENER	7.93	0.0671	< 0.0300	0.0410	3.15	< 0.200	—	—	—

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0648	7/21/1999	ENER	—	0.0861	< 0.0300	0.0280	2.97	—	—	—	—
	10/28/1999	ENER	—	0.0533	—	0.0530	—	—	—	—	—
	1/24/2000	ENER	—	0.0790	—	0.0400	—	—	—	—	—
	9/6/2000	ENER	—	0.0540	—	0.0400	3.66	—	—	—	—
	5/4/2001	ENER	—	0.0535	—	0.0397	—	—	—	—	—
	5/4/2001	ENER	—	# 0.0528	—	# 0.0382	—	—	—	—	—
	8/15/2001	ENER	—	0.0600	—	0.0420	3.44	—	—	—	—
	5/8/2002	ENER	—	0.0250	—	0.0400	—	—	—	—	—
	8/12/2002	ENER	—	0.0230	—	0.0320	2.55	—	—	—	—
	5/27/2003	ENER	—	0.0243	0.210	0.0330	2.50	—	—	—	—
	8/21/2003	ENER	—	0.0165	< 0.0300	0.0220	2.40	—	—	—	—
	5/13/2004	ENER	7.58	0.0157	< 0.0300	0.0310	2.33	< 0.200	< 1.000	< 0.0100	< 0.200
	8/19/2004	ENER	—	0.0135	—	0.0240	2.01	—	—	—	—
	3/23/2005	ENER	7.85	0.0168	< 0.0300	0.0330	2.40	< 0.200	< 1.000	< 0.0100	0.600
	8/10/2005	ENER	—	0.0132	—	0.0310	2.40	—	—	—	—
	10/4/2006	ENER	—	0.0142	—	0.0350	2.40	—	—	—	—
	5/1/2007	ENER	7.96	0.0140	< 0.0300	0.0330	2.50	< 0.200	< 1.000	< 0.0100	< 0.200
	8/22/2007	ENER	—	0.0152	—	0.0350	2.30	—	—	—	—
	4/10/2008	ENER	7.61	0.0131	< 0.0300	0.0370	2.20	-0.0500	-0.300	< 0.0100	0
0649	1/16/1997	ENER	7.89	0.0120	< 0.0300	0.0070	0.930	< 0.200	< 1.000	< 0.0100	< 0.200
	3/4/1997	ENER	7.65	0.0110	< 0.0300	0.0250	2.65	0.700	< 1.000	< 0.0100	< 0.200
	4/17/1997	ENER	—	0.0100	< 0.0300	0.0210	—	—	—	—	—
	7/9/1997	ENER	8.13	0.0110	< 0.0300	0.0200	2.66	< 0.200	—	—	—
	1/21/1998	ENER	—	0.0756	< 0.0300	0.0310	—	—	—	—	—
	1/21/1998	ENER	—	# 0.0204	# < 0.0300	# 0.0260	—	—	—	—	—
	7/21/1998	ENER	7.98	0.0121	< 0.0300	0.0210	2.94	< 0.200	—	—	—
	12/17/1998	ENER	8.03	0.0149	< 0.0300	0.0220	2.42	0.200	—	—	—
	7/21/1999	ACZ	—	# 0.0145	—	# 0.0200	—	—	—	—	—
	7/21/1999	ENER	—	0.0129	—	0.0240	—	—	—	—	—

Signifies Quality Control Sample

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0649	7/21/1999	ENER	—	# 0.0132	—	# 0.0230	—	—	—	—	—
	10/28/1999	ENER	—	0.0160	—	0.0240	—	—	—	—	—
	9/6/2000	ENER	—	0.0530	—	0.0500	—	—	—	—	—
	8/15/2001	ENER	—	0.0440	—	0.0240	—	—	—	—	—
	8/15/2001	ENER	—	# 0.0450	—	# 0.0310	—	—	—	—	—
	8/12/2002	ENER	—	0.0150	—	0.0280	—	—	—	—	—
	8/21/2003	ENER	—	0.0156	< 0.0300	0.0140	2.10	—	—	—	—
	8/19/2004	ENER	7.66	0.0160	< 0.0300	0.0170	2.23	< 0.200	< 1.000	< 0.0100	< 0.200
	3/28/2005	ENER	—	0.438	< 0.0300	0.0930	—	—	—	—	—
	8/10/2005	ENER	7.92	0.0174	< 0.0300	0.0230	2.00	< 0.200	< 1.000	< 0.0100	0.500
	10/4/2006	ENER	7.49	0.0385	< 0.0300	0.0310	2.20	< 0.200	< 1.000	< 0.0100	< 0.200
	5/1/2007	ENER	—	0.0246	< 0.0300	0.0250	—	—	—	—	—
	8/22/2007	ENER	7.67	0.0589	< 0.0300	0.0290	1.90	0.700	—	—	—
	10/22/2007	ENER	7.54	0.0894	< 0.0300	0.0290	2.20	0.700	—	< 0.0100	< 0.200
	4/10/2008	ENER	—	0.0273	< 0.0300	0.0300	—	—	—	—	—
	6/3/2008	ENER	—	0.0219	—	0.0270	—	—	—	—	—
	10/2/2008	ENER	7.84	0.0254	< 0.0300	0.0320	2.30	-0.0400	-0.0700	< 0.0100	0.0600
	5/6/2009	ENER	—	0.0184	< 0.0300	0.0300	—	—	—	—	—
	6/16/2009	ENER	—	0.0195	—	0.0370	—	—	—	—	—
	11/13/2009	ENER	7.65	0.0235	< 0.0300	0.0380	2.40	-0.200	0.400	< 0.0100	0.0400
	4/20/2010	ENER	—	0.0197	< 0.0300	0.0300	1.40	—	—	—	—
	6/28/2010	ENER	—	0.0190	—	0.0320	—	—	—	—	—
	8/28/2010	ENER	7.70	0.0246	< 0.0300	0.0520	1.80	0.0300	-0.0600	< 0.0100	0.0800
	2/9/2011	ENER	—	0.0194	< 0.0300	0.0350	—	—	—	—	—
	4/18/2011	ENER	—	0.0210	< 0.0300	0.0320	—	—	—	—	—
	5/11/2011	ENER	7.78	0.0199	< 0.0300	0.0320	1.50	0.0900	—	—	—
	6/13/2011	ENER	—	0.0232	—	0.0350	—	—	—	—	—
	8/16/2011	ENER	8.01	0.0211	< 0.0300	0.0340	1.70	0.0800	0.700	< 0.0100	0.0800
	3/13/2012	ENER	7.45	0.0331	0.0400	0.0370	1.60	-0.0400	—	—	—

Signifies Quality Control Sample

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0649	5/9/2012	ENER	—	0.0233	< 0.0300	0.0300	—	—	—	—	—
	7/9/2012	ENER	—	0.0210	—	0.0350	—	—	—	—	—
	8/1/2012	ENER	—	0.0225	< 0.0300	0.0400	—	—	—	—	—
	9/20/2012	ENER	—	0.0230	< 0.0300	0.0330	—	—	—	—	—
	2/6/2013	HMC	7.37	0.0262	< 0.0300	0.0450	1.70	0.180	—	—	—
	3/6/2013	ENER	—	0.0248	0.0500	0.0320	—	—	—	—	—
	8/15/2013	ENER	—	0.0239	< 0.0300	0.0370	—	—	—	—	—
	4/1/2014	ENER	—	0.0308	< 0.0300	0.0410	—	—	—	—	—
0650	2/7/1997	ENER	7.78	0.0370	< 0.0300	0.0340	4.32	2.20	< 1.000	< 0.0100	< 0.200
	4/23/1997	ENER	8.03	0.0310	< 0.0300	0.0260	4.25	< 0.200	—	—	—
	10/20/1997	ENER	—	0.0310	—	0.0170	—	—	—	—	—
	4/14/1998	ENER	7.86	0.0337	< 0.0300	0.0360	4.65	0.600	—	—	—
	11/8/2004	ENER	—	0.0310	—	0.0330	3.60	—	—	—	—
	8/10/2005	ENER	—	0.0302	< 0.0300	0.0320	3.80	—	—	—	—
	11/14/2006	ENER	—	0.0317	< 0.0300	0.0350	3.70	—	—	—	—
	8/30/2007	ENER	—	0.0322	< 0.0300	0.0320	3.50	—	—	—	—
	8/19/2009	ENER	—	0.0287	< 0.0300	0.0330	4.10	—	—	—	—
	9/14/2010	ENER	—	0.0254	< 0.0300	0.0460	5.40	—	—	—	—
	2/18/2011	ENER	—	0.0259	< 0.0300	0.0450	—	—	—	—	—
	6/8/2011	ENER	7.83	0.0263	< 0.0300	0.0480	5.50	0.0600	—	—	—
	8/9/2011	ENER	—	0.0259	< 0.0300	0.0420	—	—	—	—	—
	3/13/2012	ENER	7.54	0.0278	< 0.0300	0.0430	5.50	0.0900	—	—	—
	8/27/2012	ENER	—	0.0292	< 0.0300	0.0410	—	—	—	—	—
	10/19/2012	ENER	—	0.0267	< 0.0300	0.0410	5.50	—	—	—	—
	2/6/2013	HMC	7.46	0.0283	< 0.0300	0.0540	5.00	0.120	—	—	—
	8/15/2013	ENER	—	0.0279	< 0.0300	0.0390	—	—	—	—	—
	2/25/2014	ENER	7.51	0.0301	< 0.0300	0.0370	5.60	0.350	—	—	—
	9/3/2014	ENER	—	0.0324	< 0.0300	0.0400	—	—	—	—	—

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0654	8/4/1999	ENER	7.98	0.339	< 0.0300	0.0670	3.63	< 0.200	< 1.000	< 0.0100	< 0.200
	9/28/1999	ENER	7.79	0.365	< 0.0300	0.0650	4.12	< 0.200	—	—	—
	9/7/2000	ENER	—	0.371	—	0.0610	4.39	—	—	—	—
	9/18/2001	ENER	—	0.268	—	0.0660	3.80	—	—	—	—
	9/18/2001	ENER	—	# 0.279	—	# 0.0790	# 3.60	—	—	—	—
	10/10/2002	ENER	—	0.430	—	0.106	6.40	—	—	—	—
	1/5/2004	ENER	—	0.250	< 0.0300	0.0570	4.62	—	—	—	—
	5/6/2004	ENER	—	0.298	< 0.0300	0.0760	—	—	—	—	—
	10/4/2004	ENER	—	0.0442	< 0.0300	0.0080	—	—	—	—	—
	11/15/2005	ENER	—	0.130	< 0.0300	0.0270	5.00	—	—	—	—
	3/2/2006	ENER	—	0.137	< 0.0300	0.0270	5.10	—	—	—	—
	10/3/2006	ENER	—	0.0564	< 0.0300	0.0100	4.00	—	—	—	—
	10/23/2007	ENER	—	0.101	< 0.0300	0.0190	4.60	—	—	—	—
	6/2/2008	ENER	—	0.105	< 0.0300	0.0200	5.03	—	—	—	—
	6/22/2009	ENER	—	0.0983	< 0.0300	0.0180	5.13	—	—	—	—
	4/30/2010	ENER	—	0.198	< 0.0300	0.0450	5.40	—	—	—	—
	6/1/2011	ENER	—	0.183	< 0.0300	0.0360	—	—	—	—	—
	10/19/2012	ENER	—	0.0823	< 0.0300	0.0220	—	—	—	—	—
0657	8/5/1999	ENER	7.99	0.0450	< 0.0300	0.0340	1.79	< 0.200	< 1.000	< 0.0100	< 0.200
	10/28/1999	ENER	—	0.0726	—	0.0440	—	—	—	—	—
	9/6/2000	ENER	—	0.0690	—	0.0520	3.89	—	—	—	—
	5/4/2001	ENER	—	0.0714	—	0.0514	—	—	—	—	—
	9/17/2001	ENER	—	0.0590	—	0.0580	3.40	—	—	—	—
	5/8/2002	ENER	—	0.0560	—	0.0510	—	—	—	—	—
	10/2/2002	ENER	—	0.0480	—	0.0550	3.26	—	—	—	—
	5/27/2003	ENER	—	1.10	0.100	0.161	2.40	—	—	—	—
	9/18/2003	ENER	—	0.0530	< 0.0300	0.0440	3.00	—	—	—	—
	5/13/2004	ENER	—	0.0498	< 0.0300	0.0500	—	—	—	—	—
	9/14/2004	ENER	—	0.0680	—	0.0390	4.49	—	—	—	—

Signifies Quality Control Sample

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0657	5/9/2005	ENER	—	0.0536	< 0.0300	0.0400	—	—	—	—	—
	9/26/2005	ENER	—	0.0689	—	0.0420	4.30	—	—	—	—
	8/30/2006	ENER	—	0.0689	—	0.0360	3.10	—	—	—	—
	5/1/2007	ENER	—	0.0566	< 0.0300	0.0320	—	—	—	—	—
	8/22/2007	ENER	—	0.130	—	0.0310	2.90	—	—	—	—
	10/22/2007	ENER	—	0.0641	—	0.0310	2.90	—	—	—	—
	4/10/2008	ENER	—	0.0497	< 0.0300	0.0300	—	—	—	—	—
	5/6/2009	ENER	—	0.0474	< 0.0300	0.0340	—	—	—	—	—
	9/16/2009	ENER	—	0.0489	—	0.0400	3.50	—	—	—	—
	9/16/2009	EPA6	# 0.01	# 0.0489	# < 0.0500	# 0.0400	# 3.40	# < 0.0910	# < 0.290	# < 0.0100	# < 0.0520
	9/16/2009	EPA6	# 0.01	# 0.0582	# < 0.0500	# 0.0441	—	—	—	# < 0.0100	—
	11/6/2009	ENER	—	0.0477	< 0.0300	0.0380	3.70	—	—	—	—
	4/21/2010	ENER	—	0.0517	< 0.0300	0.0440	3.70	—	—	—	—
	8/28/2010	ENER	—	0.0476	< 0.0300	0.0440	3.90	—	—	—	—
	5/11/2011	ENER	—	0.0534	< 0.0300	0.0460	—	—	—	—	—
	5/9/2012	ENER	—	0.0592	< 0.0300	0.0350	—	—	—	—	—
	5/13/2013	ENER	—	0.0622	< 0.0300	0.0390	—	—	—	—	—
	8/8/2013	ENER	—	0.0568	—	0.0360	3.70	—	—	—	—
0658	4/13/1999	ENER	8.10	0.0073	< 0.0300	0.0200	0.440	< 0.200	2.30	< 0.0100	< 0.200
	10/28/1999	ENER	—	0.0101	—	0.0350	—	—	—	—	—
	9/2/2000	ENER	—	0.0140	—	0.0420	3.53	—	—	—	—
	9/17/2001	ENER	—	0.0120	—	0.0530	2.60	—	—	—	—
	10/2/2002	ENER	—	0.0110	—	0.0500	2.14	—	—	—	—
	9/18/2003	ENER	—	0.0141	< 0.0300	0.0440	2.10	—	—	—	—
	9/14/2004	ENER	—	0.0111	< 0.0300	0.0350	—	—	—	—	—
	9/26/2005	ENER	—	0.0118	< 0.0300	0.0380	1.90	—	—	—	—
	10/4/2006	ENER	—	0.0559	< 0.0300	0.0410	1.90	—	—	—	—
	8/22/2007	ENER	—	0.0630	< 0.0300	0.0310	3.40	—	—	—	—
	6/3/2008	ENER	—	0.0161	—	0.0370	—	—	—	—	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0658	10/2/2008	ENER	—	0.0129	< 0.0300	0.0360	1.83	—	—	—	—
	6/16/2009	ENER	—	0.0143	—	0.0430	—	—	—	—	—
	9/16/2009	ENER	—	0.0158	< 0.0300	0.0480	2.23	—	—	—	—
	9/16/2009	EPA6	# 0.01	# 0.0158	# < 0.0300	# 0.0480	# 2.20	# < 0.0890	# < 0.0830	# < 0.0100	# < 0.0710
	9/16/2009	EPA6	# 0.01	# 0.0205	# < 0.0500	# 0.0575	—	—	—	# < 0.0100	—
	11/9/2009	ENER	—	0.0170	< 0.0300	0.0510	2.60	—	—	—	—
	4/20/2010	ENER	—	0.0157	< 0.0300	0.0500	2.20	—	—	—	—
	8/28/2010	ENER	—	0.0358	< 0.0300	0.0390	3.00	—	—	—	—
	10/27/2010	ENER	—	0.0156	< 0.0300	0.0460	—	—	—	—	—
	2/9/2011	ENER	—	0.0140	< 0.0300	0.0410	—	—	—	—	—
	5/11/2011	ENER	7.79	0.0111	< 0.0300	0.0380	1.90	0.0600	—	—	—
	6/13/2011	ENER	—	0.0126	—	0.0390	—	—	—	—	—
	3/13/2012	ENER	7.46	0.0113	< 0.0300	0.0380	2.00	0.0900	—	—	—
	7/9/2012	ENER	—	0.0119	—	0.0350	—	—	—	—	—
	8/1/2012	ENER	—	0.0101	< 0.0300	0.0400	—	—	—	—	—
	8/1/2012	ENER	—	# 0.0103	# < 0.0300	# 0.0420	—	—	—	—	—
	9/20/2012	ENER	—	0.0104	< 0.0300	0.0390	—	—	—	—	—
	11/7/2012	ENER	7.65	0.0120	< 0.0300	0.0400	1.90	0.230	—	—	—
	2/6/2013	HMC	7.40	0.0110	< 0.0300	0.0400	2.20	0.0200	—	—	—
	10/29/2013	ENER	—	0.0102	< 0.0300	0.0340	—	—	—	—	—
NO 682 Data?	2/25/2014	ENER	7.50	0.0098	< 0.0300	0.0310	2.60	0.0600	—	—	—
	8/26/2014	ENER	—	0.0128	< 0.0300	0.0350	—	—	—	—	—
0683	9/25/1995	ENER	7.52	0.0038	< 0.0300	0.0020	1.77	0.300	3.00	< 0.0100	0.600
	12/12/1995	ENER	7.84	< 0.0100	< 0.0100	< 0.0100	1.12	< 0.200	1.10	< 0.0100	< 0.200
	10/29/1996	ENER	7.88	< 0.0003	< 0.0300	< 0.0050	1.14	0.400	< 1.000	< 0.0100	< 0.200
	9/2/1997	ENER	—	0.0020	—	< 0.0050	—	—	—	—	—
	9/26/1998	ENER	—	0.0029	—	< 0.0050	—	—	—	—	—
	9/29/1999	ENER	—	0.0037	—	0.0040	1.87	—	—	—	—
	9/29/1999	ENER	—	# 0.0037	—	# 0.0040	# 1.88	—	—	—	—

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0683	9/12/2000	ENER	—	0.0030	—	< 0.0050	0.710	—	—	—	—
	9/18/2001	ENER	—	0.0030	—	< 0.0050	1.30	—	—	—	—
	10/11/2002	ENER	—	0.0030	—	< 0.0050	4.60	—	—	—	—
	1/6/2004	ENER	—	0.0033	< 0.0300	0.0120	3.26	—	—	—	—
	10/4/2004	ENER	—	0.0036	—	0.0150	2.88	—	—	—	—
	11/15/2005	ENER	—	0.0035	—	0.0130	2.60	—	—	—	—
	10/4/2006	ENER	—	0.0044	—	0.0250	0.700	—	—	—	—
	10/23/2007	ENER	—	0.0043	—	0.0150	2.00	—	—	—	—
	11/19/2008	ENER	—	0.0039	—	0.0150	2.50	—	—	—	—
	9/29/2009	ENER	—	0.0007	—	< 0.0050	1.70	—	—	—	—
	10/20/2010	ENER	—	0.0035	—	< 0.0050	0.700	—	—	—	—
	11/2/2011	ENER	—	0.0041	—	0.0120	2.30	—	—	—	—
	10/19/2012	ENER	—	0.0049	—	0.0080	1.20	—	—	—	—
0684	9/22/1995	ENER	7.86	0.0087	< 0.0300	0.0280	2.66	< 0.200	< 1.000	< 0.0100	0.700
	12/12/1995	ENER	7.94	< 0.0100	< 0.0100	0.0170	2.98	< 0.200	< 1.000	< 0.0100	< 0.200
	10/30/1996	ENER	7.99	0.0087	< 0.0300	0.0370	2.90	0.300	< 1.000	< 0.0100	< 0.200
	9/3/1997	ENER	—	0.0110	—	0.0320	—	—	—	—	—
	9/25/1998	ENER	—	0.0190	—	0.0400	—	—	—	—	—
	9/30/1999	ENER	—	0.0172	—	0.0370	2.23	—	—	—	—
	9/7/2000	ENER	—	0.0220	—	0.0400	2.58	—	—	—	—
	9/25/2001	ENER	—	0.0240	—	0.0390	2.40	—	—	—	—
	10/9/2002	ENER	—	0.0420	—	0.0300	7.60	—	—	—	—
	1/6/2004	ENER	—	0.0492	< 0.0300	0.0200	0.960	—	—	—	—
	10/5/2004	ENER	—	0.0486	—	0.0360	2.02	—	—	—	—
	11/15/2005	ENER	—	0.0648	—	0.0360	2.90	—	—	—	—
	10/4/2006	ENER	—	0.0457	—	0.0360	2.50	—	—	—	—
	5/9/2007	ENER	—	0.0557	—	0.0330	2.80	—	—	—	—
	11/24/2008	ENER	—	0.0466	—	0.0390	4.30	—	—	—	—
	10/20/2009	ENER	—	0.0677	—	0.0490	4.20	—	—	—	—

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0684	10/13/2010	ENER	—	0.0753	—	0.0480	3.70	—	—	—	—
	11/15/2011	ENER	—	0.0716	—	0.0450	3.80	—	—	—	—
	10/19/2012	ENER	—	0.0748	—	0.0350	3.00	—	—	—	—
0685	9/25/1995	ENER	7.48	0.106	< 0.0300	0.0490	4.26	0.300	2.40	< 0.0100	< 0.200
	12/13/1995	ENER	7.86	0.126	< 0.0100	0.0290	3.85	< 0.200	< 1.000	< 0.0100	< 0.200
	11/11/1996	ENER	8.10	0.114	< 0.0300	0.0640	2.81	< 0.200	< 1.000	< 0.0100	< 0.200
	3/19/1997	ENER	—	0.123	—	0.0560	—	—	—	—	—
	9/8/1997	ENER	8.10	0.0990	< 0.0300	0.0540	2.98	< 0.200	—	—	—
	3/24/1998	ENER	—	0.0979	—	0.0580	—	—	—	—	—
	9/29/1998	ENER	8.09	0.136	< 0.0300	0.0560	2.86	< 0.200	—	—	—
	9/28/1999	ENER	—	—	—	—	3.00	—	—	—	—
	9/29/1999	ENER	—	0.182	—	0.0500	—	—	—	—	—
	9/6/2000	ENER	—	0.153	—	0.0500	3.07	—	—	—	—
	9/25/2001	ENER	—	0.122	—	0.0500	3.10	—	—	—	—
	7/24/2002	ENER	—	0.126	—	0.0470	3.23	—	—	—	—
	9/18/2003	ENER	—	0.132	< 0.0300	0.0470	3.40	—	—	—	—
	9/14/2004	ENER	—	0.101	< 0.0300	0.0370	—	—	—	—	—
	9/26/2005	ENER	—	0.0954	< 0.0300	0.0340	3.50	—	—	—	—
	10/10/2006	ENER	—	0.0941	< 0.0300	0.0280	3.30	—	—	—	—
	10/24/2007	ENER	—	0.0895	< 0.0300	0.0320	3.50	—	—	—	—
0687	10/4/1995	ENER	7.95	0.0830	< 0.0300	0.0240	5.75	< 0.200	< 1.000	< 0.0100	< 0.200
	12/13/1995	ENER	7.84	0.0740	< 0.0100	0.0370	11.5	< 0.200	< 1.000	< 0.0100	0.600
	3/12/1996	ENER	7.74	0.0830	< 0.0300	0.0660	11.2	< 0.200	—	—	—
	7/29/1996	ENER	7.57	0.141	0.0300	0.0440	9.73	0.200	1.000	0.0100	1.20
	11/11/1996	ENER	8.02	0.142	< 0.0300	0.0540	10.6	< 0.200	< 1.000	< 0.0100	< 0.200
	9/8/1997	ENER	—	0.145	—	0.0630	—	—	—	—	—
	3/24/1998	ENER	7.96	0.175	< 0.0300	0.0830	10.1	< 0.200	—	—	—
	3/24/1998	ENER	# 7.91	# 0.162	# < 0.0300	# 0.0750	# 10.7	# < 0.200	—	—	—

Signifies Quality Control Sample

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0687	9/29/1998	ENER	—	0.0270	—	0.0560	—	—	—	—	—
	9/29/1999	ENER	—	0.219	—	0.0660	7.23	—	—	—	—
	9/6/2000	ENER	—	0.206	—	0.0740	9.02	—	—	—	—
	9/25/2001	ENER	—	0.173	—	0.0710	8.40	—	—	—	—
	7/24/2002	ENER	—	0.121	—	0.0870	7.33	—	—	—	—
	9/18/2003	ENER	—	0.106	< 0.0300	0.0490	6.70	—	—	—	—
	9/14/2004	ENER	—	0.0983	—	0.0440	4.79	—	—	—	—
	3/28/2005	ENER	—	0.108	< 0.0300	0.0390	—	—	—	—	—
	9/26/2005	ENER	—	0.102	< 0.0300	0.0440	5.30	—	—	—	—
	5/1/2007	ENER	—	0.117	< 0.0300	0.0380	—	—	—	—	—
0896	8/31/1995	ENER	7.73	0.0140	< 0.0300	0.0760	9.00	< 0.200	1.10	< 0.0100	< 0.200
	12/12/1995	ENER	7.60	0.0120	< 0.0100	0.0580	15.6	< 0.200	3.00	< 0.0100	< 0.200
	3/6/1996	ENER	7.55	< 0.0100	< 0.0300	0.0760	16.9	< 0.200	—	—	—
	10/29/1996	ENER	7.84	0.0065	< 0.0300	0.0720	20.2	0.300	< 1.000	< 0.0100	< 0.200
	9/2/1997	ENER	—	0.0080	—	0.0710	—	—	—	—	—
	9/26/1998	ENER	—	0.0264	—	0.0940	—	—	—	—	—
	9/29/1999	ENER	—	0.0349	—	0.107	5.39	—	—	—	—
	9/26/2000	ENER	—	0.0200	—	0.0910	9.70	—	—	—	—
	9/18/2001	ENER	—	0.0260	—	0.0900	8.30	—	—	—	—
	10/10/2002	ENER	—	0.0330	—	0.0910	6.60	—	—	—	—
	1/6/2004	ENER	—	0.0384	< 0.0300	0.0820	4.60	—	—	—	—
	10/4/2004	ENER	—	0.0353	—	0.0780	5.43	—	—	—	—
	11/15/2005	ENER	—	0.0422	—	0.0860	5.60	—	—	—	—
	10/4/2006	ENER	—	0.0433	—	0.0960	4.60	—	—	—	—
	10/23/2007	ENER	—	0.0538	—	0.0990	4.20	—	—	—	—
	11/19/2008	ENER	—	0.0545	—	0.0820	4.30	—	—	—	—
	9/29/2009	ENER	—	0.0622	—	0.0760	2.70	—	—	—	—
	10/20/2010	ENER	—	0.0682	—	0.0690	2.30	—	—	—	—
	11/2/2011	ENER	—	0.0621	—	0.0630	1.60	—	—	—	—

WHERE IS 895 DATA?

Slowly INC.

W

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0896	10/19/2012	ENER	—	0.0699	—	0.0560	1.60	—	—	—	—
0899	9/11/1995	ENER	7.49	0.146	< 0.0300	0.0090	14.4	< 0.200	6.70	—	< 0.200
	12/11/1995	ENER	8.02	0.185	< 0.0300	0.0110	14.9	< 0.200	< 1.000	< 0.0100	< 0.200
	3/6/1996	ENER	7.98	0.188	< 0.0300	0.0130	14.2	< 0.200	—	—	—
	10/29/1996	ENER	7.96	0.112	< 0.0300	0.0140	15.4	< 0.200	< 1.000	< 0.0100	< 0.200
	9/3/1997	ENER	—	0.0960	—	0.0130	—	—	—	—	—
	9/25/1998	ENER	—	0.138	—	0.117	—	—	—	—	—
	9/28/1999	ENER	—	0.0897	—	0.0560	6.40	—	—	—	—
	9/28/1999	ENER	—	# 0.0820	—	# 0.0540	# 6.17	—	—	—	—
	9/26/2000	ENER	—	0.0690	—	0.0300	11.5	—	—	—	—
	9/18/2001	ENER	—	0.0300	—	0.0510	10.8	—	—	—	—
	9/18/2001	ENER	—	# 0.0320	—	# 0.0560	# 10.5	—	—	—	—
	10/10/2002	ENER	—	0.0330	—	0.0190	2.00	—	—	—	—
	1/6/2004	ENER	—	0.0749	< 0.0300	0.0240	5.00	—	—	—	—
	10/4/2004	ENER	—	0.0509	—	0.0330	5.97	—	—	—	—
	11/15/2005	ENER	—	0.0517	—	0.0360	6.00	—	—	—	—
	10/4/2006	ENER	—	0.0532	—	0.0400	5.50	—	—	—	—
	10/23/2007	ENER	—	0.0520	—	0.0580	6.60	—	—	—	—
	6/2/2008	ENER	—	0.0580	—	0.0610	7.30	—	—	—	—
	6/22/2009	ENER	—	0.0585	—	0.0530	6.90	—	—	—	—
	9/16/2009	EPA6	# 0.01	# 0.0632	# < 0.0500	# 0.0540	# 6.50	# 0.370	# < 0.0840	# < 0.0100	# < -0.0640
	9/16/2009	EPA6	# 0.01	# 0.0697	# < 0.0500	# 0.0580	—	—	—	# < 0.0100	—
	9/16/2009	ENER	—	0.0632	—	0.0540	6.70	—	—	—	—
	10/20/2010	ENER	—	0.0582	—	0.0310	5.20	—	—	—	—
	10/19/2012	ENER	—	0.0602	—	0.0200	4.10	—	—	—	—
0935	7/12/1946	UNK	—	—	—	—	14.0	—	—	—	—
	10/24/1980	UNK	7.50	0.0200	< 0.0500	< 0.0100	34.5	0.0800	—	—	—
	8/24/1995	ENER	7.69	0.192	< 0.0300	0.0190	13.0	0.200	< 1.000	< 0.0100	0.300

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0935	9/5/1995	ENER	7.81	0.205	< 0.0300	0.0200	13.1	< 0.200	< 1.000	< 0.0100	0.500
	9/12/1995	ENER	7.32	0.195	< 0.0300	0.0170	11.9	< 0.200	< 1.000	—	< 0.200
	12/12/1995	ENER	7.80	0.163	< 0.0100	0.0350	12.2	< 0.200	< 1.000	< 0.0100	< 0.200
	3/8/1996	ENER	7.75	0.162	< 0.0300	0.0430	13.4	< 0.200	—	—	—
	10/30/1996	ENER	7.96	0.171	< 0.0300	0.0560	11.8	< 0.200	< 1.000	< 0.0100	< 0.200
	3/19/1997	ENER	—	0.243	—	0.0710	—	—	—	—	—
	9/3/1997	ENER	7.93	0.200	< 0.0300	0.0830	10.7	< 0.200	—	—	—
	3/12/1998	ENER	—	0.221	—	0.0330	—	—	—	—	—
	9/26/1998	ENER	7.90	0.317	0.170	0.100	7.73	0.300	—	—	—
	9/30/1999	ENER	—	0.296	—	0.0770	7.14	—	—	—	—
	9/7/2000	ENER	—	0.340	—	0.0900	8.29	—	—	—	—
	9/25/2001	ENER	—	0.275	—	0.0870	7.60	—	—	—	—
	10/9/2002	ENER	—	0.247	—	0.0580	6.20	—	—	—	—
	9/18/2003	ENER	—	0.126	< 0.0300	0.0480	6.00	—	—	—	—
	5/6/2004	ENER	—	0.137	< 0.0300	0.0510	—	—	—	—	—
	10/5/2004	ENER	—	0.0891	< 0.0300	0.0340	5.23	—	—	—	—
	11/18/2005	ENER	—	0.125	< 0.0300	0.0440	5.30	—	—	—	—
	10/4/2006	ENER	—	0.101	< 0.0300	0.0410	4.90	—	—	—	—
	10/2/2007	ENER	—	0.107	< 0.0300	0.0310	4.90	—	—	—	—
	11/24/2008	ENER	—	0.0859	< 0.0300	0.0240	5.00	—	—	—	—
	10/20/2009	ENER	—	0.0848	< 0.0300	0.0180	4.00	—	—	—	—
	10/13/2010	ENER	—	0.105	< 0.0300	0.0240	4.00	—	—	—	—
	11/15/2011	ENER	—	0.122	< 0.0300	0.0290	4.20	—	—	—	—
	10/19/2012	ENER	—	0.125	< 0.0300	0.0330	4.20	—	—	—	—
	12/11/2013	ENER	—	0.142	< 0.0300	0.0340	4.30	—	—	—	—
0994	8/25/1995	ENER	7.61	< 0.0100	< 0.0300	< 0.0100	2.48	0.400	< 1.000	< 0.0100	< 0.200
	3/19/1997	ENER	—	0.0070	—	0.0070	—	—	—	—	—
	3/24/1998	ENER	—	0.0030	—	< 0.0050	—	—	—	—	—
	9/25/2001	ENER	—	0.0040	—	< 0.0050	2.00	—	—	—	—

THIS SHOULD BE SAMPLED

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> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0994	12/11/2001	ENER	—	0.0045	—	< 0.0050	1.80	—	—	—	—
	4/2/2002	ENER	—	0.0050	—	0.0070	1.94	—	—	—	—
	7/9/2002	ENER	—	0.0080	—	0.0070	2.11	—	—	—	—
	9/18/2002	ENER	—	0.0050	—	0.0050	2.31	—	—	—	—
	11/13/2002	ENER	—	0.0040	—	0.0050	1.90	—	—	—	—
	3/25/2003	ENER	—	0.0049	—	0.0070	2.10	—	—	—	—
	4/21/2003	ENER	—	0.0048	—	< 0.0050	2.50	—	—	—	—
	10/27/2003	ENER	—	0.0046	< 0.0300	< 0.0050	3.00	—	—	—	—
	3/19/2004	ENER	—	0.0051	—	0.0060	2.86	—	—	—	—
	10/20/2004	ENER	—	0.0055	< 0.0300	0.0170	—	—	—	—	—
	3/22/2005	ENER	—	0.0051	—	0.0170	4.70	—	—	—	—
	10/24/2005	ENER	—	0.0063	< 0.0300	0.0400	7.80	—	—	—	—
	3/15/2006	ENER	—	0.0060	—	0.0420	7.00	—	—	—	—
	10/24/2006	ENER	—	0.0063	< 0.0300	0.0510	8.20	—	—	—	—
	3/21/2007	ENER	—	0.0080	—	0.0490	7.70	—	—	—	—
	11/8/2007	ENER	7.68	0.0070	< 0.0300	0.0560	6.90	< 0.200	—	—	—
	3/26/2008	ENER	7.54	0.0060	< 0.0300	0.0480	7.50	-0.180	—	—	—
	10/15/2008	ENER	—	0.0055	< 0.0300	0.0510	7.42	—	—	—	—
	11/14/2008	ENER	7.57	0.0055	< 0.0300	0.0500	8.40	-0.0700	—	—	—
	4/3/2009	ENER	7.31	0.0069	< 0.0300	0.0450	6.08	0.140	—	—	—
	10/2/2009	ENER	—	0.0073	< 0.0300	0.0430	1.80	—	—	—	—
	3/22/2010	ENER	7.38	0.0063	< 0.0300	0.0400	6.00	0.0900	—	—	—
	10/21/2010	ENER	—	0.0058	< 0.0300	0.0380	—	—	—	—	—
	3/28/2011	ENER	7.55	0.0061	< 0.0300	0.0330	5.20	-0.0600	—	—	—
	10/18/2011	ENER	—	0.0197	< 0.0300	0.0750	—	—	—	—	—
	4/2/2012	ENER	7.36	0.0058	< 0.0300	0.0240	5.20	-0.0600	—	—	—
	10/1/2012	ENER	—	0.0065	< 0.0300	0.0230	—	—	—	—	—
	4/4/2013	ENER	7.68	0.0067	0.0700	0.0210	4.80	16.0	—	—	—
	10/30/2013	ENER	—	0.0060	< 0.0300	0.0220	—	—	—	—	—

> Site Standard

Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

pH THROUGH Th-230

Sample Point Name	Date	Lab	pH (std. units)	Unat (mg/l)	Mo (mg/l)	Se (mg/l)	NO3 (mg/l)	Ra226 (pCi/l)	Ra228 (pCi/l)	V (mg/l)	Th230 (pCi/l)
0994	3/27/2014	ENER	7.49	0.0081	< 0.0300	0.0210	4.50	0.200	---	---	---
	10/1/2014	ENER	---	0.0065	< 0.0300	0.0210	---	---	---	---	---
0996	9/18/1995	ENER	7.85	0.134	< 0.0300	0.0400	5.66	< 0.200	< 1.000	< 0.0100	0.300
	12/13/1995	ENER	7.88	0.149	< 0.0100	0.0350	5.12	< 0.200	< 1.000	< 0.0100	< 0.200
	3/12/1996	ENER	7.81	0.146	< 0.0300	0.0790	5.38	< 0.200	---	---	---
	11/11/1996	ENER	8.00	0.168	< 0.0300	0.0830	4.75	< 0.200	< 1.000	< 0.0100	< 0.200
	9/8/1997	ENER	7.98	0.0620	< 0.0300	0.0600	3.79	< 0.200	---	---	---
	11/19/1998	ENER	8.08	0.0640	< 0.0300	0.0620	3.59	< 0.200	---	---	---
	9/29/1999	ENER	---	0.0754	---	0.0530	3.08	---	---	---	---
	9/29/1999	ENER	---	# 0.0670	---	# 0.0540	# 3.12	---	---	---	---
	9/6/2000	ENER	---	0.172	---	0.0660	5.42	---	---	---	---
	9/6/2000	ENER	---	# 0.172	---	# 0.0700	# 5.55	---	---	---	---
	11/3/2000	ENER	7.51	0.0795	< 0.0300	0.0769	4.85	< 0.200	< 1.000	< 0.0100	< 0.200
	9/25/2001	ENER	---	0.0690	---	0.0840	5.20	---	---	---	---
	7/24/2002	ENER	---	0.0350	---	0.0940	5.15	---	---	---	---
	9/18/2003	ENER	---	0.0430	< 0.0300	0.0550	4.80	---	---	---	---
	9/14/2004	ENER	---	0.0454	< 0.0300	0.0440	---	---	---	---	---
	9/26/2005	ENER	---	0.0516	< 0.0300	0.0430	3.70	---	---	---	---
	8/30/2006	ENER	---	0.0450	< 0.0300	0.0390	4.10	---	---	---	---
	8/22/2007	ENER	---	0.0567	< 0.0300	0.0330	4.10	---	---	---	---
	9/16/2009	ENER	---	0.0418	< 0.0300	0.0390	4.95	---	---	---	---
	9/16/2009	EPA6	# 0.01	# 0.0418	# < 0.0300	# 0.0390	# 4.70	# < 0.360	# < 0.170	# < 0.0100	# < -0.0140
	9/16/2009	EPA6	# 0.01	# 0.0526	# < 0.0500	# 0.0478	---	---	---	# < 0.0100	---
	11/9/2009	ENER	---	0.0412	< 0.0300	0.0420	11.3	---	---	---	---
	4/21/2010	ENER	---	0.0433	< 0.0300	0.0460	4.80	---	---	---	---
	8/27/2010	ENER	---	0.0423	< 0.0300	0.0460	4.60	---	---	---	---
	11/9/2011	ENER	---	0.0508	< 0.0300	0.0470	---	---	---	---	---
	9/20/2012	ENER	---	0.0627	< 0.0300	0.0390	---	---	---	---	---
	8/8/2013	ENER	---	0.0793	< 0.0300	0.0310	---	---	---	---	---

Signifies Quality Control Sample

* Signifies Specific Conductivity from HMC

> Site Standard

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Attachment A-2. Historical Water Quality Analysis for Alluvial Wells. (cont.)

Site TH-220

Sample Name	Date	Lab	Ca (mg/L)	Chlor (mg/L)	Mg (mg/L)	Na (mg/L)	SO4 (mg/L)	Fluoride (mg/L)	Nitrate (mg/L)	TDS (mg/L)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

9-189
(Oct. 1939)

Prel 935

NOTEBOOK SHEET

Name 12.10.29.434 Date A.R. Curd

12.10.29.434

Driller: A.D. Turner Co.

0-15	Adobe
15-95	Malpais – Water at 80'
95-115	Sand & Gravel (egg-size)
115-117	Red clay & gravel
117-125	Sand & gravel (finer)
125-155	Blue sandy shale (hard)
155-165	Red shale
165-180	Blue shale
180-205	Red shale

16" casing from 0-150
~~60' perforation~~

8" pipe from 150 – 205

Tested at 1800 gpm

37' feet perforated

Chief aquifer 95-130 (?)

(Traces of coal (?) found)

abandoned

12.10.29.434a: about 35' ~~west~~ west is equipped with pump.

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12.10.29.434

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