

STATE OF NEVADA
DEPARTMENT OF MINERALS
400 King Street, Suite 106
Carson, City, Nevada 89710
(702) 885-5050

ORIG - DOM

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer **Oxbow Geothermal Corporation**

Month of **December 1990**

Address **200 South Virginia Street, #450, Reno, NV 89501**

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and Lease Name	Well No.	Geothermal Fluids Injected		Injection Pressure (psig)	Reservoir Formation	Reservoir Depth
		Gallons per day	Gallons per month (M-Gal)			
Dixie Valley (all)						
N-12393	25-5		138.43	76	Miocene Basalt	6193 - 6215
N-12393	45-5		11.99	78	Miocene Basalt	6200 - 6300
Lamb Fee	32-18		22.82	56	Miocene Basalt	7360 - 7374
Lamb Fee	52-18		36.48	71	Jurassic Gabbro	9500 - 9600
N-12862	65-18		22.59	81	Jurassic Gabbro	9265 - 9417
Lamb Fee	SWL-1		18.47	7	Miocene Basalt	7191 - 7256
Lamb Fee	SWL-3		36.86	10	Miocene Basalt	7070 - 7450
Totals			287.64			

Remarks:

I certify this information to be true, correct and complete and that no pertinent matter inquired about in this report has been omitted.

Signature
Position
Date

Project Manager
February 11, 1991



O X B O W G E O T H E R M A L RECEIVED

January 8, 1991

JAN 09 1991

Dept. of Minerals

Mr. Tom Gallagher
Division of Water Resources
201 S. Fall Street
Carson City, Nevada 89710

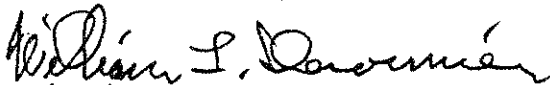
Subject: 1990 Dixie Valley water production, injection and consumption.

Dear Tom:

Enclosed is the final report on the 1990 water production, injection and consumption for the Dixie Valley geothermal power plant.

If you have any questions please call me or Dick Benoit.
Thank you.

Sincerely,


William L. Desormier
Geologist

Distribution: T. Diehl
C.D. Wells
R. Hoops, BLM
K. Loomis, DOM

Fourth	Quarter	1990			Geothermal	Water	Produced
Well	October	November	December	Total			
27-33	126.69	122.33	141.54	390.56			
28-33	283.15	212.41	237.67	733.22			
45-33	126.38	119.94	138.93	385.26			
76-7	197.98	197.46	193.84	589.28			
63-7	151.40	167.63	167.17	486.20			
84-7	94.56	103.67	103.18	301.41			
74-7	223.76	210.57	209.77	644.10			
82-7	202.65	199.67	191.23	593.55			
73-7	224.81	226.10	222.04	672.95			
Total	1631.37	1559.77	1605.38	4796.52	acre-feet.		

Fourth	Quarter	1990			Potable	Water	Produced
Well	October	November	December	Total			
W62-7	0.29	0.23	0.68	1.20			
W45-5	0.00	0.00	0.00	0.00			
Total	0.29	0.23	0.68	1.20	acre-feet.		

Total Water Production				Fourth	
Month	October	November	December	Quarter	Total
Total	1631.66	1560.00	1606.06	4797.72	acre-feet.

Fourth	Quarter	1990			Injected	Water
Well	October	November	December	Total		
25-5	436.99	432.75	424.86	1294.61		
45-5	40.38	34.55	36.81	111.74		
32-18	78.52	63.36	70.03	211.90		
41-18	0.00	0.00	0.00	0.00		
52-18	167.81	166.87	111.96	446.63		
65-18	74.39	68.86	69.32	212.57		
SWL-3	126.97	120.73	113.12	360.81		
SWL-1	57.03	52.06	56.70	165.79		
Total	982.09	939.18	882.79	2804.05	acre-feet.	

Fourth quarter water consumption is 1993.67 acre-feet.

1990 Cumulative (acre-feet)					
		Total			
Potable	Geothermal	Production	Injection	Consumption	
6.93	18646.95	18653.88	11185.26	7468.63	

1990 Cumulative (acre-feet)
Total

Potable	Geothermal	Production	Injection	Consumption
6.93	18646.95	18653.88	11185.26	7468.63

First Quarter 1990

		Total		
Potable	Geothermal	Production	Injection	Consumption
0.44	4472.25	4472.69	2707.62	1765.07

Second Quarter 1990

		Total		
Potable	Geothermal	Production	Injection	Consumption
4.69	4433.30	4437.99	2895.97	1542.03

Third Quarter 1990

		Total		
Potable	Geothermal	Production	Injection	Consumption
0.60	4944.88	4945.48	2777.62	2167.86

Fourth Quarter 1990

		Total		
Potable	Geothermal	Production	Injection	Consumption
1.20	4796.52	4797.723	2804.05	1993.66

STATE OF NEVADA
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400 King Street, Suite 106
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ORIG - DOM

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer **Oxbow Geothermal Corporation**

Month of November 1990

Address **200 South Virginia Street, #450, Reno, NV 89501**

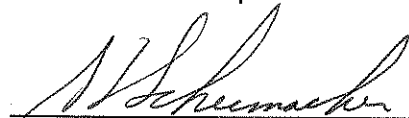
Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and Lease Name	Well No.	Geothermal Fluids Injected		Injection Pressure (psig)	Reservoir Formation	Reservoir Depth
		Gallons per day	Gallons per month (M-Gal)			
Dixie Valley (all)						
N-12393	25-5		141.01	98	Miocene Basalt	6193 - 6215
N-12393	45-5		11.26	100	Miocene Basalt	6200 - 6300
Lamb Fee	32-18		20.64	72	Miocene Basalt	7360 - 7374
Lamb Fee	52-18		54.37	76	Jurassic Gabbro	9500-9600
N-12862	65-18		22.44	96	Jurassic Gabbro	9265 - 9417
Lamb Fee	SWL-1		16.96	68	Miocene Basalt	7191 - 7256
Lamb Fee	SWL-3		39.34	68	Miocene Basalt	7070 - 7450

Remarks:

I certify this information to be true, correct and complete and that no pertinent matter inquired about in this report has been omitted.

Signature



Stephen E. Schumacher

Position

Project Manager

Date

December 28, 1990

DEPARTMENT OF MINERALS
 400 W. King Street, Suite 106
 Carson City, Nevada 89710
 (702) 885-5050

Dup - NBM&G
 Trip - DWR
 Quad - DEP

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of October, 19 90

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		142.39 M/Gal	90 psig	Miocene Basalt	6193-6215
N-12393	45-5		13.16 M/Gal	92 psig	Miocene Basalt	6200-6300
Lamb Fee	32-18		25.58 M/Gal	61 psig	Miocene Basalt	7360-7374
Lamb Fee	52-18		54.68 M/Gal	66 psig	Jurassic Gabbro	9500-9600
N-12862	65-18		24.24 M/Gal	84 psig	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		18.58 M/Gal	58 psig	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		41.37 M/Gal	60 psig	Miocene Basalt	7070-7450
			319.99 M/Gal			

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature *Stephen E. Schumacher*

Position Project Manager

Date 11/10/90

DEPARTMENT OF MINERALS

400 W. King Street, Suite 106
Carson City, Nevada 89710
(702) 885-5050

Dup - NBM&G
Trip - DWR
Quad - DEP

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of September, 19 90

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		133.10 M/Gal	94 psig	Miocene Basalt	6193-6215
N-12393	45-5		11.42 M/Gal	96 psig	Miocene Basalt	6200-6300
Lamb Fee	32-18		16.74 M/Gal	69 psig	Miocene Basalt	7360-7374
Lamb Fee	52-18		49.57 M/Gal	71 psig	Jurassic Gabbro	9500-9600
N-12862	65-18		23.46 M/Gal	90 psig	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		16.37 M/Gal	62 psig	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		35.82 M/Gal	65 psig	Miocene Basalt	7070-7450
			286.47 M/Gal			

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature *M. Schumacher*

Position Project Manager

Date 10/3/90

DEPARTMENT OF MINERALS

400 W. King Street, Suite 106

Carson City, Nevada 89710

(702) 885-5050

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Quad - DEP

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of August, 1990

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		139.54 M/Gal	130 psig	Miocene Basalt	6193-6215
N-12393	45-5		12.15 M/Gal	105 psig	Miocene Basalt	6200-6300
Lamb Fee	32-18		21.03 M/Gal	77 psig	Miocene Basalt	7360-7374
Lamb Fee	52-18		52.05 M/Gal	81 psig	Jurassic Gabbro	9500-9600
N-12862	65-18		23.45 M/Gal	100 psig	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		18.03 M/Gal	69 psig	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		39.35 M/Gal	73 psig	Miocene Basalt	7070-7450
			305.61 M/Gal			

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature Stephen Schumacher

Position Project Manager

Date 9/6/90

DEPARTMENT OF MINERALS

400 W. King Street, Suite 106
 Carson City, Nevada 89710
 (702) 885-5050

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 Quad - DEP

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of July, 19 90

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		144.85 M/Gal	106 psig	Miocene Basalt	6193-6215
N-12393	45-5		11.78 M/Gal	107 psig	Miocene Basalt	6200-6300
Lamb Fee	32-18		18.92 M/Gal	78 psig	Miocene Basalt	7360-7374
Lamb Fee	52-18		56.09 M/Gal	81 psig	Jurassic Gabbro	9500-9600
N-12862	65-18		24.13 M/Gal	100 psig	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		17.62 M/Gal	70 psig	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		39.60 M/Gal	74 psig	Miocene Basalt	7070-7450
			312.97 M/Gal			

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature *[Handwritten Signature]*

Position Project Manager

Date 8/8/90

DEPARTMENT OF MINERALS

400 W. King Street, Suite 106

Carson City, Nevada 89710

(702) 885-5050

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REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS Dept. of Minerals

Producer Oxbow Geothermal Corporation Month of June, 1990

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		147.64	108	Miocene Basalt	6193-6215
N-12393	45-5		9.31	111	Miocene Basalt	6200-6300
Lamb Fee	32-18		18.60	78	Miocene Basalt	7360-7374
Lamb Fee	52-18		57.53	80	Jurassic Gabbro	9500-9600
N-12862	65-18		24.68	99	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		18.65	70	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		40.01	74	Miocene Basalt	7070-7450
			316.42			

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature 

Position Project Manager

Date 7/16/90

DEPARTMENT OF MINERALS

400 W. King Street, Suite 106

Carson City, Nevada 89710

(702) 885-5050

Dup - NBM&G

Trip - DWR

Quad - DEP

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of May, 1990

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		46.24 M/Gal	777psig	Miocene Basalt	6193-6215
N-12393	45-5		1.92 M/Gal	94psig	Miocene Basalt	6200-6300
Lamb Fee	32-18		7.27 M/Gal	44	Miocene Basalt	7360-7374
Lamb Fee	52-18		17.64 M/Gal	49	Jurassic Gabbro	9500-9600
N-12862	65-18		7.87 M/Gal	65	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		6.08 M/Gal	36	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		12.98 M/Gal	41	Miocene Basalt	7070-7450
			----- 314.68 M/Gal			

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature Stephen Schumacher

Position Project Manager

Date 6/19/90

DEPARTMENT OF MINERALS

400 W. King Street, Suite 106
 Carson City, Nevada 89710
 (702) 885-5050

Dup - NBM&G
 Trip - DWR
 Quad - DEP

REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of April, 19 90

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		142.32 M/Gal	108 psig	Miocene Basalt	6193-6215
N-12393	45-5		13.74 M/Gal	110 psig	Miocene Basalt	6200-6300
Lamb Fee	32-18		8.26 M/Gal	57 psig	Miocene Basalt	7360-7374
Lamb Fee	52-18		58.61 M/Gal	91 psig	Jurassic Gabbro	9500-9600
N-12862	65-18		25.80 M/Gal	105 psig	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		43.73 M/Gal	76 psig	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		20.05 M/Gal	70 psig	Miocene Basalt	7070-7450

312.52 M/Gal
 Total

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature *Stephen Schumacher*

Position Project Manager

Date 5/04/90

DEPARTMENT OF MINERALS

400 W. King Street, Suite 106
Carson City, Nevada 89710
(702) 885-5050

Dup - NBM&G
Trip - DWR
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REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of March, 19 90

Address 200 S. Virginia St., #450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		140.04 M/Gal	98 psig	Miocene Basalt	6193-6215
N-12393	45-5		16.34 M/Gal	98 psig	Miocene Basalt	6200-6300
Lamb Fee	32-18		23.75 M/Gal	56 psig	Miocene Basalt	7360-7374
Lamb Fee	52-18		58.94 M/Gal	74 psig	Jurassic Gabbro	9500-9600
N-12862	65-18		26.27 M/Gal	87 psig	Jurassic Gabbro	9265-9417
Lamb Fee	SWL-1		17.03 M/Gal	46 psig	Miocene Basalt	7191-7256
Lamb Fee	SWL-3		36.91 M/Gal	52 psig	Miocene Basalt	7070-7450

319.29 M/Gal
Total

Remarks:

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature Stephen Schumacher
Position Project Manager
Date 4/4/90

STATE OF NEVADA
DEPARTMENT OF MINERALS
 400 W. King Street, Suite 106
 Carson City, Nevada 89710
 (702) 885-5050

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REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of February, 1990

Address 200 S. Virginia St. Suite 450 Reno, NV 89501

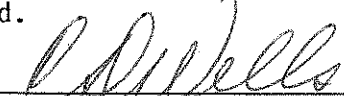
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Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		104.85 M/Gal	103 PSIG	Miocene Basalt	6,193-6,215'
N-12393	45-5		12.89 M/Gal	103 PSIG	Miocene Basalt	6,200-6,300'
Lamb Fee	32-18		18.46 M/Gal	75 PSIG	Miocene Basalt	7,360-7,374'
Lamb Fee	52-18		48.42 M/Gal	85 PSIG	Jurassic Gabbro	9,500-9,600'
N-12862	65-18		21.16 M/Gal	96 PSIG	Jurassic Gabbro	9,265-9,417'
Lamb Fee	SWL-1		15.27 M/Gal	54 PSIG	Miocene Basalt	7,191-7,256'
Lamb Fee	SWL-3		33.54 M/Gal	59 PSIG	Miocene Basalt	7,070-7,450'

Remarks:

254.59 M/Gal
Total

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature 

Position O & M Manager

Date March 8, 1990

STATE OF NEVADA
DEPARTMENT OF MINERALS
 400 W. King Street, Suite 106
 Carson City, Nevada 89710
 (702) 885-5050

Orig - NDOM
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REPORT OF GEOTHERMAL SUBSURFACE INJECTIONS

Producer Oxbow Geothermal Corporation Month of January, 19 90

Address 200 S. Virginia St. Suite 450 Reno, NV 89501

Show each injection well separately. File not later than the last day of the month for the preceding month.

Field and lease name	Well No.	Geothermal Fluids Injected		Injection pressure	Reservoir formation	Reservoir depth
		Gallons per day	Gallons per month			
Dixie Valley (all)						
N-12393	25-5		129.06 M/Gal	108 PSIG	Miocene Basalt	6,193-6,215'
N-12393	45-5		15.41 M/Gal	109 PSIG	Miocene Basalt	6,200-6,300'
Lamb Fee	32-18		24.14 M/Gal	78 PSIG	Miocene Basalt	7,360-7,374'
Lamb Fee	52-18		57.81 M/Gal	88 PSIG	Jurassic Gabbro	9,500-9,600'
N-12862	65-18		26.08 M/Gal	100 PSIG	Jurassic Gabbro	9,265-9,417'
Lamb Fee	SML-1		17.13 M/Gal	55 PSIG	Miocene Basalt	7,191-7,256'
Lamb Fee	SML-3		38.74 M/Gal	64 PSIG	Miocene Basalt	7,070-7,450'

Remarks:

308.37 M/Gal
Total

I certify this information to be true, correct, and complete and that no pertinent matter inquired about in this report has been omitted.

Signature *C. Wells*
 Position O & M Manager
 Date February 13, 1990