

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF WATER RESOURCES

JASON KING, P.E.
STATE ENGINEER



COYOTE SPRING VALLEY (HYDROGRAPHIC BASIN 13-210)

GROUNDWATER PUMPAGE INVENTORY

CALENDAR YEAR 2013

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Report Prepared by: John Guillory, P.E.

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ABSTRACT

This inventory represents the status and pumpage of all permitted, certificated and claims of vested right groundwater rights located within Coyote Spring Valley, Hydrographic Basin 13-210, for calendar year 2013 (January 1, 2013 through December 31, 2013). Also included is data associated with depth to groundwater.

The data presented are valid for the time period of this report, and may vary from previously published data as water rights within the basin are subject to administrative action, such as certification, cancellation, forfeiture, or withdrawal on a daily basis.

For calendar year 2013 the permitted, certificated and claims of vested right groundwater rights totaled **16,450 acre-feet**. Estimated pumpage for the calendar year was **3,407 acre-feet**. Municipal is the largest manner of use within the basin. For calendar year 2013, appropriations for municipal use totaled 13,850 acre-feet and the pumpage was 2,992 acre-feet. The next largest manner of use was industrial with appropriations totaling 2,500 acre-feet and the pumpage was 0 acre-feet. The next largest manner of use was irrigation with appropriations totaling 100 acre-feet and the pumpage was 413 acre-feet. The next largest manner of use was pumping by exempt domestic wells, at 2 acre-feet. Exempt domestic wells are defined by Nevada Revised Statutes 534.013 and do not require a permit issued by the State Engineer.

HYDROGRAPHIC BASIN SUMMARY

HYDROGRAPHIC BASIN NUMBER..... 210, REGION 13

HYDROGRAPHIC BASIN NAME COYOTE SPRING VALLEY

COUNTIES..... CLARK, LINCOLN

NEARBY COMMUNITIES..... ALAMO, MOAPA

DESIGNATED YES

DENIALS BASED UPON WATER AVAILABILITY IRRIGATION

GROUNDWATER LEVEL MEASUREMENTS NDWR, SNWA, USGS

ESTIMATED PUMPAGE INVENTORY, ACRE-FEET IN 2013 3,407*

STATE ENGINEER'S ORDERS

905 - DESIGNATION AUGUST 21, 1985

1169 - FURTHER STUDY..... MARCH 8, 2002

1169a - FURTHER STUDY DECEMBER 21, 2012

COMMITTED GROUNDWATER RESOURCE: 16,450 ACRE-FEET.. DATE: JUNE 2013

MUNICIPAL 13,850 INDUSTRIAL 2,500 IRRIGATION..... 100

NOTE: Committed groundwater resource data are accurate for June 2013. Manner of use category totals vary over time, as water rights (rights) are not necessarily static. Rights may be subject to change applications, certification, withdrawals, forfeiture and cancellations; each of these circumstances could impact the duty, diversion rate and acreage associated with a given right.

*Includes pumpage by exempt domestic wells, as defined by NRS 534.013. The domestic use estimate is based upon a count of the total domestic wells in the basin multiplied by 1 acre-foot per annum. The number of domestic wells in the basin was estimated by a query of the [Nevada Division of Water Resources' Well Log Database](#) and is estimated to be 2.

PURPOSE AND SCOPE

The purpose of this report is to inventory all of the groundwater resources allocated and described by the Office of the State Engineer, Nevada Division of Water Resources, and to estimate the amount of groundwater pumped within the Coyote Spring Valley Hydrographic Basin 13-210, for the calendar year beginning January 1, 2013 and ending December 31, 2013 (hereafter referred to as calendar year 2013). This report estimates the amount of groundwater pumped under the permits and certificates issued by the State Engineer, claims of vested right, and the amount pumped by exempt domestic wells within the basin. Associated information, such as groundwater level measurements, is also presented.

DESCRIPTION OF THE STUDY AREA

Coyote Spring Valley is a basin located in southeastern Nevada. The valley is approximately 60 miles north of Las Vegas, Nevada, and is within the Colorado River Hydrographic Region. The basin is located within Clark and Lincoln Counties (see Figure 1).

Coyote Spring Valley is bounded on the west by the Sheep Range. This range rises to 9,920 feet (all elevations in this text are above mean sea level) at Hayford Peak at the south end of the range. The south end of Coyote Spring Valley is topographically closed by a bedrock and alluvial divide extending eastward from Hayford Peak to the Arrow Canyon Range. The Delamar Range borders the basin to the east and the Arrow Canyon Range bounds the southeast part of the basin. The north boundary is defined by a series of hills at the south end of the Pahranaagat Range that connects with the north end of the Sheep and Delamar Ranges.

The adjacent Nevada hydrographic basins are as follows: Pahranaagat Valley, 13-209, to the north; Delamar Valley, 10-182, to the north; Kane Springs Valley, 13-206, to the northeast; Lower Meadow Valley Wash, 13-205, to the east; Muddy River Springs Area, 13-219, to the east; California Wash, 13-218, to the southeast; Hidden Valley (North), 13-217, to the south; Las Vegas Valley, 13-212, to the southwest; Three Lakes Valley (Southern Part), 13-211, to the southwest; Three Lakes Valley (Northern Part), 10-168, to the southwest; and Tikapoo Valley (Southern Part), 10-169B, to the west. The exterior boundary of the Coyote Spring Valley Hydrographic Basin is as described by Designation Order 905, issued by the Nevada State Engineer August 21, 1985.

FIGURE 1 LOCATION MAP OF COYOTE SPRING VALLEY HYDROGRAPHIC BASIN 13-210



GROUNDWATER LEVELS

Depths to groundwater in Coyote Spring Valley have been measured by the Nevada Division of Water Resources consistently since the late 1990's. There are three (3) active sites and zero (0) inactive sites in the monitoring well network. The following are the site names and links to the data (refer to Figure 2 for monitoring well locations):

[210 S11 E62 24BA 2](#)

[210 S11 E62 24BD 1](#)

[210 S11 E62 24DB 1](#)

In addition, numerous wells are monitored by water rights holders. These water level data are provided to NDWR and are also available on line (<http://water.nv.gov>).

Groundwater level data are also collected by the USGS (data may be accessed through the USGS website <http://nevada.usgs.gov>).

**FIGURE 2 MONITORING WELL LOCATION MAP OF COYOTE SPRING VALLEY
13-210**



METHODS TO ESTIMATE PUMPAGE

This report estimates the amount of groundwater pumped under the permits and certificates issued by the Nevada State Engineer as well as claims of vested right and exempt domestic wells in the Coyote Spring Valley Hydrographic Basin. The following methods were used to arrive at the estimated use:

- Where totalizing meters are in place, meter readings were taken and compared with previous data (if available).
- Where meters were not in place and the use was irrigation, pumpage was estimated by multiplying the number of hours the well was operated during the past year (determined from an hour meter reading or asking the water user) by the certificated diversion rate.
- Where meters were not in place, use was irrigation, and the number of hours the well was operated was unknown an inspection of the place of use was done to estimate the amount of acreage under cultivation. The number of acres under cultivation was then multiplied by a duty of 5 acre-feet per acre to estimate the use.
- Where meters were not present, previous data were not available, and the manner of use was not irrigation, pumpage was estimated by applying the annual duty associated with the certificate (if the water right was perfected), permit or claim, if the use was as described in the certificate, permit or claim. If the use was not as described in the certificate, permit or claim, a value was estimated based upon the circumstances of use for the subject year.
- If no water was used under the certificate, permit or claim, zero pumpage was recorded.
- Exempt domestic wells may be drilled and utilized where water service from a purveyor is not available. These types of wells do not require a permit from the State Engineer and are limited to a maximum of 2 acre-feet per year as provided by Nevada Revised Statutes (NRS) [534.180](#). [NRS 534.013](#) defines this category of domestic use as follows: “*Domestic use or domestic purposes extends to culinary and household purposes directly related to a single family dwelling, including, without limitation, the watering of a family garden and lawn and the watering of livestock and any other domestic animals or household pets.*” The number of exempt domestic wells in the basin is determined by a query of the Nevada Division of Water Resources' Well Log Database. The amount of water pumped by exempt domestic wells is estimated to be 1.0 acre-foot per well in Coyote Spring Valley. Actual domestic well pumpage is not precisely known.

PUMPAGE BY MANNER OF USE

Note that all data herein are estimates and are subject to revision. The total estimated groundwater pumpage for calendar year 2013 was **3,407 acre-feet**. The annual duties of the certificates, permits and claims of vested right within the Coyote Spring Valley Hydrographic Basin totaled **16,450 acre-feet**. The appropriated and actual pumped totals, categorized by manner of use, are as follows:

A. Municipal (MUN)

During calendar year 2013, appropriations for municipal purposes totaled 13,850 acre-feet in the basin. An estimated 2,992 acre-feet of groundwater was pumped during calendar year 2013.

B. Industrial (IND)

During calendar year 2013, appropriations for industrial purposes totaled 2,500 acre-feet in the basin. An estimated 0 acre-feet of groundwater was pumped during calendar year 2013.

C. Irrigation (IRR)

During calendar year 2013, appropriations for irrigation purposes totaled 100 acre-feet in the basin. An estimated 413 acre-feet of groundwater was pumped during calendar year 2013.

D. Domestic (DOM)

During water year 2013, appropriations for domestic purposes totaled 0 acre-feet in the basin. However, records of the State Engineer indicate an estimated 2 exempt domestic wells existed in the basin during water year 2013. The amount of water pumped for domestic use as described under NRS 534.013 is estimated at 2 acre-feet.

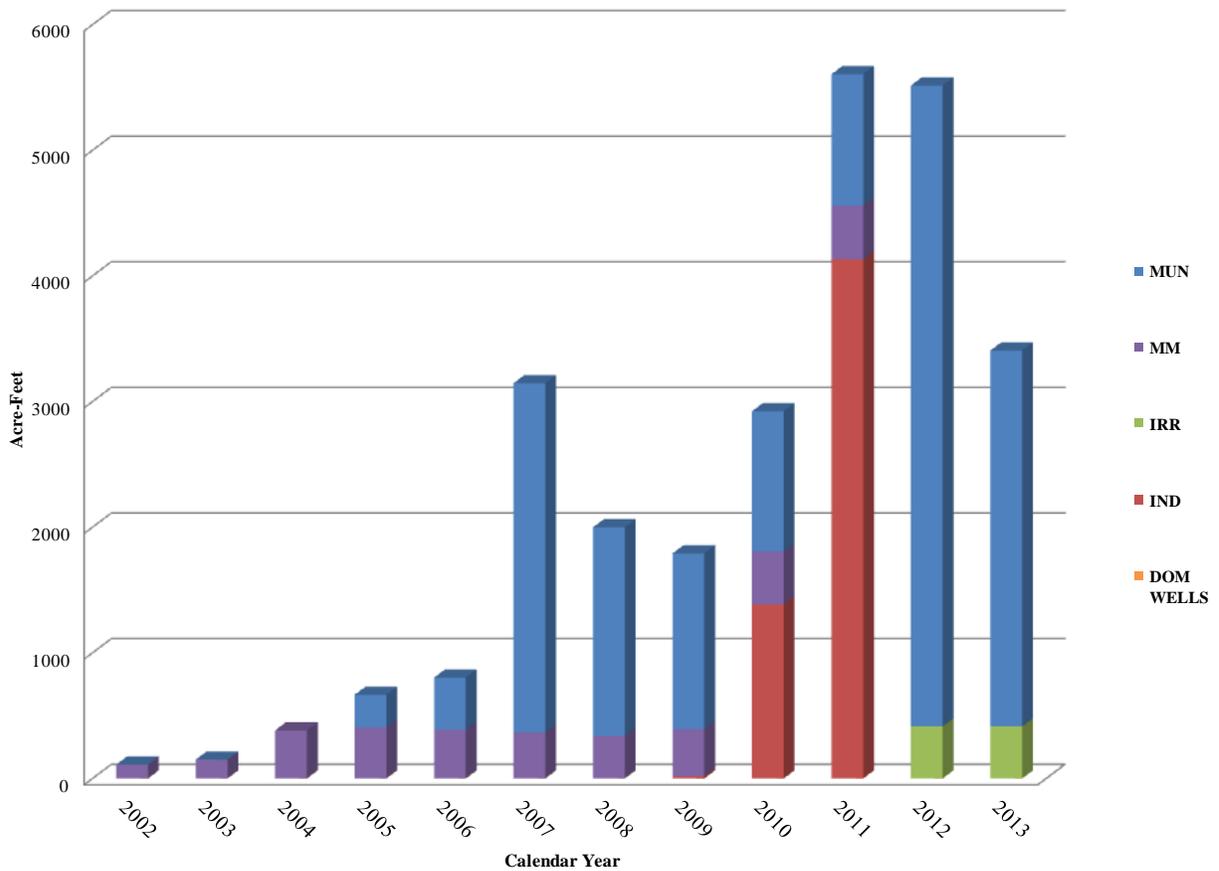
APPENDIX A

COYOTE SPRING VALLEY HISTORICAL PUMPAGE

HISTORICAL GROUNDWATER PUMPAGE BY MANNER OF USE

YEAR	DOM	IND	IRR	MM	MUN	TOTAL
2002	1	0	0	110	0	111
2003	2	0	0	149	0	151
2004	2	0	0	382	0	384
2005	2	0	0	406	259	667
2006	2	0	0	386	416	804
2007	2	0	0	364	2781	3147
2008	2	0	0	338	1660	2000
2009	2	15	0	377	1398	1792
2010	2	1384	0	423	1114	2923
2011	2	4131	0	427	1046	5606
2012	2	0	413	0	5101	5516
2013	2	0	413	0	2992	3407

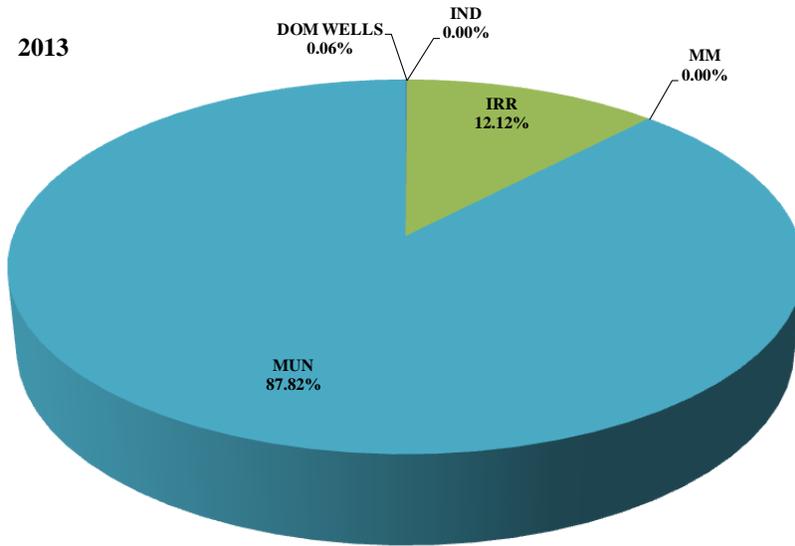
All values are in acre-feet



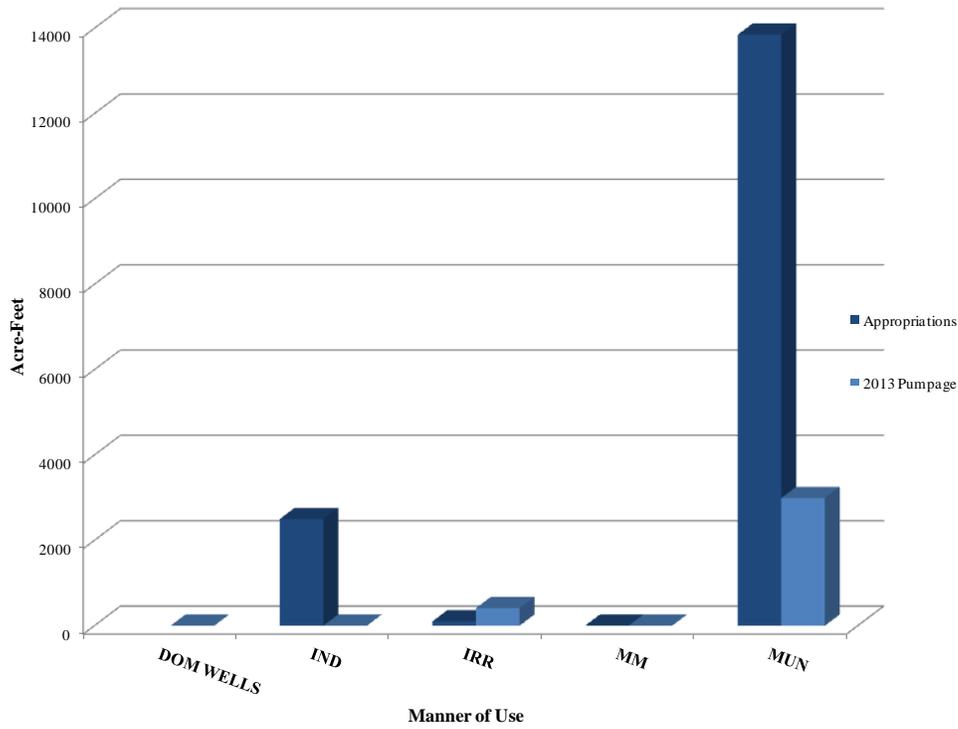
APPENDIX B

**COYOTE SPRING VALLEY GROUNDWATER PUMPAGE FOR CALENDAR YEAR
2013 BY MANNER OF USE**

PERCENTAGE OF GROUNDWATER PUMPAGE FOR CALENDAR YEAR 2013 BY MANNER OF USE



GROUNDWATER PUMPAGE FOR CALENDAR YEAR 2013 APPROPRIATIONS vs. ACTUAL PUMPAGE



APPENDIX C

**COYOTE SPRING VALLEY GROUNDWATER PUMPAGE FOR CALENDAR YEAR
2013**

EXPLANATION OF COLUMN HEADINGS FOR GROUNDWATER PUMPAGE INVENTORY

APP NUMBER	The file number of the Application or the Vested Claim of Right.																
STATUS	Indicates if the application is a Vested Claim of Right (VST), a Permit (Permit), or a Certificate (Cert).																
OWNER OF RECORD	The owner of the water right as recorded in the files of the State Engineer. A water right may have more than one owner of record.																
QQ	The quarter quarter of the Section in which the point of diversion is located.																
QTR	The quarter of the Section in which the point of diversion is located.																
Sec	The Section in which the point of diversion is located.																
T	The Township in which the point of diversion is located.																
R	The Range in which the point of diversion is located.																
ACRES OR DUTY	The number of acres that are permitted to be irrigated or the duty if the manner of use is anything other than irrigation.																
ACRES IRR OR USE	<p>The number of acres irrigated or the manner of use of the appropriated water. The types of manner of use may include:</p> <table border="0" style="width: 100%;"> <tr> <td>COM - Commercial</td> <td>CON - Construction</td> </tr> <tr> <td>DOM - Domestic</td> <td>ENV - Environmental</td> </tr> <tr> <td>IND - Industrial</td> <td>IRR - Irrigation</td> </tr> <tr> <td>MM - Mining & Milling</td> <td>MUN - Municipal</td> </tr> <tr> <td>OTH - Other</td> <td>PWR - Power</td> </tr> <tr> <td>QM - Quasi-Municipal</td> <td>REC - Recreation</td> </tr> <tr> <td>STK - Stockwater</td> <td>STO - Storage</td> </tr> <tr> <td>WLD - Wildlife</td> <td></td> </tr> </table>	COM - Commercial	CON - Construction	DOM - Domestic	ENV - Environmental	IND - Industrial	IRR - Irrigation	MM - Mining & Milling	MUN - Municipal	OTH - Other	PWR - Power	QM - Quasi-Municipal	REC - Recreation	STK - Stockwater	STO - Storage	WLD - Wildlife	
COM - Commercial	CON - Construction																
DOM - Domestic	ENV - Environmental																
IND - Industrial	IRR - Irrigation																
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OTH - Other	PWR - Power																
QM - Quasi-Municipal	REC - Recreation																
STK - Stockwater	STO - Storage																
WLD - Wildlife																	
USED (AF)	The amount of water used during the calendar year, in acre-feet, as determined by review of records and/or field investigation.																
REMARKS	Notes pertaining to field investigation and/or review of records.																

**GROUNDWATER PUMPAGE INVENTORY
COYOTE SPRING VALLEY, NO. 210
2013**

APP NUMBER	STATUS	OWNER OF RECORD	PLACE OF USE					ACRES OR DUTY	ACRES IRR OR USE	USED (A/F)	REMARKS
			QQ	Qtr	Sec	T	R				
V-04545 61458 70859 70860 70861 70862	Abr Exp Permit Exp Exp Exp	Bedrock Inc.	SE NW SE NW	NW SE NW SE	24	11	62	25.00	60.00	413.18	3 wells pump water ponds
70429 70430 74094 74095 82051-T	Cert Permit Permit Permit Permit	Coyote Springs Invest.	SE SW	SW SE	14	13	63	4600.00	MUN	1222.30	
77164	Permit	Nevada Power Co.	NE	NE	26	13	63	2500.00	IND	0.00	

**GROUNDWATER PUMPAGE INVENTORY
COYOTE SPRING VALLEY, NO. 210
2013**

APP NUMBER	STATUS	OWNER OF RECORD	PLACE OF USE					ACRES OR DUTY	ACRES IRR OR USE	USED (A/F)	REMARKS
			QQ	Qtr	Sec	T	R				
77291	Permit	SNWA	SE	SE	23	13	63	9000.00	MUN	1769.70	
77292	Permit		SW	NW	13	11	63				
77293	Permit		SE	NE	10	12	63				
77294	Permit		SE	NE	10	13	63				
77295	Permit		SW	NW	13	11	63				
77296	Permit		SE	SE	28						
77297	Permit		NE	NE	3	12	63				
77298	Permit		SE	NE	10						
77299	Permit		NW	SE	29						
77300	Permit		NW	NW	3	13	63				
77301	Permit		SE	NE	10	13	63				
77302	Permit		NE	NE	20						
77303	Permit		NE	NE	21						
77304	Permit		NE	NE	1						
77305	Permit										
77306	Permit										
77707-T	Exp										
77708-T	Exp										
77709-T	Exp										

 , P.E.

Verified with field notes: _____

TOTAL 3405.18 Permitted rights

APPENDIX D

**COYOTE SPRING VALLEY GROUNDWATER PUMPAGE INVENTORY FIELD
NOTES FOR CALENDAR YEAR 2013**

2013

Coyote Spring Valley
No. 210

Inventory Field Notes

compiled by
John Guillory, P.E. and Christi Emery

State of Nevada
Division of Water Resources
Southern Nevada Branch Office

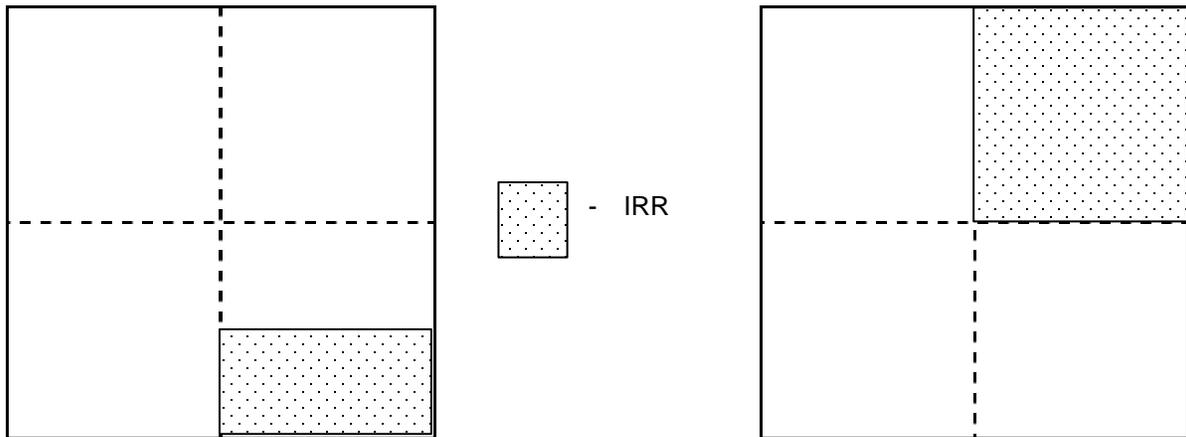
PUMPAGE INVENTORY FIELD REPORT

BASIN NO: <u>210</u>	PERMIT NO: <u>70859</u>
WELL: YES <u> </u> NO <u>X</u>	METER SER NO: <u>1278659</u>
PUMP: YES <u>X</u> NO <u> </u>	PUMP TYPE: <u>Sump pump</u>
MOTOR: YES <u> </u> NO <u>X</u>	MOTOR TYPE: <u> </u>
METER: YES <u>X</u> NO <u> </u>	METER READ: <u>55761700</u>
PHOTO: YES <u> </u> NO <u>X</u>	ACRES IRR: <u>60.0</u>
BENEFICIAL USE: YES <u>X</u> NO <u> </u>	PORTION <u> </u> ALL <u>X</u> TYPE <u>Irrigation</u>

IF PARTIAL USE, SKETCH OF LAND IRRIGATED.

 1/4 **NE** 1/4 SEC **24**

 1/4 **SE** 1/4 SEC **24**



REMARKS: Permit is valid for 25 acres within POU (E1/2 and E1/2 W1/2 of Section 24).

Approx. 35 acres irrigated additionally within POU. Mining and milling operation

within POU also. 3 unpermitted wells within POU pump water to ponds.

Meter has been broken for years.

SIGNATURE:  , P.E. DATE: 10/8/2013