January 11, 2024

Arizona Department of Environmental Quality
Water Quality Division
1110 W. Washington St.
Phoenix, AZ 85007

Re: Comments on Proposed Renewal of AZPDES Permit (AZ0026387) for Arizona Minerals, Inc.

To Whom It May Concern:

Please accept these comments and objections to the request by Arizona Minerals, Inc. (AMI) to renew its existing Arizona Pollutant Discharge Elimination System (AZPDES) Permit No. AZ0026387 for the "January Mine Hermosa Project Water Treatment Plant" in Santa Cruz County, Arizona ("Draft Permit" or "Permit"). The current AZPDES permit was scheduled to expire on January 7, 2023.

For the reasons set forth in these comments, the Permit cannot be issued based on the following:

1. Based on the coarse-grained lithology of the creek deposits, well construction information and water level data, discharge from Outfall 002 will infiltrate into the groundwater supplying domestic wells along Harshaw Creek. The following sections discuss this issue. Current levels in the Permit exceed the Primary Drinking Water Standards. If a Permit must be issued, the discharge must meet all Primary and Secondary Drinking Water Standards.
2. The discharge location for Outfall 002 is in Upper Harshaw Creek which is impaired.
3. Lower Harshaw Creek is impaired and the ADEQ must complete a TMDL before it can issue a permit.
4. Discharge data and actual extent of ongoing discharge must be included in calculating permit limits and waste load allocations.
5. The historic tailings represent a new source of pollutants as it is being used to hold new waste from new operations. Discharge from treatment of this historic tailings can't be discharged to Alum Gulch as it is impaired.
6. Sonoita Creek is a Waters of the US and will receive surface water from the discharge, however Sonita Creek is impaired for zinc and the ADEQ must complete a TMDL for zinc impairment in Sonoita Creek.
7. A waste load allocation must be performed by the ADEQ as required by the Clean Water Act to support restoration of the creek by not further contaminating it.
8. ADEQ must acknowledge that the AMI facility is a New Source of discharge before issuing the permit.
9. ADEQ must acknowledge that this mine will go into production during the time frame of this Permit and the waste stream will change over time.
10. The Permit must be revised to require at least monthly monitoring of all Assessment Level Monitoring parameters listed in the Permit especially considering the waste stream will change over time due to the nature of the project.
11. As a new source, the mine must be subject to all modern performance standards and requirements of the Clean Wate Act.
12. The Permit must be revised to include testing of manganese and sulfate to protect Secondary Drinking Water Standards.
13. There is a Health Advisory for Manganese which should be considered.

HYDROGEOLOGY OF HARSHAW CREEK ALLUVIAL DEPOSITS

Harshaw Creek alluvial deposits and water level information were evaluated by reviewing available well logs submitted to the Arizona Department of Water Resources (ADWR) and from the Groundwater Site Inventory (GWSI) database maintained by the ADWR. The wells reviewed for this study are located along in the portion of Harshaw Creek overlying bedrock, from Outfall 002 to conceptual POC 4. As shown on Figure 1, Harshaw Creek extends from the discharge point at Outfall 002 through Section 34 to Section 27 to Section 26 to Section 23 to Section 14 to Section 15 to Section 9. There is a naturally occurring perennial reach of Harshaw Creek in Section 23. Conceptual POC-4 is located at the western edge of Section 9 where the shallow bedrock underlying Harshaw Creek becomes deeper as the creek flow into the Sonoita Creek Basin.

Alluvium in area of the Harshaw Creek is an aquifer as it provides a reliable source of water for several homes and ranches. The Harshaw Creek alluvium is generally comprised of coarse-grained alluvial deposits consisting primarily of sand and gravel (ADWR logs for 55-227106, 55-540425, 55-646335 (35-36743, 55-928714). Most wells in the area are shallow, between 25 and 160 feet, and draw from the alluvial aquifer as their screened intervals are within the alluvium. In several wells, including deeper wells penetrating finer-grained materials, there are no annular material installed to prevent shallow groundwater from being drawn into the pumping well (ADWR 55-227106, 55-211818, 55-922966, 35-36743/55-646335, 55-928715, 55-224174).

Water levels from the ADWR along Harshaw Creek are reported to be shallow and generally increase in depth along the stream. From the GWSI database, water levels were 9 feet (55-637236, 2020) and 5.5 feet (55-640969, 2020) in Section 23, 18.4 feet (55-646334, 2005) in Section 15 and 27 feet (55-647393, 2020) in Section 9. From well completion reports, water levels in the area of the creek are shallow ranging from about 13 - 15 feet downstream of Outfall 002 (ADWR 55-211818 in Section 34, 55-536795 in Section 26) to 25 feet (ADWR 35-36743/55-646335) in Section 15 and become deeper closer conceptual POC 4 at 46 feet (55-224174 in Section 9) to 59 feet (55-98715 in Section 16).

The coarse-grained deposits allow for infiltration of discharge from the surface, through the thin vadose zone, into the shallow groundwater. The creek is effectively an infiltration basin until the groundwater reaches land surface. Discharge in January 2024 was observed infiltrating into the Harshaw Creek alluvial deposits in Section 26, downstream of the intersection of Harshaw Road and Harshaw Creek Road. Wells in Section 34 have likely been impacted from the discharge by a rise in water levels and an increase in the concentration of contaminants found in the discharge. The observation of surface water discharge in the creek suggests the aquifer in the area of the creek has been degraded beyond that caused by the natural habitat and the natural flow of Harshaw creek has been obviously interfered by the discharge.

WELLS ALONG HARSHAW CREEK

As shown on Figure 1 and in Table 1, there are 33 wells registered with the ADWR from Outfall 002 to conceptual POC 4 including 31 wells for domestic, irrigation and/or stock uses. Based on review of available well construction reports, several of these wells have screened intervals within the alluvium which will be or has been impacted by the discharge as it infiltrates into the groundwater. In wells which have deep screened intervals in finer-grained materials, several of these wells lack annular materials which would prevent the pumping of shallow water impacted by the discharge along the outside of the well.

Based on review of available data including lithology, well construction and water levels, 24 wells (shown in Table 1) along Harshaw Creek from Outfall 002 to conceptual POC 4 are in connection with surface water and will be or are already impacted by contaminants in the discharge which are above drinking water standards.

DISCHARGE WATER QUALITY

The Permit does not require the water quality of the discharge to be potable as shown in Table 2. In fact, the permit allows for the discharge of the following contaminants above drinking water standards:

- Lead – The drinking water standard for lead is zero, the permit allows over 8 parts per billion.
- Antimony – Permit allows for over 81 times the drinking water standard.
- Arsenic - Permit allows for over 12 times the drinking water standard.
- Barium - Permit allows for 49 times the drinking water standard.
- Boron - Permit allows for 93 times the drinking water standard.
- Chromium- Permit allows for 10 times the drinking water standard.
- Nitrate – Contained in drilling fluids and explosives used blast the shaft, is unlimited.
- Thallium - Permit allows for over 37 times the drinking water standard.
- Sulfate - Unlimited discharge is allowed by the Permit as Secondary Standards are not regulated.
- Manganese – Unlimited discharge is allowed by the Permit as it's not regulated but does have a health advisory value of 300 ppb which should be considered.

The water quality of Harshaw Creek, public waters (surface and groundwater) will be or has been degraded by the discharge water quality allowed in the Permit as the discharge is not associated with the natural habitat.

CONCLUSION

The connection between surface water, groundwater and domestic wells in the Harshaw Creek area has been demonstrated in the previous sections. There is a pathway for contaminants in the discharge, including lead and arsenic, into people. The ADEQ and the EPA have a duty to protect citizens against drinking contaminated groundwater. If Flint, Michigan was a mistake, this Permit is the opposite. If the Permit is granted, this will be permitted poisoning of the people by the agencies who have a duty to protect us. This violates ADEQ's own statutory duties, A.R.S. § 49-104(A)(1), (7), (9) and (10). ADEQ has ignored it's core obligations and responsibilities and should make every effort to correct it's actions and withdraw this Permit.

Chris Gardner
PO Box 1100, Patagonia, AZ 85624

Attached:
Figure 1 - Wells Along Harshaw Creek from Outfall 002 to Conceptual POC 4
Table 1 - ADWR Registered Wells Along Harshaw Creek from Outfall 002 to Conceptual POC 4 and Wells with Connection to Surface Water
Table 2 - Draft Permit Effluent Limitations and Assessment Levels for Discharge to Harshaw Creek ADWR Imaged Records – 55-224174, 55-646335 (35-36743), 55-922966, 55-540425, 55-211818, 55-227106

Figure 1 - Wells along Harshaw Creek from Outfall 002 to Conceptual POC 4

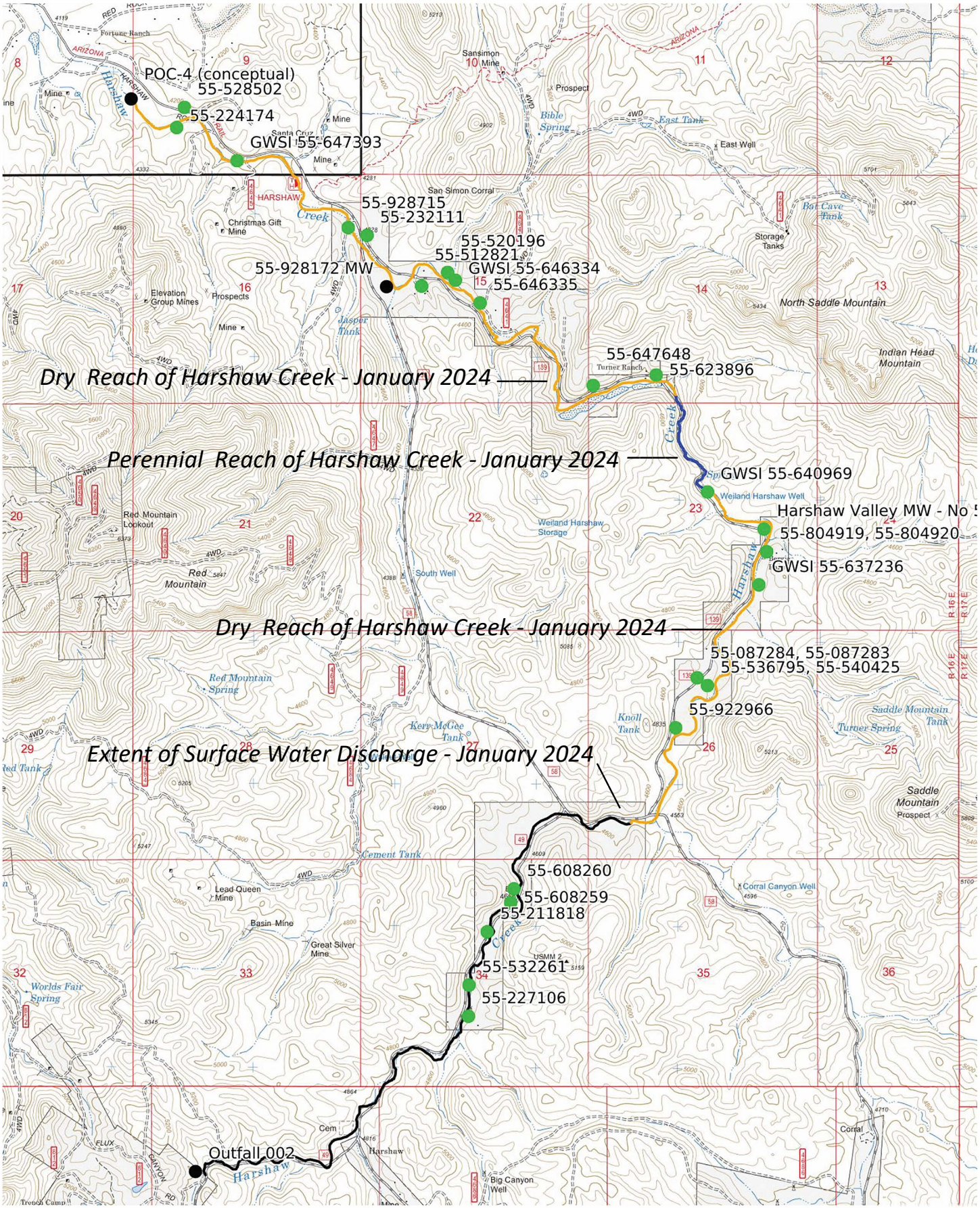


Table 1 - ADWR Registered Wells Along Harshaw Creek from Outfall 002 to Conecptual POC 4 and Wells with Possible Connectin to Surface Water

ADWR Registry Number	GWSI Data Available	Cadastral Location (sorted by section, downstream to upstream)	Owner Name	Well Type	Well Depth (ft)	Drill Date	Applicaiton Date	Water Level (ft)	Pump Capacity (GPM)	Log Received	Available Data Which Suggest Possible Connection with Surface Water
55-500276		D(22-16)09CAB	LEWIS,J B	EXEMPT	468	6/1/1981	6/26/1981	448	18	X	
55-500277		D(22-16)09CBA	MARTIN,D W	EXEMPT	200		6/26/1981	0	0		
55-528502		D(22-16)09CBD	MARTIN, DAVE,	EXEMPT	200	8/8/1990	6/15/1990	142	12	X	
55-224174		D(22-16)09CCA	LONG FAR INVESTMENTS, LLC	EXEMPT	100	5/20/2015	12/4/2014	60	6	X	
55-647393	X	D(22-16)09CDD	GWYN STERN ENRIGHT TRUST	EXEMPT	60	8/7/1945	6/14/1982	29	5		X
55-928715		D(22-16)16ADD	HARSHAW CREEK RANCH LLC	EXEMPT	100	9/12/2022	9/9/2022	59		X	X
55-232111		D(22-16)15BBC	REDROCK THOR LLC	EXEMPT	140	5/24/2020	3/30/2020	47	7	X	X
55-928172		D(22-16)15BCC	ARIZONA MINERALS	MONITOR	51	6/29/2022	5/18/2022	35		X	X
55-512821		D(22-16)15BCD	MARY JANE POTTEBAUM	EXEMPT	120	11/18/1985	11/18/1985	20	20	X	X
55-646334	X	D(22-16)15BDC	CONLEY,R E	EXEMPT	60		6/14/1982	0	35		X
55-520196		D(22-16)15BDD	2718, LLC	EXEMPT	180	2/14/1988	2/5/1988	21	0	X	X
55-646335		D(22-16)15DBD	CONLEY,R E	NON-EXEMPT	50	3/17/1976	6/14/1982	26	35	X	X
55-623896		D(22-16)14CCA	TURNER,J D	NON-EXEMPT	30	6/28/1948	6/14/1982	15	125		X
55-647648		D(22-16)14CCC	TURNER,J D	EXEMPT	26	1/1/1912	6/14/1982	15	6		X
55-640969	X	D(22-16)23AC0	CORONADO NATL FOREST,	EXEMPT		1/1/1973	6/7/1982	0	0		X
55-087040		D(22-16)23CAB	ALDEN,K F	EXEMPT	0		2/25/1981	0	0		
55-804920		D(22-16)23DAC	DAVID W & KATE KOZLOWSKI PEAKE III	EXEMPT	25		8/3/1987	0	0		X
55-804919		D(22-16)23DAC	DAVID W & KATE KOZLOWSKI PEAKE III	EXEMPT	100		8/3/1987	0	0		X
55-637236	X	D(22-16)23DC0	ESPERANZA RANCH,	EXEMPT	25		6/7/1982	20	5		X
55-540425		D(22-16)26ACB	LEE ROGERS	NON-EXEMPT	36	7/18/1994	8/20/1993	18	0	X	X
55-536795		D(22-16)26ACB	ROGERS, LEE,	NON-EXEMPT	291	3/18/1993	9/23/1992	25	2	X	X
55-219045		D(22-16)26ACB	LEE ROGERS	EXEMPT			7/7/2009				
55-087041		D(22-16)26BAA	LAURA CHESTER	EXEMPT	0		2/25/1981	0	0		
55-087284		D(22-16)26BAD	MICHAEL HOWARD	EXEMPT	120	4/7/1981	3/26/1981	20	0		X
55-087283		D(22-16)26BAD	MICHAEL HOWARD	EXEMPT	160	4/5/1981	3/26/1981	22	0		X
55-922966		D(22-16)26BAD	MICHAEL HOWARD	EXEMPT	400	8/14/2019	5/13/2019	72		X	X
55-085452		D(22-16)26BDC	LOCK,R L	EXEMPT	200	2/20/1981	8/8/1980	30	0		
55-608260		D(22-16)34ABA	ARIZONA MINERALS INC	EXEMPT	110		5/12/1982	18	5		X
55-608259		D(22-16)34ABD	ARIZONA MINERALS	EXEMPT	97		5/12/1982	19	3		X
55-928171		D(22-16)34ABD	ARIZONA MINERALS	MONITOR	43	6/29/2022	5/18/2022	16		X	
55-211818		D(22-16)34ACB	ANNA T URIAS	EXEMPT	160	8/16/2006	4/6/2006	15	10	X	X
55-227106		D(22-16)34BCA	JOSEFINA SOTO	EXEMPT	140	5/17/2017	3/27/2017	60		X	X
55-532261		D(22-16)34CAA	SOTO, MIGUEL,D	EXEMPT	273	7/11/1991	6/25/1991	63	15	X	X

Notes: ADWR Well Registry database querried 11/30/2023. Data which suggest possible connection with surface water includes lithologic descritions, water levels and well construction details from the ADWR Well Registry database, imaged files and the GWSI datadase.

Table 2 - Draft Permit Effluent Limitations and Assessment Levels for Discharge to Harshaw Creek

Parameter	Monthly Average	Primary Drinking Water Standard, Public Health Goal or Health Advisory	Discharge Concentrations / Primary Drinking Water Standard, Goal or Advisory	Notes
Lead	8.71 µg/L	0 µg/L	Can't calculate, there should be no lead in drinking water	Public Health Goad is zero. Infants and children: Delays in physical or mental development; children could show slight deficits in attention span and learning abilities; Adults: Kidney problems; high blood pressure
Antimony	491 µg/L	6 µg/L	81.8	Increase in blood cholesterol; decrease in blood sugar
Arsenic	123 µg/L	10 µg/L	12.3	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer
Barium	98,000 µg/L	2,000 µg/L	49	Increase in blood pressure
Beryllium	4.3 µg/L	4 µg/L	1.1	Intestinal lesions
Boron	186,667 µg/L	2,000 µg/L	93	Longer Term Health Advisory (2.0 mg/L) for childrene, risk for the potential effect on the testes of young males increases when consumed for the duration indicated by the advisory. Longer Term Health Advisory and Lifetime Health Advisory for adults (5 mg/L), the risk for the potential effect on the fetuses of pregnant women and the testes of males increases.
Chromium	1000 µg/L	100 µg/L	10	Allergic dermatitis
Nitrate	only reported	10 mg/L	Can't calculate, no limit on the discharge of nitrate	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
Thallium	75 µg/L	2 µg/L	37.5	Hair loss; changes in blood; kidney, intestine, or liver problems
Manganese	*Not regulated, not in the Permit*	*300 µg/L*	*Can't calculate, no limit on the discharge of manganese*	*The lifetime health advisory value of 0.3 mg/L will protect against concerns of potential neurological effects.*

Sources: National Primary Drinking Water Regulations EPA 816-F-09-004, May 2009
Summary Document from the Health Advisory for Boron and Compounds, Document Number: 822-S-08-003
Drinking Water Health Advisory for Manganese, EPA-822-R-04-003, January, 2004

Arizona Department of Water Resources
1802 W Jackson St. Box #79
Phoenix, AZ 85007
(602) 771-8527 - www.azwater.gov

Pump Installation Completion Report

Pursuant to Arizona Revised Statutes (A.R.S.) 45-600(B), the person to whom a well is registered must notify Arizona Department of Water Resources (ADWR) of an installation of a pump on the well.

WELL REGISTRATION NUMBER
55-224174

SECTION 1. Registry Information

Location of Well

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE	BOOK	MAP	PARCEL
22S	16E	9	SW	SW	NE	106	42	010E

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL
LONG FAR INVESTMENTS, LLC

MAILING ADDRESS
2539 N BALBOA AVENUE

CITY / STATE / ZIP
TUCSON, AZ 85705

SECTION 2. Equipment Installed

Date Pump Installed: 12/29/2022

Pump Type

SUBMERSIBLE **Other:**

Rated Pump Capacity: 6 Gallons Per Minute

Power Type

ELECTRIC MOTOR 1 - 5 HP **Other:**

Pitless Adaptor

Was a pitless adaptor installed? N

If Yes, depth below ground level the device was installed

Feet

SECTION 3. Pump Test

Test Data

Date Well Tested: 12/29/2022

Static Water Level: 46 Feet Below Land Surface

Pumping Water Level: 46 Feet Below Land Surface

Drawdown: 0 Feet Below Land Surface

Test Pumping Rate: 6 Gallons Per Minute

Duration of Pump Test: 4 Hours

Total Pumping Lift: 46 Feet

For flowing well, Measured Shut in Head:

Method of Discharge Measurement

BUCKET - BARREL - STOPWATCH

Other:

Method of Measuring Water

Sounder

Other:

SECTION 4. Well Owner Signature

I HEREBY CERTIFY that the above statements are true to the best of my knowledge and belief.

PREPARED BY
tom KIttle

DATE
12/29/2022 2:23:05 PM

Arizona Department of Water Resources
Information Management Unit
PO Box 36020 • Phoenix, Arizona 85067-36020
(602) 771-8527 • 602-771-8500

RECEIVED
JUN 12 2015
ARIZONA DEPARTMENT OF WATER RESOURCES

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN **30 DAYS** OF COMPLETING THE WELL.

PLEASE PRINT CLEARLY USING BLACK OR BLUE INK

FILE NUMBER: **D(22-16) 9 CCA**
WELL REGISTRATION NUMBER: **55 - 224174**
PERMIT NUMBER (IF ISSUED):

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
PATAGONIA TRADING COMPANY, LLC	841
ADDRESS: P.O. BOX 232	TELEPHONE NUMBER: 520-860-0030
CITY / STATE / ZIP: SONOITA, AZ, 85637-0232	FAX

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: TRES PIEDRAS, LLC

MAILING ADDRESS: 422 N. 5TH AVENUE

CITY / STATE / ZIP: TUCSON, AZ, 85705

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 520 333-0048 FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE 1/4	40 ACRE 1/4	10 ACRE 1/4

LATITUDE: 31 ° 31 ' 53 "N LONGITUDE: -110 ° 43 ' 19 "W

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ USGS Quad Map ☐ Conventional Survey ☑ *GPS: Hand-Held ☐ *GPS: Survey-Grade

LAND SURFACE ELEVATION AT WELL: 4074 Feet Above Sea Level

METHOD OF ELEVATION (CHECK ONE)
☐ USGS Quad Map ☐ Conventional Survey ☑ *GPS: Hand-Held ☐ *GPS: Survey-Grade

*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE)
☐ NAD-83 ☐ Other (please specify)

COUNTY: Santa Cruz

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
106	42	010E

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method (CHECK ONE)
☐ Air Rotary
☑ Bored or Augered
☑ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development (CHECK ONE)
☐ Airlift
☑ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well (CHECK ONE)
☑ Capped
☐ Pump Installed

Method of Sealing at Reduction Points (CHECK ONE)
☑ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED: 3-15-15

DATE WELL CONSTRUCTION COMPLETED: 5-20-15

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: [signature]

DATE: 6-10-15

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 224174

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
100 Feet Below Land Surface	100 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
60 Feet Below Land Surface	5-20-15	8:00	☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	20	11
20	100	9

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (T) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (T) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
0	40		✓				✓						
40	100		✓								✓		.025

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	20		✓									
20	100	✓										

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 224174

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	Description Describe material, grain size, color, etc.	Check (T) every interval where water was encountered (if known)
0	60	Clay - Reddish Brown	
60	75	Sand, Gravel	✓
75	80	Gray Clay	
80	90	Sand Gravel	✓
90	95	Gray Clay	
95	100	Sand Gravel	✓

LAND DEPARTMENT
WATER DIVISION
STATE OF ARIZONA

REPORT OF WELL DRILLER

This report should be prepared by the driller in all detail and filed with the State Land Commissioner following completion of the well.

1. OWNER Richard E. Conley
Name
Rocking Chair Ranch, P.O. Box 255, Patagonia, Arizona 85624
Address

2. Lessee or Operator
Name
Address

3. DRILLER Charles Inman,
Name
Boox 116, Patagonia, Arizona 85624
Address

4. Location of well: Twp. 22S Rge. 16E Section ~~16~~ 15 ~~NW~~ SE ¼ ~~SW~~ SE ¼ SE ¼
10-acre subdivision

5. Intention to Drill File No. Permit No.

DESCRIPTION OF WELL

6. Total depth of hole 50 ft.

7. Type of casing 6 inch I.D. ¼ WALL STEEL

8. Diameter and length of casing 6 in. from to 45 FT., in. from to , in. from to

9. Method of sealing at reduction points HARD ROCK SHOE

10. Perforated from 20 FT to 45, from to , from to , from to

11. Size of cuts ¼ Number of cuts per foot 2

12. If screen was installed: Length — ft. Diam. — in. Type —

13. Method of construction DRILLED With Cable Tool
drilled, dug, driven, bored, jetted, etc.

14. Date started MARCH 12 76
Month Day Year

15. Date completed MARCH 17 76
Month Day Year

16. Depth of water 25 ft.
If flowing well, so state.

17. Describe point from which depth measurements were made, and give sea-level elevation if available GROUND LEVEL
APP. 4,670. FT. ABOVE SEA LEVEL

18. If flowing well, state method of flow regulation —

19. REMARKS:

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

Received 5-10-76 by KTL

Filed 15 dbd by

File No. D(22-16)~~16 ddb~~
35-36743

(Well Log to Appear on Reverse Side)

LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water artesian, indicate depth at which encountered, and depth to which it rose in well.

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
0	5	SAND
5	25	LARGE BOULDERS,
25 -	45	WATER SAND + BOULDERS,
45	50	HARD ROCK BASALT,
BOTTOM OF WELL 50 FT.		
		C Ignmon

I hereby certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein contained are true to the best of my knowledge and belief.

Driller Charles J. Ignmon
Name

Box 116, Patagonia Ariz
Address

Date March 14, 76

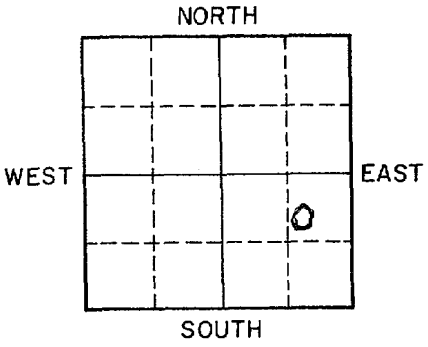
2-73

STATE LAND DEPARTMENT
Water Division
Phoenix, Arizona 85007

15 dbd

File No. D(22-16) ~~16 ddb~~

Location of Well



(Indicate Well Location by a circle "o" in the above Section Plat)

REPORT OF EQUIPMENT INSTALLED

OWNER Richard E. Conley

LOCATION OF WELL:

SE aw ~~NW~~ ¼ ~~SE~~ ¼ SE ¼, Sec. 15 ~~16~~ Twp. 22S Rge. 16E

Date Well Completed: _____ Depth _____

1. Well Test:

Discharge: 12 TO 15 (Gal. Per Min.) Date Well Tested: MARCH, 17-76

Method of Discharge Measurement: 20 GAL. BAILER. (weir, orifice, current meter, etc.)

Static Water Level: 26 ft. Drawdown 38 ft.

Total Pumping Lift 42 ft.

2. Equipment Installed:

Kind of Pump: ½ HP SUBMERSIBLE (turbine, centrifugal, etc.)

Kind of Power: ELECTRIC H. P. Rating of Motor ½ (Elec., Nat. Gas, Etc.)

I HEREBY CERTIFY that all the above statements are true to the best of my knowledge and belief.

Charles J. Conley
Signature

Date April 14, 1976.

Box 116 Patagonia Ariz
Address

63-73

RECEIVED

AUG 26 2019

Arizona Department of Water Resources

Arizona Department of Water Resources
Groundwater Permitting and Wells
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500
www.azwater.gov

Well Driller Report and Well Log

C)

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

PLEASE PRINT CLEARLY USING BLACK OR BLUE INK

FILE NUMBER: D(22-16) 26 BAC
WELL REGISTRATION NUMBER: 55 - 922966
PERMIT NUMBER (IF ISSUED):

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
B-J DRILLING COMPANY, INC.	25
ADDRESS	**TELEPHONE NUMBER**
P.O. BOX 815	520-586-3282
CITY / STATE / ZIP	**FAX**
BENSON, AZ, 85602-0815	

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: CHESTER, LAURA

MAILING ADDRESS: 364 HARSHAW CREEK ROAD

CITY / STATE / ZIP: PATAGONIA, AZ, 85624

CONTACT PERSON NAME AND TITLE: Laura Chester

TELEPHONE NUMBER: 413 717 0012

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
22S	16E	26	NW 1/4	NE 1/4	SW 1/4

LATITUDE			LONGITUDE		
°	'	"N	°	'	"W
DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ Conventional Survey ☐ *GPS: Survey-Grade

LAND SURFACE ELEVATION AT WELL: Feet Above Sea Level

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ Conventional Survey ☐ *GPS: Survey-Grade

*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE)
☐ NAD-83 ☐ Other (please specify)

COUNTY	ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
SANTA CRUZ	106	24	003B

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☒ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☒ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☒ Capped
☐ Pump Installed
☐ Abandoned

Method of Sealing at Reduction Points

CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☒ Other (please specify) neat cement

Construction Dates

DATE WELL CONSTRUCTION STARTED: 8/13/19

DATE WELL CONSTRUCTION COMPLETED: 8/14/19

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY:

DATE: 8/22/19

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 922966

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
400' Feet Below Land Surface	400' Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
72' Feet Below Land Surface	3/14/19		☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	20	12
20	400	7 5/8

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
+1	20	8	X				X						
0	300	5		X			X						
300	400	5		X							X		

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	20			X					no annular material			

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 922966

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	Description Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)
0	40	brown clay	
40	80	black clay	
80	360	black rock	X
360	400	rock,	X

ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix, Arizona 85007

DRILLING CARD

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-922966**

AUTHORIZED DRILLER: **B-J DRILLING COMPANY, INC.** LICENSE NO: **25**

NOTICE OF INTENT TO **DRILL AN EXEMPT WELL** HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **CHESTER, LAURA**

ADDRESS: **364 HARSHAW CREEK ROAD, PATAGONIA, AZ, 85624**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **NE** 1/4 of the **NW** 1/4 Section **26** Township **22 S** Range **16 E**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **106-24-003B**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **5/13/2020**

THE DRILLER MUST FILE A WELL DRILLER REPORT AND WELL LOG WITHIN 30 DAYS OF COMPLETION OF DRILLING

This drilling or abandonment authority was granted based upon the certifications made by the above-named Driller in the notice of intent to drill or abandon. Those certifications, along with any variances granted, are listed below. By drilling or abandoning the well pursuant to this authorization, the above-named driller acknowledges the accuracy of the driller certifications. If the certifications are in error, this authorization is invalid and driller must contact the Department of Water Resource's NOI Section in writing at the addres above to correct.

Variance(s) Granted To Driller: **None**

Certification(s) Made By Driller:

- ☑ By checking this box, I certify that I have all necessary Registrar of Contractor (ROC) licenses in all necessary license categories for this drilling or abandonment project and that those licenses are current.
- ☑ By checking this box, I certify that I have been authorized by the above-named well owner to submit this Notice of Intent on the well owner's behalf.
- ☑ By checking this box, I certify that I have obtained written certification from the land owner stating that the proposed well site is not within 100 feet of any septic tank system, sewage disposal area, landfill, hazardous waste facility, storage area of hazardous materials or petroleum storage areas and tanks. A copy of the land owner's written certification shall be submitted to ADWR with the Well Driller Report and Well Log or the Well Abandonment Completion Report within 30 days of completion of drilling or abandonment.
- ☑ By checking this box, I certify that the information above is complete and correct, and that the well shall be drilled or abandoned in compliance with all pertinent statutes and rules, including any special standards that may be required to protect the aquifer or other water sources.
- ☑ By checking this box, I certify that the proposed well site is not within 100 feet of any septic tank system, sewage disposal area, landfill, hazardous waste facility, storage area of hazardous materials or petroleum storage areas and tanks.

ARIZONA DEPARTMENT OF WATER RESOURCES
15 South 15th Avenue
Phoenix, Arizona 85007

DEPARTMENT OF WR
AUG 3 - 1994
OPERATIONS DIV.

WELL DRILLER REPORT

This report should be prepared by the driller in all detail and filed with the Department within 30 days following completion of the well.

1. Owner Name: Lee Rogers
   Address: PO Box 1125 (Street) Patagonia (City), Az. (State) 85624 (Zip)
2. Driller Name: L.B. Drilling
   Address: Box 4166 (Street) Huachuca City (City), Az. (State) 85616 (Zip)
3. Location: 22 N(S) (Township) 16 E(W) (Range) 26 (Section) NW 1/4 (10-acre) SW 1/4 (40-acre) NE 1/4 (160-acre)
4. Well Registration No. 55- 540425 (Required)
5. Permit No. _____ (If issued)

DESCRIPTION OF WELL

6. Total depth of hole 36 ft.
7. Type of casing Steel
8. Diameter and length of casing 6 in. from 0 to 36, _____ in from _____ to _____.
9. Method of sealing at reduction points _____
10. Perforated from 36 to 21, from _____ to _____, from _____ to _____.
11. Size of cuts 1/8 Number of cuts per foot three
12. If screen was installed: Length _____ ft. Diam _____ in. Type _____
13. Method of construction drilled air
    (drilled, dug, driven, bored, jetted, etc)
14. Date started July (Month) 18 (Day) 1994 (Year)
15. Date completed July (Month) 18 (Day) 1994 (Year)
16. Depth to water 18 ft. (If flowing well, so state)
17. Describe point from which depth measurements were made, and give sea-level elevation if available
    ground level
18. If flowing well, state method of flow regulation: N.A.
19. Remarks: blew 7 gpm.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

Registration No. 55-540425
File No. D-(22-16) 26 acb
Received _____ By _____
Entered ENTERED AUG - 8 1994

DWR-55-55-7/91 (Rev.)

LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encounterd, and depth to which it rose in well.

From (feet)	To (feet)	Description of formation material
0	5	Top soil
5	36	brown gravel sand Cobbles 20-25 1st water
36	38	black shaley sandstone

I hereby certify that this well was drilled by me (or under my supervision), and that each and all statements herein contained are true to the best of my knowledge and belief.

Driller Name: L. B. DRILLING

Box 4166

Huachuca City, AZ 85616

Street

7-30-94

City State Date

Arizona Department of Water Resources
Information Management Unit
P.O. Box 33589, Phoenix, AZ 85067-3589
(602) 771-8627 • (800) 352-8488
www.azwater.gov

Pump Installation Completion Report

RECEIVED
JAN 14 2008
INFO MGMT

FILE NUMBER: D(22-16)34ACB
WELL REGISTRATION NUMBER: 55 - 211818

- Review instructions prior to completing form in black or blue ink.
- The registered well owner should file this report with the Department within 30 days following installation of pump equipment.

** PLEASE PRINT CLEARLY **

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: ANNA T. URIAS

MAILING ADDRESS: Box 705

CITY / STATE / ZIP CODE: PATAGONIA, AZ 85624

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 520 394-2485

FAX:

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
22 S	16 E	34	NW ¼	SW ¼	NE ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
106	54	003 A

COUNTY WHERE WELL IS LOCATED: SANTA CRUZ

DS

SECTION 2. EQUIPMENT INSTALLED

DATE PUMP INSTALLED: 3-2-2007

Pump Type

CHECK ONE

- ☐ Air Lift
- ☐ Bucket
- ☐ Centrifugal
- ☐ Jet
- ☐ Piston
- ☐ Rotary
- ☒ Submersible
- ☐ Turbine
- ☐ Other (*please specify*):

RATED PUMP CAPACITY: 10 GPM Gallons Per Minute

Pitless Adaptor

CHECK ONE *(SEE INSTRUCTIONS FOR DEFINITION)*

Was a pitless adaptor installed? ☒ Yes ☐ No

IF YES, DEPTH BELOW GROUND LEVEL THE DEVICE WAS INSTALLED: Feet

Power Type

CHECK ONE

- ☐ Diesel Engine
- ☒ Electric Motor
- ☐ Gasoline Engine
- ☐ Hand
- ☐ Natural Gas
- ☐ Windmill
- ☐ Other (*please specify*):

HORSE POWER RATING OF MOTOR:

SECTION 3. PUMP TEST

Pump Test Data

DATE WELL TESTED: 3-2-2007

STATIC WATER LEVEL (A): 15' Feet Below Land Surface

PUMPING WATER LEVEL (B): 100' Feet Below Land Surface

DRAWDOWN [(B) – (A)]: 85' Feet Below Land Surface

TEST PUMPING RATE: 10 GPM Gallons Per Minute

DURATION OF PUMP TEST (Minimum 4 Hours): 4 HOURS Hours

TOTAL PUMPING LIFT: 100' Feet

FOR FLOWING WELL, MEASURED SHUT IN HEAD: N/A ☐ FT ☐ PSI

Method of Discharge Measurement

CHECK ONE

- ☐ Bailer
- ☒ Bucket – Barrel – Stopwatch
- ☐ Current
- ☐ Estimated – Air Lift
- ☐ Gauge
- ☐ Meter
- ☐ Orifice
- ☐ Volume
- ☐ Weir – Flume
- ☐ Other (*please specify*):

Method of Measuring Water Level

CHECK ONE

- ☐ Air Line
- ☒ Electric Measuring Line (Sounder)
- ☐ Steel Tape
- ☐ Other (*please specify*):

I HEREBY CERTIFY that the above statements are true to the best of my knowledge and belief according to A.R.S. § 45-600(B).

SIGNATURE OF WELL OWNER: Anna Urias

DATE: 1-10-08

DWR 55-56 (REVISED 07/20/07) Page 1 of 1

ARIZONA DEPARTMENT OF WATER RESOURCES
Information Management Unit
P.O. Box 458, Phoenix, Arizona 85001-0458
(602) 771-8527 * (800) 352-8488
www.water.az.gov

Well Driller Report and Well Log

RECEIVED
OCT 11 2006

FILE NUMBER: D(22-16) 34 ACB
WELL REGISTRATION NUMBER: 55- 211818
PERMIT NUMBER (IF ISSUED)

This report should be prepared by the driller in detail and filed with the Department within 30 days following completion of the well.

** PLEASE PRINT CLEARLY **

SECTION 1. DRILLING AUTHORIZATION

Mail To:

Drilling Firm

NAME	DWR LICENSE NUMBER
BRADLY DRILLING	736
ADDRESS	TELEPHONE NUMBER
PO Box 4707	520-456-2355
CITY/STATE/ZIP	FAX
HUACHUCA CITY, AZ 85616	

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION OR INDIVIDUAL
ANNA T URIAS

MAILING ADDRESS
334 SONOITA AVE BOX 705

CITY / STATE / ZIP
PATAGONIA, AZ 85624

CONTACT PERSON NAME AND TITLE

TELEPHONE NUMBER: 520-394-2485
FAX:

WELL NAME (e.g., MW-1, PZ-3, Lot 25 Well, Smith Well, etc.)

Location of Well

WELL LOCATION ADDRESS (IF ANY)

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
22S	16E	34	NE 1/4	SW 1/4	NW 1/4

LATITUDE Degrees	Minutes	Seconds	LONGITUDE Degrees	Minutes	Seconds
°	'	"N	°	'	"W

METHOD OF LATITUDE / LONGITUDE (CHECK ONE)
☐ USGS Quad Map ☐ Conventional Survey ☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade

LAND SURFACE ELEVATION AT WELL: Feet Above Sea Level

METHOD OF ELEVATION (CHECK ONE)
☐ USGS Quad Map ☐ Conventional Survey ☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade

*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE)
☐ NAD-83 ☐ Other (please specify):

COUNTY	ASSESSOR'S PARCEL ID NUMBER BOOK	MAP	PARCEL
Santa Cruz	106	54	003A

SECTION 3. WELL CONSTRUCTION DETAILS

Drill Method

CHECK ONE
☒ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☒ Airlift
☐ Bail
☐ Surge Back
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☒ Capped
☐ Pump Installed

Method of Sealing at Reduction Points

CHECK ONE
☐ None
☐ Packed
☐ Swedged
☐ Welded
☒ Other (please specify)
NATIVE

Construction Dates

DATE WELL CONSTRUCTION STARTED: 8-15-06
DATE WELL CONSTRUCTION COMPLETED: 8-16-06

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

DRILLING FIRM	SIGNATURE OF QUALIFYING PARTY	DATE
Bradly Drilling		9-1-06

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55- 211818

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILT) (attach additional page if needed)

DEPTH OF BORING	DEPTH OF COMPLETED WELL
160' Feet Below Land Surface	160' Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
15' Feet Below Land Surface	8-16-06	noon	☐ Valve ☐ Other:

Borehole

Installed Casing

Borehole: DEPTH FROM SURFACE FROM (feet)	Borehole: DEPTH FROM SURFACE TO (feet)	Borehole: BOREHOLE DIAMETER (inches)	Installed Casing: DEPTH FROM SURFACE FROM (feet)	Installed Casing: DEPTH FROM SURFACE TO (feet)	Installed Casing: OUTER DIAMETER (inches)	MATERIAL TYPE (X): STEEL	MATERIAL TYPE (X): PVC	MATERIAL TYPE (X): ABS	MATERIAL TYPE (X): IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X): BLANK OR NONE	PERFORATION TYPE (X): WIRE WRAP	PERFORATION TYPE (X): SHUTTER SCREEN	PERFORATION TYPE (X): MILLS KNIFE	PERFORATION TYPE (X): SLOTTED	PERFORATION TYPE (X): IF OTHER TYPE, DESCRIBE	SLOT SIZE IF ANY (inches)
0	20	12¼	0	20	8⅝	X				X						
20	160	8"	10	120	6		X									
			120	160	6		X							X		⅛

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X): NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE: GROUT	BENTONITE: CHIPS	BENTONITE: PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK: SAND	FILTER PACK: GRAVEL	FILTER PACK: SIZE
0	20		X									
20	160					NATIVE						

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55- 211818

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	DESCRIPTION Describe material, grain size, color, etc.	Check (X) every interval where water was encountered
0	4	Top Soil	
4	25	Broken RK	
25	60	Rock	
65	85	Broken Rock	X
85	160	Rock	

Arizona Department of Water Resources
Information Management Unit
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500

Well Driller Report and Well Log

KC

THIS REPORT MUST BE FILED WITHIN **30 DAYS** OF COMPLETING THE WELL.

PLEASE PRINT CLEARLY USING BLACK OR BLUE INK

FILE NUMBER: **D(22-16) 34 BCA**
WELL REGISTRATION NUMBER: **55 - 227106**
PERMIT NUMBER (IF ISSUED):

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
PATAGONIA TRADING COMPANY, LLC	841
ADDRESS: P.O. BOX 232	TELEPHONE NUMBER: 520-860-0030
CITY / STATE / ZIP: SONOITA, AZ, 85637-0232	FAX

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: SOTO, JOSEFINA

MAILING ADDRESS: 547 HARSHAW RD

CITY / STATE / ZIP: PATAGONIA, AZ, 85624

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 520 358-5851

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

RECEIVED
JUL 14 2017
ARIZONA DEPARTMENT OF WATER RESOURCES

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE 1/4	40 ACRE 1/4	10 ACRE 1/4

LATITUDE: 31 ° 28 ' 48 " N 45 — LONGITUDE: 110 ° 41 ' 55.92 " W

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ USGS Quad Map ☐ Conventional Survey ☑ *GPS: Hand-Held ☐ *GPS: Survey-Grade

LAND SURFACE ELEVATION AT WELL: 4696 Feet Above Sea Level

METHOD OF ELEVATION (CHECK ONE)
☐ USGS Quad Map ☐ Conventional Survey ☑ *GPS: Hand-Held ☐ *GPS: Survey-Grade

*IF GPS WAS USED, GEOGRAPHIC COORDINATE DATUM (CHECK ONE)
☐ NAD-83 ☐ Other (please specify)

COUNTY:

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
106	54	003B

PLEASE COMPLETE PAGE 4

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☑ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development

CHECK ONE
☑ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☑ Capped
☐ Pump Installed

Method of Sealing at Reduction Points

CHECK ONE
☑ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED: 5-15-17

DATE WELL CONSTRUCTION COMPLETED: 5-17-17

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: [signature]

DATE: 7-1-17

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 227106

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
140 Feet Below Land Surface	140 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
60 Feet Below Land Surface	5-19-17	10:36	☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	20	12.75
20	100	8
100	140	6

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (T) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (T) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
0	20	8 5/8	✓				✓						
20	100	6 5/8	✓				✓						
100	140	6 5/8	✓								✓		1/16

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 227106

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (T) every interval where water was encountered (if known)
0	100	loose sand, gravel, boulders	
100	140	loose sand, gravel, boulders	✓