

WATER RESOURCES
WESTERN REGIONSTATE OF IDAHO
DEPARTMENT OF WATER RESOURCESIdent. No. 63-33575*Amended***APPLICATION FOR PERMIT***Amended*

To appropriate the public waters of the State of Idaho

1. Name of applicant(s) Blaine &/or Bobbi Jo Geiger Phone (208)939-1731
Name connector (check one): ☐ and ☐ or ☒ and/orMailing address: 5453 Willelan Lane City EagleState ID Zip 83616 Email: bgeiger1@msn.com2. Source of water supply ground water which is a tributary of _____

3. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	1/4	1/4	1/4	County	Source	Local name or tag #
5N	1E	29			NE 1/4	NW 1/4	Ada	ground water	D0030925 domestic
5N	1E	29			SE 1/4	NW 1/4	Ada	ground water	proposed

4. Water will be used for the following purposes:

Amount 0.20 for irrigation purposes from 3/1 to 11/15 (both dates inclusive)
(cfs or acre-feet per year)Amount 0.04 for domestic purposes from 1/1 to 12/31 (both dates inclusive)
(cfs or acre-feet per year)Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)5. Total quantity to be appropriated is (a) 0.20 cubic feet per second (cfs) and/or (b) _____ acre-feet per year (af).

6. Proposed diverting works:

a. Describe type and size of devices used to divert water from the source. Wells, pumps and pipeline - an existing domestic well and one proposed irrigation wellb. Height of storage dam _____ feet; active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11.
For dams 10 feet or more in height OR reservoirs with a total storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☐ Noc. Proposed well diameter is 8 - 12 inches; proposed depth of well is 225' or deeper feet.d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☒ Noe. If well is already drilled, when? _____; drilling firm _____;
Well was drilled for (well owner) _____; Drilling Permit No. _____

7. Description of proposed uses (if irrigation only, go to item 8):

a. Hydropower; show total feet of head and proposed capacity in kW. _____

b. Stockwatering; list number and kind of livestock. _____

c. Municipal; show name of municipality or the applicant's qualifications as a municipal provider. _____

d. Domestic; show number of households 1

e. Other; describe fully. _____

8. Description of place of use:

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
5N	1E	29					2.9			7.1									10
5N	1E	29					D												

Total number of acres to be irrigated: 10

9. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping? _____

10. a. Who owns the property at the point of diversion? Applicants
- b. Who owns the land to be irrigated or place of use? Applicants
- c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: _____

11. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. Drill new well to be used for irrigation. Proposed well to be 225 feet deep or deeper.
Water bearing zone to be appropriated is from 200⁰⁰ to 425⁰⁰ feet.

12. Time required for completion of works and application of water to proposed beneficial use is 5 years (minimum 1 year).
13. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map clearly identifying the proposed point of diversion, place of use, section #, township & range. A photocopy of a USGS 7.5 minute topographic quadrangle map is preferred.

The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

Blaine Geiger
 Signature of Applicant
 Blaine Geiger
 Print Name (and title, if applicable)

Bobbi Jo Geiger
 Signature of Applicant
 Bobbi Jo Geiger
 Print Name (and title, if applicable)

For Department Use:

Received by jam Date 1-3-11 Time PM Preliminary check by keu
 Fee \$ 100.00 Receipted by jmh Receipt No. W039633 Date 9-16-11

SWSW

SESW

SWSE

SWSE

NWNW

NENW

NWNE

old well

New well

7.1

x

SWNW

SESW

SWNE

N↑

Sec 29, 5N, 1E

NWSW

NESE

NWSE

RECEIVED

SEP 16 2011

WATER RESOURCES
WESTERN REGIONSTATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT
To appropriate the public waters of the State of IdahoIdent. No. 63-335751. Name of applicant(s) Blaine and/or Bobbi Geiger Phone 208-939-1731
Name connector (check one): ☐ and ☐ or ☒ and/orMailing address: 5453 Willelan Lane City EagleState ID _____ Zip 83616 Email: bgeiger1@msn.com2. Source of water supply ground water which is a tributary of n/a

3. Location of point(s) of diversion:

Twp	Rge	Sec	Govt Lot	1/4	1/4	1/4	County	Source	Local name or tag #
5N	1E	29			NE	NW	Ada	ground water	D003C925

4. Water will be used for the following purposes:

Amount 0.2 for irrigation purposes from Mar 1 to Nov 15 (both dates inclusive)
(cfs or acre-feet per year)Amount .04 for domestic purposes from Jan 1 to Dec 31 (both dates inclusive)
(cfs or acre-feet per year)Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per year)5. Total quantity to be appropriated is (a) .2 cubic feet per second (cfs) and/or (b) _____ acre-feet per year (af).

6. Proposed diverting works:

a. Describe type and size of devices used to divert water from the source. _____

b. Height of storage dam _____ feet; active reservoir capacity _____ acre-feet; total reservoir capacity _____ acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11.

For dams 10 feet or more in height OR reservoirs with a total storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☐ Yes ☐ Noc. Proposed well diameter is to be drilled inches; proposed depth of well is 225 or deeper feet.d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☒ No

e. If well is already drilled, when? _____; drilling firm _____;

Well was drilled for (well owner) _____; Drilling Permit No. _____.

7. Description of proposed uses (if irrigation only, go to item 8):

a. Hydropower; show total feet of head and proposed capacity in kW. _____

b. Stockwatering; list number and kind of livestock. _____

c. Municipal; show name of municipality or the applicant's qualifications as a municipal provider. _____

d. Domestic; show number of households 1

e. Other; describe fully. _____

Superceded by Amended
App. Rec'd 1/3/2012 -

8. Description of place of use:

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
5N	1E	29					10	x											10

Total number of acres to be irrigated: 10

9. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping? both

10. a. Who owns the property at the point of diversion? _____
- b. Who owns the land to be irrigated or place of use? Blaine and/or Bobbi Jo Geiger
- c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing: _____

11. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. Drill new well to be used for irrigation below 225 feet or deeper

12. Time required for completion of works and application of water to proposed beneficial use is 5 years (minimum 1 year).
13. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map clearly identifying the proposed point of diversion, place of use, section #, township & range. A photocopy of a USGS 7.5 minute topographic quadrangle map is preferred.

The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

Blaine Geiger
Signature of Applicant

Blaine Geiger
Print Name (and title, if applicable)

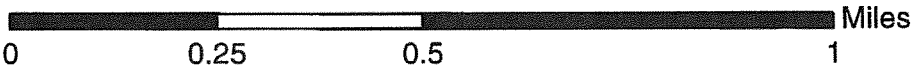
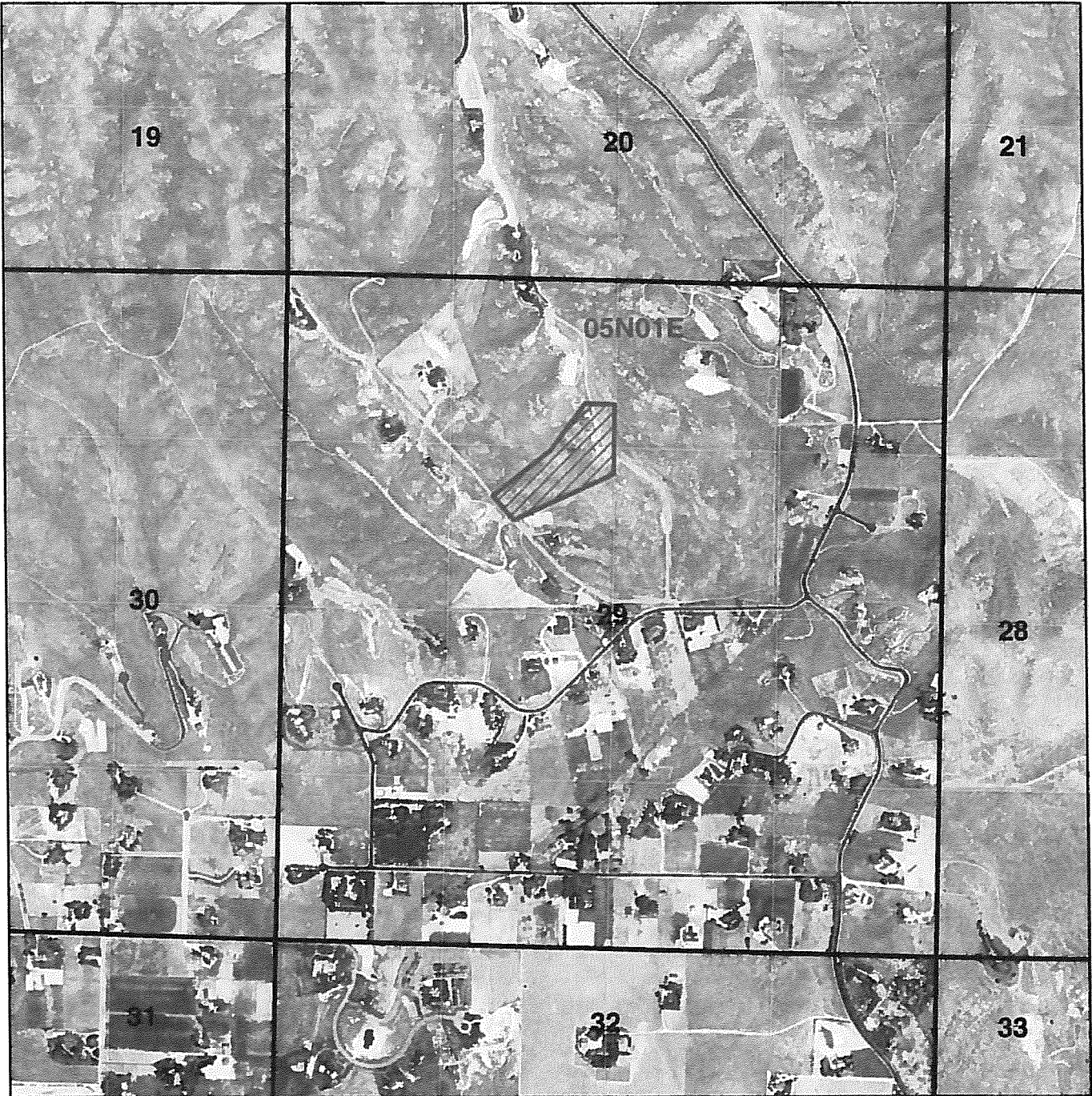
Bobbi Jo Geiger
Signature of Applicant

Bobbi Jo Geiger
Print Name (and title, if applicable)

For Department Use:

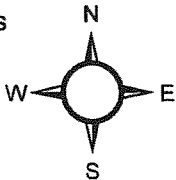
Received by gmh Date 9-16-11 Time 1:32 Preliminary check by _____
Fee \$ 100 Received by gmh Receipt No. W039633 Date 9-16-11

Geiger Application Place of Use



Legend

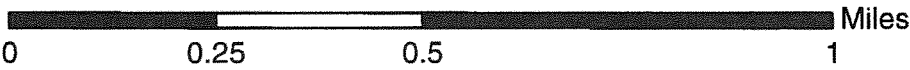
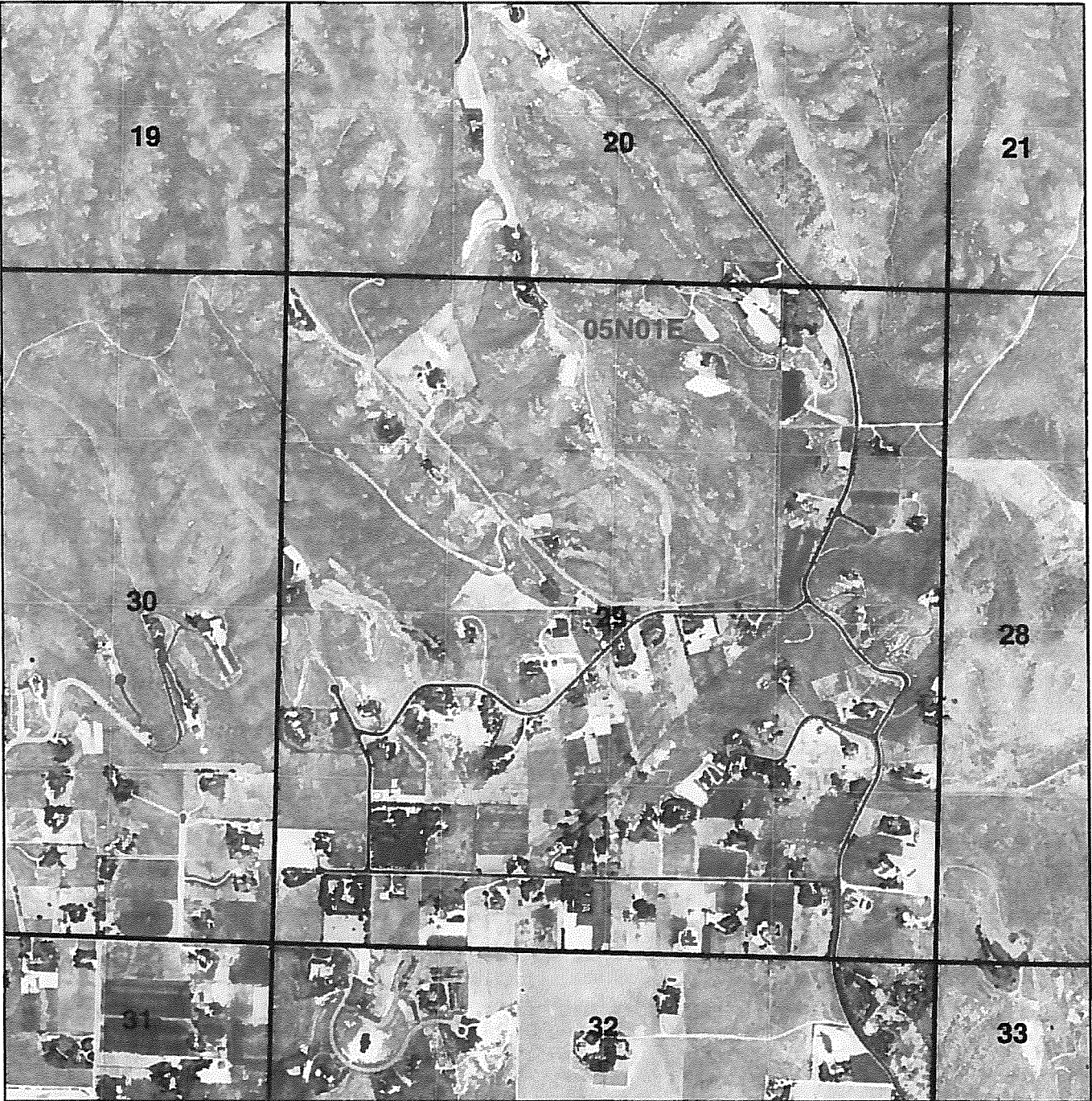
-  Geiger
-  Township/Range
-  Sections
- QQ



2009 aerial imagery

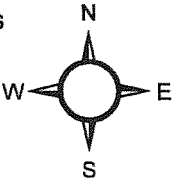
63-33575

Geiger Application Place of Use



Legend

- Township/Range
- Sections
- QQ



2009 aerial imagery

63-33575

Borgeman, Sherry

From: Borgeman, Sherry
Sent: Wednesday, January 11, 2012 2:49 PM
To: 'legals@idahostatesman.com'
Subject: Legal Notice
Attachments: Ada Cty - Cover Letter.docx; Ada Cty - Ad.docx

Attached is (1) legal notice being submitted for publication. If you have any questions regarding the attached information, or if you can not publish the ad on the dates indicated please contact me immediately.

Thank you,

Sherry Borgeman
Idaho Department of Water Resources, Western Region
208-334-2190 (ph)
208-334-2348 (fax)

January 11, 2012

LEGAL NOTICE DEPARTMENT
IDAHO STATESMAN
PO BOX 40
BOISE, ID 83707

RE: Application For Permit No.(s): 2-10462, 63-33575

Dear Legal Notice Department:

Please publish the enclosed legal notice on the dates indicated (once a week for two consecutive weekly issues). If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Please send the affidavit and bill to this office before 2/6/2012. Your cooperation is appreciated.

Sincerely,

Sherry Borgeman
Administrative Assistant

Enclosure(s)

The following application(s) have been filed to appropriate the public waters of the State of Idaho:

2-10462

BASIN LAND PROJECT

PO BOX 1582

BOISE, ID 83701

Point of Diversion L7(SWSWNE) S36 T01N R03W CANYON County Source SNAKE RIVER Tributary COLUMBIA RIVER

Use: IRRIGATION 03/01 to 11/15 26 CFS

Total Diversion: 26 CFS

Date Filed: 5/6/2011

Place Of Use: IRRIGATION

T01N R02W S19 (ALL)

T01N R02W S20 NW (ALL)

T01N R02W S29 NWNW SWNW SENW SW (ALL)

T01N R02W S30 (ALL)

T01N R02W S31 NE (ALL) NW (ALL) NESW NWSE

T01N R02W S32 NENW NWNW SWNW

T01N R03W S23 (ALL)

T01N R03W S24 (ALL)

T01N R03W S25 NE (ALL) NENW NWNW SENW SE (ALL)

T01N R03W S26 NENE

T01N R03W S36 NENE SENE

Total Acres: 3715

63-33575

BLAINE GEIGER

BOBBY JO GEIGER

5453 WILLEAN LN

EAGLE, ID 83616

Point of Diversion NENW S29 T05N R01E ADA County Source GROUND WATER Tributary

Point of Diversion SENW S29 T05N R01E ADA County Source GROUND WATER Tributary

Use: DOMESTIC 01/01 to 12/31 0.04 CFS

Use: IRRIGATION 03/01 to 11/15 0.2 CFS

Total Diversion: 0.2 CFS

Date Filed: 9/16/2011

Place Of Use: IRRIGATION

T05N R01E S29 NENW SENW

Place Of Use: DOMESTIC

T05N R01E S29 NENW

Total Acres: 10

Permits will be subject to all prior water rights. For additional information concerning the property location, contact Western Region office at (208) 334-2190; or for a full description of the right(s), please see www.idwr.idaho.gov/apps/ExtSearch/WRFiling.asp. Protests may be submitted based on the criteria of Idaho Code § 42-203A. Any protest against the approval of this application must be filed with the Director, Dept. of Water Resources, Western Region, 2735 Airport Way, Boise ID 83705 together with a protest fee of \$25.00 for each application on or before February 6, 2012. The protestant must also send a copy of the protest to the applicant.

GARY SPACKMAN, Interim Director

Published on 1/19/2012 and 1/26/2012



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

November 23, 2011

BLAINE &/OR BOBBI GEIGER
5453 WILLEAN LN
EAGLE ID 83616

RE: Application for Permit 63-33575

Dear Applicants:

We have completed an initial review of the above referenced application for permit and find we have several questions in regard to your proposal.

In item 3 you have indicated that you will use a well with Tag Number D0030925. According to our records that is a 508' domestic well that was drilled in 2004. Under item 6c on the application form you state that you intend to drill another well for your irrigation purposes. Is it your intention for this application to cover both wells? You have neglected to complete item 6a which is where you can provide more information concerning this matter.

Under item 8b of the application form, we see that you intend to irrigate 10 acres in the NENW, Sec. 29. In looking at your tax lot information we see that you only own 2.9 acres in the NENW, Sec. 29; you also own 7.1 acres in the SENW, Sec. 29. The application form should be changed to clarify this proposal. It also appears that your home is located in the NENW, Sec. 29 so you should indicate that on the form also.

We have completed and enclosed an "Amended" Application for Permit form for your convenience. We have also included a copy of your original application. For purposes of the amended application, we have assumed that you intend to include both wells on the application and have modified the form to show this. We will need you to complete the 40 acre tract information (i.e. NENW or SENW) for the proposed well. We have also attached a map to the amended application form. Please mark the location of the wells on this map. We also need to know what water bearing zone you intend to appropriate. Please complete the sentence under item 11 which describes the zone. If you agree with the changes on this form, please sign it and return to our office at your earliest convenience. If you wish to make changes feel free to do so.

Please submit the amended application, or another version, within the next 30 days for processing to continue. You may seek additional time to provide the information by

making a written request to delay or interrupt processing. A response including the requested information, or a request for more time to seek the information, must be received within this time period. The application will be voided without a timely written reply.

If you have any questions concerning this matter, please do not hesitate to contact our office. Thank you for your attention to these matters.

Sincerely,

A handwritten signature in black ink that reads "Kay Walker". The signature is fluid and cursive, with the first name "Kay" and last name "Walker" clearly distinguishable.

KAY WALKER
Sr. Water Resource Agent

KW:k
Enclosures

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only				
Well ID No.	811615			
Inspected by				
Twp	Rge	Sec		
1/4	1/4	1/4		
Lat:	:	Long:	:	:

1. WELL TAG NO. D 0030925
DRILLING PERMIT NO. _____
Water Right or Injection Well No. _____

2. OWNER:
Name System Construction
Address P.O. Box 1362
City Eagle State Id Zip 83616

3. LOCATION OF WELL by legal description:

You must provide address or Lot, Blk, Sub. or Directions to well.

Twp. 5 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 29 1/4 NE 1/4 NW 1/4
Gov't Lot _____ County Ada
Lat: _____ Long: _____
Address of Well Site 4354 N. Willena

(Give at least name of road or distance to Road or Landmark)

Lt. 14 Blk. 1 Sub. Name Highland Est

4. USE:

☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)

☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

Seal Material	From	To	Weight / Volume	Seal Placement Method
Bentonite	0	23	800*	overbore

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 490'Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	+2	490	250	Steel	☒	☐	☒	☐

Length of Headpipe 14

Length of Tailpipe _____

Packer ☒ Y ☐ N Type 2 K packer

9. PERFORATIONS/SCREENS PACKER TYPE

Perforation Method _____

Screen Type & Method of Installation Vogaska washdown

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
498	508	.018		5"	SS	☐	☐
498	508	.020		3"	PVC	☐	☐

10. FILTER PACK

Filter Material	From	To	Weight / Volume	Placement Method
Silica sand	498	508	50*	between screens

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

210 ft. below ground Artesian pressure _____ lb.

Depth flow encountered _____ ft. Describe access port or control devices: _____

well cap

12. WELL TESTS:

☐ Pump ☐ Bailor ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
60+			1/2 hour

Water Temp. 60° Bottom hole temp. _____Water Quality test or comments: Iron 4 PH 7Grain 5Depth first Water Encounter 29'

13. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
10"	0	3	top soil		
"	3	23	clay		
6"	23	145	clay		
"	145	230	clay & sand layers		
"	230	295	sand & clay		
"	295	337	coarse sand		X
"	337	390	sand & clay		
"	390	391	clay		
"	391	395	sand		X
"	395	408	clay & sand		
"	408	414	sand, clay, wood		X
"	414	415	clay		
"	415	425	fine sand		
"	425	460	clay & fine gray sand layers		X
"	460	466	clay		
"	466	468	sand		X
"	468	482	clay & gray sand		
"	482	490	clay		
"	490	492	clay & sand		X
"	492	508	sand & clay		X

RECEIVED

MAR 26 2004

WATER RESOURCES
WESTERN REGIONCompleted Depth 508' (Measurable)Date: Started 3.15.04 Completed 3.19.04

14. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name ABC Well Drilling Firm No. 621Principal Driller Andy Payne Date 3.22.04and Driller or Operator II Andy Payne Date 3.22.04

Operator I _____ Date _____

Principal Driller and Rig Operator Required.
Operator I must have signature of Driller/Operator II.

MEMORANDUM

To: Steve Lester 

From: Dennis Owsley 

Subject: Applications in Section 29, Township 05N, Range 01E

Date: 12/19/11

The Hydrology section received your request to comment on water availability as it relates to seven water right applications in Township 05N, Range 01E, Section 29. The area of interest is north of Eagle, in the foothills on the north side of the Boise River valley. The proposed applications are sought for irrigation, domestic, and stockwater purposes, with diversion rates ranging from 0.18 to 0.40 cfs. The total amount of water proposed for diversion is 1.86 cfs. Proposed well depths range from 225' to 600' below land surface.

You requested input relative to the following questions:

1. Based on available information, is it more likely or less likely that a minor amount of ground water is available in that area?
2. Are there any troubling ground water trends in that area?

Water Availability

Approximately 70 domestic wells exist in Section 29, as residents in the area rely on individual domestic wells for potable water. Surface water irrigation is limited in the area of interest, with multiple irrigation wells existing in the area. The nearest canal (Capitol View) is approximately one-half mile to the south of Section 29, and the Farmer's Union Canal is approximately one mile south. Neither canal system provides surface water to irrigated lands in Section 29. Therefore, based on the numerous wells and the lack of a surface water conveyance mechanism to Section 29, ground water is the primary water source for both irrigation and domestic purposes.

The combined diversion rate of 1.86 cfs for the seven applications of interest represent an increase in the authorized diversion rate of 35 percent. There are currently 83 water rights, permits, or applications in Section 29. The total authorized maximum diversion rate of the combined permits and water rights equals 5.27 cfs. The largest existing water right diversion rate is 0.18 cfs, matching the smallest diversion rate proposed through these applications.

The recent water right application for M3 Eagle, LLC (63-32573) proposes a large withdrawal rate from the target (deep) aquifer for a proposed housing development. If the application is approved, supply wells for the development could be placed adjacent to Section 29, as the M3 property borders Section 29 and the locations and withdrawal rates of the individual supply wells have not been specified. A large supply well installed on the southwest portion of the property could significantly increase the total rate of diversion in the area of interest.

Water Level Trends

As shown in the supporting documentation, water level trends in wells completed in areas where surface water application occurs are distinctly different from trends in wells completed in areas in which surface water application does not occur (i.e. Section 29). A primary difference is the timing of the seasonal high and low water levels; the seasonal high water level occurs at the end of the irrigation season in wells that are located in surface water irrigated areas, whereas wells completed in areas of no surface water application exhibit seasonal lows at the end of the irrigation season. Also, wells completed in areas of surface water irrigation are characterized by stable or rising water levels, whereas wells in non-surface water irrigated areas have slightly declining water levels.

Although the period of record is brief, the hydrographs presented in the supporting documentation represent the best available information at this time. Regression analysis indicates that water levels in all of the monitored wells in Section 29 have declined slightly in recent years. Although the trends are slight, they are apparent in this section and absent in wells completed to the south that show stable or slightly rising water levels. Figure 1 shows the location of the wells with rising and falling water level trends.

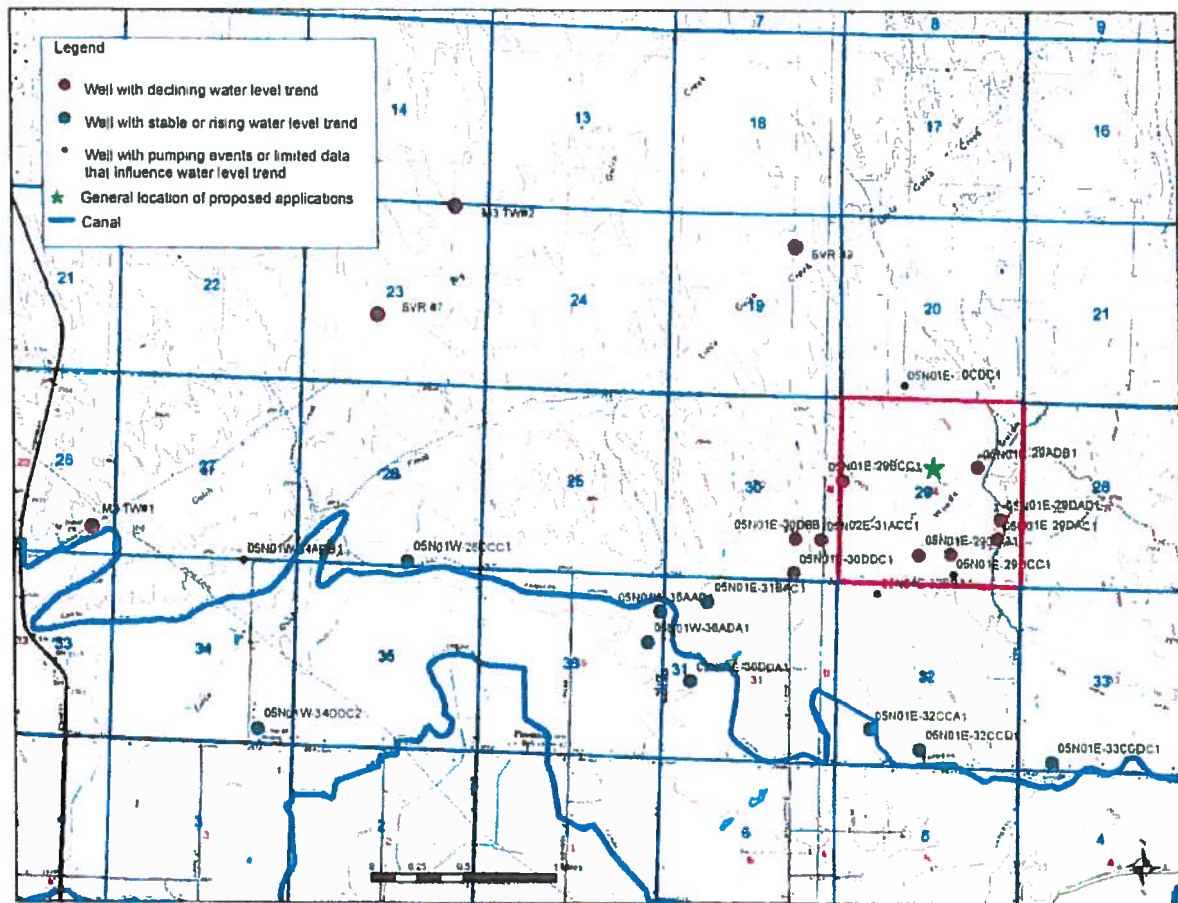


Figure 1. Map of wells in the area of the applications. Section 29 is highlighted in red.

In addition to the hydrographs presented in the supporting documentation, water level data for the four closest wells associated with the nearby proposed M3 development were plotted. The wells associated with the proposed development are all dedicated monitoring wells and have periods of record longer than the hydrographs submitted in the supporting documentation. All four wells display negative trends; however the well furthest to the west (M3 TW#1) shows only a slight downward trend. The three monitoring wells closest to the application area show distinct downward trends, similar to the trends noted in Section 29.

A previous investigation in the Treasure Valley concluded that recharge to the target (deep) aquifer is limited (Petrich and Urban, 2004). Precipitation data collected by the National Oceanic and Atmospheric Administration (NOAA) at the closest climate station (Boise 7N) indicate that the annual precipitation has been below normal for three of the previous four years (NOAA, 2011).

To ensure that seasonal fluctuations are not influencing the trend analysis, trend lines were developed for the seasonal water level measurements from the seven wells completed in Section 29. Figure 2 is a plot for well 05N01E29ADB1, which is the well closest to the area of proposed ground water development and has the longest water level record for the area. As shown in Figure 2, the overall downward trend matches well with the seasonal downward trends. With only a few exceptions, the same seasonal trends are apparent in all of the hydrographs from wells in Section 29 (Table 1).

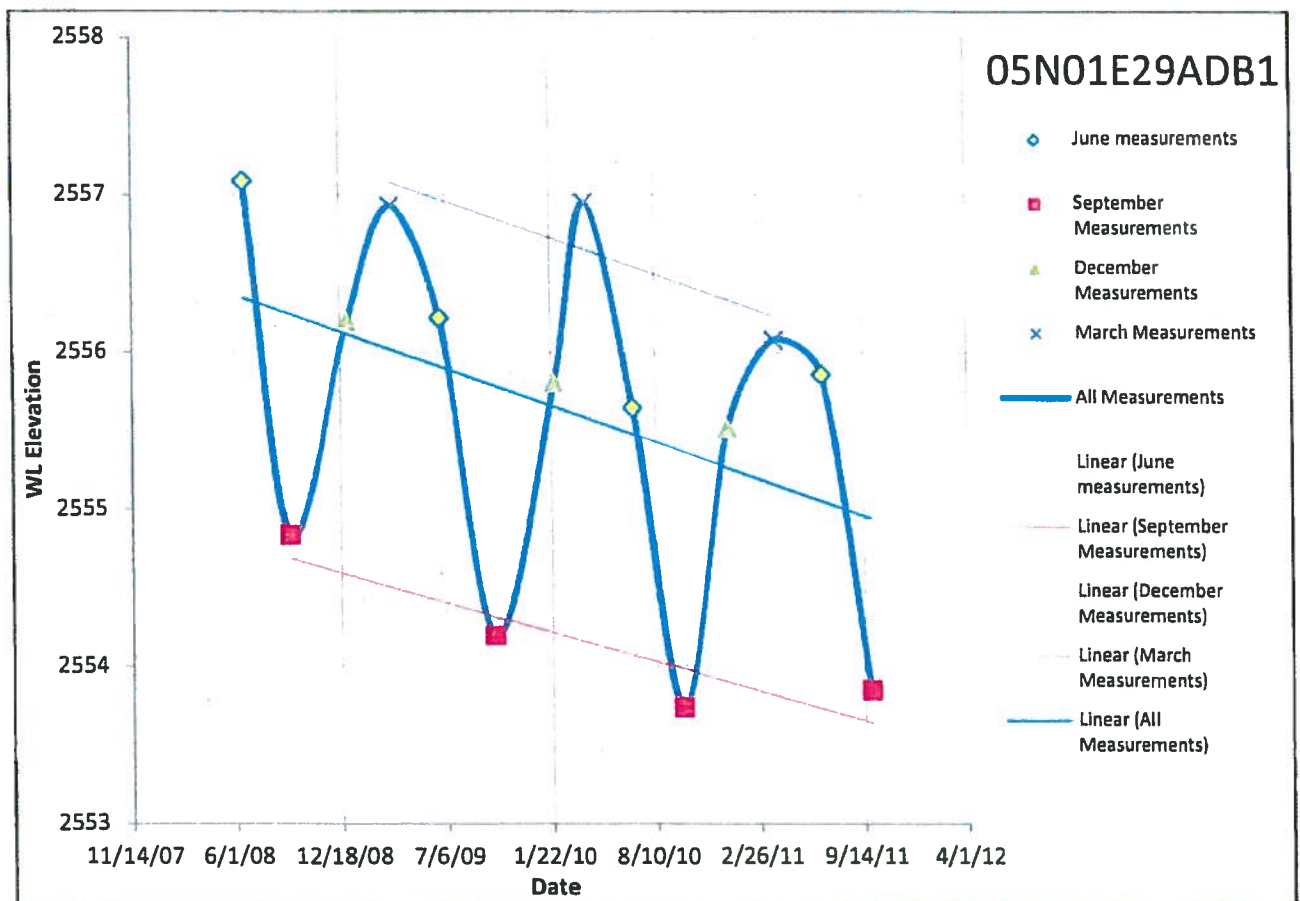


Figure 2. Trend analysis for well 05N01E29ADB1.

Table 1. Summary of trend line slopes.

Well Number in Supporting Documentation*	IDWR Well Number	Slope of Trendline (all data)	Slope of trendline (spring data)	Slope of trendline (summer data)	Slope of trendline (fall data)	Slope of trendline (winter data)
1	05N01E29BCC1	-0.26	-0.33	-0.26	-0.26	-0.15
2	05N01E29CDA1	-1.02	-0.26	-0.15	-0.40	-1.68
3	05N01E29DAC1	-0.26	-0.40	0.01	-0.33	-0.26
4	05N01E29DAD1	-0.44	-0.40	-0.11	-0.15	-0.29
5	05N01E29DCB1	-0.33	-0.66	0.00	-0.40	0.11
6*	05N01E29DCC1	-0.18	-0.58	0.11	-0.07	-0.18
7	05N01E30DBB1	-0.15	NA	NA	NA	NA
8	05N01E30DDA1	-0.26	NA	NA	NA	NA
9	05N01E30DDC1	-0.26	NA	NA	NA	NA
10	05N01E31BAC1	0.26	NA	NA	NA	NA
11	05N01E31CBA1	0.37	NA	NA	NA	NA
12*	05N01E32BBA1	-2.74	NA	NA	NA	NA
13*	05N01E32CCA1	1.06	NA	NA	NA	NA
14	05N01E32CCD1	0.33	NA	NA	NA	NA
15	05N01E33CCDC1	0.29	NA	NA	NA	NA
16	05N01W26DCC1	0.04	NA	NA	NA	NA
17*	05N01W34ABB1	-0.80	NA	NA	NA	NA
18*	05N01W34DDC2	-2.66	NA	NA	NA	NA
19	05N01W36AAD1	0.66	NA	NA	NA	NA
20	05N01W36ADA1	0.73	NA	NA	NA	NA
21*	05N01E20CDC1	0.29	NA	NA	NA	NA
22	05N01E29ADB1	-0.44	-0.44	-0.44	-0.33	-0.33
NA	SVR #9	-0.48	NA	NA	NA	NA
NA	M3 TW#2	-0.44	NA	NA	NA	NA
NA	SVR #7	-0.33	NA	NA	NA	NA
NA	M3 TW#1	-0.19	NA	NA	NA	NA
* Pumping during seasonal measurements influenced overall trend.						

Conclusions

Based on the above analysis, my responses to your questions are as follows:

Question 1: Based on available information, is it more likely or less likely that a minor amount of ground water is available for the area?

Response: Based on the water level trends described above and conclusions made by previous investigators that recharge to the deep aquifer is limited, it is not likely that the aquifer could support a significant increase in the rate of withdrawal. However, the rate of decline is relatively small as compared to the saturated thickness of the aquifer and the period of record is limited and includes the period of recent drought conditions. It is reasonable to assume that a minor increase in the rate of withdrawal from the aquifer could be sustained.

Question 2: Are there any troubling ground water trends in that area?

Response: As discussed above, the water level monitoring data that have been collected by the Department over the past three years indicate wells in this area are slightly declining. Although the period of record is brief, the observed trends match data from monitoring wells from a nearby development, implicating an area-wide phenomenon. Although the trends are slight (average decline is approximately 0.3 ft/year), the data indicate that the rate of recharge rates has been exceeded by rate of withdrawal.

The cause of the local declines are not fully understood at this point, but it is predicted that in the absence of increased recharge, an increase in demand on ground water pumping in the area would cause the rate of decline to increase. If the applications are going to be approved, it is recommended that the ongoing monitoring program be extended and expanded as proposed in the supporting documentation for the applications

References

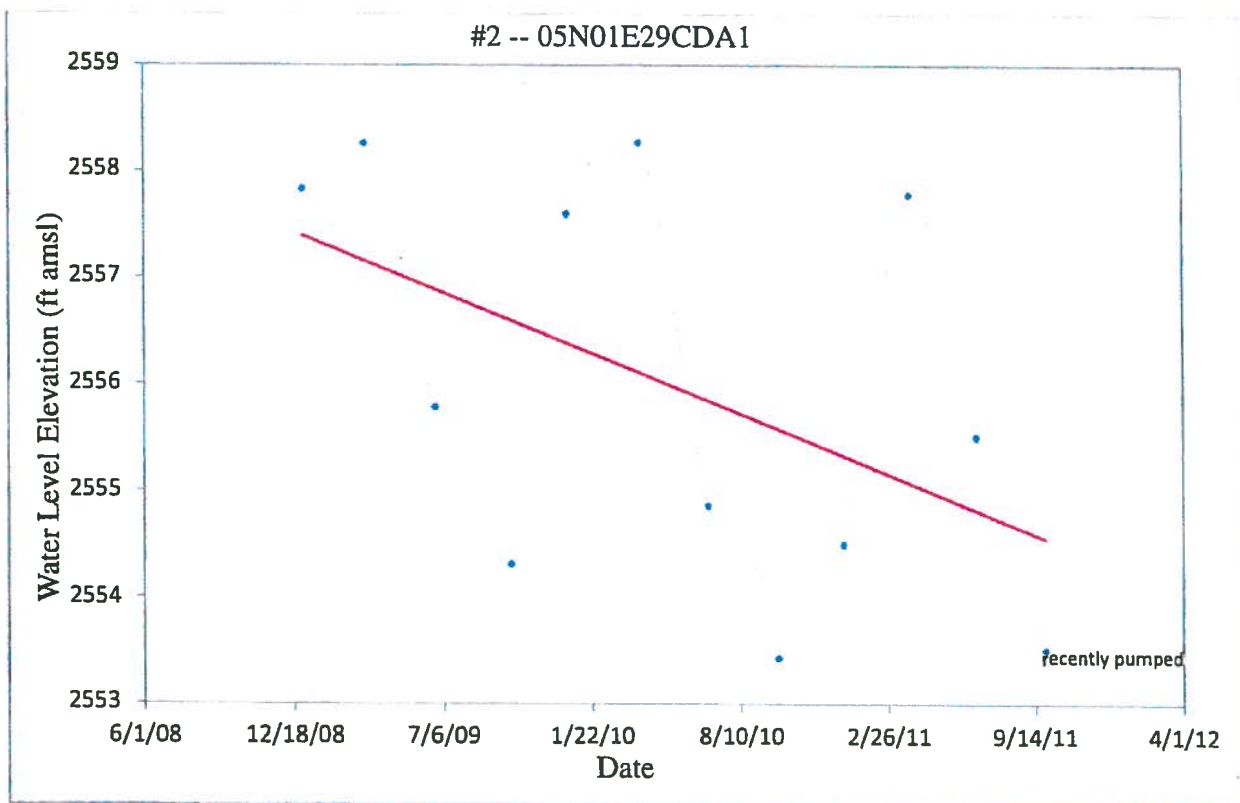
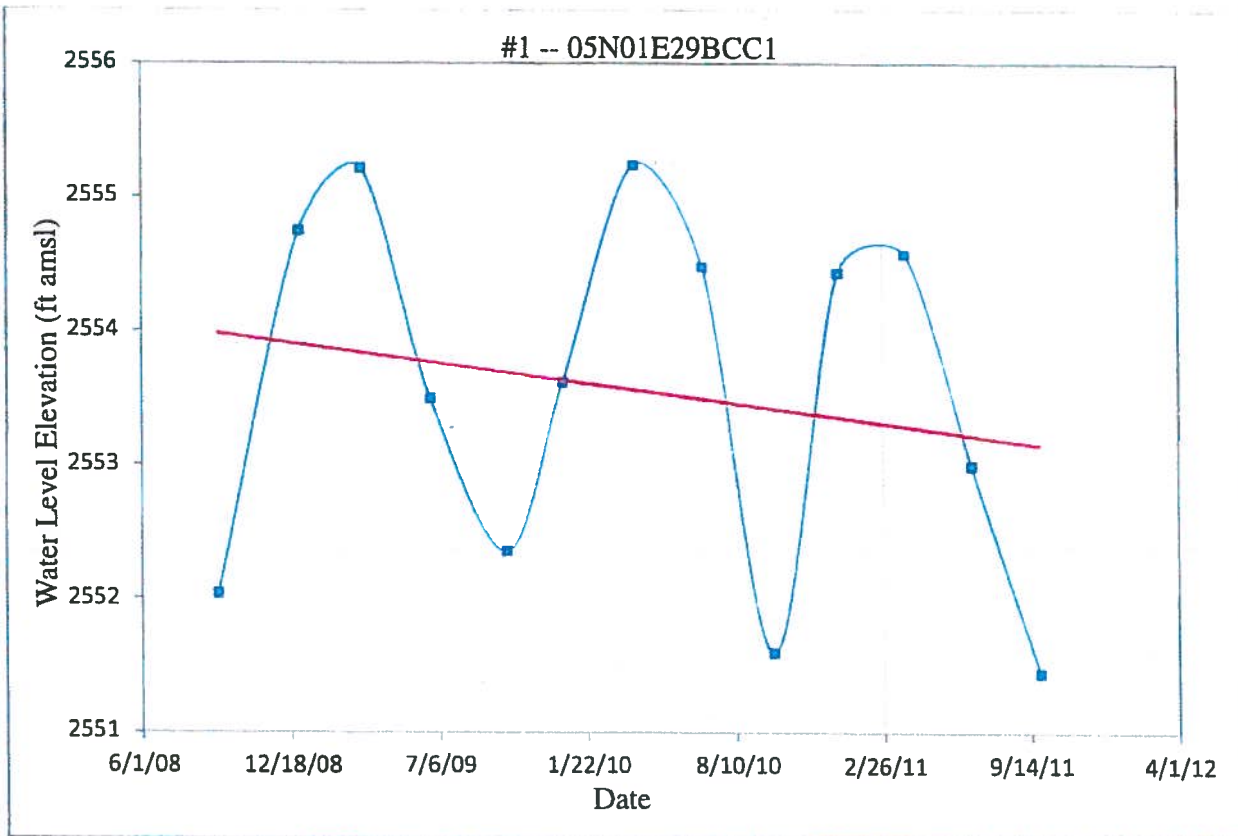
National Oceanic and Atmospheric Administration (NOAA), 2011. Online Database of Annual Climatological Summary, Station Boise 7N.

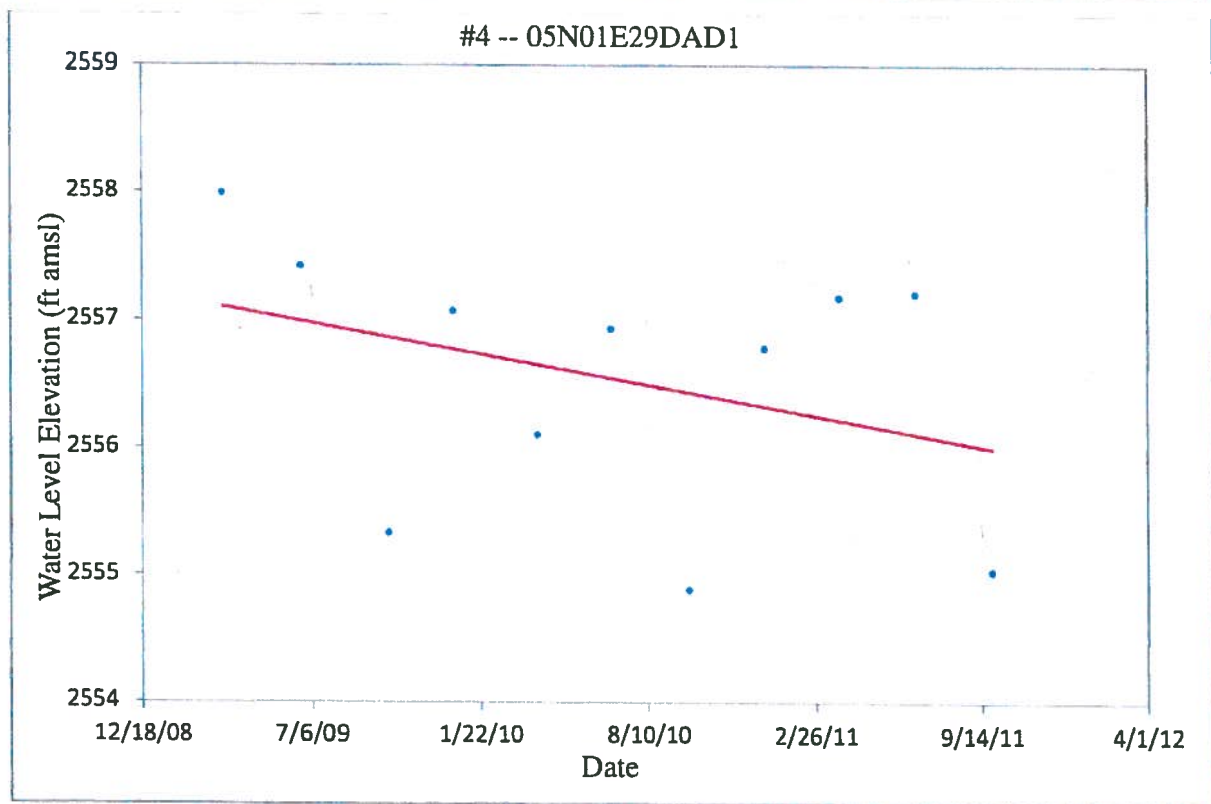
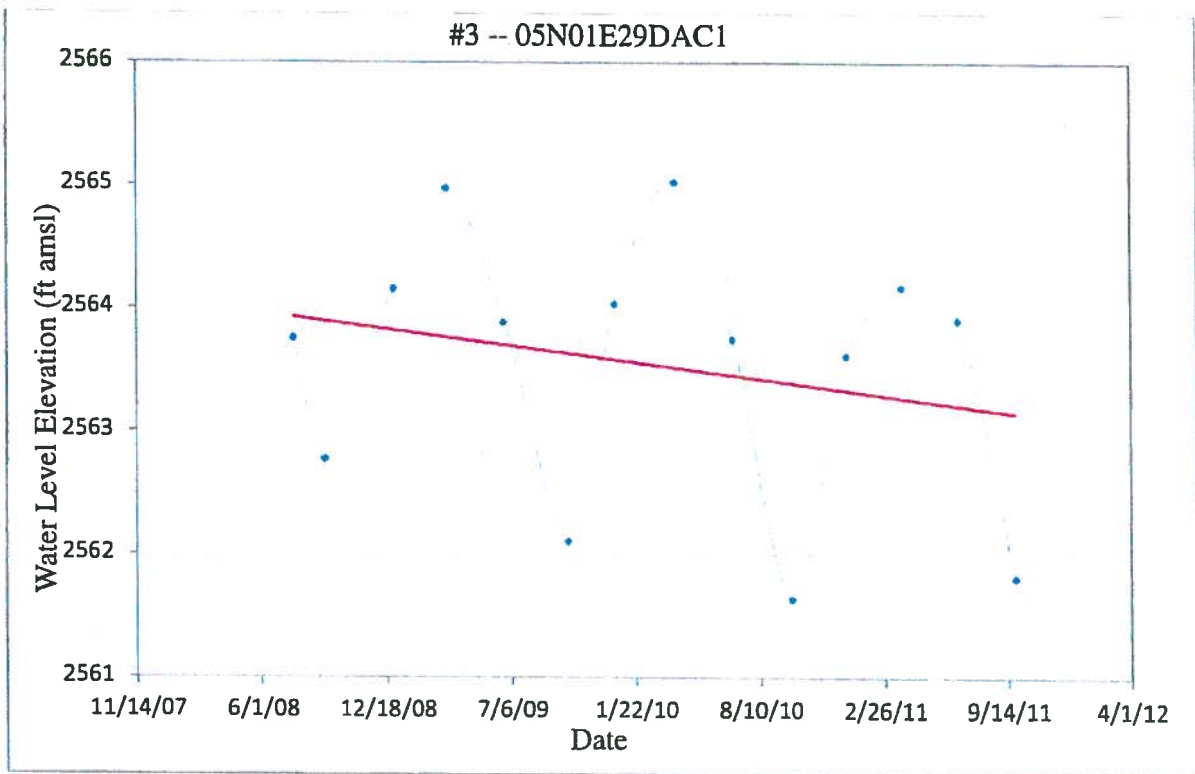
Petrich, C. and Urban, S., 2004. Characterization of Ground Water Flow in the Lower Boise River Basin. Idaho Water Resources Research Institute Research Report IWRI-2004-01.

APPENDIX A

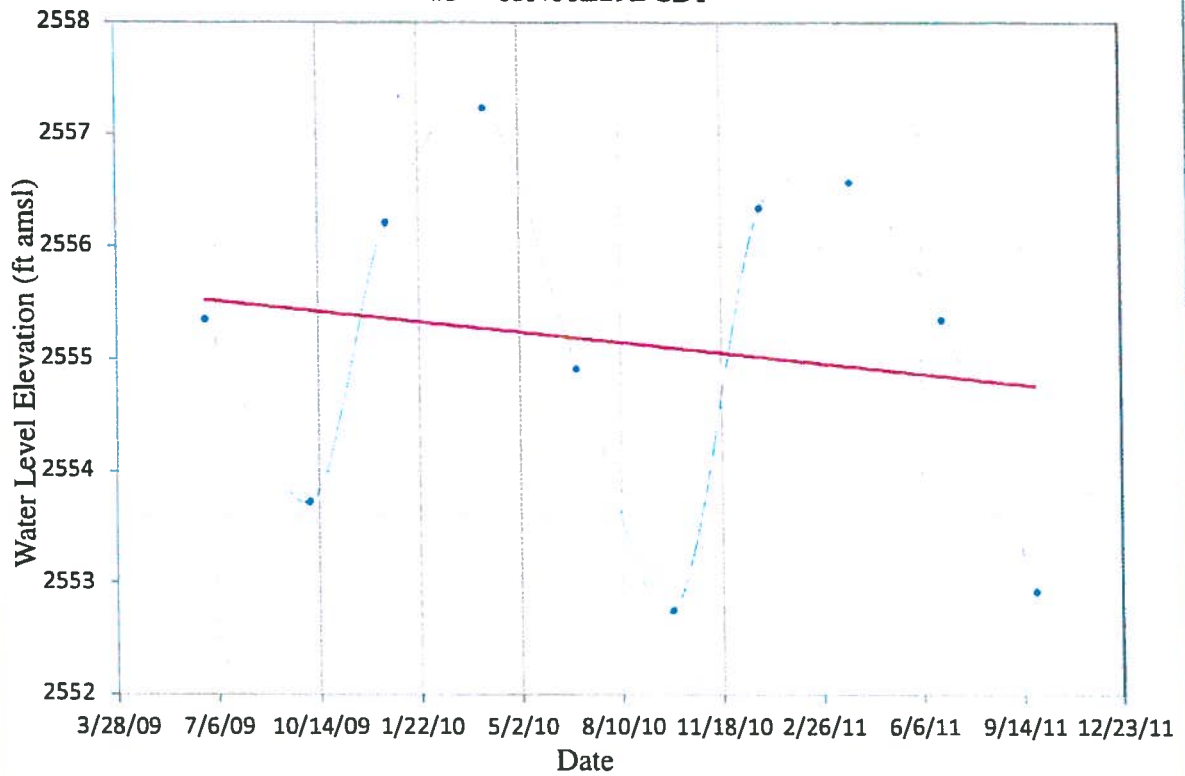
WELL HYDROGRAPHS WITH TRENDLINES

(NOTE: RED TRENDLINES INDICATE FALLING WATER LEVELS, BLUE TRENDLINES INDICATE RISING WATER LEVELS)

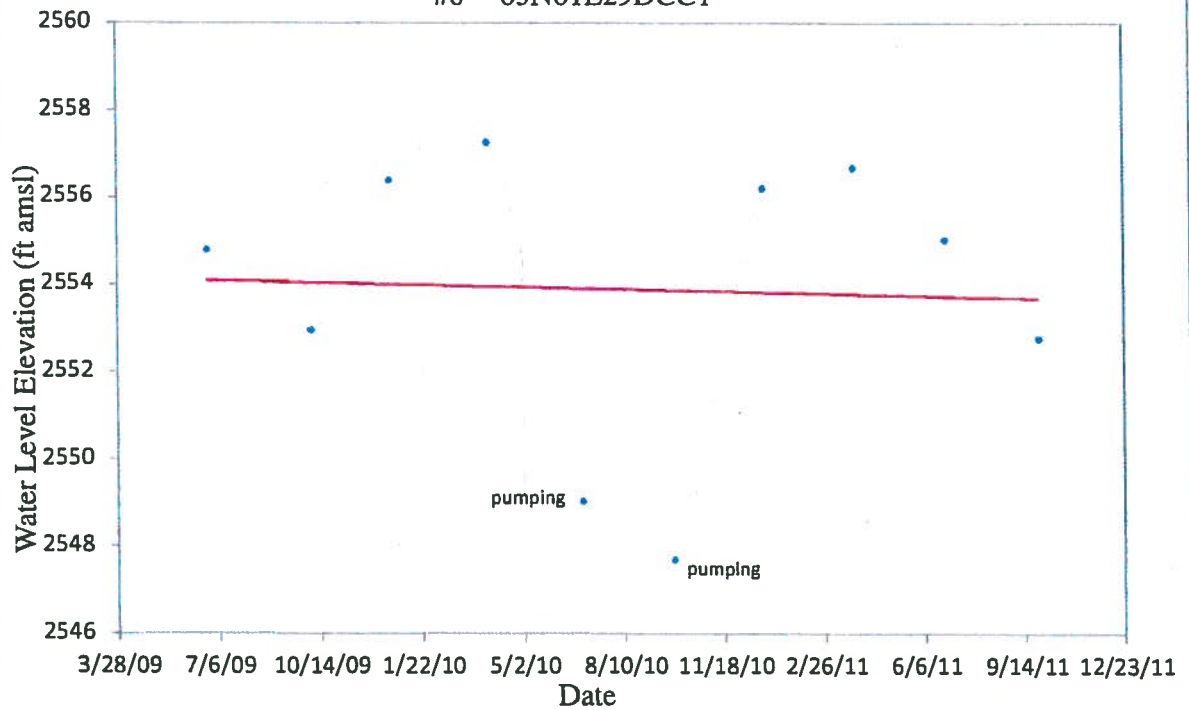




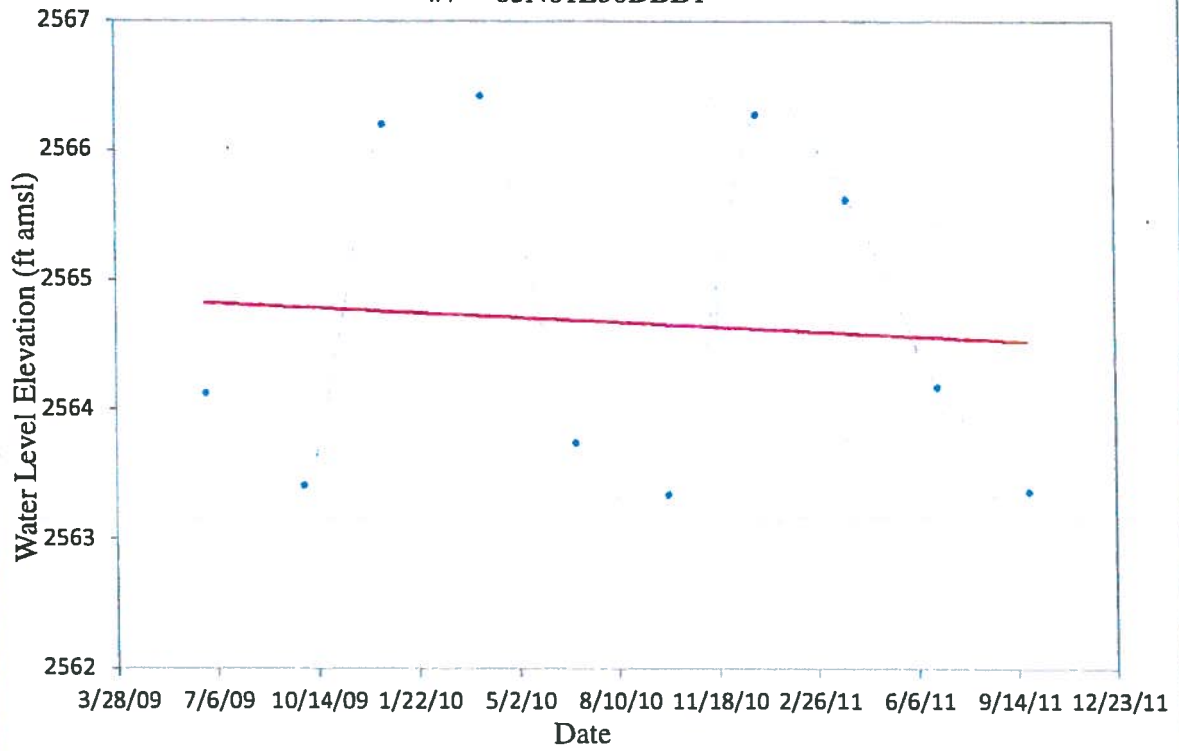
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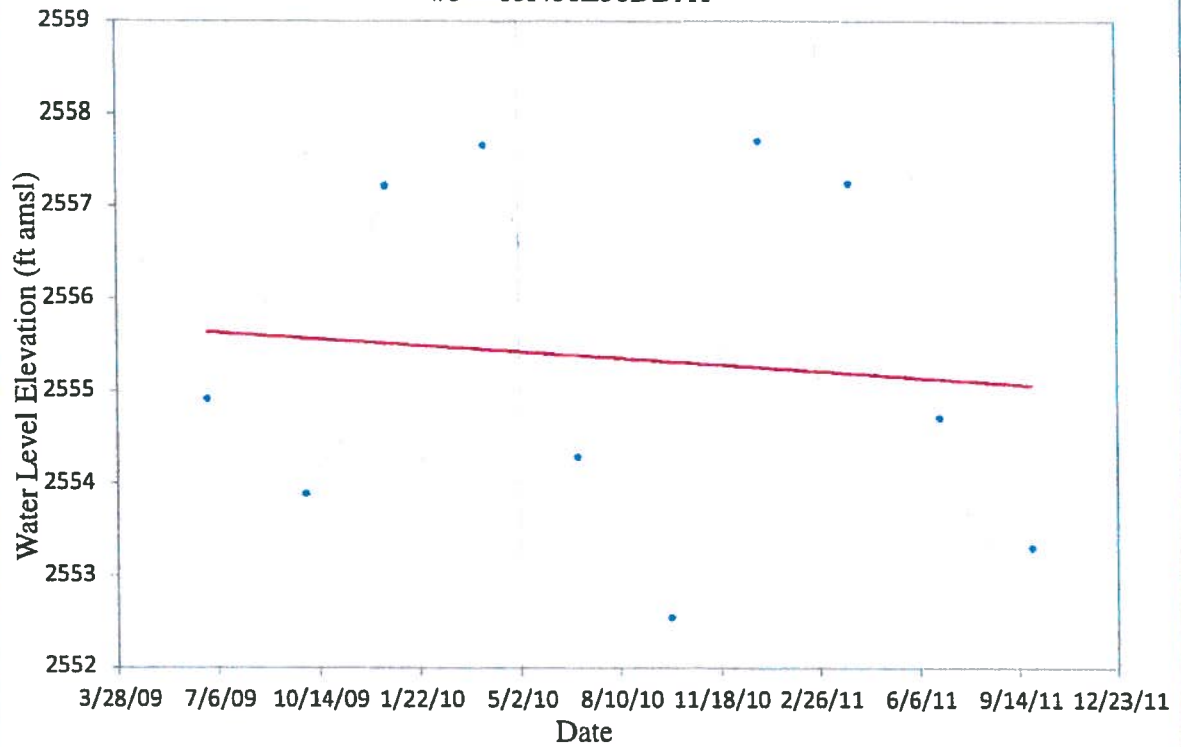
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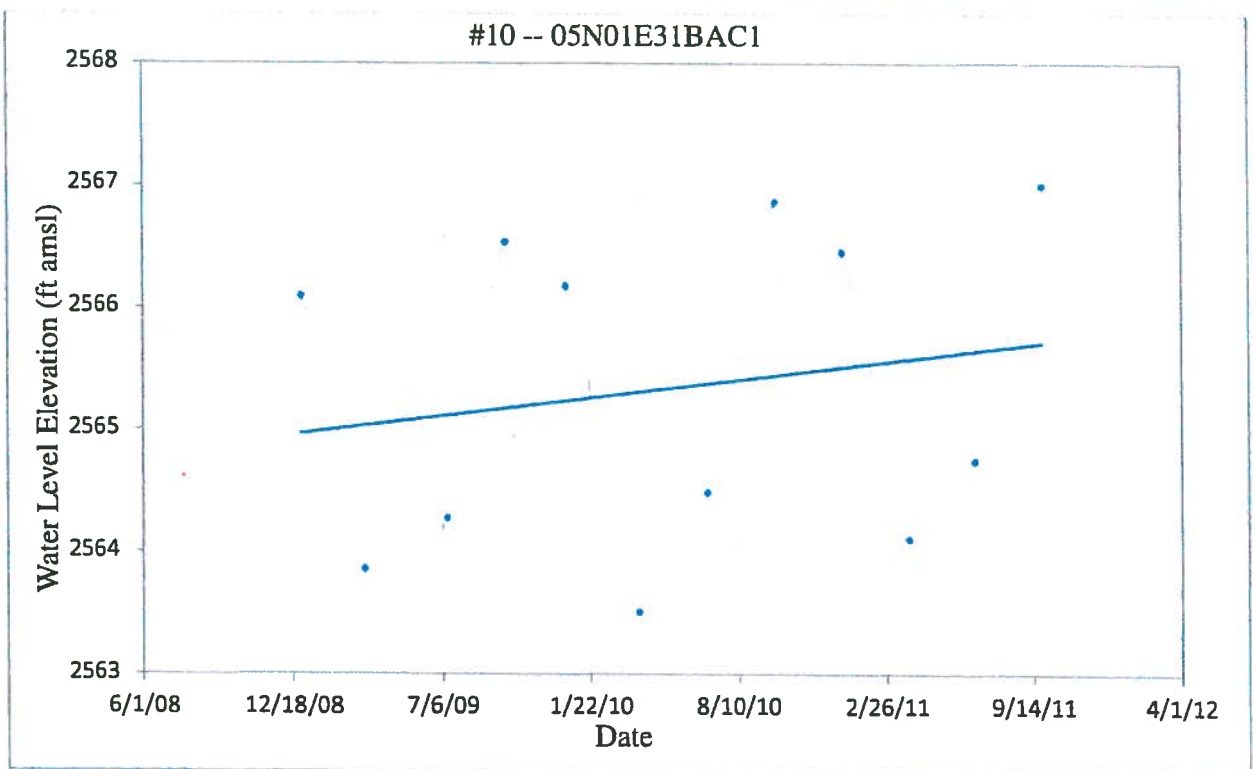
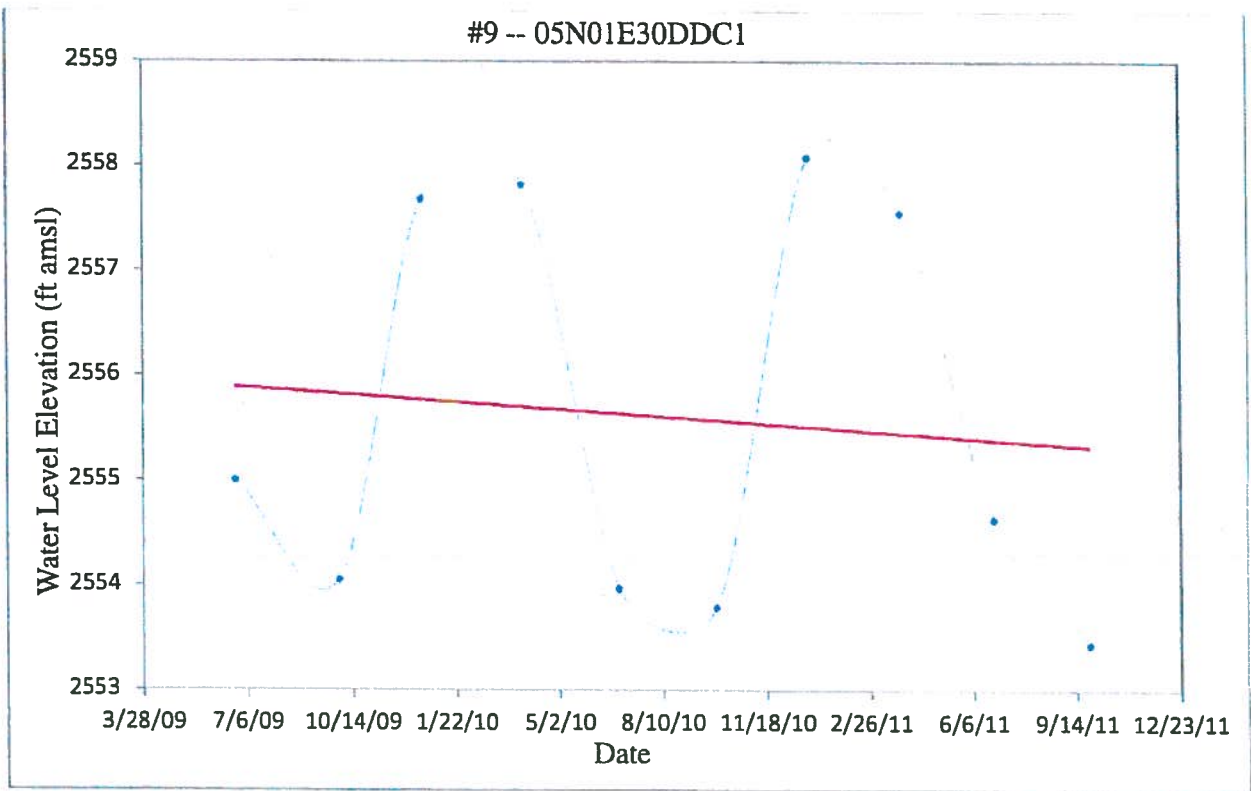


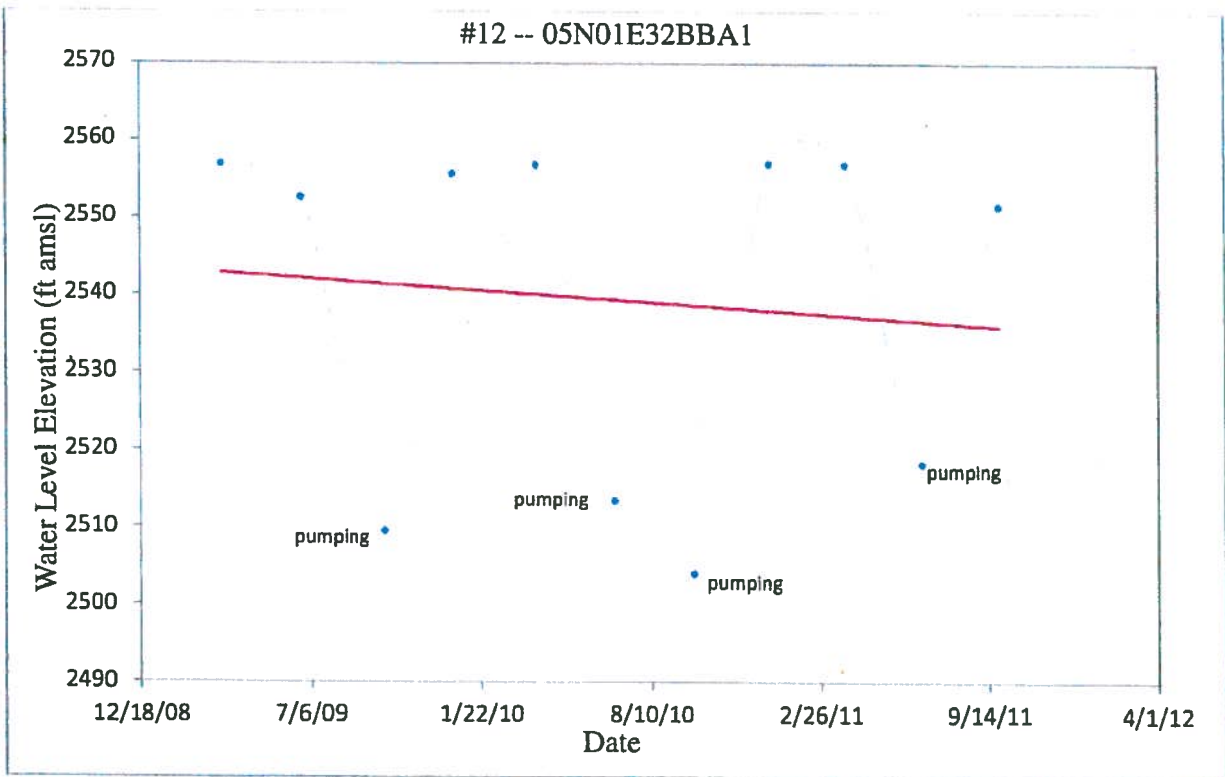
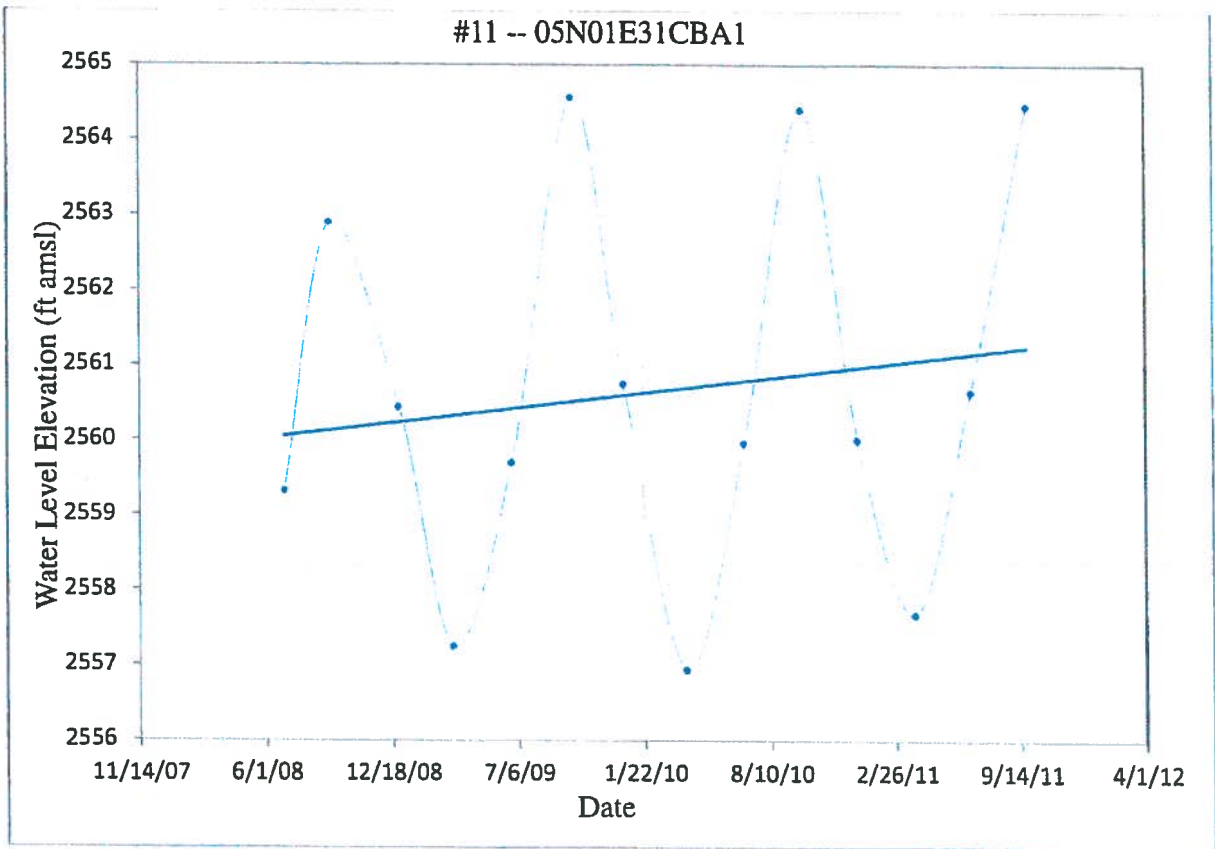
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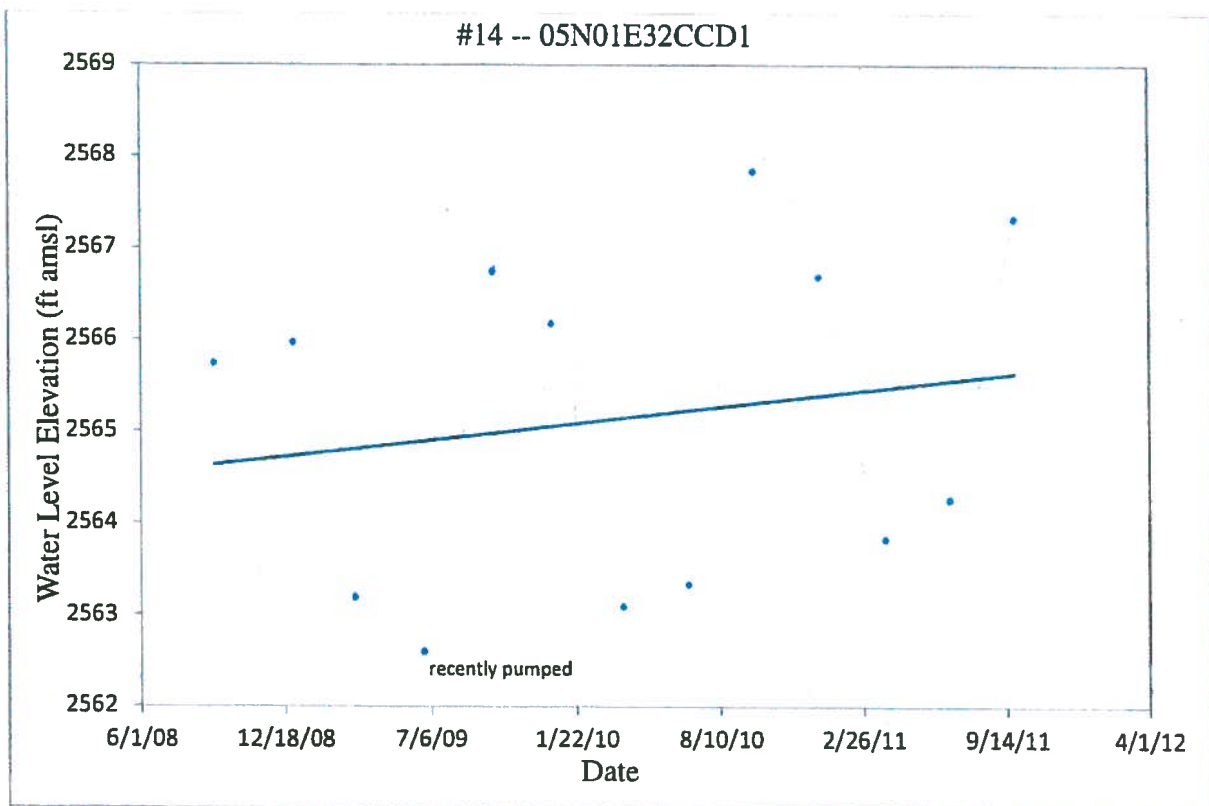
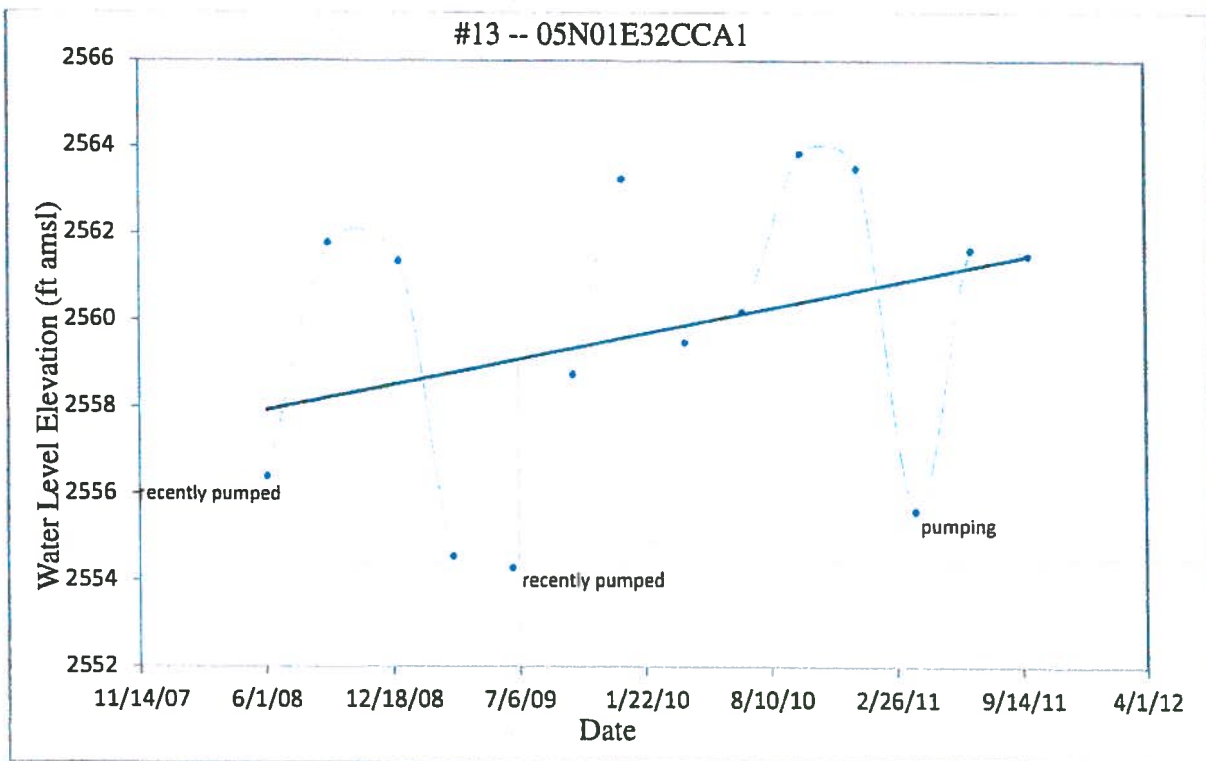


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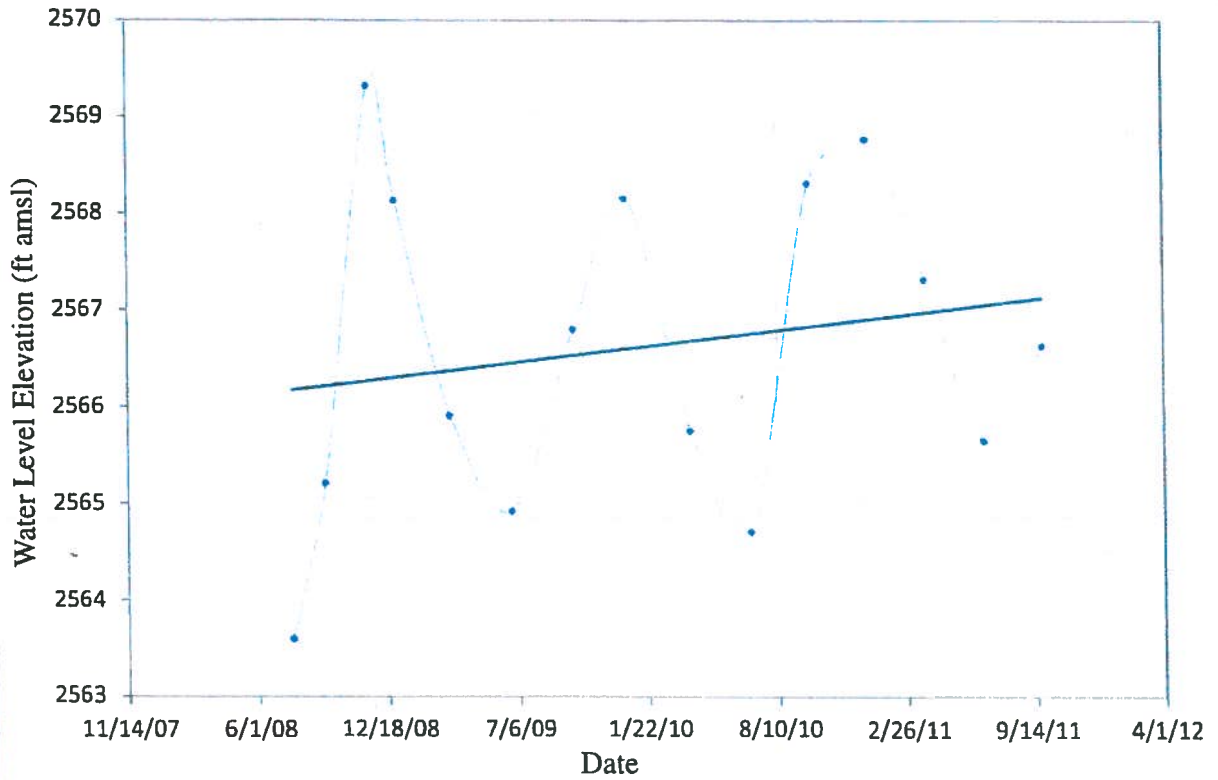




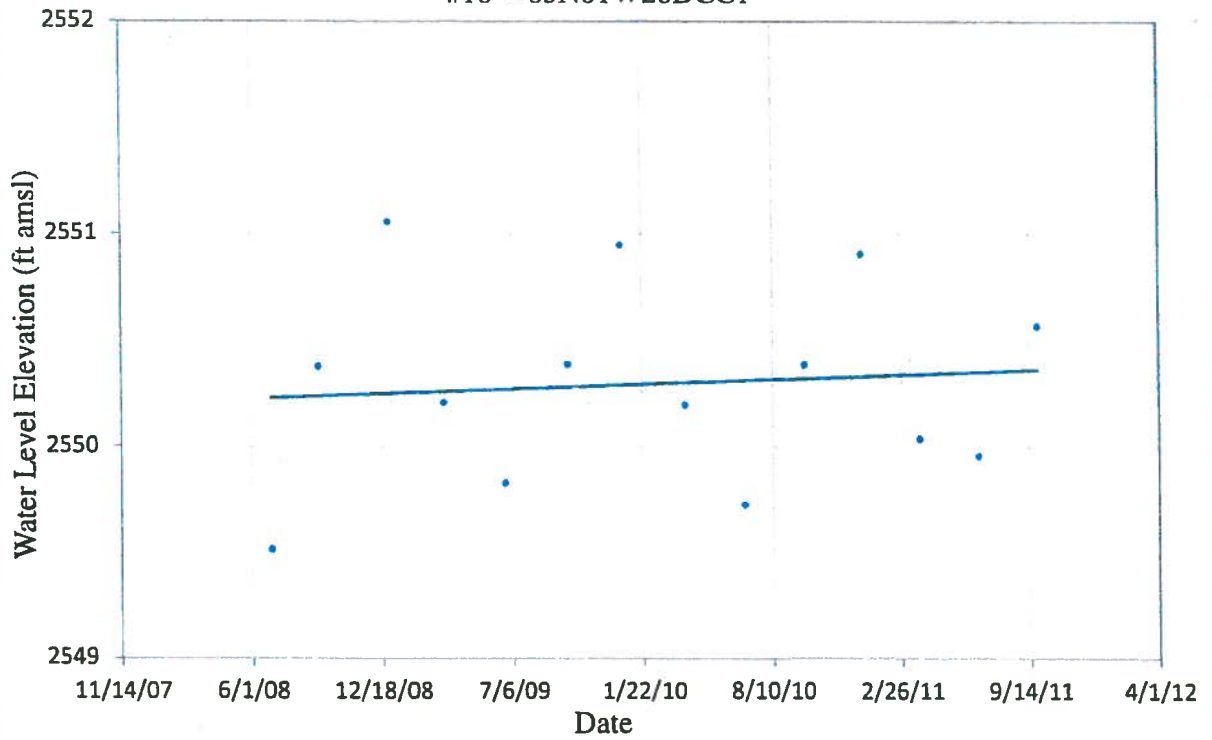


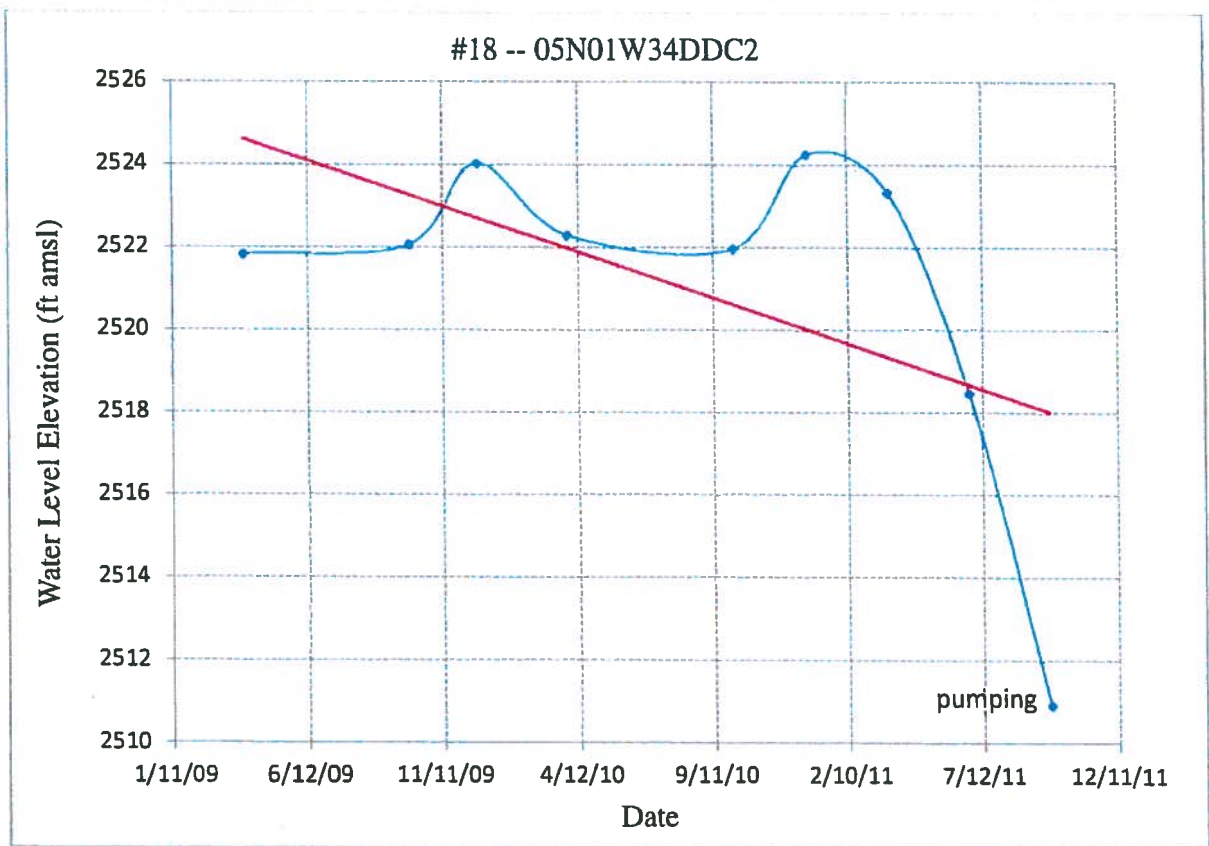
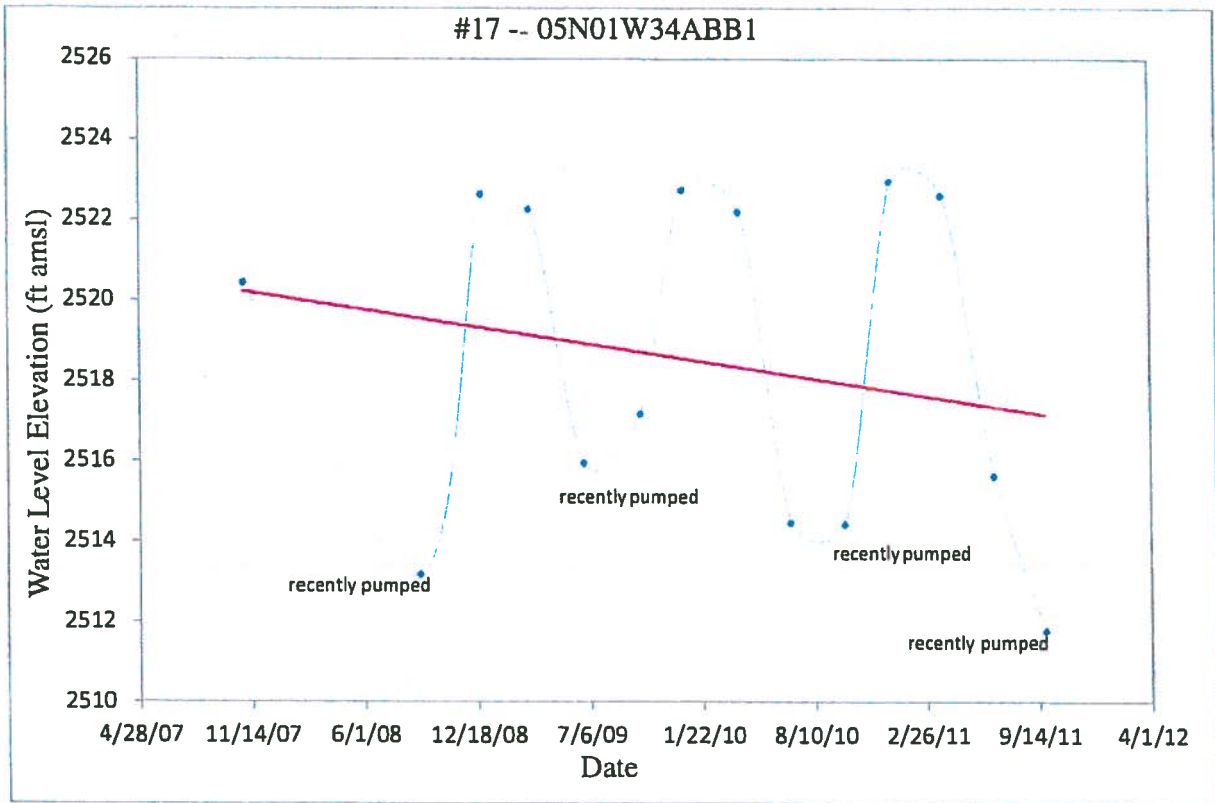


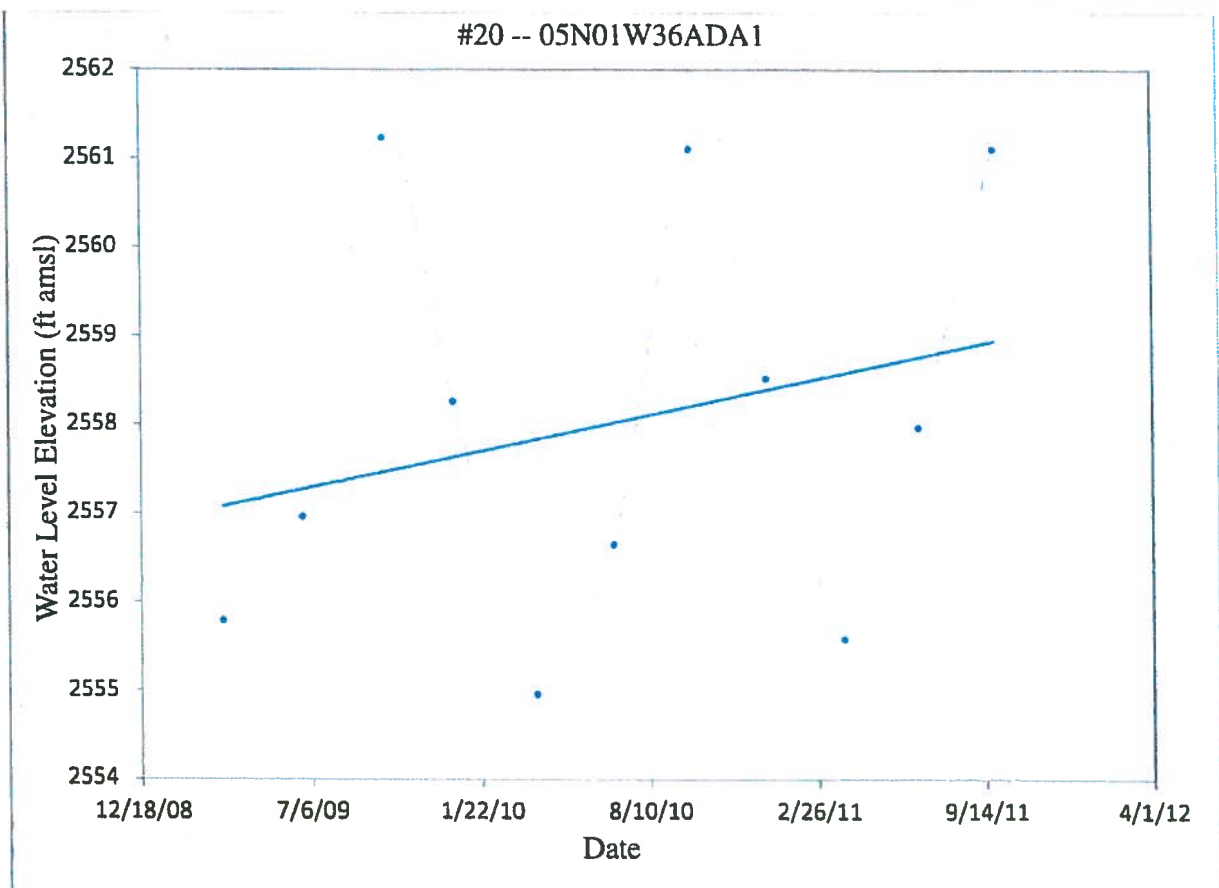
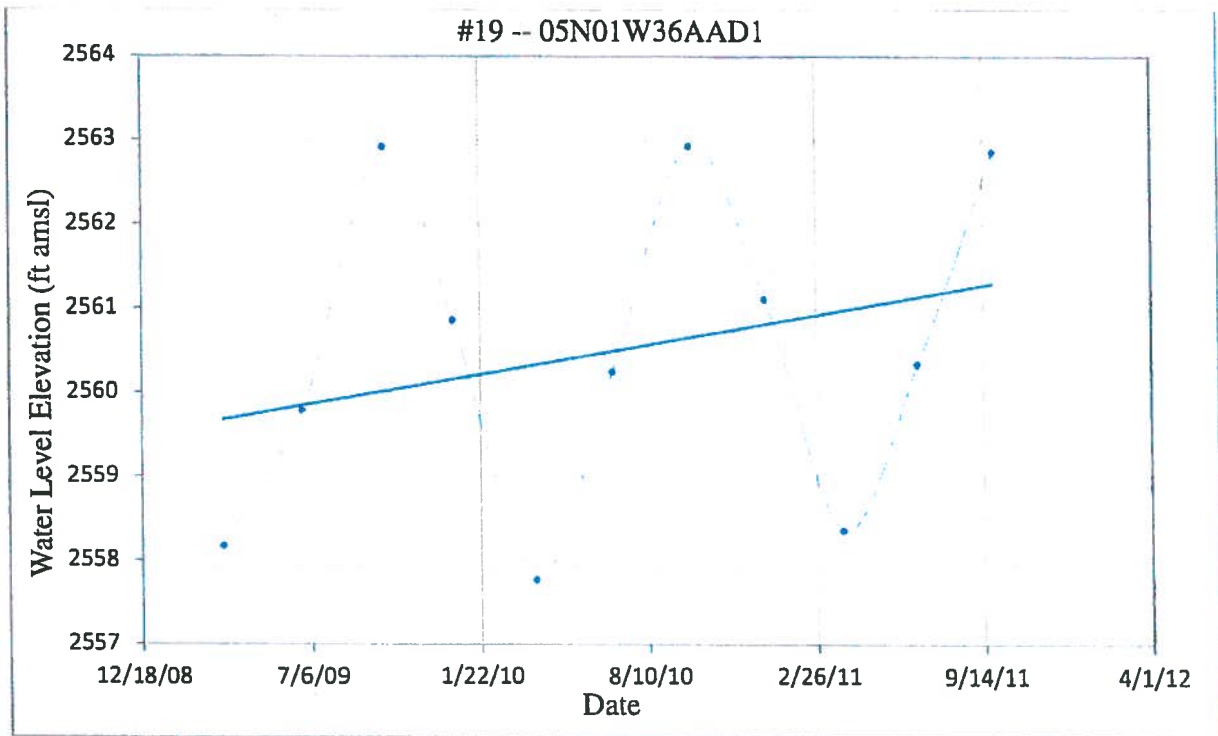
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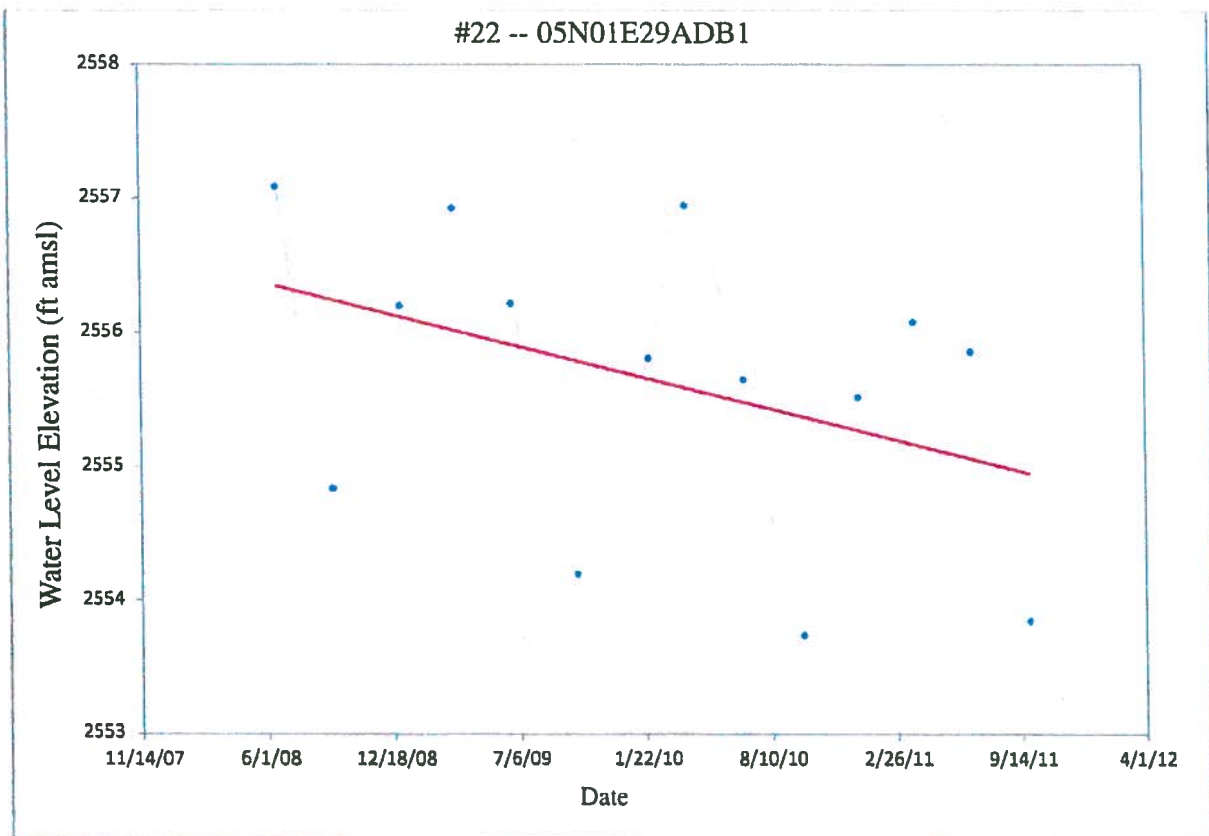
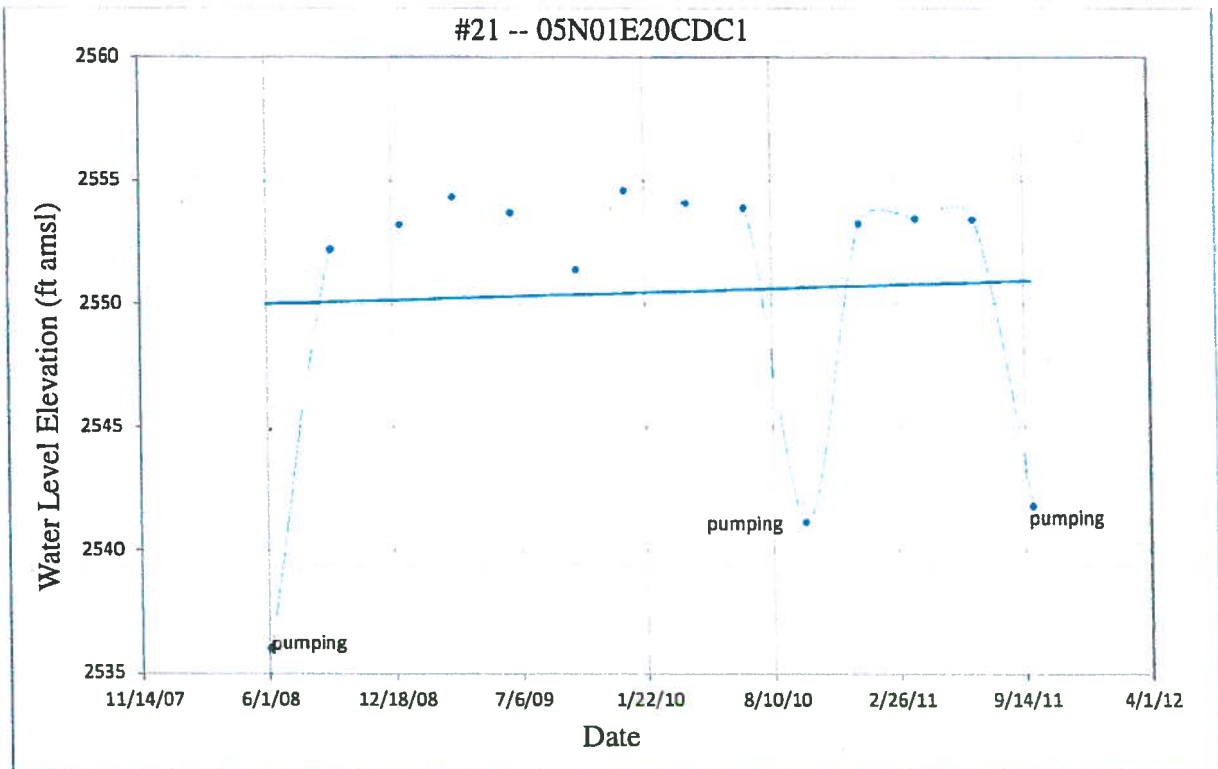


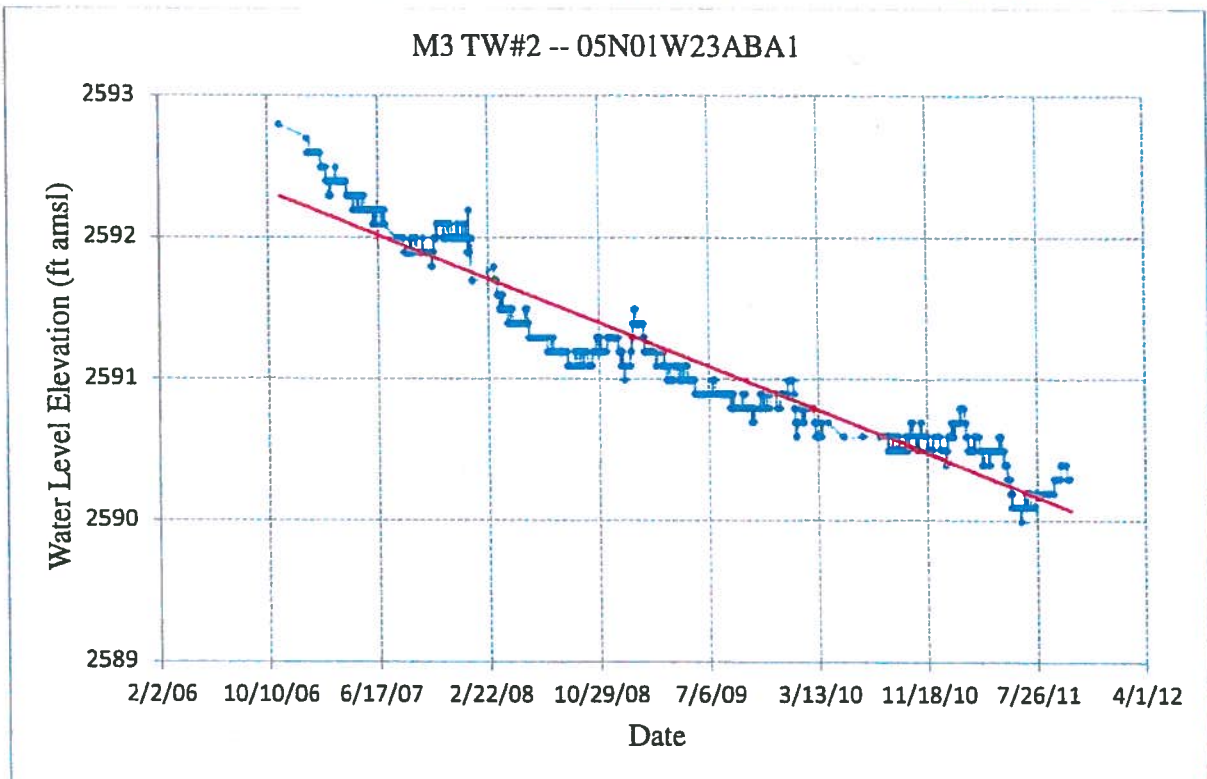
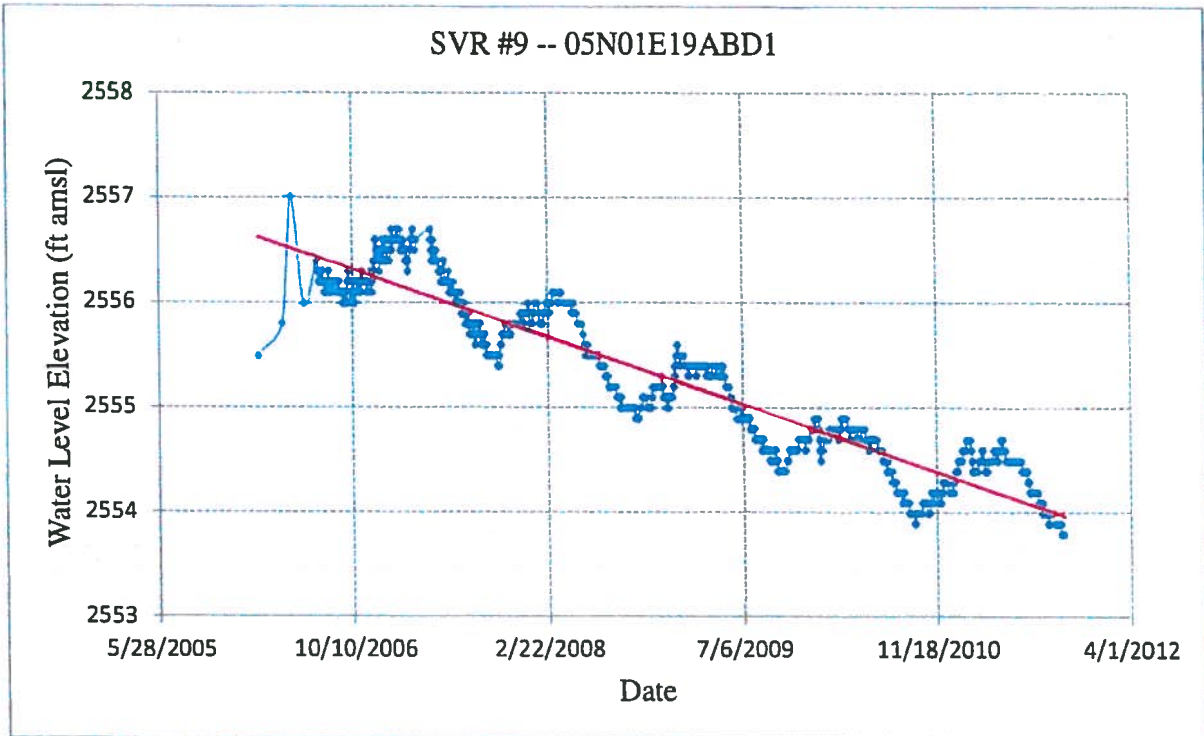
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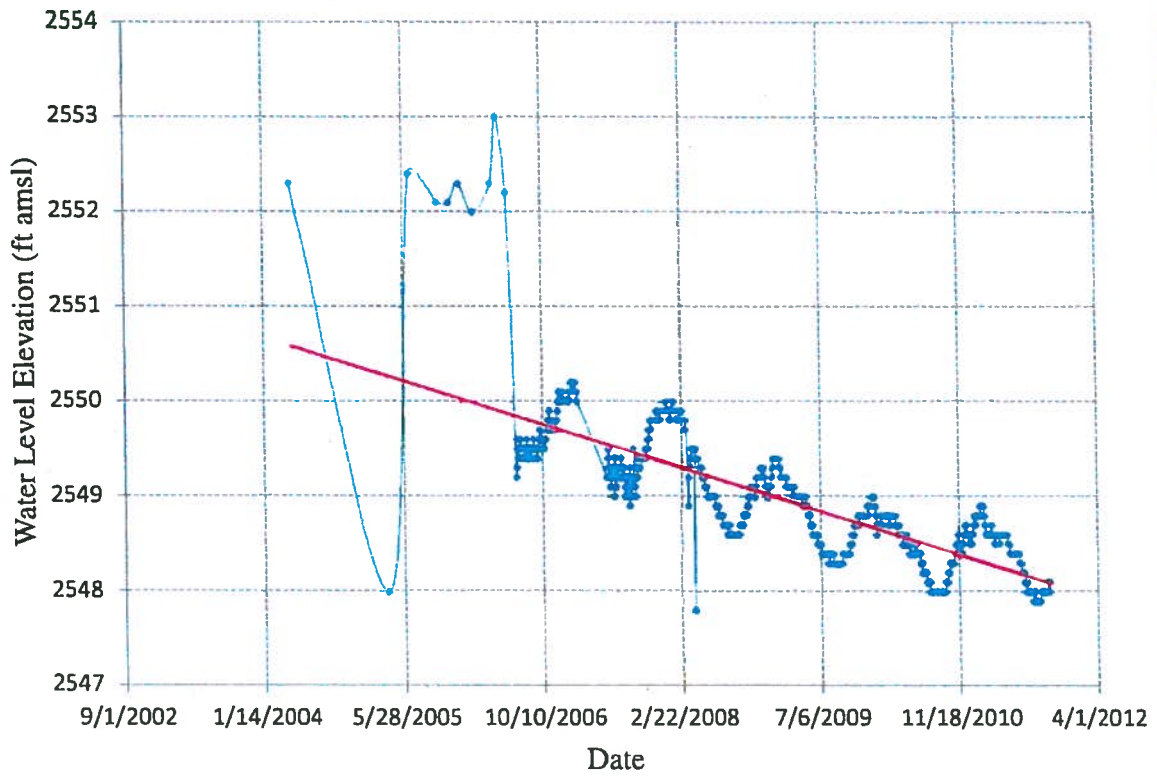








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M3 TW#1 -- 05N01W28DDC3

